<table>
<thead>
<tr>
<th>Author Name</th>
<th>Paper #</th>
<th>Title (Click title to view paper)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Akhavan, Nancy</td>
<td>216</td>
<td>Teacher Professional Development For A K-8 STEM Initiative: A Responsive Integrated Coaching Partnership Model</td>
</tr>
<tr>
<td>Al Salamat, Wasfi</td>
<td>203</td>
<td>Do Dividends Affect Price Risk: Evidence From ASE</td>
</tr>
<tr>
<td>Al-khateeb, Faisal</td>
<td>343</td>
<td>Developing Effective Change Management Strategies For ERP Implementations</td>
</tr>
<tr>
<td>Al-Mubarak, Nour W.</td>
<td>263</td>
<td>Is Unemployment Caused By Socio-Economic Phenomenon For The Case Of Kuwait</td>
</tr>
<tr>
<td>Al-Shammari, Nayef</td>
<td>113</td>
<td>Causes Of Inflation Across Main Oil Exporting Countries (An Empirical Study)</td>
</tr>
<tr>
<td>Al-Shammari, Nayef N.</td>
<td>263</td>
<td>Is Unemployment Caused By Socio-Economic Phenomenon For The Case Of Kuwait</td>
</tr>
<tr>
<td>Al-Shurai, Saad</td>
<td>142</td>
<td>Critical Thinking Skills Among High School Students: A Comparison Of Private And Public Schools</td>
</tr>
<tr>
<td>Alanazi, Fatimah</td>
<td>247</td>
<td>Peer To Peer-Based Social Network</td>
</tr>
<tr>
<td>Alazmi, Dr. Ayesah</td>
<td>301</td>
<td>Student Privacy Under The Fourth Amendment: Implications Of Student Privacy At Public Colleges And Universities In USA</td>
</tr>
<tr>
<td>Aldissi, Bayan</td>
<td>260</td>
<td>The Impact Of Job Stress On Employees' Behaviors</td>
</tr>
<tr>
<td>Alhsayni, Nuha</td>
<td>245</td>
<td>Employee Training And Organizational Success</td>
</tr>
<tr>
<td>Alruwaili, Maali</td>
<td>326</td>
<td>Negotiating Resistance To Breast Self-Examination In Women From Lower Socioeconomic Communities</td>
</tr>
<tr>
<td>Alruwaili, Maali</td>
<td>352</td>
<td>Relationship Between Cardiovascular Disease And Mismanaged Stress</td>
</tr>
<tr>
<td>Alsalamah, Areej</td>
<td>108</td>
<td>Use Of The Self-Monitoring Strategy Among Students With Attention Deficit Hyperactivity Disorder: A Systematic Review</td>
</tr>
<tr>
<td>Alshuwaiee, Wael</td>
<td>263</td>
<td>Is Unemployment Caused By Socio-Economic Phenomenon For The Case Of Kuwait</td>
</tr>
<tr>
<td>Alsuwailan, Zaha</td>
<td>142</td>
<td>Critical Thinking Skills Among High School Students: A Comparison Of Private And Public Schools Caused By Socio-Economic Phenomenon For The Case Of Kuwait</td>
</tr>
<tr>
<td>Alubthne, Fawziah</td>
<td>308</td>
<td>Exploring The Quality Needs Of Saudi Electronic University Students: A Learner Perspective</td>
</tr>
<tr>
<td>Amador, Marina</td>
<td>334</td>
<td>A Review Of The Texas Freestanding Emergency Center + Urgent Care Market</td>
</tr>
<tr>
<td>Ballas, Apostollos</td>
<td>241</td>
<td>Corporate Governance Mechanisms And Income Smoothing: The Case Of European Union Banks</td>
</tr>
<tr>
<td>Bazley, Kristen</td>
<td>204</td>
<td>Teaching Beyond The Blackboard-Tutoring Students In Bush Alaska</td>
</tr>
<tr>
<td>Bederman Miller, Patricia</td>
<td>321</td>
<td>Faculty Perceptions Of Awareness And Preparedness Relating To Ada Compliance At A Small, Private College</td>
</tr>
<tr>
<td>Author Name</td>
<td>Paper #</td>
<td>Title (Click title to view paper)</td>
</tr>
<tr>
<td>-------------------</td>
<td>---------</td>
<td>-----------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Behbehani, Mariam S.</td>
<td>113</td>
<td>Causes Of Inflation Across Main Oil Exporting Countries (An Empirical Study)</td>
</tr>
<tr>
<td>Bennett, Michelle M.</td>
<td>327</td>
<td>Airline Customer Satisfaction 2015-2017 Results</td>
</tr>
<tr>
<td>Bennett, Michelle M.</td>
<td>328</td>
<td>Impact Factor And Scholarly Research: An Examination Of Marketing Analysis On Scholarly Research</td>
</tr>
<tr>
<td>Bennett, Michelle M.</td>
<td>330</td>
<td>Putting Students In The Front And Center: Exploring And Refining Student Centered Learning Techniques</td>
</tr>
<tr>
<td>Bennett, Michelle M.</td>
<td>331</td>
<td>Discovering The Data Of Safety: Embry-Riddle's Aviation Safety And Security Archives</td>
</tr>
<tr>
<td>Black, Ronald</td>
<td>332</td>
<td>Climbing The Doctoral Mountain – From Doctoral Candidate To Doctor</td>
</tr>
<tr>
<td>Boettcher, Anne</td>
<td>330</td>
<td>Putting Students In The Front And Center: Exploring And Refining Student Centered Learning Techniques</td>
</tr>
<tr>
<td>Bowen, Brent D.</td>
<td>327</td>
<td>Airline Customer Satisfaction 2015-2017 Results</td>
</tr>
<tr>
<td>Bowen, Brent D.</td>
<td>328</td>
<td>Impact Factor And Scholarly Research: An Examination Of Marketing Analysis On Scholarly Research</td>
</tr>
<tr>
<td>Bowen, Brent D.</td>
<td>330</td>
<td>Putting Students In The Front And Center: Exploring And Refining Student Centered Learning Techniques</td>
</tr>
<tr>
<td>Bowen, Brent D.</td>
<td>331</td>
<td>Discovering The Data Of Safety: Embry-Riddle's Aviation Safety And Security Archives</td>
</tr>
<tr>
<td>Bowen, Erin</td>
<td>327</td>
<td>Airline Customer Satisfaction 2015-2017 Results</td>
</tr>
<tr>
<td>Bowen, Erin</td>
<td>331</td>
<td>Discovering The Data Of Safety: Embry-Riddle's Aviation Safety And Security Archives</td>
</tr>
<tr>
<td>Boyle, Douglas</td>
<td>254</td>
<td>The Doctorally-Qualified Accounting Faculty Shortage And The Demand For Non-Traditional Doctoral Programs: Additional Insights</td>
</tr>
<tr>
<td>Brentegani, Aline</td>
<td>158</td>
<td>Intellectual Disability And The Labour Market: Study Case &quot;Education Program For Work – Trampolim&quot;</td>
</tr>
<tr>
<td>Brown, Jordan I.</td>
<td>331</td>
<td>Discovering The Data Of Safety: Embry-Riddle's Aviation Safety And Security Archives</td>
</tr>
<tr>
<td>Carpenter, Brian W.</td>
<td>254</td>
<td>The Doctorally-Qualified Accounting Faculty Shortage And The Demand For Non-Traditional Doctoral Programs: Additional Insights</td>
</tr>
<tr>
<td>Castillo, Jose</td>
<td>166</td>
<td>Assessing Employers’ Needs Seeking Business Talent: A Theoretical Tool To Re-Calibrate Curricular Offerings</td>
</tr>
<tr>
<td>Cattafi, Carmelo</td>
<td>138</td>
<td>Teaching Methods in International Law</td>
</tr>
<tr>
<td>Chipeta, Chimwemwe</td>
<td>298</td>
<td>Do Cross Border Acquisitions Into Africa Add Value?</td>
</tr>
<tr>
<td>Cluff, Mary Lynn</td>
<td>306</td>
<td>Using Text Messaging To Improve Performance And Engagement In The Online Classroom</td>
</tr>
<tr>
<td>Coleman, Ed J.</td>
<td>331</td>
<td>Discovering The Data Of Safety: Embry-Riddle's Aviation Safety And Security Archives</td>
</tr>
<tr>
<td>Culpan, Ian G.</td>
<td>115</td>
<td>Retained Primitive Reflexes: The Influences Of Rhythmic Movement Training (RMT) On Student Achievement And Behavioural Outcomes</td>
</tr>
<tr>
<td>Danner, Dietrich</td>
<td>337</td>
<td>Graduate Student Persistence in Academia: When Student Perspectives Matters</td>
</tr>
<tr>
<td>Author Name</td>
<td>Paper #</td>
<td>Title (Click title to view paper)</td>
</tr>
<tr>
<td>---------------------</td>
<td>---------</td>
<td>--------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Ehrensperger, David A.</td>
<td>328</td>
<td>Impact Factor And Scholarly Research: An Examination Of Marketing Analysis On Scholarly Research</td>
</tr>
<tr>
<td>Elonge, Michael</td>
<td>210</td>
<td>Moderation Effect Of Economics Education And Teacher Classroom Instructional Leadership On Student Learning Behavior Change</td>
</tr>
<tr>
<td>Erkir, Sarp</td>
<td>140</td>
<td>The Effect Of Tablet Use On Student Success In EFL Grammar Classroom</td>
</tr>
<tr>
<td>Ertekin, Scott</td>
<td>163</td>
<td>Determinants Of The Volatility Of Air Traffic Volume In US Airline Industry: Does Size Matter?</td>
</tr>
<tr>
<td>Fairbairn, Hedy</td>
<td>322</td>
<td>Doctoral Student Expectations, Well-Being And Satisfaction</td>
</tr>
<tr>
<td>Fanta, Fassil</td>
<td>163</td>
<td>Determinants Of The Volatility Of Air Traffic Volume In US Airline Industry: Does Size Matter?</td>
</tr>
<tr>
<td>Fox-Turnbull, Wendy H.</td>
<td>115</td>
<td>Retained Primitive Reflexes: The Influences Of Rhythmic Movement Training (RMT) On Student Achievement And Behavioural Outcomes</td>
</tr>
<tr>
<td>Gangeness, Jeanine E.</td>
<td>350</td>
<td>Business, Leadership, and Education: Exploring Higher Education &amp; Workforce Development Needs in Southeastern Minnesota</td>
</tr>
<tr>
<td>Gottwald, Melissa</td>
<td>331</td>
<td>Discovering The Data Of Safety: Embry-Riddle's Aviation Safety And Security Archives</td>
</tr>
<tr>
<td>Graziano, Brianna</td>
<td>204</td>
<td>Teaching Beyond The Blackboard-Tutoring Students In Bush Alaska</td>
</tr>
<tr>
<td>Grigg, Tessa</td>
<td>115</td>
<td>Retained Primitive Reflexes: The Influences Of Rhythmic Movement Training (RMT) On Student Achievement And Behavioural Outcomes</td>
</tr>
<tr>
<td>Groh, Dawn</td>
<td>330</td>
<td>Putting Students In The Front And Center: Exploring And Refining Student Centered Learning Techniques</td>
</tr>
<tr>
<td>Groh, Tyrone</td>
<td>330</td>
<td>Putting Students In The Front And Center: Exploring And Refining Student Centered Learning Techniques</td>
</tr>
<tr>
<td>Gutierrez, Fernando</td>
<td>200</td>
<td>The Future of Work; A Synthesis of The Literature</td>
</tr>
<tr>
<td>Hahn, Christopher</td>
<td>341</td>
<td>The Evolving Role of Higher Education in Workforce Development</td>
</tr>
<tr>
<td>Hahn, Christopher</td>
<td>350</td>
<td>Business, Leadership, and Education: Exploring Higher Education &amp; Workforce Development Needs in Southeastern Minnesota</td>
</tr>
<tr>
<td>Hameed, Abdul</td>
<td>280</td>
<td>High Stakes Examination And Curriculum Constriction In Pakistan</td>
</tr>
<tr>
<td>Harrington, Lisa</td>
<td>156</td>
<td>Non-Credentialed Teachers Ready For Day One...Can It Really Happen?: Developing New Teachers-In-Training Through An Innovative Prep Academy Partnership</td>
</tr>
<tr>
<td>Harrington, Lisa</td>
<td>157</td>
<td>A Study Of Teacher Education Programs For Preparedness In Classroom Management To Create Conditions For Student Learning</td>
</tr>
<tr>
<td>Hassan, Atif</td>
<td>280</td>
<td>Influence Of Transformational Leadership On Proactive Work Behavior: Mediating Role Of Psychological Empowerment</td>
</tr>
<tr>
<td>Heinfeldt, Jeff</td>
<td>155</td>
<td>The Analysis of Stakeholders in Holiday Films: A Pedagogical Opportunity</td>
</tr>
<tr>
<td>Heredia, LeAnn</td>
<td>204</td>
<td>Teaching Beyond The Blackboard-Tutoring Students In Bush Alaska</td>
</tr>
<tr>
<td>Holbrook, Allyson</td>
<td>322</td>
<td>Doctoral Student Expectations, Well-Being And Satisfaction</td>
</tr>
<tr>
<td>Holmes, Barbara Deveaux</td>
<td>337</td>
<td>Graduate Student Persistence in Academia: When Student Perspectives Matters</td>
</tr>
<tr>
<td>Holt, Timothy B.</td>
<td>327</td>
<td>Airline Customer Satisfaction 2015-2017 Results</td>
</tr>
<tr>
<td>Author Name</td>
<td>Paper #</td>
<td>Title (Click title to view paper)</td>
</tr>
<tr>
<td>---------------------</td>
<td>---------</td>
<td>---------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Holt, Timothy B.</td>
<td>328</td>
<td>Impact Factor And Scholarly Research: An Examination Of Marketing Analysis On Scholarly Research</td>
</tr>
<tr>
<td>Huang, Yu-Chih</td>
<td>279</td>
<td>Using Short Videos To Teach Vocabulary For EFL High School Students</td>
</tr>
<tr>
<td>Hughes, Michael P.</td>
<td>208</td>
<td>The Bank for International Settlements: An Evolutionary Institution</td>
</tr>
<tr>
<td>Javed, Ali</td>
<td>280</td>
<td>Influence Of Transformational Leadership On Proactive Work Behavior: Mediating Role Of Psychological Empowerment</td>
</tr>
<tr>
<td>Jugend, Daniel</td>
<td>148</td>
<td>Integration Between Product Portfolio Management And Ecodesign: A Theoretical Proposal</td>
</tr>
<tr>
<td>Kayapinar, Ulas</td>
<td>140</td>
<td>The Effect Of Tablet Use On Student Success In EFL Grammar Classroom</td>
</tr>
<tr>
<td>Khan, Ammar Husnain</td>
<td>232</td>
<td>Influence Of International Performance Measurement On Curriculum And Assessment Policy</td>
</tr>
<tr>
<td>Khoso, Ghulam Murtaza</td>
<td>348</td>
<td>The Internal and External Challenges to China-Pakistan Economic Corridor (CPEC)</td>
</tr>
<tr>
<td>Kibirige, Israel</td>
<td>249</td>
<td>Exploring Grade 10 Learners’ Science Conceptual Development Using Computer Simulations</td>
</tr>
<tr>
<td>Kim, Jan R.</td>
<td>317</td>
<td>A Look Into German Housing Markets: A Bubble Call?</td>
</tr>
<tr>
<td>Koch, Joanna</td>
<td>315</td>
<td>Effective Practices For Cultivating Pre-Service Teachers’ Cultural Competence</td>
</tr>
<tr>
<td>Kose, Nurcan</td>
<td>140</td>
<td>The Effect Of Tablet Use On Student Success In EFL Grammar Classroom</td>
</tr>
<tr>
<td>Lapszynski, Kathleen</td>
<td>204</td>
<td>Teaching Beyond The Blackboard-Tutoring Students In Bush Alaska</td>
</tr>
<tr>
<td>Larkin, Patrick</td>
<td>147</td>
<td>Case Study on Applying Cross-Sectional and Time-Series Ratio Analysis</td>
</tr>
<tr>
<td>Lin, Doris</td>
<td>105</td>
<td>An Exploration Of Learning Processes On Rubrics Assessment In LMS In Higher Education Programming Courses</td>
</tr>
<tr>
<td>Liu, Jin-Long</td>
<td>246</td>
<td>Energy Efficiency Promoting Program And Market Competition In Taiwan</td>
</tr>
<tr>
<td>Lo, Jia-Jiunn</td>
<td>279</td>
<td>Using Short Videos To Teach Vocabulary For EFL High School Students</td>
</tr>
<tr>
<td>Luedtke, Jacqueline R.</td>
<td>327</td>
<td>Airline Customer Satisfaction 2015-2017 Results</td>
</tr>
<tr>
<td>Luedtke, Jacqueline R.</td>
<td>328</td>
<td>Impact Factor And Scholarly Research: An Examination Of Marketing Analysis On Scholarly Research</td>
</tr>
<tr>
<td>Luedtke, Jacqueline R.</td>
<td>330</td>
<td>Putting Students In The Front And Center: Exploring And Refining Student Centered Learning Techniques</td>
</tr>
<tr>
<td>Maluleke, Mary</td>
<td>286</td>
<td>Mental Health Promotion: A Tool To Improve Quality Teaching In Dysfunctional Rural Secondary Schools, South Africa</td>
</tr>
<tr>
<td>Maluleke, Norman Khazamula</td>
<td>286</td>
<td>Mental Health Promotion: A Tool To Improve Quality Teaching In Dysfunctional Rural Secondary Schools, South Africa</td>
</tr>
<tr>
<td>Marcy, Amanda</td>
<td>254</td>
<td>The Doctorally-Qualified Accounting Faculty Shortage And The Demand For Non-Traditional Doctoral Programs: Additional Insights</td>
</tr>
<tr>
<td>Markland, Alicia</td>
<td>314</td>
<td>Crucial Components for Undergraduate Student Leadership Development Programs</td>
</tr>
<tr>
<td>Masadeh, Walid Muhammad</td>
<td>176</td>
<td>Interviews Have Continuously Gained Popularity As Tools In Business And Leadership Qualitative</td>
</tr>
<tr>
<td>Author Name</td>
<td>Paper #</td>
<td>Title (Click title to view paper)</td>
</tr>
<tr>
<td>----------------------</td>
<td>---------</td>
<td>-----------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Masood, Sajid</td>
<td>281</td>
<td>High Stakes Examination And Curriculum Constriction In Pakistan</td>
</tr>
<tr>
<td>McCord, Linnea</td>
<td>313</td>
<td>A Warning to the West: How Quickly Formerly Successful Resource-Rich Countries Can Self-Destruct Seemingly “Overnight”?</td>
</tr>
<tr>
<td>McInerney, Dennis</td>
<td>322</td>
<td>Doctoral Student Expectations, Well-Being And Satisfaction</td>
</tr>
<tr>
<td>Miloud, Tarek</td>
<td>229</td>
<td>An Examination Of Venture Capital Certification Role: Using High Frequency Data</td>
</tr>
<tr>
<td>Moore, David R.</td>
<td>308</td>
<td>Exploring The Quality Needs Of Saudi Electronic University Students: A Learner Perspective</td>
</tr>
<tr>
<td>Mphahlele, Lydia Kgomo &amp;o</td>
<td>235</td>
<td>Class Size And Student Academic Performance In A School Context: (Gauteng, South Africa)</td>
</tr>
<tr>
<td>Mphahlele, Lydia Kgomo &amp;o</td>
<td>236</td>
<td>Relationship Between Initial Teacher Education And Continuous Professional Development: Challenges And Prospects</td>
</tr>
<tr>
<td>Nkiwane, Prince</td>
<td>298</td>
<td>Do Cross Border Acquisitions Into Africa Add Value?</td>
</tr>
<tr>
<td>Olson, Elizabeth</td>
<td>313</td>
<td>A Warning to the West: How Quickly Formerly Successful Resource-Rich Countries Can Self-Destruct Seemingly “Overnight”?</td>
</tr>
<tr>
<td>Opfer, Austin</td>
<td>337</td>
<td>Graduate Student Persistence in Academia: When Student Perspectives Matters</td>
</tr>
<tr>
<td>Paetzold, Scott</td>
<td>297</td>
<td>Academic Factors Affecting Student Achievement: Predictors Of Success On Certification Scores</td>
</tr>
<tr>
<td>Parker, DeJuanna M.</td>
<td>292</td>
<td>In It For The Long Haul: How Rural Veteran Teachers Persist In The Profession</td>
</tr>
<tr>
<td>Perry, Carson</td>
<td>314</td>
<td>Crucial Components for Undergraduate Student Leadership Development Programs</td>
</tr>
<tr>
<td>Perry, Jennah C.</td>
<td>328</td>
<td>Impact Factor And Scholarly Research: An Examination Of Marketing Analysis On Scholarly Research</td>
</tr>
<tr>
<td>Pinheiro, Marco Antônio Paula</td>
<td>148</td>
<td>Integration Between Product Portfolio Management And Ecodesign: A Theoretical Proposal</td>
</tr>
<tr>
<td>Preston, Greg</td>
<td>322</td>
<td>Doctoral Student Expectations, Well-Being And Satisfaction</td>
</tr>
<tr>
<td>Rampa, Sakge Harry</td>
<td>235</td>
<td>Class Size And Student Academic Performance In A School Context: (Gauteng, South Africa)</td>
</tr>
<tr>
<td>Rampa, Sakge Harry</td>
<td>236</td>
<td>Relationship Between Initial Teacher Education And Continuous Professional Development: Challenges And Prospects</td>
</tr>
<tr>
<td>Regan, Ashley</td>
<td>254</td>
<td>The Doctorally-Qualified Accounting Faculty Shortage And The Demand For Non-Traditional Doctoral Programs: Additional Insights</td>
</tr>
<tr>
<td>Ritchie, Scott</td>
<td>330</td>
<td>Putting Students In The Front And Center: Exploring And Refining Student Centered Learning Techniques</td>
</tr>
<tr>
<td>Rosenstein, David S.</td>
<td>151</td>
<td>Are Some Languages (Chinese) Really Harder To Learn Than Others (French, English)?</td>
</tr>
<tr>
<td>Sanczyk, Anna</td>
<td>106</td>
<td>Struggling With Culturally Relevant Pedagogy In Diverse Classrooms: A Call For Critical Reflection</td>
</tr>
<tr>
<td>Scevak, Jill</td>
<td>322</td>
<td>Doctoral Student Expectations, Well-Being And Satisfaction</td>
</tr>
<tr>
<td>Schmidt, Wendy</td>
<td>306</td>
<td>Using Text Messaging To Improve Performance And Engagement In The Online Classroom</td>
</tr>
<tr>
<td>Schneider, Elizabeth</td>
<td>321</td>
<td>Faculty Perceptions Of Awareness And Preparedness Relating To Ada Compliance At A Small, Private College</td>
</tr>
<tr>
<td>Author Name</td>
<td>Paper #</td>
<td>Title (Click title to view paper)</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>---------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Shaw, Kylie</td>
<td>322</td>
<td>Doctoral Student Expectations, Well-Being And Satisfaction</td>
</tr>
<tr>
<td>Smith, Jr., William R.</td>
<td>259</td>
<td>Give Peace A Chance: The Fight Between Marketing And Sales</td>
</tr>
<tr>
<td>Sparks, Roland J.</td>
<td>206</td>
<td>Presidential Effects On The American Stock Market</td>
</tr>
<tr>
<td>Stevens, Chad M.</td>
<td>321</td>
<td>Faculty Perceptions Of Awareness And Preparedness Relating To Ada Compliance At A Small, Private College</td>
</tr>
<tr>
<td>Steyn, Gertrude M. &quot;Trudie&quot;</td>
<td>149</td>
<td>Leadership To Turn A Once Low-Performing South African Primary School Around In A Challenging School Context: A Case Study</td>
</tr>
<tr>
<td>Sultan, Abdullah J.</td>
<td>124</td>
<td>Staged Customer Experience As A Determinant Of Customer Relationship Quality, Recommendation, And Switching Intentions In The Banking Industry</td>
</tr>
<tr>
<td>Thompson, Jeffrey</td>
<td>337</td>
<td>Graduate Student Persistence in Academia: When Student Perspectives Matters</td>
</tr>
<tr>
<td>Tsamago, Hodi E.</td>
<td>249</td>
<td>Exploring Grade 10 Learners' Science Conceptual Development Using Computer Simulations</td>
</tr>
<tr>
<td>Tzovas, Christos</td>
<td>241</td>
<td>Corporate Governance Mechanisms And Income Smoothing: The Case Of European Union Banks</td>
</tr>
<tr>
<td>Vasilacopoulos, Konstantinos</td>
<td>241</td>
<td>Corporate Governance Mechanisms And Income Smoothing: The Case Of European Union Banks</td>
</tr>
<tr>
<td>Waldock, William D.</td>
<td>331</td>
<td>Discovering The Data Of Safety: Embry-Riddle's Aviation Safety And Security Archives</td>
</tr>
<tr>
<td>Walsh, Nichole</td>
<td>156</td>
<td>Non-Credentialed Teachers Ready For Day One...Can It Really Happen?: Developing New Teachers-In-Training Through An Innovative Prep Academy Partnership</td>
</tr>
<tr>
<td>Walsh, Nichole</td>
<td>216</td>
<td>Teacher Professional Development For A K-8 STEM Initiative: A Responsive Integrated Coaching Partnership Model</td>
</tr>
<tr>
<td>Watson, Hunter</td>
<td>328</td>
<td>Impact Factor And Scholarly Research: An Examination Of Marketing Analysis On Scholarly Research</td>
</tr>
<tr>
<td>Wiik, Sami</td>
<td>204</td>
<td>Teaching Beyond The Blackboard-Tutoring Students In Bush Alaska</td>
</tr>
<tr>
<td>Wilson, Kylie</td>
<td>204</td>
<td>Teaching Beyond The Blackboard-Tutoring Students In Bush Alaska</td>
</tr>
<tr>
<td>Wisdom, Sherrie</td>
<td>329</td>
<td>Motivation of Social Inequity Awareness in the Content Areas</td>
</tr>
<tr>
<td>Wu, Ruohan (Helen)</td>
<td>215</td>
<td>Does Exporting Reduce the Gender Difference in Production?</td>
</tr>
<tr>
<td>Young, Terry W.</td>
<td>313</td>
<td>A Warning to the West: How Quickly Formerly Successful Resource-Rich Countries Can Self-Destruct Seemingly “Overnight”?</td>
</tr>
</tbody>
</table>
An Exploration Of Learning Processes On Rubrics Assessment In LMS In Higher Education Programming Courses

Hoi Yan Lin, The Hong Kong Polytechnic University, Hong Kong

ABSTRACT

Universities have greatly increased their use of rubrics as marking criteria in recent years. Rubrics can list the criteria for a piece of work such as programming assessment because a rubric can assess programming skills that fall outside the scope of the traditional “point per correct statement” and “correct output” assessment method. Rubrics can teach students to focus on current and future performance. This paper analyzed the effects between rubrics and student’s own learning objectives and the reliability of peer-assessment in LMS in programming projects. The study describes the relationship between ILOS, ILOP and rubrics and analyzes the rubrics that can change students’ learning processes in the LMS environment. The results of this study highlighted the positive correlation between LMS, online peer assessment and rubrics assessment.

Keywords: Rubrics, LMS, Programming, Peer-Review Assessment

1. INTRODUCTION

Universities are now implementing LMS as their learning system, and LMS provides social networks and mobile technologies for student and teacher communication processes. For instance, M. Lucas [1] used an LMS mechanism to create social networks for building a distributed e-learning system for first year graduate studies. It is difficult to have a standard marking scheme for grading programming projects, for example. Traditional assessment based on a “point-per-correct-statement” and “correct output” is based on similarity to the answer scheme. This assessment method cannot easily consider creativity and originality in the student solutions. Students always get marked down if their game project does not clearly meet the project requirements. To resolve this issue, an assessment rubric is used for providing flexibility of project creation among students. McDaniel [2] said that “a rubric is a set of ordered categories to which a given piece of work can be compared. Scoring rubrics specify the qualities or processes that must exist to assign a particular evaluative rating for a solution”. Becker [3], Ahoniemi and Karavirta [4] and Payne et al., [5] stated that “rubrics effectively evaluate the student’s understanding and creativity to produce a solution in programming courses”. Furthermore, Ralston and Bays [6] and Loon and Lao [7] mentioned that rubrics are suitable to facilitate critical thinking in engineering.

Spady [8] explained that Outcome-based Education (OBE) systems are an important part of university curriculum content driven by learning outcomes. Universities pledge that “Intended Learning Outcomes (ILO) of the program outcomes are the attributes of graduates who have completed the program successfully. These attributes are classified into two broad categories. Category “A” comprises such attributes as knowledge, skills and abilities, attitudes that are related to Internet and multimedia technologies. Category “B” includes all-roundedness attributes possessed by graduates to support their further development”. In our study, Rubrics can help students focus on current ILO and apply computer-programming knowledge to Internet and multimedia technologies.

In programming projects, we define what is expected in student learning outcomes such that students design and conduct experiments when implementing the project. A project mainly requires students to identify, formulate and solve problems when implementing their interactive game project. The research essentially points out the effectiveness of combining Learning Management System (LMS), online peer assessment and rubrics assessments in a programming project. LMS includes lecturing texts, video resources, online peer assessment in Blackboard and
online social forums to support learning tasks and encourage students to develop game themes and messages through online group discussion during a thirteen-week period. Students use the “online group” to engage in game design and development. The LMS and rubrics assessments approach can be used in supporting and assessing programming projects in undergraduate students, and they can use these approaches for knowledge building and improvement in their learning processes.

2. COURSE DESCRIPTIONS & ASSESSMENT DESIGN

The Hong Kong Polytechnic University has adopted and implemented the OBE model for the last 15 years. The model emphasizes a clear formulation of intended student learning outcomes and the alignment of teaching, learning and assessment. All departments developed Programme Learning Outcomes Assessment Plans (P-LOAPs) for all their undergraduate programmes. Our study is an Integrated Project offered by the Department of Electronic and Information Engineering, which is open to undergraduate students of degrees in Internet and Multimedia Technologies, and the Intended Learning Outcomes of the Subject (ILOS) are:

1. Design effective and reliable software programs to achieve the objectives of a project.
2. Critically evaluate the different alternatives and strategies when implementing a project.
3. Locate and resolve problems in a multimedia system and the related software.
4. Search, self-learn and try untaught solutions.
5. Effectively use the limited resources and exercise discipline and time planning to meet deadlines.
6. Present ideas and findings effectively.
7. Work in a team and collaborate effectively with others.

At present, 40 students in one class operate in groups of two to create a 3D interactive game so there were 20 groups in this case study. The case-study-based research provides opportunities for students to change their learning patterns. The following illustrates the Intended Learning Outcomes of the Programme in Internet and Multimedia Technologies Programme.

<table>
<thead>
<tr>
<th>ILOP 1</th>
<th>Apply knowledge of computing and mathematics appropriate to the discipline of Internet and Multimedia Technologies;</th>
</tr>
</thead>
<tbody>
<tr>
<td>ILOP 2</td>
<td>Apply knowledge of Internet and Multimedia Technologies to the abstraction and conceptualization of Information and Communications Technology (ICT) models;</td>
</tr>
<tr>
<td>ILOP 3</td>
<td>Analyze a problem in Internet and Multimedia Technologies, and identify and define the computing requirements appropriate to its solution;</td>
</tr>
<tr>
<td>ILOP 4</td>
<td>Design, implement, and evaluate a system, process, component, or program in Internet and Multimedia Technologies to meet desired needs with appropriate consideration for public health and safety, social and environmental considerations;</td>
</tr>
<tr>
<td>ILOP 5</td>
<td>Use current techniques, skills, and tools necessary for practice in Internet and Multimedia Technologies with an understanding of their limitations.</td>
</tr>
<tr>
<td>ILOP 6</td>
<td>Function effectively on teams to accomplish a common goal;</td>
</tr>
<tr>
<td>ILOP 7</td>
<td>Understand professional, ethical, legal, security and social issues and responsibilities;</td>
</tr>
<tr>
<td>ILOP 8</td>
<td>Communicate effectively with a range of audiences;</td>
</tr>
<tr>
<td>ILOP 9</td>
<td>Analyze the local and global impact of Internet and Multimedia Technologies on individuals, organizations, and society;</td>
</tr>
<tr>
<td>ILOP 10</td>
<td>Recognize the need for and engage in continuing professional development;</td>
</tr>
</tbody>
</table>

The following table shows the relationship between Program Outcomes (ILOP) and Course Outcomes (ILOS),
Table 2. Relationships between Program Outcomes and Course Outcomes

<table>
<thead>
<tr>
<th>Intended Learning Outcomes of the subject (ILOS)</th>
<th>Program Outcomes (ILOP)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The affiliation of the project with Intended Learning Outcomes and Teaching and Learning Methodology is described in Table 3 below,

Table 3. Assessment distributions related to Intended Learning Outcomes and Teaching and Learning Methodology

<table>
<thead>
<tr>
<th>Assessment Method</th>
<th>No. Required</th>
<th>Intended Subject Learning Outcomes (ILOS) to be Assessed</th>
<th>Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tutorial exercises (Demo)</td>
<td>2</td>
<td>3</td>
<td>1. Use MS Visual Studio 2015 and Visual Studio Emulator for Android to build a simple application for Android</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2. Review basic knowledge in object-oriented programming</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3. Learn basic knowledge in C# programming</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4. Use Unity to build a simple game for Android</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>5. Use C# programming, object-oriented programming and 3D graphics to build an isometric 3D survival shooter game</td>
</tr>
<tr>
<td>Lab exercises (Demo + report)</td>
<td>2</td>
<td>3</td>
<td>1. Use Unity to build a third person stealth game for Android including game environment setup and player character</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2. Use Unity to develop joystick, touchpad, enemy, enemy animator control and enemy AI for stealth game</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3. Finish the open-ended exercises as given in the lab sheet</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4. Complete a lab report including the completed computer program of the open-ended exercise and provide a demonstration of the result</td>
</tr>
<tr>
<td>Assessment Method</td>
<td>No. Required</td>
<td>Intended Subject Learning Outcomes (ILOS) to be Assessed</td>
<td>Descriptions</td>
</tr>
<tr>
<td>-------------------</td>
<td>--------------</td>
<td>----------------------------------------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>Logbook + Proposal + Final Report + Presentation</td>
<td>1 Logbook, 1 Proposal, 1 Final Report, 1 Presentation slide</td>
<td>1, 2, 6, 7</td>
<td>Individually keep a logbook for project work performed. The content of proposal should include the, 1. Topic and objective of the game system 2. Proposed functional and technical specifications 3. Proposed methodology to achieve the specifications 4. Preliminary results obtained. The contents of the report and presentation should include: 1. A description of the operation of the software system developed 2. Actual techniques adopted to implement each sub-systems 3. Both technical and non-technical difficulties and the solutions used to solve the problems 4. The results achieved by using those techniques 5. How to manage the resources and workload distributions table in the project.</td>
</tr>
<tr>
<td>Preliminary Project Demo</td>
<td>Demo and Peer Review</td>
<td></td>
<td>1. All teams are required to attend the Preliminary demo 2. Rubrics used for programming marking criteria 3. Online peer assessments for each project in Blackboard</td>
</tr>
<tr>
<td>Final Project Demo</td>
<td>Demo and Peer Review</td>
<td>3, 4, 6, 7</td>
<td>1. All teams are required to attend the final demo 2. Rubrics used for programming marking criteria 3. Online peer assessments for each project in Blackboard</td>
</tr>
<tr>
<td>Project Management</td>
<td>Online discussion forum</td>
<td>5, 6, 7</td>
<td>Group discussions, online forum</td>
</tr>
</tbody>
</table>

The mappings in table 2 are primary objectives of OBE in university education and the relationship of Program Outcomes (ILOP) and Course Outcomes (ILOS) were used to establish the assessments in table 3. In table 3, assessments would be conducted to assess individual student’s ability regarding,

1. Insight – by how well the concepts are understood
2. Creativity - by originality and imagination
3. Workmanship – by how well ideas are implemented and how problems are resolved
4. Communication – by an ability to express ideas clearly and concisely
5. Management – by how time, manpower and other resources are effectively used

Table 3 helps in defining critical thinking, measuring critical thinking ability, and promoting thinking and learning for students. The mapping below establishes the ILOS in programming projects as applied to principles of Bloom’s Taxonomy.
Table 4. Bloom’s Taxonomy for Programming Learning Process

<table>
<thead>
<tr>
<th>Bloom’s Taxonomy [9] for Programming Learning Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1 - Knowledge</td>
</tr>
<tr>
<td>Level 2 – Comprehension</td>
</tr>
<tr>
<td>Level 3 – Application</td>
</tr>
<tr>
<td>Level 4 – Analysis</td>
</tr>
<tr>
<td>Level 5 – Synthesis</td>
</tr>
<tr>
<td>Level 6 – Evaluation</td>
</tr>
</tbody>
</table>

| K1 - Identify                  | C1 - Summarize | A1 – Solve | AA1 – Analyze | S1 – Design | E1 – Evaluate |
| K2 - Define                   | C2 – Explain   | A2 – Use   | AA2 – Organize | S2 – Justify | E2 – Judge    |
| K4 - Recall                  | C4 – Compare   | A4 – Apply | AA4 – Distinguish | S4 – Report | E4 – Criticize |
| K5 - State                   | C5 – Paraphrase | A5 – Modify | AA5 – Contrast |          |              |
| K6 - List                    | C6 - Differentiate | A6 – Illustrate | AA6 – Plan |          |              |
| C7 – Demonstrate             |              |          |              |              |              |

To achieve Bloom’s Taxonomy domain in each ILOS, each assessment tool is assigned to ensure positive achievement for the project. For instance, a student knows the concepts of programming theory, uses the theory to figure out the programming problems, applies the programming techniques to create their own logical thinking, and then judges and plans their programming project. Indeed, the achievements of ILOS are evaluated at the end of the learning process. The following rubrics table is designed to plan the distribution of marks based on taxonomy level mapping.

Table 5. Marks distribution based on Bloom’s Taxonomy

<table>
<thead>
<tr>
<th>Rubric Distribution based on Bloom’s Taxonomy</th>
<th>ILOS 0</th>
<th>ILOS 1</th>
<th>ILOS 2</th>
<th>ILOS 3</th>
<th>ILOS 4</th>
<th>ILOS 5</th>
<th>ILOS 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1 - Knowledge</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level 2 – Comprehension</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level 3 – Application</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level 4 – Analysis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level 5 – Synthesis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level 6 – Evaluation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A set of rubrics is developed based on a specific set of performance criteria in table 5. It is a generalized programming rubric which includes a student’s understanding about the project objectives, coding readability, program originality, reusability and logical design, program runtime, teamwork applied to the project, and 3D game quality. The rubric uses five levels: Unsatisfactory, Barely Satisfactory, Satisfactory, Good/Very Good and Excellent and each level has performance descriptions. The scoring involves the range of values for each level of performance such as 0 to 39 as Unsatisfactory. The correlation between rubric and ILOS are as below.

© Copyright by author(s)
Table 6. Relationship between rubric and course outcomes

<table>
<thead>
<tr>
<th>Course Outcomes (ILOS)</th>
<th>Rubrics Distributions based on Bloom’s Taxonomy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>L1 – K1 to K6</td>
</tr>
<tr>
<td></td>
<td>L2 – C1 to C7</td>
</tr>
<tr>
<td></td>
<td>L3 – A1 to A6</td>
</tr>
<tr>
<td></td>
<td>L4 – AA1 to AA6</td>
</tr>
<tr>
<td></td>
<td>L5 – S2 to S4</td>
</tr>
<tr>
<td></td>
<td>L6 – E1 to E4</td>
</tr>
<tr>
<td>1</td>
<td>x</td>
</tr>
<tr>
<td>2</td>
<td>x x</td>
</tr>
<tr>
<td>3</td>
<td>x x</td>
</tr>
<tr>
<td>4</td>
<td>x x</td>
</tr>
<tr>
<td>5</td>
<td>x x</td>
</tr>
<tr>
<td>6</td>
<td>x x</td>
</tr>
<tr>
<td>7</td>
<td>x x</td>
</tr>
</tbody>
</table>

3. RESEARCH METHODOLOGY

Rubrics provide the essential structure and guidance for students’ ability in problem solving, creativity and use of good programming practice and principles. In table 5, we created a rubric set for project demonstrations as a point of reference to measure student-learning outcomes. In addition, a standard post-experience survey was conducted at the end of the project. This survey involved sets of questions related to the learning experience of the project. A five-point scale (1=strongly disagree, 2=disagree, 3=No strong view, 4=agree and 5=strongly agree) was used. The questions included,

1. Clear understandings of what the student expected to learn from this project.
2. Whether the teaching and learning activities (i.e. lectures, discussion, project…) helped to achieve the ILOS.
3. The assessment requires demonstrating the knowledge, skills and understanding of the project.
4. Understanding the marking criteria.

Two open-ended questions were also provided for the project, namely,

1. Do you think "Rubric" can help you in your learning process?
2. If yes, could it help in your learning process?

Chalk and Adeboye [10] suggested analyzing student feedback through a peer assessment tool involving both holistic and specific feedback. Thus, online peer assessment questions are mainly to let students assess the quality of their peers’ program code and project objectives using holistic feedback method. The five-point evaluation scale of understanding project objectives, quality of program coding and the collaboration with others, was.

Q1. Student's understanding about the project objectives and program specifications?

0 = Student shows no understanding of the project objectives and specifications.
2 = Student shows a little understanding of the project objectives and specifications.
3 = Student shows a fair degree of understanding the project objectives and produced readable specifications.
4 = Student shows a high degree of understanding he project objectives and also meets most of the project specifications.
5 = Student shows a very high degree of understanding the project objectives and also meets most of the project specifications.

Q2. Coding readability?

0 = Code is un-organised, messy, and unreadable
2 = The code is poorly organized and very difficult to read
3 = The code is readable and fairly well organized
4 = The code is easy to read and quite well organized
5 = The code is exceptionally well organized and very easy to follow
Q3. Program originality, reusability and logical design?

0 = The code is not reusable. No originality and no clear program logic.
2 = The code is barely organized for reusability. A small amount of own artworks and no clear program logic.
3 = Some parts of the code could be reused in other functions. Put some effort into artwork design and clear program structure logic.
4 = Most of the code could be reused in other functions. Created own artworks and exhibits clear program logic.
5 = The code could be reused as a whole or each routine function could be reused. Created complex artworks and multiple layers of structure that integrated their own design.

Q4. Program Runtime?

0 = The program cannot be started.
2 = The program is producing incorrect results, runtime errors appeared and prompts produced some misleading messages.
3 = The program produces correct results, no runtime errors, but prompts produced some misleading messages.
4 = The program produces the correct results, no runtime errors, prompts helpful and clear messages.
5 = The program works well and shows meaningful and accurate message prompts.

Q5. Program delivery?

0 = There is no deliverable.
2 = The code was more than 2 weeks overdue.
3 = The code was within 2 weeks of the due date.
4 = The program was delivered within a week of the due date.
5 = The program was delivered on time or earlier than the due date.

Q6. Apply team work to the project?

0 = No teamwork or cooperation, nor any division of labor
2 = Team defined some useful tasks, but member could not make significant contributions
3 = Team defined high degree of important tasks, but, member made few meaningful contributions
4 = Team clearly defined useful tasks, member made meaningful contributions and all members got involved in decision-making.
5 = Team clearly defined useful tasks, member made meaningful and useful contributions, all members got involved in decision-making. They found ways to collaborate beyond class structure.

Q7. 3D game quality?

0 = The 3D game produced is of poor quality. User interaction is poor and difficult to play.
2 = The 3D game produced is of satisfactory quality. There is a little user feedback in the game and it is difficult to play.
3 = The 3D game produced is of good quality. User interaction is good and it is not difficult to play.
4 = The 3D game produced is of very good quality. User interaction is very good, there is plenty of user feedback in the game and it is easy to play.
5 = The 3D game produced is of excellent quality. User interaction is excellent, there is useful user feedback in the game and it is easy to play.

The above peer assessment questions were posted in Blackboard and students needed to respond during preliminary project demonstration and final project demonstration.
4. RESULTS AND DISCUSSION

The experimental result is based on trace log data and the result of online peer assessment scoring. The statistics from LMS mainly measure the relationship between rubrics and related intended learning outcomes. We expect that particular information resource use patterns may contribute more for knowledge building processes.

**Table 7.** Survey result regarding rubrics created student own learning objectives

<table>
<thead>
<tr>
<th>Learning Experience of the project (Point 4)</th>
<th>Mean</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Clear understandings of what you are expected to learn from this project.</td>
<td>3.9</td>
<td>0.9</td>
</tr>
<tr>
<td>2. The teaching and learning activities (i.e. lectures, discussion, project…) have helped to achieve the ILOS.</td>
<td>3.7</td>
<td>0.8</td>
</tr>
<tr>
<td>3. The assessment requires demonstrating the knowledge, skills and understanding of the project.</td>
<td>4.0</td>
<td>0.9</td>
</tr>
<tr>
<td>4. Understanding the marking criteria.</td>
<td>3.6</td>
<td>0.8</td>
</tr>
</tbody>
</table>

Two open-ended questions:

1. **Do you think "Rubric" can help your learning process?**
   - 54.286% agreed

2. **If yes, how to help in your learning process?**
   - 1. Understand what quality is essential to produce a good 3D game.
   - 2. Allow me to follow the instructions closely.
   - 3. Understand the project and guide us to work well in different aspects, for example, work delivery, program logic design and coding.
   - 4. It makes me realize my weaknesses in my game project and improve myself by referencing others.
   - 5. Help us to focus on the objectives of the game.
   - 6. It is good to have it for reference.
   - 7. Know more about what a successful game is.
   - 8. It provides clear instructions for us to follow what we need to achieve.
   - 9. It provides directions on how the project is being marked.
   - 10. Learn how to manage the resources.
   - 11. Like a guideline providing requirements for the game, it is much clearer.
   - 12. It shows how to utilize simple game mechanism with a straightforward objective.
Table 8. Online peer assessment result observing the reliability of peer-assessment

<table>
<thead>
<tr>
<th>Questions</th>
<th>Results (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1</td>
<td>57.576%, students highly organized regarding project objectives and also met most of the project specifications.</td>
</tr>
<tr>
<td>Q2</td>
<td>54.545%, the program produces correct results, no runtime errors, prompts provide helpful and clear messages.</td>
</tr>
<tr>
<td>Q3</td>
<td>48.485%, the program was delivered on time or earlier than the due date.</td>
</tr>
<tr>
<td>Q4</td>
<td>51.515%, team clearly defined useful tasks, member make meaningful contributions and all members get involved in decision-making.</td>
</tr>
<tr>
<td>Q5</td>
<td>57.576%, the code is easy to read and quite well organized.</td>
</tr>
<tr>
<td>Q6</td>
<td>42.424%, most of the code could be reused in other functions. Create own artworks and clear program logic.</td>
</tr>
<tr>
<td>Q7</td>
<td>45.455%, the 3D game produced is of very good quality. User interaction is very good, there is plenty of user feedback in the game and it is easy to play.</td>
</tr>
</tbody>
</table>

Table 9. Descriptive statistics between rubrics and online peer assessments

<table>
<thead>
<tr>
<th>Grading Points</th>
<th>Project Demo Preliminary (10 points)</th>
<th>Preliminary Demo Online Assessment Peer (5 points)</th>
<th>Final Project Demo Online Assessment Peer (25 points)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Value</td>
<td>5.35</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Maximum Value</td>
<td>8.04</td>
<td>5.00</td>
<td>21.93</td>
</tr>
<tr>
<td>Average</td>
<td>6.96</td>
<td>3.00</td>
<td>17.90</td>
</tr>
<tr>
<td>Median</td>
<td>7.03</td>
<td>5.00</td>
<td>18.83</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>0.62</td>
<td>2.45</td>
<td>4.38</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>5</td>
</tr>
</tbody>
</table>

Table 7 shows that students had good learning experience in the project and 54% of them agreed their learning processes have changed. For instance, students learned information in sequence, applied knowledge correctly and broke the tasks into different sub-tasks. Table 8 shows over 50% of students engaged in learning activities that included areas of social skills and academic tasks, which worked as instructional methodologies in order to classify the tasks, distribute tasks, work as a group, work in order, organize tasks in detail and outline the plan. Meanwhile, students gained knowledge and skills by investigating complex questions or exploring real-world problems and challenges. They enjoyed accomplishing the tasks accurately, explaining the facts in detail and measuring the tasks’ results exactly. According to the grading points in table 9, we discovered that rubrics assessments and online peer assessments are received above average (i.e. 6.96/10 and 3/5) and the highest median (i.e. 18.83 and 5) as well. Thus, students are dynamic learners and they combine the tasks within their own learning contexts such as taking apart ideas, processes and things and using the latest tools/technologies to solve problems. These contexts may be a reference point for ensuring knowledge has been gained. For example, students are required to assemble the tasks, build across their own learning patterns and demonstrate their experiences in content or expectations. They can figure out and fix the problems by operating concretely and representing graphically.
**Figure 1.** Top 10 materials in content area with highest click in Blackboard

**Course materials in content area**

Top 10 materials in content area with highest click during the period

<table>
<thead>
<tr>
<th>Course Materials</th>
<th>Tutorials</th>
<th>Laboratory</th>
<th>Assessments</th>
<th>Tutorial 1</th>
<th>Tutorial 2</th>
<th>Lecture</th>
<th>Lab 1 - Part A</th>
<th>Lab 1 - Part B</th>
<th>Lab 1 (Group A)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.40</td>
<td>1.40</td>
<td>1.40</td>
<td>1.40</td>
<td>1.40</td>
<td>1.40</td>
</tr>
</tbody>
</table>

**Figure 2.** Rubric statistics in preliminary project demo

- **Student's understanding about the project objectives and purpose:**
  - Possible: 1.40
  - Actual: 1.08

- **Coding readability:**
  - Possible: 1.40
  - Actual: 0.33

- **Program originality, reusability and logical design:**
  - Possible: 1.40
  - Actual: 0.89

- **Program runtime:**
  - Possible: 1.50
  - Actual: 1.07

- **Program delivery:**
  - Possible: 1.40
  - Actual: 0.99

- **Apply teamwork to the project:**
  - Possible: 1.50
  - Actual: 1.08

- **3D game quality:**
  - Possible: 1.40
  - Actual: 0.86
Figure 3. Rubric statistics in final project demo

Table 10. Correlations between LMS, online peer assessment and Rubrics assessments in the project

<table>
<thead>
<tr>
<th>Grading Items</th>
<th>Course-oriented in Blackboard</th>
<th>Communication in Blackboard</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Course Content</td>
<td>Online Groups</td>
</tr>
<tr>
<td>Tutorials</td>
<td>0.089</td>
<td>0.065</td>
</tr>
<tr>
<td>Labs</td>
<td>0.071</td>
<td>0.072</td>
</tr>
<tr>
<td>Project Proposal</td>
<td>0.123</td>
<td>0.068</td>
</tr>
<tr>
<td>Final Report and Logbook</td>
<td>-0.026</td>
<td>0.213</td>
</tr>
<tr>
<td>Project Preliminary Demo (with Rubric assessment)</td>
<td>-0.281</td>
<td>0.308</td>
</tr>
<tr>
<td>Presentation Slides</td>
<td>0.122</td>
<td>0.089</td>
</tr>
<tr>
<td>Final Project Demo (with Rubric assessment)</td>
<td>0.044</td>
<td>0.178</td>
</tr>
<tr>
<td>Preliminary Demo – Online Peer Assessment</td>
<td>-0.211</td>
<td>0.185</td>
</tr>
<tr>
<td>Final Demo – Online Peer Assessment</td>
<td>0.118</td>
<td>0.086</td>
</tr>
</tbody>
</table>

Among the top 10 materials with the highest clicks in Blackboard in figure 1, we see that assessments are the shared second highest ranking in Blackboard so we tend to know that students applied their abilities as performances, knowledge, and skills acquired in learning. For instance, in rubric statistics report in figure 2 and figure 3, we observed that all the assessment variables had above average scores so that students transferred information to new things from others and they may have acted carefree while brainstorming in group discussions and learned knowledge and skills for new situations. They always learn to embrace change and learning is essential to growing as an individual.

The correlations between LMS, online peer assessment and rubrics assessment in table 10 show that in-group interaction in online groups and project assignment in Blackboard were acceptably reliable with values ranging between 0.31 to 0.17. Communication tools and group and project assessments tools had positive relationships. In
addition, 29 forums and 108 posts occurred in online social forums in Blackboard so students had effectively used LMS to engage in game design and development in the project-based work. This is because individuals learned from peers in-group or attempted to learn something together to impact learning in a positive way. For example, individuals can have time when teammates contribute equally to learn the others’ strengths in-group. In figure 4, we can summarize the learning pattern based on the above results.

**Figure 4.** The summary of learning pattern model

![Learning Pattern Diagram](image)

4. CONCLUSION

This paper presented research focused on programming assessment through Rubrics in LMS. The statistical results are computed to examine the relationship between LMS, rubrics, peer assessment and ILOS. In concluding, we noticed that students were making satisfactory progress in reaching each ILOS by the end of the project. Rubrics can be pre-determined benchmarks that academic departments set as reasonable expectations for their students using the average score to measure students learning performance and as the solution to improve student learning processes. A rubric can easily provide students with informative feedback about their strengths and areas in need of improvement, learning support, and skills and understanding development. As an assessment tool, it is useful to identify the ILOS and create assessment activities such as peer assessment, which can be a valuable feedback system.

**REFERENCES**


Education.


Struggling With Culturally Relevant Pedagogy In Diverse Classrooms: A Call For Critical Reflection
Anna Sanczyk, University of North Carolina at Charlotte, USA

ABSTRACT
Public schools have experienced a demographic shift as enrollment of minority students has steadily increased throughout the years nationwide. It is crucial to effectively implement culturally relevant pedagogy in order to ensure the success of increasingly diverse student population. However, teachers struggle with enacting culturally responsive practices because of lack of time, interest, resources, knowledge, skills, support systems, and effective professional development (Lopez, 2003; McKoy et al., 2017; Morrison et al., 2008). Critical reflection is indispensable in developing effective culturally responsive teachers; thus, the purpose of this paper is to illustrate a culturally relevant pedagogy framework, describe research on culturally relevant teaching, and highlight the necessity of focusing on critical reflection to develop teachers’ understanding on racial and cultural differences as well as forms of oppression in schools and society before they can successfully enact culturally responsive strategies.

Keywords: Culturally Relevant Teaching; Race; Critical Reflection
Causes Of Inflation Across Main Oil Exporting Countries (An Empirical Study)
Nayef Al-Shammari, Kuwait University, Kuwait
Jawan Al-Qenaie, Kuwait University, Kuwait

ABSTRACT
This study investigates the determinants of inflation in the main oil exporting countries specifically: Algeria, Iran, Nigeria, Saudi Arabia and Venezuela. The study covers the period from 1991 to 2014 using panel data analysis. The country specific analysis shows more readable results than whole OPEC sample. Findings have different inflation determinants across main oil exporting countries. Results show that the main determinants of inflation for Algeria and Nigeria arise mainly from exchange rate depreciation. Whereas the sources of inflation in Saudi Arabia are mainly driven by high oil prices and high government expenditure. For Venezuela and Iran, inflation ascends from several sources including monetary factors, supply side and demand side factors and exchange rate variations. This is due to the fact that these two countries are under a threat of an economic destabilization period.

Keywords: Inflation; Panel Data; Oil Exporting Countries
Retained Primitive Reflexes: The Influences Of Rhythmic Movement Training (RMT) In The Classroom – Preliminary Results From One Student

Tessa M Grigg, University of Canterbury, New Zealand
Ian G Culpan, University of Canterbury, New Zealand
Wendy H Fox-Turnbull, University of Waikato, New Zealand

ABSTRACT

This research investigates the influences of Rhythmic Movement Training (RMT) on student achievement and behavioural outcomes, with teacher and parent perspectives included in the analysis. The individualised movement programme comprises passive, active and isometric exercises and is designed to integrate retained primitive reflexes within the brain. There is anecdotal evidence that RMT can make significant differences for children both academically and behaviourally. The research presented in this paper describes the mixed methods study that was completed and details the preliminary results of one child from the group of participants. Orla was 6.5 years old at the beginning of the study and had been identified as having learning challenges. Her progress after RMT was introduced was commented on by her teacher and the specialist teachers who worked with her. The quasi-experimental nature of classroom-based research means that it is not clear exactly how the changes in her progress were made, as there were other interventions taking place at the same time. However, it has been noted that there was an increase in the rate of change once she started the exercises.

Keywords: Children; Primitive Reflexes; Rhythmic Movement Training (RMT); Learning and Behaviour; Mixed Methods Research

INTRODUCTION

This paper is an overview of a research project that assessed a reflex integration programme. It gives some background information about retained primitive reflexes and summarises of associated literature. It describes the research questions posed and the study of the use of a reflex integration programme, the processes used and gives the preliminary finding of one student. Primitive reflexes have been identified as a possible cause for learning and behavioural challenges (Gieysztor, Choińska, & Paprocka-Borowicz, 2018), and as the intervention used in the research, Rhythmic Movement Training (RMT) is a programme designed to focus on helping the body integrate primitive reflexes, using RMT with students would appear to be a good use of student and teacher time. There is also a possibility that it could be used to support other remedial programmes.

The research question of this study investigated the influence RMT has on student achievement or behavioural outcomes. There are many children who find learning a challenge and while there are some successful remedial learning programmes, it is possible that more children with learning challenges could be identified at an early stage thus giving them a better chance to succeed at school. Two Year One teachers in New Zealand had been gradually implementing some ideas based on reflex integration with the children in their classrooms and were excited about the results the children were achieving. Their process had been informal, however based on their experience this rigorous research project was developed.

Research using a broad-based movement programme has shown positive results (Williams, 2015). Williams stated that her research data showed that completion of the exercises three to five times a day for 10 to 12 months resulted
in significant gains in terms of positive learning outcomes for students. However, this programme required approximately 30 minutes to complete each session. RMT sessions take 5 minutes to complete and no additional equipment is required. This research is based on the knowledge that each school day is already overloaded with expectations, and while movement has been shown to make positive changes for children, could it be possible that a small amount of specifically targeted exercises would have positive student achievement and behavioural outcomes? The simplicity of the movement-based RMT programme provides potential for it to occur on a daily basis in line with the Williams research.

Often in education there appears to be a significant focus on symptoms rather than the cause when it comes to learning and behavioural challenges. The focus is often on the skill deficit that is presenting. A teacher will have the child who cannot read or write practice more or give the child with auditory processing issues a sound system. But with reflex integration the issues behind the problems are in focus (Goddard-Blythe, 2012).

**Background Information**

It is possible that some of the children who do not respond well to conventional school-based interventions may have significant levels of retained primitive reflexes. Study in this area has been limited and more is needed to provide evidence of this and point to the benefits of programmes that target the integration of primitive reflexes. The individual nature of the retained reflex issue has also not been addressed in those studies completed to-date, and while there appear to be clusters of reflexes that are retained, and commonalities of challenges experienced, each child’s reflex story is an individual one. It appears that the primitive reflex integration process is not fully understood, and what seems to work for some children does not work for others. This research is attempting to add to what we understand about what works, but why and how RMT works is not being addressed.

**Primitive Reflexes**

“Primitive reflexes (also known as primary reflexes or infant reflexes) develop before birth, are activated during the birthing process and are useful during the child’s early life. They are involuntary reactions that originate in the brainstem and are considered a fundamental part of the development process (Capute, 1982; Desorbay, 2013; Goddard, 1996; Sassé, 2009)” (Grigg, 2016, p. 4). As examples, the Moro or startle reflex is activated when the infant is surprised, and the Spinal Galant reflex facilitates the emptying of an infant’s immature bladder. The primitive reflexes integrate as part of the maturation process, with movement and intellect becoming controlled by cognition or postural reflexes. (Goddard-Blythe, 2008).

**Retained Primitive Reflexes:** The reflex/cognitive integration process can be interrupted for some children with primitive reflexes persisting beyond their expected duration. In normally developing children, the primitive reflexes become inhibited or are transformed within the first 12 months of life (McPhillips & Sheehy, 2004). The interrupters of the primitive reflex integration process appear to be related to maternal and/or environmental stress or birth complications (Blomberg & Dempsey, 2011; Goddard-Blythe, 2000; Holley, 2010; Hsieh et al., 2011). Learning and behavioural issues have been associated with retained reflexes (Gieysztor et al., 2018; Konicarova & Bob, 2012; McPhillips & Jordan-Black, 2007b). For example, balance difficulties can be based in a retained Moro reflex and bedwetting in older children can be the result of a retained Spinal Galant reflex (Berne, 2006).

**Rhythmic Movement Training (RMT) as an Intervention**

This series of movements has been designed by Blomberg and Dempsey using the work of Linde (Blomberg & Dempsey, 2011). The movements are based on the spontaneous movements of normally-developing infants following their birth. The rhythmic aspect of RMT sets this integration programme apart from alternative movement programmes where exercises are completed without rhythm being incorporated. Physical tests have been developed to assess the child’s primitive reflex status (Goddard, 1996). One or two individualised RMT exercises are given to children for completion each day. The time involved to complete the exercises is approximately 5 to 10 minutes each day, and requires no equipment (Blomberg & Dempsey, 2011). The Rhythmic Movement Training (RMT) described by Blomberg (2011) appears have high levels of completion by children and could fit easily within busy teacher routines.
LITERATURE REVIEW

Two areas are covered by this literature review. Firstly, retained primitive reflexes and their influence on academic achievement and behavioural outcomes are discussed, and offers information as to why research attempting to resolve retained primitive reflexes is relevant within education. Secondly, programmes designed to assist the resolution of retained primitive reflexes are discussed, highlighting which programmes have attracted empirical research and are used with children.

Effects of and Possible Solutions to Retained Primitive Reflexes

Literature investigating the issue of retained primitive reflexes continues to grow. Educational and behavioural outcomes have been in focus, in particular the effect retained primitive reflexes play in the development of the child (Callcott, 2012; Goddard-Blythe, 2005; Konicarova & Bob, 2012; McPhillips, 2013; McPhillips & Sheehy, 2004; Taylor, Houghton, & Chapman, 2004). A solution Goddard-Blythe and others found is movement-based programmes designed to facilitate the integration of primitive reflexes (Brown, 2010; Dobie, Brown, & Dalziell, 2002; Goddard, 1996; Jordan-Black, 2005). A positive effect on the integration of primitive reflexes has been demonstrated through the use of movement-based programmes, although the investment of both time and financial resources can be significant for schools.

Since 2000, key retained primitive reflex researchers have been Goddard-Blythe, McPhillips, and Jordan-Black. Irish studies (Livingstone & McPhillips, 2014; McPhillips & Jordan-Black, 2007a, 2007b; McPhillips & Sheehy, 2004) have established links between the retention of the Asymmetric Tonic Neck Reflex (ATNR) and poor learning outcomes in ordinary primary schools. Konicarova and Bob (2012) found that a group of European children with ADHD (diagnosed in accordance with the DSM-IV criteria (American Psychiatric Association, 1994)) also displayed elevated levels of Moro and Spinal Galant reflex retention. These studies support the link between retained primitive reflexes and children’s educational and behavioural challenges.

Programmes to Address Retained Primitive Reflexes

There are two programmes most commonly used with the integration of retained primitive reflexes. Primary Movement Programme (McPhillips, 2014) and the Institute of Neuro-Physiological Psychology (INPP) Programme (Goddard, 1996) have empirical research associated with them and they are used in European and United Kingdom schools. Studies supporting their use have been reported (Brown, 2010; Callcott, 2012; Goddard-Blythe, 2012; Jordan-Black, 2005; McPhillips & Jordan-Black, 2007b; Taylor et al., 2004), and evidence suggests that these movement-based programmes influence the learning issues (reading, fine-motor skills and maths) targeted in the studies. Although the studies mentioned above were classroom-based, both programmes can be used individually. Early infant movements form the basis of both programmes. Blythe (2005) noted that retained primitive reflexes could be found in 48% of all children, while Gieysztor et al (2018) found that 65% four to six year-olds tested, had some level of retained primitive reflexes and 38% of those children experienced some level of developmental delay.

The RMT Programme

Extensive review of relevant literature indicated that RMT does not appear to be the basis of any peer-reviewed studies. However, as discussed above, retained primitive reflex programmes have been researched (Goddard, 1996; McPhillips, Hepper, & Mulhern, 2000). The rhythmic aspect of RMT differentiates it from other programmes and is supported by studies such as Harris’s (2008) research investigating links between music and the brain. It was found that music affected the brain positively. The body of anecdotal support for RMT and the ease of use indicate that assessing the effectiveness of the programme in a robust manner may be useful for many children and practitioners.

School-based Exercise Programme Research

Research over the last ten years relating to movement programmes used in schools has strongly criticised their inclusion in the school programme (Lense & Dykens, 2013; Mathur, Duda, & Kamat, 2008; Stephenson, Carter, & Wheldall, 2007) An Australian study of Perceptual Motor Programme (PMP) (Stephenson et al., 2007) reported that
there was no evidence that movement programmes improved academic abilities in children who had participated in them. The amount of time devoted to the programme each week was provided for 11 out of the 117 school websites and it varied from once a week to three times a week.

However, Australian research completed by Williams (2015) gathered quantitative data from 314 children in several Australian states using the Draw-A-Person (DAP) assessment tool. The children completed a 30-minute movement programme three to five times per week for 10 to 12 months. Results showed that children’s neurological maturity increased 22 months when on the programme compared to the control group who managed a six-month increase. The decline in the control group’s progress over the 10 months was not expected and could not be explained. Williams stated that children are expected to increase their neurological maturity along with their chronological age. Also puzzling was that when measured pre-intervention both groups had neurological age that was within a month of their chronological age. No conclusion was reached. However, in the intervention groups teachers commented on the improved behaviour in the classroom of the children participating in the movement programme.

South African research (Erasmus, Janse van Rensburg, Pienaar, & Ellis, 2016) has also focused on a movement-based programme. Forty-eight children from low socioeconomic schools, 27 children in the control group and 21 in the intervention group, were tested for a range of perceptual motor skills and the DAP test. A perceptual motor programme (PMP) was used three to five days a week as the intervention. They found significantly increased school readiness after 10 weeks, 33.3% for the intervention group compared with 14.8% for the control group. This mixed methods study also interviewed teachers, asking them about changes they had noticed in the children’s skills and behaviour in the classroom. The themes that emerged were: longer and better concentration, improved ability to execute tasks and improved gross and fine motor co-ordination.

These recent movement-based studies resonate with the research questions in this study. The South African mixed methods study gathered a wider range of data than is proposed in this study, but it did not gather social (interactions with peers) or emotional (self-regulation, resilience) skill data. The Australian study only gathered DAP and academic data with quantitative findings. Both studies devoted approximately 30 minutes of classroom time, three to five times a week, to their interventions. For this current study, the range of data – academic, DAP and social and emotional - sets it apart from previous studies. The RMT intervention is daily, but the time commitment – five minutes – is shorter than the other two programmes.

**METHODOLOGY**

This research used RMT as an intervention and investigated its possible influences on student achievement and behavioural outcomes. Four theories helped formulate the research question and the design. Bronfenbrenner’s bioecological theory, ‘process-person-context-time’ (Bronfenbrenner, 2005; Rosa & Tudge, 2013) gave importance to the classroom setting and the teacher’s role in relation to the child’s development. He also highlighted the complexity of the systems a child relates to and qualitative data allowed those complexities to be investigated. Thelen’s movement theories (1981) and the links between movement and development supported the use of a movement-based intervention to encourage development. She documented the seemingly important movements infants make after birth and the noted the influences these movements appeared to have on development. The development of RMT was based on the movements made by infants (Blomberg, 2015) aligning it with Thelen’s work. Hughlings-Jackson’s (Franz & Gillett, 2011) theories about primitive reflex retention and their influence on development supported the use of a reflex integration programme to assist development. He believed that when primitive reflexes are retained into childhood, there are associated behavioural challenges such as Attention Deficit Hyperactivity Disorder (ADHD) (Koncarova & Bob, 2013). Finally Vygotsky’s theory (1978) suggesting the importance of social interactions in the development of a child, were used to support the gathering of social and emotional data. The complexity of children’s development is acknowledged and using this range of theorists to underpin the research attempts to address this.
Research Question

The Over-Riding Research Question

What influences does Rhythmic Movement Training (RMT) have when used in the classroom?

RESEARCH DESIGN, PARTICIPANTS AND DATA ANALYSIS

The classroom-based nature of this study made it a quasi-experimental approach. The mixed methods design allowed quantitative and qualitative data to be gathered. An embedded design was used so that data could be gathered simultaneously. The quantitative data collected was: academic data for reading, writing and maths, Draw-A-Person (DAP) test (Kamphaus & Pleiss, 1991; Porteous, 1996), reflex tests (Goddard, 1996) and Strengths and Difficulties Questionnaire (Ministry of Health, 2015). A phenomenological approach was used for the qualitative data, with the ‘use of RMT’ as the phenomena in focus. Within six classrooms from three New Zealand schools, the progress of 98 seven to nine-year-old children was recorded. The children were divided into two evenly matched groups based on gender, and academic ability. One group became the control group while the other group started the intervention. Testing took place before the intervention was introduced, mid-way through the project and at the completion of the project. The intervention group used the exercises for nine to ten months and the control group started the exercises after 3-5 months. Semi-formal interviews (ranging in length from 5 to 18 minutes) with all teachers involved in the project, and 26 parents (ranging from 6 minutes to 15 minutes in length) were undertaken. Field notes had been taken all year and teacher interviews formed a summary of the year. The questions focused on perceptions of academic progress noticed, changes in social and emotional behaviour and perceptions of using RMT in the classroom.

Intervention

Four Rhythmic Movement Training exercises were used in this study (Blomberg & Dempsey, 2011). The exercises were introduced at a rate of one per week, and an additional exercise was introduced mid-way through the study. An exercise called Windscreen Wipers was the first exercise to be introduced – children lie on their backs on the floor and make windscreen wiper movements with their feet. The second exercise was introduced a week later, Hip Rolling – children lie on their fronts and move their hips from side to side. The third exercise, STNR Rock (Symmetric Tonic Neck Reflex) was introduced – children are in the rocking position that babies use before they crawl, when they rock backwards and forwards on their hands and knees. The first three exercises were easy for the children to complete although teachers did notice that some children initially were not able to complete them accurately. Finally, an exercise called Back-Sliding was introduced. The children lie on their backs, knees bent, and they move their body backwards and forwards using their feet and legs to maintain the action, while the skin on their backs stays in contact with the ground. This exercise provided the most challenges for children probably due to the high levels of primitive reflex retention shown in the reflex testing that was completed.

Data Analysis

Data analysis is continuing. Quantitative data from the DAP, reflex tests and academic scores for writing, reading and maths is in progress. However, the qualitative data from teacher and parent interviews has been analysed using NVivo 10. The data was coded into topic areas, such as academic achievement, social interactions within the classroom, unexpected outcomes and comments about using the exercise in the classroom. From the coded material two themes emerged from the teachers. In theme 1 teachers talked about unexpected positive rates of change, this includes academic, social and emotional comments, and in theme 2 they discussed the ease with which they were able to use RMT in the classroom.

The section below describes the finding from one student – Orla (pseudonym). Orla was difficult to engage in the exercises when there was the intervention group and the control group. She would do them sporadically if the researcher was present, but normally she gravitated to the control group. She became engaged with the exercises when the whole class began to do them, although the back-sliding exercise required adult help. This means that her results were achieved in the last 5 months of the project.
Preliminary Findings

Participant - Orla

Orla was 7.5 years at the beginning of the project and had been identified with learning delays. She was sometimes disruptive in the class but fully engaged with educational computer games. Her desk was separated from the rest of the class as she was very easily distracted by other children and the other children found her distracting. She did not participate in group activities. The samples below show the stage of Orla’s writing and DAP. The drawing was completed at the beginning of the project and the writing sample was taken mid-way through the previous year. Both drawings show minimal control. When compared to the exemplar of writing expected from a child after two years of schooling, marked differences in letter formation are seen.

**Figure 1. Writing Samples and DAP at or before the beginning of the project**

An adult has written the letter K and a story that was dictated by Orla. Her writing attempts include scribble to colour in the letter ‘k’ and attempts at the words I, is and the. This sample was taken 6 months prior to the commencement of the project. Orla had been at school for 2 years.

This is a writing exemplar of the writing expected from a child after two years of schooling (Ministry of Education -Te Kete Ipurangi, 2009). The NZ Curriculum assessment system uses Levels 1 -8 to ascertain student progress. Further information can be sourced at: [http://nzcurriculum.tki.org.nz/National-Standards/Reading-and-writing-standards](http://nzcurriculum.tki.org.nz/National-Standards/Reading-and-writing-standards)

Orla’s first Draw-A-Person she was asked to draw herself. She chose to draw the teacher’s dog. There is immature form and details. The DAP was completed at the beginning of the project. The neurological age score for this drawing was approximated to 3.5 years of age.

**Figure 2. Writing sample after 3 years at school**

An adult has written the beginning of the story which Orla has copied. Orla has then written some additional words. The teacher has added some words above words that are not easily distinguished. This sample was taken mid-way through the project when Orla had been at school for 3 years.

This is a writing exemplar of a level 1.1 student, meaning the child has been at school for one year (Ministry of Education -Te Kete Ipurangi, 2009)
Figure 2 shows the progress made after 3 years at school. Orla began the RMT exercises in the middle of the year, after the writing sample in Figure 2 had been completed in June. There are more letters being formed and she is attempting to write some words on her own. She is attempting to spell words, and correctly spells some high frequency words. There is evidence of capital letters in her use of ‘I’ and the ‘L’ at the beginning of another child’s name. She refused to complete a DAP test.

Figure 3. Writing samples after 3.5 years at school

The writing in Figure 3 was completed in December (the end of the academic school year in New Zealand) and shows the changes in her writing after 3.5 years at school. This piece of writing was written by Orla, there is no teacher guidance this time. She is using some punctuation and capitalisation, the spelling is correct and the sentences, while simple, make sense. While she is not yet working at Level 3, she made noticeable improvements in the final six months of the year. The teacher commented on the surprise from all specialists involved with Orla as to the rate of her progress over the second part of the year. Several strategies were being used to enhance her learning and daily RMT was part of her programme. The teacher commented about the academic gains in the classroom.

“The children have gone) very well academically, yes, they have all made some large gains, my special needs student (Orla) in particular, has made astounding progress. But they have all made some gains. Even kids with behavioural needs. They have still managed to make some gains. (Geraldine - pseudonym)

Orla’s DAP scores also showed an increase in development. Her initial drawings scored at 3.5 years, but her final drawing scored at 6.5 years of age, an increase of 3 years in 10 months. For the last term of the year it was observed that her desk was placed within the group and she was able to work alongside other children. This was an important development for Orla, and along with that went her increased ability to participate within the group.

SUMMARY

Retained primitive reflexes have been identified in the literature as a barrier to student achievement and positive behaviour outcomes. Addressing this issue has the potential to improve the futures of the children who are still influenced by their primitive reflexes. Retained reflexes may be the underlying cause of learning and behavioural challenges and addressing the cause rather than the symptoms may have positive outcomes for some children. Rhythmic Movement Training (RMT) is a series of movements that are reported to encourage the inhibition of the reflexes. RMT has not attracted any empirical research to-date and this author believes that it is an important step to
take. This research project is analysing the influence that RMT has on student achievement and behavioural outcomes. The voice of the teachers and parents has not been used in similar movement intervention studies and will add strength to the findings. Orla has been used in this paper as an example of the possibility for change, and although it has been acknowledged that RMT was only one part of a group of strategies, a marked rate of change coincided with introduction of RMT. Could this simple RMT intervention reduce the resources needed for children who are challenged both academically and behaviourally? For at least one student RMT has been part of her noticeable changes. Further analysis of the data will assess if others have achieved similar results.

REFERENCES


Grigg, T. M. (2016). The voice of parents who have used Rhythmic Movement Training with their children. University of Canterbury, Christchurch NZ.


Staged Customer Experience As A Determinant Of Customer Relationship Quality, Recommendation, And Switching Intentions In The Banking Industry
Abdullah J. Sultan, Kuwait University, Kuwait

ABSTRACT

Purpose – The purpose of this research is to examine the relationship between staged customer experience, which is derived from various stages of customer interactions with banks and its impact on relational outcomes namely relationship quality, willingness to recommend and their likelihood of switching.

Design/methodology/approach – This study employ both qualitative and quantitative research methodology in order to provide evidence to distinguish four different customer experience stages in the banking industry, construct a staged customer experience construct, and use SEM analyses to test for the examined relationships.

Findings - The research results show that staged customer experience in the banking industry consists of four related, but distinct stages (i.e., pre-subscription, during-subscription, post-subscription, and service failure stages) and that the combined effect of these stages positively impacts willingness to recommend and likelihood of switching. In addition, the findings provide empirical evidence to support the mediation effect by relationship quality.

Research limitations/implications – The key challenge for researchers and practitioners is to identify critical brand touchpoints that generate value for both customers and the brand. This research provides practical recommendations for banking operators to focus their resources on touchpoints that are valuable for both customers and brands in order to enhance relational outcomes. Future research should examine the examined relationships for different industries.

Originality/value - This research provides empirical evidence to support the need for a complementing measurement to tap on different touchpoints that customers experience during their journey with the brand. Also, it introduces the staged customer experience construct as a related, but distinct construct from relationship quality, willingness to recommend, and likelihood of switching. Hence, this research answers the call for a more appropriate measurement that provides deeper understandings of factors that link staged customer experience with relational outcomes.

Keywords: Customer Experience; Relationship Quality; Customer Recommendation; Customer Switching
Teaching Methods in International Law
Carmelo Cattafi, Tecnologico de Monterrey, México

ABSTRACT

This research presents the effect of innovation in the educational methodology applied to the teaching of topics in different areas, especially in international law, trying to demonstrate how learning can be stimulated through artistic awareness to allow students to have a different approach to the materials and get closer to the basic concepts of the discipline in a more encouraging way. When comparing the different generations of students, we wonder if it is possible for teachers to follow the step of digital natives. In order to fill this generation gap, Tecnológico de Monterrey proposed to support projects of experimentation in educational innovation in various topics related to improving the teaching-learning process. Based on this premise, a group of teachers generate a model of educational innovation training, to facilitate learning for students through the development of creativity in how, when and where to generate learning, integrating challenging and interactive experiences through activities within the teaching practice. The use of traditional methods has led to the overwhelm of teachers, fatigue and pressure, therefore, the contribution of this project is aimed at the teacher to internalize his innovative and creative work, and see himself as a leader transformative in its teaching practice, establishing new teaching-learning spaces. Implementing learning activities through the imagination and measuring the impact on the student of the use of creative activities allows us to improve what we currently do. The process of learning is associated with the determinant role of positive psychology to motivate students and teachers by strengthening them as individuals (Seligman, 1998; Seligman and Csikszentmihalyi, 2000). The positive formation that derives from positive psychology is an ingredient of prosperity (Seligman et al, 2009) and our purpose is to bring the elevation in terms of Haidt (2000) to didactics, with the aim of allowing teachers to discover and increase their talents, cultivate the sensibility and the artistic intuition using the art as detonator in the flexibilización of the creative thought. For this, an interdisciplinary workshop was created (thought and word, mind and body, music, visual arts) where the teacher, through practical and experiential activities, activates his imagination, recognizes his talents in creative and innovative thinking and develops resources which then leads to their teaching practice, by designing challenging learning experiences that stimulate the student to creatively solve tasks and projects. In order to carry out the objective, we gathered eight professors from different areas (law, international relations, political science, languages, architecture, art, cultural diffusion) convinced that creativity improves the teacher’s performance who rethinks its activities to allow learn more dynamically. It was sought to improve the performance of students who appreciated the approach to the subjects through didactic methods that the teacher had modified according to the passions observed outside the classroom. Activities were designed to stimulate creativity through the senses linking the content of the course to the discovery or affirmation of the talent of each student. It is taking into account the development of the artistic dimension so that the teacher discovers in his area of expertise, his talents to create new ways to teach the student to solve tasks and projects through the design of challenging experiences.

Keywords: Educational Innovation; Educational Methodology; Teaching and Learning; Teaching Work
Critical Thinking Skills Among High School Students: A Comparison Of Private And Public Schools

Zaha Alsuwailan, Kuwait University, Kuwait
Saad Al-Shurai, Kuwait University, Kuwait

ABSTRACT

The purpose of this study is to investigate whether there are significant differences in critical thinking skills and tools between private and public high school students in Kuwait. It was hypothesised that students in private schools have greater critical thinking skills than those in public schools. The results indicate the private school students have more assumption and interpretation skills than public school students; however, public school students have more inference, deduction, and argument skills.
Case Study On Applying Cross-Sectional And Time-Series Ratio Analysis
Patrick J. Larkin¹, Fayetteville State University, USA

ABSTRACT

This case study challenges students to apply cross-sectional and time-series ratio analysis along with other financial analysis techniques to compare the financial performance and condition of publicly-traded companies. Financial statement and market data is provided and teaching notes for the case are available.

I. Introduction

“Thank you for coming in on such short notice,” said Bronx Asset Management managing director Russ Leffingwell. “There is no doubt in my mind that the four of you make up our top team of junior associates, and I think that I’ve come across an assignment that is worthy of your talents. Some of you might know Roy Cohen. Roy co-manages our Falconer Opportunity Fund with Raj Kapoor. Roy is known as a ‘big picture guy’, and right now he is very bullish on housing. He believes that there is a great deal of pent-up demand for single family homes in the U.S. due to the millennials starting to reach the age that they are ready to settle down and raise a family. Roy thinks that the best way to play this theme is through the home improvement retailers. As you probably know, the two biggest players in the space are Home Depot and Lowe’s. Both names have run up quite a bit, but Home Depot has really left Lowe’s in the dust in terms of market capitalization. Roy is leaning toward putting on a big position in Home Depot, but before we go forward I would like to gain a better understanding of why Home Depot’s valuation is so much higher than Lowe’s despite the fact that they have such similar business models and a similar footprint in terms of stores. If Lowe’s operating performance has lagged Home Depot’s, and that is the source of the valuation gap, and if Lowe’s poor performance is correctable, then maybe the smart bet is on Lowe’s. We have a meeting of the investment committee tomorrow morning at 10 a.m., and this idea is at the top of the agenda. I would like for this group to make a presentation for the committee. What I want you to do is to explain to the committee why it is that Home Depot’s valuation is so much higher than Lowe’s. Is the gap due to differences in the operating performance or financial condition of the two companies? If so, do these differences exist for structural reasons, or is it a case of superior management at Home Depot? I have found that there is often an opportunity to make money on a mean reversion trade in these types of situations, especially if there is an opening for an activist investor to get involved. Any questions?”

“No questions Russ, I’d just like to say that it’s a real honor for you to refer to us as the firm’s top team of junior associates, and I know that we will come through for you again,” said Richard “Rich” Whitney IV, a recent graduate with a degree in government from a prestigious eastern university.

“Actually, I wasn’t counting the teams working in the private equity side of the business, said Russ. But you are the best that I have in public equities right now, and unfortunately, I won’t be around to pitch in because I have a big meeting uptown tonight with an important prospect. But if you do need support, my assistant Jane will be on call as always.”

“Well, I guess that I won’t be needing these Knicks tickets,” said Rich. It was just after 2:00 p.m. on Wednesday, April 5th, 2017, as the four young associates sat in the spacious conference room and pondered the task in front of them. In addition to Rich, the team included Marisol Pinochet, a former management consultant already taking MBA courses in the evening, Lu Li, a chemical engineering major and avid stock market investor, and Lou Melfi, a geography major who had recently served in the Peace Corps. “Maybe you could trade those Knicks tickets for a finance degree and a couple of pizzas, said Lou. It’s going to be a long night. At least we have Marisol and Lu. What is our plan of action?”

¹ Visiting Professor of Finance and Economics, Fayetteville State University

© Copyright by author(s)

The Clute Institute
“Before we rush off on our journey, let’s define our destination, said Marisol. We are going to need to examine the financial performance of both Lowe’s and Home Depot over the last few years. It’s always good to have as much data as possible, but given our time constraints I think that five years will be sufficient. We are going to need to perform a complete financial ratio analysis, looking at liquidity, asset efficiency, debt, and profitability.”

“That is a very clever proverb about the journey and the destination Marisol, said Lu. I agree with you on the need for a ratio analysis, but you left out market value ratios such as the price-to-earnings and price-to-book ratios. After all, it is the difference in valuation that we are trying to explain.”

“Wouldn’t it also be helpful to gather some data on various non-financial metrics, asked Lou. I seem to remember Russ mentioning something about business models and the store footprint.”

“Good point, said Marisol. Lu and I will pull the Excel data from Lowe’s and Home Depot’s 2016 10-Ks and whip it into shape, said Marisol. Lou, how about if you focus on the non-financial metrics that you mentioned and on trying to get a better feel for the firm’s business models? We’ll then meet back here at 6:00 p.m.”

“Will do,” said Lou.

“And I’ll handle the pizza, said Rich. There is this great new place called Ray’s that just opened up a block away from my building. It’s crazy on Wednesday nights but I know a guy who can get our order in.”

II. The Data

The data collected by the team is summarized in table’s I, II, and III below. Table I presents a combination of operating and financial data that Lou thought would help the team to compare the two companies. Tables II and III present six years of financial data for Lowe’s and Home Depot, respectively, collected by Marisol and Lu. In addition to consolidated income statements and balance sheets obtained from the firm’s 10-K filings available on the SEC’s Edgar website, the market capitalizations of each company at the end of each of the last six years are presented.

<table>
<thead>
<tr>
<th>Table I. Selected Operating and Financial Data for Lowe’s and Home Depot</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Data from Lowe's and Home Depot 2016 10-Ks, Moody's, and Yahoo Finance.</strong></td>
</tr>
<tr>
<td>Ticker Symbol</td>
</tr>
<tr>
<td>Fiscal Year End</td>
</tr>
<tr>
<td>Closing Stock Price on April 5th, 2017</td>
</tr>
<tr>
<td>Shares Outstanding on April 5th, 2017</td>
</tr>
<tr>
<td>Market Capitalization on April 5th, 2017</td>
</tr>
<tr>
<td>Debt Rating from Moody's at end of Fiscal 2016</td>
</tr>
<tr>
<td>Advertising Expense in Fiscal 2016 (included in SG&amp;A in consolidated income statements)</td>
</tr>
<tr>
<td>Total Stores at End of Fiscal 2016</td>
</tr>
<tr>
<td>Total Stores in U.S. States and Territories at End of Fiscal 2016</td>
</tr>
<tr>
<td>Total Stores in Canada at End of Fiscal 2016</td>
</tr>
<tr>
<td>Total Stores in Mexico at End of Fiscal 2016</td>
</tr>
<tr>
<td>Approximate Total Square Feet of Retail Space at End of Fiscal 2016</td>
</tr>
</tbody>
</table>
Table II. Lowe's Companies, Inc., Financial Data - USD ($) in Millions
(Data from Lowe's 10-Ks and Morningstar)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Net sales</strong></td>
<td>$ 65,017</td>
<td>$ 59,074</td>
<td>$ 56,223</td>
<td>$ 53,417</td>
<td>$ 50,521</td>
<td>$ 50,208</td>
</tr>
<tr>
<td><strong>Cost of sales</strong></td>
<td>42,553</td>
<td>38,504</td>
<td>36,665</td>
<td>34,941</td>
<td>33,194</td>
<td>32,858</td>
</tr>
<tr>
<td><strong>Gross margin</strong></td>
<td>22,464</td>
<td>20,570</td>
<td>19,558</td>
<td>18,476</td>
<td>17,327</td>
<td>17,350</td>
</tr>
<tr>
<td><strong>Expenses:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Selling, general and administrative</td>
<td>15,129</td>
<td>14,105</td>
<td>13,272</td>
<td>12,865</td>
<td>12,244</td>
<td>12,593</td>
</tr>
<tr>
<td>Depreciation and amortization</td>
<td>1,489</td>
<td>1,494</td>
<td>1,494</td>
<td>1,462</td>
<td>1,523</td>
<td>1,480</td>
</tr>
<tr>
<td>Operating income</td>
<td>5,846</td>
<td>4,971</td>
<td>4,792</td>
<td>4,149</td>
<td>3,560</td>
<td>3,277</td>
</tr>
<tr>
<td>Interest - net</td>
<td>645</td>
<td>552</td>
<td>516</td>
<td>476</td>
<td>423</td>
<td>371</td>
</tr>
<tr>
<td>Pre-tax earnings</td>
<td>5,201</td>
<td>4,419</td>
<td>4,276</td>
<td>3,673</td>
<td>3,137</td>
<td>2,906</td>
</tr>
<tr>
<td>Income tax provision</td>
<td>2,108</td>
<td>1,873</td>
<td>1,578</td>
<td>1,387</td>
<td>1,178</td>
<td>1,067</td>
</tr>
<tr>
<td><strong>Net earnings</strong></td>
<td>$ 3,093</td>
<td>$ 2,546</td>
<td>$ 2,698</td>
<td>$ 2,286</td>
<td>$ 1,959</td>
<td>$ 1,839</td>
</tr>
<tr>
<td><strong>Basic earnings per common share</strong></td>
<td>$ 3.48</td>
<td>$ 2.73</td>
<td>$ 2.71</td>
<td>$ 2.14</td>
<td>$ 1.69</td>
<td>$ 1.43</td>
</tr>
<tr>
<td><strong>Diluted earnings per common share</strong></td>
<td>3.47</td>
<td>2.73</td>
<td>2.71</td>
<td>2.14</td>
<td>1.69</td>
<td>1.43</td>
</tr>
<tr>
<td><strong>Cash dividends per share</strong></td>
<td>$ 1.33</td>
<td>$ 1.07</td>
<td>$ 0.87</td>
<td>$ 0.70</td>
<td>$ 0.62</td>
<td>$ 0.53</td>
</tr>
</tbody>
</table>

**Consolidated Balance Sheets**

| Current assets: |       |       |       |       |       |       |
| Cash and cash equivalents | $ 558 | $ 405 | $ 466 | $ 391 | $ 541 | $ 1,014 |
| Short-term investments | 100 | 307 | 125 | 185 | 125 | 286 |
| Merchandise inventory - net | 10,458 | 9,458 | 8,911 | 9,127 | 8,600 | 8,355 |
| Other current assets | 884 | 391 | 578 | 593 | 518 | 417 |
| **Total current assets** | 12,000 | 10,561 | 10,080 | 10,296 | 9,784 | 10,072 |
| Property, less accumulated depreciation | 19,949 | 19,577 | 20,034 | 20,834 | 21,477 | 21,970 |
| Long-term investments | 366 | 222 | 354 | 279 | 271 | 504 |
| Goodwill | 1,082 | 154 | 0 | 0 | 0 | 0 |
| Other assets | 1,011 | 752 | 1,359 | 1,323 | 1,134 | 1,013 |
| **Total assets** | 34,408 | 31,266 | 31,827 | 32,732 | 32,666 | 33,559 |

| Current liabilities: |       |       |       |       |       |       |
| Short-term borrowings | 510 | 43 | 0 | 386 | 0 | 0 |
| Current maturities of long-term debt | 795 | 1,061 | 552 | 49 | 47 | 592 |
| Accounts payable | 6,651 | 5,633 | 5,124 | 5,008 | 4,657 | 4,352 |
| Accrued compensation and employee benefits | 790 | 820 | 773 | 785 | 670 | 613 |
| Deferred revenue | 1,253 | 1,078 | 979 | 892 | 824 | 801 |
| Other current liabilities | 1,975 | 1,857 | 1,920 | 1,756 | 1,510 | 1,533 |
| **Total current liabilities** | 11,974 | 10,492 | 9,348 | 8,876 | 7,708 | 7,891 |
| Long-term debt, excluding current maturities | 14,394 | 11,545 | 10,815 | 10,086 | 9,030 | 7,035 |
| Deferred revenue - extended protection plans | 763 | 729 | 730 | 730 | 715 | 704 |
| Other liabilities | 843 | 846 | 966 | 1187 | 1356 | 1396 |
| **Total liabilities** | 27,974 | 23,612 | 21,859 | 20,879 | 18,809 | 17,026 |

| Shareholders' equity: |       |       |       |       |       |       |
| Preferred stock - $5 par value, none issued | 0 | 0 | 0 | 0 | 0 | 0 |
| Common stock - $50 par value | 433 | 455 | 480 | 515 | 555 | 621 |
| Capital in excess of par value | 0 | 0 | 0 | 0 | 26 | 14 |
| Retained earnings | 6,241 | 7,593 | 9,591 | 11,355 | 13,224 | 15,852 |
| Accumulated other comprehensive loss | (240) | (394) | (103) | (17) | 52 | 46 |
| **Total shareholders' equity** | 6,434 | 7,654 | 9,968 | 11,853 | 13,857 | 16,533 |
| **Total liabilities and shareholders' equity** | $ 34,408 | $ 31,266 | $31,827 | $32,732 | $32,666 | $33,559 |

| Market capitalization at end of fiscal year | $61,864 | $69,585 | $66,936 | $51,821 | $39,949 | $31,790 |
Table III. The Home Depot, Inc., Financial Data - USD ($ in Millions)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Consolidated Income Statements</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NET SALES</td>
<td>$94,595</td>
<td>$88,519</td>
<td>$83,176</td>
<td>$74,754</td>
<td>$70,395</td>
<td>$67,997</td>
</tr>
<tr>
<td>Cost of Sales</td>
<td>62,282</td>
<td>58,254</td>
<td>54,787</td>
<td>48,912</td>
<td>46,133</td>
<td>44,693</td>
</tr>
<tr>
<td>GROSS PROFIT</td>
<td>32,313</td>
<td>30,265</td>
<td>28,389</td>
<td>25,842</td>
<td>24,262</td>
<td>23,304</td>
</tr>
<tr>
<td><strong>Operating Expenses:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Selling, General and Administrative</td>
<td>17,132</td>
<td>16,801</td>
<td>16,280</td>
<td>16,508</td>
<td>16,028</td>
<td>15,849</td>
</tr>
<tr>
<td>Depreciation and Amortization</td>
<td>1,754</td>
<td>1,690</td>
<td>1,640</td>
<td>1,568</td>
<td>1,573</td>
<td>1,616</td>
</tr>
<tr>
<td>Total Operating Expenses</td>
<td>18,886</td>
<td>18,491</td>
<td>17,920</td>
<td>18,076</td>
<td>17,601</td>
<td>17,465</td>
</tr>
<tr>
<td>OPERATING INCOME</td>
<td>13,427</td>
<td>11,774</td>
<td>10,469</td>
<td>7,766</td>
<td>6,661</td>
<td>5,839</td>
</tr>
<tr>
<td><strong>Interest and Other (Income) Expense:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest and Investment Income</td>
<td>(36)</td>
<td>(166)</td>
<td>(337)</td>
<td>-20</td>
<td>-13</td>
<td>-15</td>
</tr>
<tr>
<td>Interest Expense</td>
<td>972</td>
<td>919</td>
<td>830</td>
<td>632</td>
<td>606</td>
<td>530</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>-67</td>
<td>0</td>
<td>51</td>
</tr>
<tr>
<td>EARNINGS BEFORE INCOME TAXES</td>
<td>12,491</td>
<td>11,021</td>
<td>9,976</td>
<td>7,221</td>
<td>6,068</td>
<td>5,273</td>
</tr>
<tr>
<td>Provision for Income Taxes</td>
<td>4,534</td>
<td>4,012</td>
<td>3,631</td>
<td>2,686</td>
<td>2,185</td>
<td>1,935</td>
</tr>
<tr>
<td>NET EARNINGS</td>
<td>$7,957</td>
<td>$7,009</td>
<td>$6,345</td>
<td>$4,535</td>
<td>$3,883</td>
<td>$3,338</td>
</tr>
<tr>
<td>Weighted Average Common Shares</td>
<td>1,229</td>
<td>1,277</td>
<td>1,338</td>
<td>1,499</td>
<td>1,562</td>
<td>1,648</td>
</tr>
<tr>
<td>BASIC EARNINGS PER SHARE</td>
<td>$6.47</td>
<td>$5.49</td>
<td>$4.74</td>
<td>$3.03</td>
<td>$2.49</td>
<td>$2.03</td>
</tr>
<tr>
<td>Diluted Weighted Average Common Shares</td>
<td>1,234</td>
<td>1,283</td>
<td>1,346</td>
<td>1,511</td>
<td>1,570</td>
<td>1,658</td>
</tr>
<tr>
<td>DILUTED EARNINGS PER SHARE</td>
<td>$6.45</td>
<td>$5.46</td>
<td>$4.71</td>
<td>$3</td>
<td>$2.47</td>
<td>$2.02</td>
</tr>
<tr>
<td><strong>Consolidated Balance Sheets</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Current Assets:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash and Cash Equivalents</td>
<td>$2,538</td>
<td>$2,216</td>
<td>$1,723</td>
<td>$1,929</td>
<td>$2,494</td>
<td>$1,987</td>
</tr>
<tr>
<td>Receivables, net</td>
<td>2,029</td>
<td>1,890</td>
<td>1,484</td>
<td>1,398</td>
<td>1,395</td>
<td>1,245</td>
</tr>
<tr>
<td>Merchandise Inventories</td>
<td>12,549</td>
<td>11,809</td>
<td>11,079</td>
<td>11,057</td>
<td>10,710</td>
<td>10,325</td>
</tr>
<tr>
<td>Other Current Assets</td>
<td>608</td>
<td>569</td>
<td>1,016</td>
<td>895</td>
<td>773</td>
<td>963</td>
</tr>
<tr>
<td>Total Current Assets</td>
<td>17,724</td>
<td>16,484</td>
<td>15,302</td>
<td>15,279</td>
<td>15,372</td>
<td>15,420</td>
</tr>
<tr>
<td>Property and Equipment, at cost</td>
<td>40,426</td>
<td>39,266</td>
<td>38,513</td>
<td>39,064</td>
<td>38,491</td>
<td>38,975</td>
</tr>
<tr>
<td>Less Accumulated Depreciation and Amortization</td>
<td>18,512</td>
<td>17,075</td>
<td>15,793</td>
<td>15,716</td>
<td>14,422</td>
<td>14,527</td>
</tr>
<tr>
<td>Net Property and Equipment</td>
<td>21,914</td>
<td>22,191</td>
<td>22,720</td>
<td>23,348</td>
<td>24,069</td>
<td>24,448</td>
</tr>
<tr>
<td>Goodwill</td>
<td>2,093</td>
<td>2,102</td>
<td>1,353</td>
<td>1,289</td>
<td>1,170</td>
<td>1,120</td>
</tr>
<tr>
<td>Other Assets</td>
<td>1,235</td>
<td>1,196</td>
<td>571</td>
<td>602</td>
<td>473</td>
<td>430</td>
</tr>
<tr>
<td>Total Assets</td>
<td>42,966</td>
<td>41,973</td>
<td>39,946</td>
<td>40,518</td>
<td>41,084</td>
<td>40,518</td>
</tr>
<tr>
<td><strong>Current Liabilities:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Short-Term Debt</td>
<td>710</td>
<td>350</td>
<td>290</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Accounts Payable</td>
<td>7,000</td>
<td>6,565</td>
<td>5,807</td>
<td>5,797</td>
<td>5,376</td>
<td>4,856</td>
</tr>
<tr>
<td>Accrued Salaries and Related Expenses</td>
<td>1,484</td>
<td>1,515</td>
<td>1,391</td>
<td>1,428</td>
<td>1,414</td>
<td>1,372</td>
</tr>
<tr>
<td>Sales Taxes Payable</td>
<td>508</td>
<td>476</td>
<td>434</td>
<td>396</td>
<td>472</td>
<td>391</td>
</tr>
<tr>
<td>Deferred Revenue</td>
<td>1,669</td>
<td>1,566</td>
<td>1,468</td>
<td>1,337</td>
<td>1,270</td>
<td>1,147</td>
</tr>
<tr>
<td>Income Taxes Payable</td>
<td>25</td>
<td>34</td>
<td>35</td>
<td>12</td>
<td>22</td>
<td>23</td>
</tr>
<tr>
<td>Current Installments of Long-Term Debt</td>
<td>542</td>
<td>77</td>
<td>38</td>
<td>33</td>
<td>1,321</td>
<td>30</td>
</tr>
<tr>
<td>Other Accrued Expenses</td>
<td>2,195</td>
<td>1,941</td>
<td>1,806</td>
<td>1,746</td>
<td>1,587</td>
<td>1,557</td>
</tr>
<tr>
<td>Total Current Liabilities</td>
<td>14,133</td>
<td>12,524</td>
<td>11,269</td>
<td>10,749</td>
<td>11,462</td>
<td>9,376</td>
</tr>
<tr>
<td>Long-Term Debt, excluding current installments</td>
<td>22,349</td>
<td>20,789</td>
<td>16,869</td>
<td>14,691</td>
<td>9,475</td>
<td>10,758</td>
</tr>
<tr>
<td>Other Long-Term Liabilities</td>
<td>1,855</td>
<td>1,965</td>
<td>1,844</td>
<td>2,042</td>
<td>2,051</td>
<td>2,146</td>
</tr>
<tr>
<td>Deferred Income Taxes</td>
<td>296</td>
<td>379</td>
<td>642</td>
<td>514</td>
<td>319</td>
<td>340</td>
</tr>
<tr>
<td>Total Liabilities</td>
<td>38,633</td>
<td>35,657</td>
<td>30,624</td>
<td>27,996</td>
<td>23,307</td>
<td>22,620</td>
</tr>
<tr>
<td><strong>STOCKHOLDERS' EQUITY</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Common Stock, par value $0.05</td>
<td>88</td>
<td>88</td>
<td>88</td>
<td>88</td>
<td>88</td>
<td>87</td>
</tr>
<tr>
<td>Paid-In Capital</td>
<td>9,787</td>
<td>9,347</td>
<td>8,885</td>
<td>8,402</td>
<td>7,948</td>
<td>6,966</td>
</tr>
<tr>
<td>Retained Earnings</td>
<td>35,519</td>
<td>30,973</td>
<td>26,995</td>
<td>23,180</td>
<td>20,038</td>
<td>17,246</td>
</tr>
<tr>
<td>Accumulated Other Comprehensive Loss</td>
<td>(867)</td>
<td>(898)</td>
<td>-452</td>
<td>-46</td>
<td>397</td>
<td>293</td>
</tr>
<tr>
<td>Treasury Stock, at cost</td>
<td>(40,194)</td>
<td>(33,194)</td>
<td>-26,194</td>
<td>-19,194</td>
<td>-10,694</td>
<td>-6,694</td>
</tr>
<tr>
<td>Total Stockholders' Equity</td>
<td>4,333</td>
<td>6,316</td>
<td>9,322</td>
<td>12,522</td>
<td>17,777</td>
<td>17,898</td>
</tr>
<tr>
<td>Total Liabilities and Stockholders' Equity</td>
<td>$42,966</td>
<td>$41,973</td>
<td>$39,946</td>
<td>$40,518</td>
<td>$41,084</td>
<td>$40,518</td>
</tr>
<tr>
<td>Market capitalization at end of fiscal year</td>
<td>$163,331</td>
<td>$167,677</td>
<td>$138,332</td>
<td>$115,953</td>
<td>$92,477</td>
<td>$64,808</td>
</tr>
</tbody>
</table>
III. THE MEETING

The team reconvened in the conference room at 6:25 p.m. and examined the data while sampling the pizza brought in by Rich.

“Wow, what’s on this thing, asked Marisol?”

“Marinated kale, smoked pancetta, and Aleppo chili oil, said Rich. Best pizza in the city. I’m really relieved that I seem to have finally measured up to Marisol’s high standard of performance.”

“I think that everyone is equally relieved, said Lu. Now let’s talk about how we can move forward. Lou, would you like to start by briefing us on the data that you’ve collected?”

“I’d be glad to, said Lou. It is clear from briefly reviewing part I of each company’s 2016 10-K that Home Depot and Lowe’s are the top two competitors in the North American retail home improvement market. Neither company derives a material amount of revenue from activities unrelated to that market. As you can see from the table that I have provided you with (Table I), Home Depot had a total of 2,278 stores as of the end of fiscal 2016, while Lowe’s had 2,129. While the 112,000 average square footage of a Lowe’s branded store is comparable to the 104,000 average square footage of a Home Depot branded store, Lowe’s store estate includes 87 Orchard Hardware Stores on the U.S. west coast that average only about 36,000 square feet and 245 recently acquired RONA stores in Canada that vary in format. As you can also see from the table, Home Depot has about 237 million total square feet of retail selling space, compared to about 213 million for Lowe’s. A breakdown of the locations of Home Depot stores by U.S. state and by country can be found on page 13 of Home Depot’s 2016 10-K, while a similar chart for Lowe’s can be found on Lowe’s investor relations website.”

“But despite all these apparent similarities, according to the table Home Depot has a market capitalization over twice as high as Lowe’s, said Lu.”

“That’s correct, said Marisol. Our financial figures (Tables II and III) also show that Home Depot’s net earnings were more than twice as high as Lowe’s in fiscal 2016. It seems clear to me that we are going to need to go ahead with that comprehensive financial ratio analysis that we discussed earlier in order to sort this out. If no one objects, allow me to suggest an agenda for completing the analysis that I think will leave us well prepared for our presentation tomorrow.”

All of the team members nodded silently in agreement with Marisol’s agenda, which is summarized in the case questions that appear below.

IV. CASE QUESTIONS

1. Complete a horizontal analysis (percentage change analysis) for Lowe’s and Home Depot for the fiscal years 2012-2016.

2. Complete a vertical analysis (or common size analysis) for Lowe’s and Home Depot for the fiscal years 2012-2016.


You should include at least the following ratios, but you may include others also if you wish:

Efficiency Ratios: inventory turnover, fixed asset turnover, and total asset turnover

Debt Ratios: debt to equity ratio, interest coverage ratio, financial leverage multiplier

Profitability ratios: gross profit margin, operating profit margin, net profit margin, return on assets, return on equity, effective tax rate.
Market ratios: price to earnings ratio, price to book value ratio

4. Evaluate your findings in questions 1-3, and briefly discuss the most notable results. Focus on large and important differences between the two companies and large and important changes through time.

5. Recalculate the price to earnings and price to book value ratios for both firms using the market capitalizations as of April 5th, 2017 provided in Table I. Why do you think that the price to earnings ratios of the two firms are virtually the same, but Home Depot has a much higher price to book value ratio?

Hint: the price to book value ratio can be broken down as follows:

\[ \text{P/B} = \frac{P}{E} \times \frac{E}{B} = \frac{P}{E} \times \text{ROE} \]

Where \( P \) denotes market capitalization, \( E \) denotes the trailing year’s earnings, \( B \) denotes the book value of equity and \( \text{ROE} \) is the return on equity. Note that return on equity must be calculated with end of year equity for the above equation to hold exactly.

6. Break down the \( \text{ROE} \) for both firms in 2016 using the DuPont Analysis and then compute what Lowe’s \( \text{ROE} \) would be in the following circumstances, holding other things constant:

If Lowe’s had the same net profit margin as Home Depot

If Lowe’s had the same total asset turnover as Home Depot

If Lowe’s had the same financial leverage multiplier as Home Depot

7. Why does Lowe’s have a lower net profit margin and total asset turnover than Home Depot? Is there an opportunity for Lowe’s to improve its \( \text{ROE} \) by increasing its net profit margin and/or its total asset turnover? What particular actions could the firm take?

8. Could Lowe’s improve its \( \text{ROE} \) by increasing its financial leverage multiplier? Under what conditions would increased leverage increase \( \text{ROE} \)? Assuming that increasing the financial leverage multiplier does increase \( \text{ROE} \), can you think of any downside to Lowe’s increasing leverage?

REFERENCES


TEACHING NOTES

Using Financial Ratio Analysis to Evaluate the Relative Valuations of Close Competitors

This case is designed so that it could be used in a principles of finance course or a first course in business finance or financial management as well as in more advanced courses. Many first finance courses cover financial statement analysis and ratio analysis before time value of money, risk analysis, or discounted cash flow valuation, and the case does not assume those competencies.

The case lends itself to the use of Excel or another spreadsheet program. I have provided an Excel help file for instructors. The file also contains Excel sheets for the case tables that instructors may provide to students if they wish to save them time on collecting and entering data.

Case Questions and Suggested Solutions

1. Complete a horizontal analysis (percentage change analysis) for Lowe’s and Home Depot for the fiscal years 2012-2016.

Suggested solution:

Please see the Excel spreadsheet provided. The first three questions of the case should be useful to instructors who are trying to convince students of the need to master the basics of Excel.

2. Complete a vertical analysis (or common size analysis) for Lowe’s and Home Depot for the fiscal years 2012-2016.

Suggested solution:

Please see the Excel spreadsheet provided. I divide all income statement items by sales and all balance sheet items by total assets.

3. Complete a cross-sectional/time series ratio analysis of Lowe’s and Home Depot for the fiscal years 2012-2016. You should include at least the following ratios, but you may include others also if you wish:

Liquidity Ratios: current ratio and quick ratio

Efficiency Ratios: inventory turnover, fixed asset turnover, and total asset turnover

Debt Ratios: debt to equity ratio, interest coverage ratio, financial leverage multiplier

Profitability ratios: gross profit margin, operating profit margin, net profit margin, return on assets, return on equity, effective tax rate

Market ratios: price to earnings ratio, price to book value ratio

Suggested solution:

Please see the Excel spreadsheet provided. For ratios with an income statement item in the numerator and a balance sheet item in the denominator, such as return on equity, I use an average value for the balance sheet item.

4. Evaluate your findings in questions 1-3, and briefly discuss the most notable results. Focus on large and important differences between the two companies and large and important changes through time.

Suggested solution:

Following are my observations. Students or instructors may identify other items of interest.
Liquidity ratios: Both firms have increased short-term borrowing significantly in the last year, probably to fund increases in inventory. Home Depot holds more cash. The quick ratio for Lowe’s does appear to be low, but given the positive cash flow and access to credit markets enjoyed by the firm I don’t worry too much about this development.

Efficiency ratios: All ratios have improved for both firms over the period, most likely due to the pick-up in the housing market. Home depot’s edge in total asset turnover is driven partly by consistently higher inventory turnover. Home Depot holds a higher percentage of total assets in current assets while Lowe’s holds a higher percentage in non-current assets. Home Depot has significant receivables, probably due to their contractor business.

Debt ratios: Leverage for the two firms was comparable in 2012. Both firms increased leverage throughout the period but Home Depot brought its leverage up to a much higher level than Lowe’s did. Home Depot’s profitability and cash flow help it to support its higher leverage. Both companies have strong interest coverage ratios. While not apparent from the data presented in this case, Home Depot raised a lot of new debt to buy back stock over the period. As shown in Table I, both companies had investment grade credit ratings from Moody’s as of the end of 2016.

Profitability ratios: With the exception of the gross profit margin, Home Depot easily bests Lowe’s in margins and returns throughout the sample period. In my judgement, the area most worthy of further examination is selling, general, and administrative expenses as a percentage of sales, where Home Depot enjoyed a five-percentage point advantage in 2016. This is likely the result of operating leverage. One example of this is advertising expenditures. As shown in Table I, Lowe’s spent a bit more on advertising than Home Depot in fiscal 2016 despite having significantly lower sales. Another area worth examining is taxes. While taxes as a percentage of sales are higher for Home Depot, Lowe’s has a significantly higher effective tax rate as a percentage of pre-tax earnings in 2015 and 2016.

Market ratios: it is interesting that the P/E ratios of the firms are almost the same but that Home Depot has a much higher price to book ratio. This seems to indicate that the market judges the earnings of the two firms to be of equal “quality,” despite the fact that Home Depot gets more earnings out of every dollar of book value than Lowe’s does.

5. Recalculate the price to earnings and price to book value ratios for both firms using the market capitalizations as of April 5th, 2017. Why do you think that the price to earnings ratios of the two firms are virtually the same, but Home Depot has a much higher price to book value ratio?

Hint: the price to book value ratio can be broken down as follows:

\[ P/B = P/E \times \frac{E}{B} = P/E \times \text{ROE} \]

Where \( P \) denotes market value, \( E \) denotes earnings, \( B \) denotes the book value of equity and \( \text{ROE} \) is the return on equity. Note that return on equity must be calculated with end of year equity for the above equation to hold exactly.

Suggested solution:

Please see the Excel spreadsheet provided for the calculations. Home Depot has a higher P/B ratio than Lowe’s because it has a higher ROE. They generate more earnings for each dollar of book value.

6. Break down the ROE for both firms in 2016 using the DuPont Analysis and then compute what Lowe’s ROE would be in the following circumstances, holding other things constant:

If Lowe’s had the same net profit margin as Home Depot

If Lowe’s had the same total asset turnover as Home Depot

If Lowe’s had the same financial leverage multiplier as Home Depot

Suggested solution:
Please see the Excel spreadsheet provided. Note that I use end of year values for assets and book value of equity in my calculations. All three components of the DuPont analysis contribute to Home Depot’s higher ROE, but the FLM and the NPM contribute more than the TAT.

7. Why does Lowe’s have a lower net profit margin and total asset turnover than Home Depot? Is there an opportunity for Lowe’s to improve its ROE by increasing its net profit margin and/or its total asset turnover? What particular actions could the firm take?

Suggested solution:

This question could be answered on two levels. Just sticking with financial ratios, students should identify the measures that are causing Lowe’s to underperform. For instance, they should recognize that Lowe’s inferior net margin is not the result of an inferior gross margin, but instead comes from higher SG&A as a percentage of sales, a higher tax rate, and possibly other factors. Students could then go a little deeper to try come up with business reasons for these differences. For instance, does the high SG&A as a percentage of sales relative to Lowe’s appear to be due to bad management or to some structural advantage held by Home Depot that it would be hard for Lowe’s to overcome? The answer to the question of “why” will at least partly determine the answer to the question of “what” actions Lowe’s should take.

One business factor that analysts sometimes point to explain Home Depot’s superior results is the company’s advantage in selling to contractors. I am not an expert on the economics of home improvement retailing, but I have another, non-competing hypothesis. Home Depot seems to have a higher percentage of its retail square footage located in higher income, more densely populated states in the U.S. than Lowe’s does. This could contribute to Home Depot’s advantage in turnover and operating leverage. This hypothesis could be incorrect, but if it is correct and economically important then it limits the options open to Lowe’s management to close the margin and ROE gaps.

I think that the thought process is more important than the result for this question. The class might benefit from a post-case discussion of a sample of the insightful, plausible, and not so plausible answers offered for this question, without naming names.

Students should be reminded that they should not use any resources to research this question that were not available after the case date, which is April 5th, 2017.

8. Should Lowe’s try to improve its ROE by increasing its financial leverage multiplier? Under what conditions would increased leverage increase ROE? Assuming that increasing the financial leverage multiplier does increase ROE, can you think of any downside to Lowe’s increasing leverage?

Suggested solution:

Lowe’s could probably increase its ROE by increasing its FLM. One way to do this would be to borrow money to buy back stock, thereby substituting debt for equity. Alternatively, they could simply issue more debt. In either case, the increased leverage would increase interest expense and decrease the firm’s NPM. In the case of a debt for equity swap, the increase in the FLM would outweigh the decrease in the NPM as long as the firm’s basic earning power (operating income divided by total assets) after the capital structure change is greater than the interest rate paid on the new debt. In the case of issuing more debt and adding to assets, ROE would increase if the basic earning power of the new assets exceeded the interest rate on the new debt.

An increase in leverage would result in an increase in risk, so even if ROE increased there is no guarantee that an increase in leverage would increase Lowe’s stock price. One way to explain this is to argue that with higher leverage, the market might reduce its assessment of the “quality” of Lowe’s earnings, resulting in a lower P/E ratio. This case doesn’t assume that students have studied discounted cash flow valuation or risk analysis in any detail, but students should know that ROE does not take risk into account but that valuation ratios like P/E and P/B are affected by changes in risk.
Integration Between Product Portfolio Management And Ecodesign: A Theoretical Proposal

Daniel Jugend, São Paulo State University (UNESP), Brazil
Marco Antônio Paula Pinheiro, São Paulo State University (UNESP), Brazil

ABSTRACT

Although there are many studies concerning product portfolio management (PPM) and ecodesign, there are few investigations that analyze these areas in an integrated way. This article aims to propose a theoretical framework integrating ecodesign methods and tools in portfolio management during the product planning phase. For this, we use a systematic analysis of the literature. The framework developed and presented in this study proposes a set of practices associated with the dimensions guides, methods and tools, organization and strategy for the integration of ecodesign in PPM. We understand that the results of this article can influence the environmental performance and development of new products, as well as guide those interested in applying ecodesign practices still at the stage of decision making with regard to the product portfolio.

Keywords: Ecodesign; Environmentally sustainable products; Framework; Product portfolio; New product development.

1. INTRODUCTION

Patterns of consumption and production have exhibited significant changes over the last few decades. As the offer of products that seek to minimize impacts on the environment is increasingly valued, many consumers have sought to purchase products with less environmental impact (Ji et al., 2014). However, it is known that the development of environmentally sustainable products is challenging (Cluzel et al., 2016; Gouvinhas et al., 2016). In line with the trend for greater sustainability, many firms have developed new energy-efficient technologies, equipment and facilities, seeking less polluting sources of energy and implementing programs to ensure more optimal consumption of inputs.

In response to external regulatory factors, and consumer and stakeholder demand, many companies that develop products are adjusting their portfolios to incorporate improvements in their production processes, and thus present products, services, and the combination of more sustainable products and services (Vezzoli et al., 2012). Due to the relevance of sustainable product development, concern with climate and biodiversity issues, and consideration of environmental criteria, the idea generation phase and product portfolio management (PPM) can have positive results for the development of environmentally sustainable products, particularly given that late changes in projects can affect the performance of such processes, especially the total development costs (Boks, 2006; Jugend et al., 2017).

PPM represents an opportunity to improve environmental impact as it is at this point that there can be more possibilities of choice in terms of the projects that will be selected (Bocken et al., 2014; Boks, 2006) and their characteristics, such as initial definitions of the list of product projects and designs using materials with lower energy consumption, definitions of products that use inputs derived from fair trade, etc. As product portfolio management (PPM) also reflects strategic alignment, its activities can also influence environmental decision making concerning the products to be developed, maintained, and discontinued (Jugend et al., 2017; Simon et al., 2000).
At the same time, the literature has presented the possibility of integrating ecodesign in industry to guide product designers in applying the principles of environmentally sustainable development (Mazini & Vezolli, 2016; Sihvonen & Patanen, 2016); some authors indicate that few studies have analyzed these relationships, thus suggesting the need to expand research on the integration of ecodesign in the stages of product project selection (Brones et al., 2014; Brones; Carvalho, 2015; Carvalho & Rabechini, 2017). For example, Carvalho and Rabechini (2017) suggest that the bridge between project management and sustainability is still being built, and that bridging this gap requires processes, methods, and tools. Studies such as those of Rossi et al. (2016) and Silvius et al. (2017) suggest that there is a need for the expansion of research that develops specific frameworks and guides to support managers in their decision-making activities in the selection of projects for environmentally sustainable products.

This study aims to contribute to this theme by proposing a framework for the integration of ecodesign in PPM. With this objective, the article presents initially a brief theoretical review of the research themes. Subsequently, the methodological procedures adopted are presented. In the fourth section, the theoretical framework is presented and discussed. In conclusion, final considerations are outlined.

2. THEORETICAL REVIEW

The development of environmentally sustainable products has already been studied for some years (Jugend et al., 2017). Recent research (Brones et al., 2014; Rossi et al., 2016) has also highlighted that as environmental impacts are generated throughout the entire life cycle, it is relevant that the choice of product portfolio also considers environmental aspects (Brones & Carvalho, 2015; Tolonen et al., 2015). Specifically, portfolio management can favor the environmental sustainability of firms because it can represent the process responsible for making product choices that are aligned with organizational objectives. PPM tends to guide the decision-making process concerning the set of product projects of firms, directing which projects should be approved, prioritized, updated, or canceled, as well as the allocation of resources between them (Cooper et al., 1999).

There are several practices that can be used to support companies in GPP. In this regard, Jugend and Silva (2014) propose a framework that synthesizes management across various dimensions: (i) methods: comprising the adoption of methods and tools that can assist in portfolio decision making, such as financial tools, checklists, and scoring, among others; (ii) organization: focusing on aspects of leadership, team formation, and organizational structure to support portfolio decision making; (iii) strategy: entailing phases of strategic planning and deployment in new product projects, and their respective revisions to portfolio decisions. In a study on project development in industries with complex systems that are substantially linked to environmental impacts, Cluzel et al. (2016) propose a specific model for the generation and selection of project portfolios focused on eco-innovation.

Analyzing decision making in the development of environmentally sustainable products, many studies recommend the application of specific methods and tools of ecodesign (Bovea & Pérez-Belis, 2012; Brones & Carvalho, 2015) and life cycle assessment of products (Byggeth & Hochschörner, 2006; Fiksel, 2012), providing support for the incorporation of environmental sustainability in the project portfolio decision. Among the methods associated with ecodesign that can help managers in the selection of projects that meet environmental sustainability criteria are environmental quality function deployment (EQFD), the energy, material, and toxicity matrix, environmental failure mode effects analysis (E-FMEA), and the ecodesign checklist (Bovea & Pérez-Belis, 2012; Byggeth & Hochschörner, 2006; Knight & Jenkins, 2009). Cluzel et al. (2016) suggest the application of ecodesign methods from the idea generation phase, which may favor the front end of innovation, as well as the pre-development of products.

It is also known that there are limitations in the application of ecodesign tools due to external barriers, as well as those related to the competence and experience of companies and users in applying them (Ammenberg & Sundin, 2005). Among the barriers are the lack of perceived environmental benefits, technological constraints, the possible commercial disadvantage, the greater complexity associated with these projects, which tend to consume more development time, the greater need for information, and the greater uncertainty of results (Collado-Ruiz & Ostad-Ahmad-Ghorabi, 2013; Van Hemel & Cramer, 2002).
3. RESEARCH METHOD

For the purpose of constructing the proposed framework, a systematic review of the literature was carried out initially. The objectives were to identify, select, and evaluate publications that approach in an integrated way the themes studied. Thus, we researched articles that simultaneously integrated terms associated with "product portfolio management" and "ecodesign" in the ISI Web of Knowledge and Scopus databases. For this, the keywords that we used are presented in Figure 1.

**Figure 1. Keywords searched**

The first stage of selection was the choice of articles published in journals as we understood that such papers pass more rigorous evaluation criteria before publication than others (we did not include conferences paper). With the elimination of duplicate papers and conference papers, 54 publications were collated for analysis and classification. The abstracts of these 54 articles were read and the works that presented greater synergy with the theme of this research, that is, those related to PPM and eco-design, were selected, read in full, and used for the development of the framework. In addition, for the development of the framework we also considered books that deal with the themes.

4. Framework Proposal

For the theoretical development of the framework, the PPM proposal of Jugend and Silva (2014) was used, which, as already noted, synthesizes management across the following dimensions: Methods, Organization and Strategy. A similar structure was adopted in this article, but oriented to ecodesign applications in portfolio management. In this regard, it is known that ecodesign relates to many management practices; however, considering the objectives of this research, the proposed framework considered only those with the possibility of application in PPM.

The following paragraphs summarize each of these dimensions, preceded by summary tables. The first of these is "guides, methods, and tools," presented in Table 1.
Table 1. Dimension: Guides, Methods, and Tools

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Guides, Methods, and Tools</th>
<th>Applications</th>
<th>Examples</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Checklists, scoring, and ranking</td>
<td>This has the potential to verify if environmental parameters are considered in PPM. They can be useful in the selection and prioritization of product projects by employing predefined evaluation criteria.</td>
<td>Ecodesign checklist method.</td>
<td>Rossi et al. (2016); Knight and Jenkins (2009); Vezzoli and Sciama (2006); Byggetand and Hochschorner (2006)</td>
<td></td>
</tr>
<tr>
<td>Diagrams and matrices</td>
<td>These allow estimation of the potential for improvement in the environmental performance of the projects of evaluated products. They can provide forecasts related to the product life cycle.</td>
<td>Ecodesign strategy wheel, materials energy &amp; toxicity (MET) matrix.</td>
<td>Rossi et al. (2016); Knight and Jenkins (2009); Le Pochat et al. (2007); Byggeth and Hochschorner (2006)</td>
<td></td>
</tr>
</tbody>
</table>

As indicated in Table 1, the "guides, methods, and tools" dimension is formed by the grouping of guides, methods, and tools that can be used to incorporate ecodesign in PPM. For example, environmental checklists propose the classification of product projects by means of evaluations, usually binary (yes or no, for example). The scoring and ranking mechanisms establish environmental criteria and can be scored by the multifunctional team involved in the project under evaluation. The information derived from the application of these methods can guide the managers involved in the product portfolio decision making. Among the matrices, the MET matrix can be useful in the choice of products that are likely to have the least environmental impact throughout their life cycle. The adoption of guidelines, such as ISO 14062: 2002, can be used to support managers in determining the procedures that should be followed to facilitate the integration of environmental aspects in product project decisions. Table 2 shows the “organization” dimension.
Table 2. Dimension: Organization

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Organization</th>
<th>Applications</th>
<th>Examples</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integration with stakeholders</td>
<td>Receiving the opinions of different</td>
<td>Workshops to sensitize and receive ideas, opinions, suggestions regarding</td>
<td>Salem et al. (2016); Marcelino-Sádaba et al., (2015); Hoejmose et al.,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>stakeholders concerning product</td>
<td>environmental aspects of the different stakeholders of product projects.</td>
<td>(2012); Vezzoli et al., (2012)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>portfolio decisions.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td>Multifunctional team</td>
<td>Multifunctional teams involved in the new product development with a</td>
<td>Bocken et al. (2014); Jabbour et al. (2015)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A team with representatives of the</td>
<td>representative of the environmental area/function.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>different areas/departments,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>including the environment, related</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>to the information and suggestions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>received from the product planning</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>stage.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Provides management information,</td>
<td>Leader with technical knowledge in the environmental area and also</td>
<td>Prendeville et al. (2014); Petala et al., (2010); Borchardt (2010);</td>
<td></td>
</tr>
<tr>
<td></td>
<td>possibilities to other functions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>involved in the new product</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>development.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

With regard to the organizational dimension, integration with stakeholders can favor the quality of decision making concerning the product portfolio, since it has the potential to facilitate the integration of knowledge and information from different actors throughout the PPM-related decision-making process. From this perspective, the formation of multifunctional teams, as well as the inclusion of representatives from the environmental area, can be useful as environmental information can be transferred to the other functions and specialties involved in the new product development (NPD). Finally, Table 3 presents the “strategy” dimension.
Table 3. Dimension: Strategy

<table>
<thead>
<tr>
<th>Group</th>
<th>Dimension</th>
<th>Strategy</th>
<th>Applications</th>
<th>Examples</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strategy</td>
<td>Applications</td>
<td>Examples</td>
<td>References</td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td></td>
<td></td>
<td></td>
<td>Byggeth and Hochschorner (2006); Calantone et al. (2003); Simon et. al. (2000).</td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td></td>
<td></td>
<td></td>
<td>Borchardt (2010); Petala (2010).</td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td></td>
<td></td>
<td></td>
<td>Petala (2010).</td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This dimension highlights the importance of incorporating environmental and product life cycle aspects into product portfolio decisions from the perspective of strategic planning. In addition, for this dimension, it is recommended that formal mechanisms be adopted for periodic revisions to the portfolio, with the application of phase gates, the weightings of which also take into account the environmental impacts of product projects.

Finally, it is important to note that the framework proposed here is composed of three dimensions that overlap. Thus, it is expected that these practices will be applied interdependently. For example, strategic planning and portfolio review delineations may set prioritization for the development of green products, and the decision concerning which products to develop can come from the application of the methods and tools presented here and by a multifunctional team, with the participation of representatives from the area or the environment.

5. Final remarks

Although there are numerous publications on GPP and ecodesign, studies and proposals that integrate these two areas are not evident in the literature; thus, there is a need for the expansion of research that relates the areas of environmental sustainability and project management, as signaled by several recent works. In addition, it is also known that companies face difficulties in applying the mechanisms of ecodesign. In this regard, the proposal of this framework can contribute both to professionals involved in the fields of NPD and sustainability, and to researchers in these areas.

The framework presented in this article proposes a set of practices related to the dimensions of methods, organization, and strategy, and can guide interested parties in applying ecodesign practices in the planning phase, specifically at the time of product portfolio decision making. Thus, the results presented here may be useful for improving both environmental and NPD performance.

Among the theoretical implications, the proposed framework can serve as a starting point for new research that seeks to investigate ways of integrating ecodesign not only with portfolio management, but also with NPD. However, it is recognized that this work has several limitations. Among them, we would highlight that the framework has not yet been evaluated by professionals involved in the areas of NPD and environmental sustainability. In this regard, future research could improve this framework from a theoretical point of view, and also evaluate it from the perspective of professionals who are directly involved in NPD and environmental sustainability, and operate in different industrial sectors.
REFERENCES


Leadership To Turn A Once Low-Performing South African Primary School Around In A Challenging School Context: A Case Study
Trudie Steyn, University of South Africa, South Africa

ABSTRACT

This presentation outlines the findings of a case study in a South African primary school that explored how the leadership in the challenging school context succeeded to turn the school around under the leadership of the same principal. It used a qualitative approach to explore the experiences of the principal, the school management team (SMT) and teachers in improving the school's academic performance. The presentation argues that deprived factors in a community need not be a reason for leadership to creatively identify strategies to address its challenges. The findings showed that such an approach required a clear and shared vision, mission and beliefs, a system's approach to reculture the previous dysfunctional school culture and a collective approach that required monitoring and accountability. It concludes by suggesting that although the school challenging context remains an important factor, it is possible for leadership and staff to improve a school's performance by means of creative and innovative contextualized efforts.
Are Some Languages (Chinese) Really Harder To Learn Than Others (French, English)?
David Rosenstein, (retired), Ben-Gurion University, Israel

ABSTRACT
Objectively speaking, all modern spoken languages should be equally difficult (or easy) to learn, since all normal children learning their native languages do so at approximately the same rate and with the same competence, progressing from easy to more complex grammar and syntax in the same way. Why then, do some languages seem more difficult than others? Perhaps people are referring to the written language, where it may be true that mastering Chinese requires more time than French, which in turn requires more time than Spanish. But this may be marginal, since Chinese and French children quickly catch up to their Spanish peers in reading comprehension. Rather, the real differences in difficulty derive from two sources: hardened L1 language habits trying to cope with contrasting L2 habits; and unfamiliarity with unique L2 characteristics causing faulty expectations. It would seem that effective L2 teaching must take these two sources of difficulty into consideration, making effective teaching somewhat different for each given foreign language. Examples from Chinese are presented.
Non-Credentialed Teachers Ready For Day One...Can It Really Happen?: Developing New Teachers-In-Training Through An Innovative Prep Academy Partnership

Lisa Harrington, Fresno Unified School District, USA
Nichole Walsh, California State University, Fresno, USA

ABSTRACT

Research on new teachers suggests that those with limited to no preparation or support in their first year tend to leave the profession within the first year (Ingersoll, Merrill & May, 2014). Additionally, lower perceptions of efficacy for new teachers is associated with lower student academic performance and increased negative classroom behavior (Martin, Sass & Schmitt, 2012; Sakiz, Pape & Hoy, 2012). Currently, teacher retirements in the U.S. are on the rise; thus, many districts are left with the challenge of hiring non-credentialed teachers for their classrooms. This is especially true in urban and rural districts that have historically struggled to recruit quality teachers (Adamson & Darling-Hammond (2012; Berry, 2004; Brownell, Bishop & Sindelar, 2005; Buddin & Zamarro, 2009). Furthermore, shortages of qualified teachers in the disciplines of science and mathematics continue to plague U.S. secondary schools at a time when STEM education is at the forefront of district initiatives (ECS State Policy Database, 2017).

As scholars and practitioners in the area of teacher preparation and development, we recognize the need to appropriately equip these new non-credentialed teachers with the tools necessary to effectively support student learning and achievement on the first day of school, particularly in the area of classroom management and behavior supports. From the findings of two dissertations (Harrington, 2016; Walsh, 2015), and the lived experience of two principals with expertise in teacher preparation and development, and systems implementation, emerged a plan for developing a pre-service support program for non-credentialed teachers, The Teacher Prep Academy.

The proposed plan is intended to be a partnership between school districts that hire non-credentialed teacher candidates (Internships) and a public state university with roots as a Teacher’s College, located in the center of California’s San Joaquin Valley. Internships, known in California as a Provisional Internship Permit (PIP) and Short-term Staff Permit (STSP) candidates, are “new teachers” who often enter the classroom with little to no pre-service training. The Teacher Prep Academy has the potential to initiate a pre-service opportunity for PIPs and STSPs, to ensure they are provided training, frequent supervision and support for a positive impact on students from day one.

REFERENCES

Education Commission of the States (ECS) State Policy Database, retrieved October 23, 2017. [Listing of most recent approved State policies P12 and postsecondary to address teacher shortages in hard to staff subject areas]. Teaching Quality--Recruitment and Retention--High-Needs Subjects. Retrieved from

1 This abstract is part of a working paper.


A Study Of Teacher Education Programs For Preparedness In Classroom Management To Create Conditions For Student Learning

Lisa Harrington, Fresno Unified School District, USA

ABSTRACT

Educational policies over the past two decades have revealed the need for changes in the way teachers are recruited, trained and retained. While teachers are the most critical component to student learning, not all new teachers have entered the profession highly qualified, especially in the area of classroom management. Much effort on the part of school districts and institutions for higher learning (IHE’s), have paved the way to improve teacher preparation programs. Many programs today are alternative in nature and provide teacher candidates experiential learning (Kolb, 1984), in how to effectively create conditions for student learning. This study focuses on first year teachers from one such program, the Fresno Teacher Residency (FTRP) Program, a collaborative effort between Fresno Unified School District and California State University, Fresno and first year teachers trained through traditional 5th year university based credential programs (TPP). A three-group, three-measure, mixed-methods design was used to determine differences in preparedness for classroom management to create conditions for student learning between teachers of both programs. Through the use of an online survey, interviews, and classroom observations, the difference in perceptions between teacher groups and site administrators was examined and explored. Expected results show there is a difference between groups in perceptions of preparedness and the perceptions of their site administrators. Unexpected findings indicate mixed results between quantitative and qualitative measures for implementation of classroom management strategies and job satisfaction as measured between teacher groups and site administrators. These results lead to questions for further study.
Intellectual Disability And The Labour Market: Study Case “Education Program For Work – Trampolim”
Aline Fernanda Correia de Melo Brentegani, Senac São Paulo, Brazil

ABSTRACT

This article talks about the Education Program for Work - Trampolim, a course that aims to contribute to the inclusion of people with intellectual disabilities to their first job.

Being socially vulnerable is a preferable condition, once the content trains them to increase their ability to manage their own lives and to relate, favoring its living, income generation and insertion in the workplace.

The concept of intellectual disabilities and its main characteristics were discussed based on the methodology of Senac São Paulo during the one-year program.

Senac São Paulo created and offered this project since 2012. The classes are planned through lectures, practical activities, film screenings, observation of organizational practice and group work.

After an interview with the program's teachers, the results and improvement suggestions were presented about the 3-year project in the city of Santos.

Keywords: Special Learning, Intellectual Disabilities, New Methodology, The Labor Market, Professionalization
Determinants Of The Volatility Of Air Traffic Volume In US Airline Industry: Does Size Matter?
Fassil Fanta, Brenau University, USA
Scott Ertekin, Brenau University, USA

ABSTRACT

Due to the fact that the airline industry is most important part of our economy, the volatility of airline profits requires a special attention. In this paper, we look at major determinants of the volatility of air traffic demand (Revenue Passenger Miles) for small, medium, and large airports in the US. We hypothesize that factors such as business cycle, size of the airport, airline deregulation, competition, efficiency, and seasonality affect the volatility of demand for air travel. We construct a standardized RPM volatility index for low, medium, and high-ranking airports using GARCH (1, 1). We use Stock-Watson (DOLS) approaches to study dynamic relationship between the volatility of RPM and its explanatory variables.
Assessing Employers’ Needs Seeking Business Talent: A Theoretical Tool To Re-Calibrate Curricular Offerings
(An Extended Abstract)
José Castillo, The University of Arkansas at Pine Bluff, USA

ABSTRACT

Questions about the importance of theory vs practice regarding instruction in schools’/colleges’ business administration programs have been argued for some time now (Doh, 2005; Eastman, 2016; Garo, 2017; Ghoshal, 2005; Gorman, Hanlon, & King, 1997; Sharma, Hoy, Astrachan, & Koiranen, 2007). Indeed, a plethora of suggestions have been proffered over the years for higher education more broadly, and the latest to pose such a question are Ward and Grant (forthcoming). In the case of professor(s) Ward and Grant, the central question was; given the dizzying pace of technological change in all technology implementing enterprises, what needs to change so that marketing majors graduate with at least a modicum of desirable technical skills? Certainly, trying to keep up with every new computer technology would be a daunting task for even the nimblest of schools. So, the questions for schools/colleges of business administration are; what should classes focus on? Theory or practice, a balance of the two? Who and how should this instruction be provided? What level of depth and broadness of knowledge do employers find necessary? Sufficient? This paper offers a way to assess the skills businesses are seeking for particular jobs and the importance of each particular skill in the desired skill set.
Interviews Have Continuously Gained Popularity As Tools In Business And Leadership Qualitative Research

Walid Mohammad Masadeh, The Hashemite University, Jordan

ABSTRACT

An interview is an informal or formal face-to-face meeting, for the purpose of harvesting or collecting information through questions and answers; it is the primary technique for gathering information for a study or for research, employment among other reasons. This paper aims to examine, sort, explore, and decipher the research enthusiasm from most normally composed reports, regardless of whether in the private or area and the analysis of documents that contains information about interviews as tools in business and leadership qualitative research. The basic methodology used in this paper is the “documentary research method”. This research has as its objective, the investigation of the perspectives, encounters, convictions or potentially inspirations of people on particular issues. Subjective strategies, for example, interviews, are accepted to give a 'more profound' comprehension of social marvels than would be acquired from simply quantitative techniques, for example, surveys. Interviews are, in this manner, most fitting where little is as of now thought about the examination marvel or where itemized bits of knowledge are required from each participant. They are also especially suitable for investigating delicate subjects, where participants might not have any desire to discuss such issues in a gathering domain.

Keywords: Qualitative Research; Interview; Data Collection; Data Analysis

1. INTRODUCTION

The goal of a qualitative research is to gain a deeper understanding of an issue or event, its strength lies in order, and structure and pattern in field work, to generate first-hand information. Unlike quantitative research, this does not involve the manipulation of variables. Qualitative research therefore demands a qualitative interview. Patton (2002), p.341, describes qualitative interview as an interview that begins with the assumption that the opinion of others, consumers, shareholders, managers, leaders and stakeholders, is meaningful, knowable and could be made explicit through a systematic and comprehensive procedure p. 341. Generally, qualitative research interview is applied to support quantitative data, by generating detailed information or data through personal interviews. (Modell, 2007; Suttle, 2011).

In an inquiry on customers preference of payment method, a combined mixed approach, integrating the conversational style is necessary to find not only customers’ preferred method of paying bills, but also the positive or bad experiences of the customer that could help improve customer service. According to (Suttle, 2011), there are several key elements of qualitative business research which include focus groups, case studies and in-store observation, and each may require a different interview approach. Regardless of the nature of a study, business qualitative research, or in a leadership qualitative research, interviews must be well done, through rigor and the application of skill. Time must be taken to reflect on data in the analysis stage to discern what is relevant and what is not, and the methodology for analyzing data, just as in the proposed research must be thorough.

An interview is an informal or formal face-to-face meeting, for the purpose of harvesting or collecting information through questions and answers; it is the primary technique to gather information for a study or for research. Patton (2002) observed “that the very popularity of interviews may be its undoing as an inquiry method, because many interviews (e.g., television, radio and magazines) are badly conducted, which made the research method interviews to loose credibility. Patton emphasized the need for social science and business researchers to understand that it is their
responsibility to involve rigor and skill in research methods. He also emphasized the need to distinguish their methods from that of “talk show” hosts that have watered down the credibility of interviews. Therefore rigor and skill are the two key strategic elements in a well-done interview together with good knowledge of the differences between a business research, and leadership qualitative research (Creswell, 2003; Klenke, 2008; Modell, 2007; Patton, 2002). The application of rigor and skill can be demonstrated in the process of determining the nature of research or study being undertaken. It can be made possible by good knowledge of the differences between interviews in business research, and in leadership qualitative research so as to demonstrate clarity in the choice of interview approach suitable for a study. There are different methods of collecting interview data and depending on the type and nature of interview, personal or group, a researcher determines a convenient and safe method to collect data (Creswell, 2003; Klenke, 2008; Modell, 2007; Patton, 2002).

2. METHODOLOGY

The essential strategy utilized as a part of this paper is the "documentary research technique". Narrative strategy is the system used to order, examine, and translate the research enthusiasm from most generally written records whether in the private or open domain (G. Payne and J. Payne, 2004). As indicated by Bailey (1994), documentary research technique alludes to the examination of reports that contain data about the circumstance that scientists wish to think about. For this study, data were gathered from different distributed sources, e.g., government inquiry report, daily paper articles, and other distributed electronic media substance for which we will look at the Interviews as apparatuses in business and administration subjective research.

3. LITERATURE REVIEW

Three different ways of collecting interview data are: (a) tape recordings, (b) note taking, and (c) tape recording and note taking combined. In the first method, the interviewer tape records the entire interview, transcribes the recording word for word to obtain the text, which becomes the data to be analyzed. The second method is to tape record an interview and take notes at the same time. This method requires a replay of the recording later to review and compare information on the tape with information on the notes, to add what is missing on the note, from the tape record to the note. The third method is to take only detailed notes (Creswell, 2003; Klenke, 2008; Modell, 2007; Patton, 2002). There are advantages and disadvantage in using each method, and how the interviewer documents the contents of the conversation with the interviewee or respondent is a very important issue. This all depends on the type of interview named: personal (face to face), or group (face to face) or telephone (Boyd, 2006; Modell, 2007; Patton, 2002).

Recording may involve buying equipment and it is the most expensive method of collecting data, especially if combined with note taking. In places where electronic gadgets are not allowed, recording may not take place. Also, it may involve a setup time, and recording is best for a group interview where sometimes more than one person may be talking at the same time and there is the need to capture the whole conversation. However, recording and note taking at the same time might be better in order to capture all that is discussed during an interview. Writing or note taking can be hard for some people, especially when they are required to be writing fast. Someone who cannot write or write fast enough, should avoid using writing or note taking as a way of collecting interview data. The ability to write at a fast speed is essential, just like the ability to hear what is being said. Listening well is crucial and someone who has hearing difficulty may prefer tape recording to note taking only during an interview. The good thing is that he or she can go back and transcribe the tape to capture what they did not understand, hear or write during the interview. Note taking is not appropriate for someone with listening or writing deficiencies, and in that case, recording during the interview is recommended. Short interviews that do not require long conversations make note taking a better method in certain circumstances. At the same time, lengthy interviews may be too time consuming to listen to. For this reason, note taking of key facts might be better considering time (Craswell, 2003; Klenke, 2008; Modell, 2007; Patton, 2002).

3.1 Types and Approaches to Interviews

Collecting appropriate or suitable data from interviews involves a good knowledge of types or approaches to interviews and helps decide on the method for collecting interview data. There are four major approaches to interviews, which are: (a) the informal conversational, (b) interview guide, (c) standardized open-ended and (d) combined or
mixed approach. The type of interview somehow influences the method for collecting interview data. For that reason, a review of the types of interview is considered necessary in this paper (Klenke, 2008; Patton, 2002).

A. Informal Conversational Interview

The informal conversation usually consists of open-ended questions, and is also called unstructured. It offers a lot of flexibility for generating information from a given context or subject. This interview approach is recommended for field work or ethnographic interview. Sometimes, no predetermined questions are needed for field work due to uncertainty in an emergent field situation, and lack of knowledge of what will happen. In a fieldwork situation, for example, in a factory with very loud noise that could distort recording, a short interview is sufficient and note taking might be better than recording. Conversational interviews go with the flow, and the advantage is that it offers flexibility. However, it takes time to collect systematic information, which is dependent on the skills and effectiveness of the interviewer, as well as the lead questions and biases. Also, data gathered from the conversational interview can be difficult to collate and analyze since it contains many different questions and responses that require careful sifting through and sorting before a meaningful pattern can emerge (Boyd, 2006; Modell, 2007; Patton, 2002).

B. Interview Guide

Unlike conversational interviews, interview guide has a set of predetermined issues or subjects to be explored by a set of predetermined questions and is more structured than the conversational interview approach. Note taking and recording is most appropriate in this circumstance, in making sure that every conversation is captured about an issue of importance. The advantages of interview guide approach, is that it is focused on a subject or issue and saves time. Attention is focused on the crucial subject or issue, and deviations are limited. In addition, many people can be interviewed using this approach in a systematically comprehensive way. Researchers recommend this approach for group interviews, delphi panel interviews or election campaign interviews to focus on subjects or issues while allowing emergent subjects to be discussed (Boyd, 2006; Modell, 2007; Patton, 2002).

C. Standardized open-ended interview

This approach requires rigor and carefulness in wording the questions before the interview and is more structured than the interview guide approach. The standardized open-ended interview requires an orderly and consistent manner of asking the same questions. An example is the interview protocol before a dissertation proposal approval or the type of structured interview. The Institutional Review Board (IRB) may want to see for a controversial study that makes sure that participants rights are not breached, but protected. Advantages of Standardized open-ended interview approach are: (a) It ensures consistency and comparability across interviews in team research. For example, in multi-site studies or global studies. (b) It helps novices who have poor skills or knowledge of the subjects. For example, in a product market survey. In a chemical dependency program and product detail satisfaction or reaction interviews, this approach is appropriate and careful wording of each question is important to extract a reliable response (Modell, 2007; Patton, 2002).

The conversational and interview guide approaches allow greater flexibility in exploring individual preferences, unlike the standardized open-ended interview. In so doing, both (conversational and interview guide) approaches make up for the revelation of more information. Thus, they open up opportunities for more information to be gathered from participants. In contrast, the standardized approach does not permit the exploration of issues or subjects that were not previously anticipated or prepared for (Modell, 2007; Patton, 2002).

D. Combined or mixed approaches

Patton (2002), opined that these approaches discussed above though are in contrast, are not mutually exclusive. To make room for the pursuit of emergent relevant information not originally anticipated, a conversational approach can be integrated into an interview guide approach as a strategy. One way this can be done is using the interview guide approach at the beginning of the interview, and conversational style later.
4. METHODS FOR ANALYZING INTERVIEW DATA

Data from Interviews need to be analyzed before their outcome becomes lost in distant memory, because, as time passes, it becomes extremely difficult to reorganize information from an interview or reconstruct its meaning. Tape recording ought not be underestimated or turned into a reason to defer examination of interview data. A tape might be great at archiving genuine information that you can recover by tuning in to it at a later time, in any case, a lot of understanding originates from the setting of the interview. Likewise, a great deal of understanding originates from a scope of signs that are basically not caught on tape. All the more essentially, the snapshots of motivation and clearness that you may experience amid an interview are not liable to be reproduced when you tune in to a tape weeks or months after the event. The procedure of drawing information from tape accounts later, has the unpreventable inconvenience of compelling you to listen to the entire tape, and most likely more than once. This implies that an interview that kept going three hours will take an additional three hours (or more) to listen to later on and that doubles the real time spent on hands on work (Boyd, 2006, Patton, 2002, Rsmas.miami.edu, 2000).

There are four methods for analyzing interview data, which are (a) data condensation, (b) meaning categorization, (c) narrative structuring, (d) meaning interpretation, and generating meaning through ad hoc methods. The method of analyzing data is specifically described as the method of beginning with coding information, discovering designs, marking subjects, and creating classification frameworks, which are a series of rigorous interconnected steps for finding and interpreting meaning (Cooper & Schindler, 2008; Klenke, 2008; Patton, 2002).

4.1 Data Condensation

Data condensation or coding data is a process determining what things, ideas, statements fit together and what is significant. In a complex analysis, it is important to simplify and make sense of the complex raw field notes. This can be done by developing a manageable coding scheme or a classification and would be the first step of the analysis (Patton, 2002).

4.2 Meaning Categorization

Meaning categorization involves looking for recurring patterns in the data that fall within the same category after figuring out which things fit together and are relevant to the study. Items not relevant are weeded out. To effectively do so, it involves looking for the extent to which data holds together in a meaningful way called internal homogeneity (Boyd, 2006; Patton, 2008).

4.3 Narrative Structuring

The method of narrative structuring involves labeling and linking patterns to existing knowledge, theories or concepts that further clarify meaning and understanding, and determining the substantive significance (Klenke, 2008; Modell, 2007; Patton, 2008).

4.3 Meaning Interpretation and Generating Meaning Through Ad hoc Methods

This method involves elucidating or revealing the meaning by asking the questions “What does this mean?”, or “What does it tell about the phenomenon of interest?” (Patton, 2008) Using interview data to determine cause and effects as well as influences comes under meaning interpretation. Meaning interpretation involves establishing bases for comparison, causes, consequences, relationships, and linking them to theories to either confirm or mitigate theoretical assertions. Linkage could be to a theory- base, such as phenomenological, grounded theory and comparative. The phenomenological analysis aims at understanding the meaning, structure, and essence of a lived experience of a person or group (Boyd, 2006; Modell, 2007; Patton, 2002). The grounded theory involves well-developed categories, themes, concepts that are systematically related to logical statements of relationships for a theoretical framework in social studies. It could be used as a linkage to analyze interview data. Qualitative comparative analysis of interview data could be done by systematically comparing statements from interview participants or respondents to find a pattern or reason. (Modell, 2007; Patton, 2002) These methods of analyzing data usually involve the rigorous process of coding and a selective and directed categorization of data based on concepts of interest (Anderson & Svendsen; 2005).
5. MODERN TECHNIQUES IN DATA COLLECTION

Interviews are one of the most dominant methods for collecting data for qualitative research. In the past, classical or traditional interviews were the most common and face-to-face interaction was very common and known as the “standard” type of interview. However, in the recent years due to growth in technology, new methods have proved to be very effective when it comes to collecting data. Some examples of modern techniques used in data collection are methods used by telephone, internet, email-interviewing, instant messaging interviewing, online forums and focus groups, and social media as well as voice over internet protocol or VOIP (Redlich-Amirav, 2014).

5.1 Data Collection Through Telephone Interviewing

Some of the most important features in collecting data by using telephone interviewing is that it helps to minimize disadvantages face-to-face interviewing may cause, helps to create a positive bond between the researcher and the participant, it helps to make improvements in the data collection quality. It also allows the researcher to have more flexibility which is useful in many cases where researchers have a busy schedule or do not have time to have a stable setting to conduct the interview. For example, if the researcher gets interrupted by their environment while conducting the interview, they can easily change rooms whereas, in a traditional face-to-face interview, it is difficult in most cases to change their setting (Musslewhite, 2007). Some possible disadvantages of this method would be that it may be challenging to maintain involvement in participation, maintain a clear and understanding communication, interviewing participants with unnoticeable health concerns, or communication with a third party as well. As long as researchers realize the positives and negatives to this method, telephone interviews can be best effective (Musslewhite, 2007).

5.2 Data Collection Through Internet Use

The internet is a more recent form of technology so it was not until more recently, that researchers were actually able to use this method as a source of data collection. It is also becoming used more frequently as a reliable source for literature as well as secondary data in research for social science, and even for creating experiments and surveys. Of course, it requires a researcher who is skilled and knows where to find reliable and accredited sources and that is why a skilled professional should be chosen for this method of data collection. Different types of ways for collecting data do not only include research through database methods but also through surveys, questionnaire all of which make data collection much simpler than several real-life methods. Social media is a part of the internet often used by researchers to gather data from specific individuals based on their social media profiles which are often very useful depending on the type of information the researcher is seeking (Redlich-Amirav, 2014).

The benefits of this method are that it has a larger sample size, more sample diversity, easy and convenient access with a decrease in costs and an increase in efficiency. Disadvantages of this method include the possibility of losing internet connection, the risk of losing data due to technical issues or due to running out of power, the risk of viruses, information and hardware may not always be user friendly which may cause difficulty for some researchers, and the chance of data being misused or stolen; these disadvantages are possibilities which all researchers need to keep in mind in order to prevent them from occurring (Amirav, 2014).

Two main categories for several internet platforms which may be used for collecting data include asynchronous communication as well as synchronous communication. Asynchronous communication is a form of communication that include both blogs and e-mails where participants can communicate at their own convenience while synchronous communication includes instant messaging and chat rooms and happens in real time and participants expect more immediate responses. Internet interviews can be asynchronous or synchronous as well as public or semi-private interviewing. However, email and instant messages are the most commonly used types of internet interviewing (Redlich-Amirav, 2014).

5.3 Data Collection Through Emailing

Using emailing for interviewing is an asynchronous method and is also considered to be semi-private. This method is proved to be most successful when both the researcher or interviewer and participant agree on this method and are both comfortable with communicating this way. Some researchers prefer to be able to hear or visualize their participant
to better collect data and may not be comfortable with emailing them due to that reason. The same goes for participants who prefer communicating in a way they can express themselves more, for example, through facial expressions or body language. The advantage of email interviewing is mainly due to the fact that members can communicate despite long distance, time differences, or the possibility that members prefer being anonymous for personal reasons (Redlich-Amirav, 2014).

5.4 Data Collection Through Instant Messaging

Collecting data through instant messaging is used for interviews and provides features which help researchers. The benefits of instant messaging in interviewing is that it is synchronous and also semi-private where information is more automatic and can also be easily recorded and easily referred to later on. Instant messaging has the ad hoc method which allows both researchers and participants to feel closer in communicating as oral interviews would feel like. Members get to express themselves well, get their point across through writing but also engage in communication with a quick response (Redlich-Amirav, 2014).

5.5 Data Collection Through Forums and Online Focus Groups

An example of how researchers may use forums and online focus groups is through groups which are organized that discuss certain topics. The data they produce is monitored and can be recorded for the researcher to refer to. They are both synchronous and asynchronous in nature but asynchronous forum methods were found to be safer, easily observable, more efficient, and easily accessible for participants compared to synchronous forums (Tates, 2009). In short, forums and online focus groups offer great opportunities for collecting data from users globally, experiences and views are easily and effectively articulated by participants whom may be impossible to achieve in other group settings due to unavailable distance, time, or resources (Redlich-Amirav, 2014).

5.6 Data Collection Through Social Media and Voice Over Internet Protocol or VOIP

Collecting data using both social media and VOIP are recently common especially in the form of interviewing. VOIP is a type of technology that allows users to make actual voice calls similar to telephone communication but it requires an internet connection or a phone line. It is often a preferred alternative than face-to-face interviewing because it seems to be more efficient. Examples of commonly used technologies which can help provide synchronous interaction are by these researchers include Facebook for both instant messaging and messaging and posting or sharing data, Skype for video conferences and interviews as well as instant messaging and Twitter which can be used for sending messages and sharing information. Researchers can keep the record of both audio and visual data which is extremely important for data collecting. VOIP is a new method which can also be used for allowing the visual aspect of interviewing so participants can still be able to express themselves on video. (Voice over Internet Protocol (VoIP), n.d)

Advantages include low cost or free of cost use, the visual aspect in interviewing, synchronous use which is instant and efficient. Disadvantages include the chance of poor quality in the video interview, poor connection to the internet, technical issues, and differences in time zones for participants (Redlich-Amirav, 2014).

5.7 Advantages and Disadvantages of Modern Technologies in Data collection

There are both advantages and disadvantages when it comes to using various forms of modern technology in collecting data. Advantages that has to do with most modern technology mentioned would be that it is completely free or very low expenses, high quality in video and audio is available, participants can participate despite geographical differences and can interact globally, less time is required for gathering data, for example, through VOIP interviews. Flexibility is also a huge advantage for researchers and participants as the use of such technology can provide great flexibility. Relationships formed online can become stronger and personnel within a short period of time, feel more connected, and data in form of text, visual, audio can be easily shared and information can quickly be gathered for researchers (Redlich-Amirav, 2014).

Disadvantages include the possibility of internet slowing down or other technical issues which may disrupt the process of collecting data or interview, reduction in quality due to a large number of participants, all of which may lead to a
loss of data. Some participants may also not know enough about technology to cooperate with researchers; this may lead to confusion and slow down processes. A greater disadvantage is the possible threat of security of data which may be stolen or hacked and a large amount of data may be lost (Redlich-Amirav, 2014).

5.8 How Technology Continues to Change The Methods Used for Data Collection

As the years go by, advances in technology continue to expand which is why it is important for researchers to continue to keep up with and change the way they collect data. Whether by social media to easily connect with participants, Smartphone’s and devices used for easy interviewing, or VOIP for video interviewing, technology helped to ease the process of collecting data and should also continue to do so with time. It may come to a point in the future where traditional interviews are no longer needed or collecting data through easier methods would be more preferred (Redlich-Amirav, 2014).

An example of why technology will need to be used more in the future is the fact that it has been found that the skills gap is growing when it comes to hiring employees. Also, 40 percent of global recruiters have found difficulty in finding the right employees. Due to this, recruiters will need to work harder in recruiting qualified employees and the most effective way has proved to be the use of modern technology (Redlich-Amirav, 2014).

Researchers have also found that voice analytics will be more useful in the future as recruiters who heard the pitch of a candidate’s voice rather than simply read their words, have found them more interesting and would more likely hire them. It seems that companies will continue to come up with innovative ways to collect data whether through creating new software, apps, or algorithms to find the proper people they are seeking. More proof that technology will continue to change the way data is collected is through the internet. According to research, about 26 billion Internet of Things or IoT devices will be available just by the year 2020. Due to this evidence, it is easy to predict the advantages the technology will provide for researchers and collecting data (Tolan, 2013).

6.1 Choice of Data Collection and Reasons

Interviews aimed at decision makers or company executives on their eagerness to transit to IFRS because readiness of embracing the IFRS in the U.S. is poor and not encouraging. The readiness or eagerness to transition is the dependent variable, and the independent variables for which data will be collected are: (a) anticipated government actions in the form of incentives, (b) education and training on benefits and mandates, (c) interview responses from company executives on transition cost, (c) savings or benefits, and (d) compliance. The data collected from interviews as qualitative data used to support quantitative data or confirm findings from the quantitative data analysis as in other studies (Forgaty, 2008, Haina, 2008, Half, 2009).

Telephone and face-to-face interviews will both be conducted. Distant or far companies will have their chief executives interviewed by phone, and face-to-face interviews will be conducted for those that are near. In addition, the recording will be done to capture the essence of the interview and for reflection and determination of patterns and meaning-making (Modell, 2007; Patton, 2002).

The survey used to collect qualitative data for the quantitative analysis. Quantitative data will be in the form of company characteristics, size, industry type, global presence, etc., they faced obstacle on leadership, to determine variations. To find the most influential obstacle to IFRS transition, respondents or participants will be asked to rank influential factors as in the table below. An example of the question is “Please, rank the following factors from 1-5, 1 being the least influential obstacle, 5 being the most influential obstacle”. Example of factors is transition cost, preference for GAAP, no knowledge about IFRS, not involved in international business. This factor can also be broken down into predictor variables to gather more detailed information from the survey. For example, the cost could be broken down into predictor variables, such as training costs, software, and materials cost, and transition time (Cooper & Schinder, 2008, Half, 2009; Haina, 2008, Patton, 2002, Gaffikin, 2007).
6.2 Choice of Data Analysis and Reasons

The choice of a mixed method (qualitative and quantitative) approach to data analysis is influenced by the views of Bonner, Stede, & Young (2006), Gaffikin (2007), Jayne (2010) and Parker (2007) that topics should be dominated by the objective ontology. Bonner, Gaffikin, and Parker (2007) in a survey of leading accounting journals, for instance, found that many articles are based on economic and positive accounting theory. In recognition of that fact, Jayne (2010) too concluded that scientific and quantitative approach is fitting to the disclosure, clarification, and speculation of accounting phenomena. Jayne further stated that accounting hypotheses are better when statistically tested to produce generalized findings.

Quantitative studies are not subjective unlike qualitative studies and since a qualitative approach, for instance, have been recommended for accounting studies; however, due to the nature of the study, the fact that it involves decision-making, the qualitative interview approach will be integrated. This will be done to gain a deep understanding of human behavior toward the occurrence of an event and how company executives anticipate the impact of that event on the financial and accounting world for instance.

On the one hand, the qualitative approach as an interpretative technique is used to describe, decode, translate, and understand the meaning behind individual reluctance. The quantitative approach will also be used to gain a precise measurement of a company behavior, knowledge opinion and attitude toward change, across the board, for which a survey is a dominant tool (Cooper & Schindler, 2008; Gaffikin, 2007; Jayne, 2010, Patton, 2002)

7. SUMMARY & CONCLUSION

The reason for the research interview is to investigate the perspectives, encounters, convictions or potentially inspirations of individuals on particular issues. Qualitative methods, for example, interviews, are accepted as a means to a 'more profound' comprehension of social phenomena that would be acquired from simply quantitative techniques, such as questionnaires. Interviews are, along these lines, most fitting where little is now thought about the study phenomena or where definite experiences are required from each participant. They are likewise especially fitting for investigating delicate topics, where participants might not have any desire to discuss such issues in a group domain. The researcher who wants to use the interview method should identify exactly which interview methodology he or she will use, the sample, the questions, interviewer who will make the interview. All these details will help the researcher to have a great interview which in the end will prove him with all the information requested for his research.

The choice of suitable data collection techniques ought to be founded on the examination questions, outline, test, and the conceivable information sources. The procedure utilized for data collection should assemble information that will permit the research questions to be answered, consider the attributes of the specimen, and give data that is connected to each planned learning outcome. Some regular data accumulation techniques incorporate perceptions, interviews, focus groups, reviews, and the utilization of alternative data, for example, test scores.

Conducting interviews can, in one way, be organized, with questions arranged and exhibited to every interviewee in an indistinguishable manner, utilizing a strict predetermined order. In other ways, interviews can be totally unstructured, similar to a free-streaming discussion. Qualitative researchers typically utilize "semi-organized" interviews which include various open-ended questions in light of the point zones that the analyst needs to cover. The open-ended nature of the questions provided, characterizes the topic under scrutiny, however, gives chances to both the interviewer and interviewee to talk about a few subjects in more detail. In the event that the interviewee experiences issues following a question, or gives just a short reaction, the interviewer can utilize signs or prompts to urge the interviewee to consider the questions further. In a semi-organized interview, the interviewer likewise has the opportunity to test the interviewee to expand on a unique reaction or to take after a line of inquiry presented by the interviewee.

REFERENCES


The Future of Work;
A Synthesis of The Literature

Fernando Gutierrez, University of The Incarnate Word, USA

ABSTRACT

A 2016 survey conducted by UpWork indicated of the 160 million active people in the U.S. workforce, 55 million are working at a mixture of freelance and full-time jobs (UpWork). An Intuit research analysis, 2006, suggested Gen Y (people born from 1980-2000) will make up most of the workforce and cause a generational shift of traditions by working in offices “they never set foot in.” In alignment with this indication, the rise of the freelance economy has seen a shift in labor trends when it comes to recruitment and hiring whereas more regular job positions are removed to make way for alternative and contingent positions. This study highlights these trends, synthesizes the literature and provides a view of best practices for the individual through the use of three commonly accepted strategic planning tools: Porter’s generic strategies, value propositions, and value chain analysis.

Keywords: Freelance; Contingent Workforce; Self-Employed; Contractor; Side Job; Side Hustle; Gig; Gigging; Small Business

THE FUTURE OF WORK

The Freelancers Union began conducting surveys of its registered members and the 2016 survey resulted in the largest to-date. The data highlighted the fact that the majority of the U.S. workforce accepted freelance work by a remarkable margin. The results indicated one in three workers in the U.S. is participating in the freelance economy. The survey highlighted of the 160 million people who are active in the U.S. workforce, 55 million are working a mixture of freelance and full-time jobs. In 2006 an Intuit research analysis suggested the Gen Y (people born from 1980-2000) will make up most of the workforce by 2020 and cause a generational shift of traditions by working for a company “they may never set foot in” (Intuit, 2006). In alignment with this indication, the rise of the freelance economy shifted in labor trends when it comes to recruitment and hiring. Pew, 2016, identified nearly one in 10 employees are already independent of an employer and predicted that that number will rise as technology blurs the geographical barriers of time and space.

Initially referred to as alternative employment, non-permanent workers are described as independent contractors or self-employed by the IRS, and as contingent, freelance, or gigging by other timely organizations. Regardless of the nomenclature, the workforce appears to be catching up with the Internet-of-Things, and online work platforms are demanding attention from an economy that is not prepared for it. Internet sites like UpWork, TaskRabbit, and LinkedIn are providing a talent pool in the millions that was previously limited because of geographic constraints. Katz and Krueger (2016) provided a stark revelation of this trend in a 2016 report conducted by RAND indicating the total net increase in all jobs between 2005 and 2015 was attributed to freelance work, while regular jobs fell by 0.3 percent over that decade. This highlights the trend toward a future workforce made up of freelance or contracted workers. Are participants of the U.S. labor force prepared for a contingent workforce?

BACKGROUND

The Freelancers Union (2017) released a survey highlighting the labor market’s progression toward gigging. Gigging refers to freelancers, independent contractors, consultants and pay-per-job employees. This type of worker is expected to make up more than 40% of the labor force by 2025. With an economic impact reaching 1 trillion dollars, this subset of labor participation does not appear to be slowing its exponential growth (UpWork, 2017)
Information about the growth of freelancing merits recognition, but the Internal Revenue Service (IRS) and the Bureau of Labor Statistics (BLS) have published conflicting statistics. The IRS has shown a continuous increase in self-employment earnings filed by self-employed persons over the last 12 years (IRS, 2015). Contrary to the IRS data, the BLS has recorded a dramatic fall in self-employed persons from 2001 to 2011 (BLS, 2017). These two areas of consideration lead to this conflicting information.

The IRS and BLS have different definitions of the term self-employed. The IRS for example, posits a self-employed individual as a person earning more than $400 who is required to submit a Form 1040 U.S. Individual Income Tax Return for net income above the $400 threshold (IRS, 2015). This means that the monies earned from any source, full time or not, will be labeled as self-employed income if that person is filing it as so. The BLS’s definition for self-employed is starkly different in that it asks working people to identify where their primary source of income derives from. This means that people working both a full-time job and earning income from side gigs may consider themselves as employed but not self-employed.

The differences of definition are understandable, but what does it mean for the U.S. workforce? This question is the premise for this case study; an explanation of the freelance or gig economy and what it means for the individual. If data show fewer employed persons that consider themselves self-employed and at the same time a rise in self-employment income, then a considered paradigm would be a larger amount of employed people with either part-time jobs or side gigs. In short, it would indicate a movement toward a freelance workforce among the U.S. labor force.

**An Individual Problem**

The research highlighted in the introduction of this case study gives remarkable information about the future of the workforce. However, what is not evident is how this trend will affect individuals who are not prepared for this scenario. What can individuals expect and how can they succeed in this future work paradigm?

In an effort to lay out best business practices for preparation, with focus on the individual as the value in the freelance economy, applications for small business success are taken into consideration. Commonly referred as the backbone of the American economy, small business provides a multitude of best practices which serve as litmus tests for individuals navigating the freelance workforce. The IRS helps to highlight the freelancer as a person who “on a trade or business as a sole proprietor or an independent contractor and is required to file an annual return and pay tax; a member of a partnership; or in business for yourself” (IRS, form 1040). This definition closely resembles the commonly accepted concept of the freelancer - a person carrying on a trade or business and required to file an annual return and pay tax.

**Tools for Success.** Understanding similarities of a small business and a freelancer helps to define the resources required for success. Three commonly accepted business tools will be used to outline strategies for the individual in the future of work: Porter’s generic strategies, value propositions and value chain analysis.

**Generic Strategies.** In his 1985 book, “Competitive Advantage: Creating and Sustaining Superior Performance”, Michael Porter describes three generic strategies as cost leadership, differentiation, and focus (Porter, 1985). When weighed against economies of scale, by nature, small business strategies do not rely on cost leadership. Simply put, a small business will lose a race to the bottom on price against any big-box retailer store. However, this option creates an advantage for an individual freelancer through reduced overhead costs while providing an eclectic service or product. Big-box companies require more resources associated with their breadth of market reach; in turn, creating more costs. In this scenario its evident how the competitive advantage of cost leadership can favor the freelancer. Their ability to run lean operations with minimal resources allows for prices on work compared to that of the larger competitors.

Differentiation-providing services or products that are markedly different and more attractive than what is readily available-is difficult for a small business but not impractical. In a market dominated by big-box stores, small businesses need not to mimic their competitors. The big-box tactic of broad and cheap may work for household staples but the demand for unique and local products still have a place in the market. Thus, the differentiation strategy may be the best tool for the individual.
Speaking of niche services and products, the third competitive advantage proposed by the literature is focus. The onslaught of advertising by big-box competitors does not have to be a threat to the individual if faced strategically. Porter asserted that advertising helps with creating a consumer's set of choices within a market and convincing is what makes the consumer pick ‘your’ product or service (Strategy, 2007, 04). Advertising and marketing efforts are twofold: They help a consumer realize a set of choices and ask them to pick from that set. For any business aiming to gain market share, advertising campaigns can be a costly strategy with little payoff. However, as a strategic tool for the individual, advertising and marketing from competitors can be leveraged as product and services information. A great example of this strategic move is when a customer browses store isles but opts to purchase items online at a discount.

The third generic strategy described by Porter is Focus—one that serves a niche market. Niche markets demand the best service at the lowest possible price; making cost leadership and differentiation just as applicable in a niche segment as in a broad one. Businesses, especially small businesses, operate in concentrated markets, but the freelancer does not require the niche strategy. Nimbleness and a lesser reliance on resources give the freelancer freedom of movement between market segments.

A freelance coder is a good example of this. The market need for coding and script writing is rapidly growing in response of trends toward the Internet-of-Things. These trends and demand are resulting in a need for more coders. However, coding is a service that is, usually, intermittently needed by most companies and companies can lower cost by contracting it out. Applying this notion to a freelance coder: Her service has a perceived value created by the advertising and marketing of the coding industry leaders, but her cost and availability make her a better option. Differentiation of availability and nimbleness put the freelancer at a competitive advantage over small businesses.

Using the example of the freelance coder; she can complete a virtual project with an American delicatessen and at the same time be part of a team project servicing, virtually, as a website consultant to a European café. The ability to serve two niche markets in different geographical locations gives the freelancer a stark advantage over a small business located in either.

Values Proposition. As important as strategy may be for the individual, it does not eliminate the need for value. Strategy only works when weighed against the demand for a product or service (Porter, 1985); hence, the need for value proposition of value-added activities. Small businesses are formed as a direct response to an unmet market demand and that should also be the purpose of the freelancer. As the U.S. job market trends toward a contingent workforce, freelancers need to be able to respond accordingly. If predictions of the future of work hold true, then we can expect regular job positions to shift. The HR department, for example has a purpose that will inevitably react to future employment paradigm that find some of its services redundant. However, redundancy can be advantageous to would-be HR freelancers. A human-resource information systems administrator, for example, has a highly skilled function that can be leveraged in the gig economy. If she decides to branch out as an independent contractor who no longer works for a single company and begins offering her skills to the open market; she will increase her value proposition. In the HR department she was assigned to one role and was compensated accordingly. In the gig market she can highlight individual functions from that role and create value from each of those functions. Each of those functions now operates as a value proposition for would-be customers. Where she was once an HRIS administrator, she is now a HRIT specialist, systems administrator, and data analyst; all functions of her previous role. As part of the strategic planning process, a realized value proposition markedly assists the would-be freelancer in identifying customers, markets, and niche segments by matching single valued added functions to market demand.

Value Chain Analysis and The Future. Consistent with the aforementioned example, a would-be freelancer still requires development to become or remain competitive. As with the HR information-systems administrator role within a specific company, development is an ongoing process. Conducting a value chain analysis on each role function to realize value would help the would-be freelancer identify personal areas of opportunity. As stated by Michael Porter in Competitive Advantage, a value chain is a set of performed tasks meant to deliver value in a market (1985). In the case of the HRIS administrator, one of the activities required may be records processing and data entry. Looked at from a value chain analysis perspective, it would appear that forms template designing is one of the functions of records processing. That single activity, forms template design, has value of its own. Offering this one activity helps to increase the freelancer’s value proposition – a function that may not have been realized without a proper value chain analysis.

© Copyright by author(s) 200-3 The Clute Institute
CONCLUSION OF LITERATURE SYNTHESIS

As other factors contributed to the large increase in the incidence of gig work and alternative work arrangements for American workers from 2005 to 2015, data posits a continuous trend. This case study provides an initial evaluation of the future-work trend; however, the need for empirical research among other countries should be highlighted. Research based on the effects of this trend, as it relates to the individual, is recommended to help prepare would-be contingent workers for the trending change. The market for contingent workers or hyper-flexible small businesses and the upward trend of acceptance provides advantages for individuals in, or looking to join, the freelance economy. Using commonly accepted and available tools like Porter’s Generic Strategies, Value Proposition and Value Chain Analysis, individuals can realize strategic and competitive advantages while navigating the future of work.

AUTHOR BIOGRAPHY

Fernando Gutierrez is a student in the University of The Incarnate Word Doctor of Business Administration program. He currently works as an organizational development consultant and small business owner. Fernando applies the just-in-time learning platform of the DBA program to his work on a daily basis. As a first-generation college graduate, Fernando maintains a balance between running a business, attending school full-time and raising his five young children with his wife, Liz, in the Texas hill country.

REFERENCES

Do Dividends Affect Price Risk: Evidence From ASE
Wasfi A. Al Salamat, The Hashemite University, Jordan

ABSTRACT

Paper aims investigating whether dividends affect price fluctuations in Jordan. Cross-sectional data statistical approach is used for analysis. The results show that price risk is negatively affected by payout ratio. Also, we find that price risk is positively affected by the following variables: book-to-market equity, leverage, firm size, earnings risk, and assets growth.

Keywords: Payout Ratio; Dividend Yield; Price Risk; Cross-Sectional; ASE
Teaching Beyond The Blackboard-
Tutoring Students In Bush Alaska

Kristen Kutztown, University of Pennsylvania, USA
Sami Wiik, Kutztown University of Pennsylvania, USA
Kylie Wilson, Kutztown University of Pennsylvania, USA
Kathleen Lapszynski, Kutztown University of Pennsylvania, USA
LeAnn Heredia, Kutztown University of Pennsylvania, USA
Brianna Graziano, Kutztown University of Pennsylvania, USA

ABSTRACT

This proposed poster presentation will showcase a unique program in which undergraduate students tutor elementary school children in remote, “Bush” Alaska villages. Through a selective educational program at Kutztown University, future educators (i.e., University students) work through an on-line program, Blackboard Collaborate, to tutor students in “Bush” Alaska; a term generally used to describe small, remote villages that are not contiguous or connected by highways, or roads. These particular “Bush” Alaska students are largely of Native Alaskan ethnicities and attend village schools in the Lake and Peninsula School District. They have limited outside exposure beyond their local communities and villages. The University students work specifically with elementary and middle school students, on a one-on-one basis for specific content area intervention. Through tutoring, University students take part in an immersive experience where the tutor and student share their cultural similarities and differences. The tutors communicate every week with the teachers from the “Bush” Alaska school to develop appropriate lessons that enhance student performance in specific content areas such as math and reading. Along with tutoring, the University students strive to develop a sense of belonging and trust with the “Bush” Alaska students. Through their lessons, the University students work on communication and breaching cultural barriers that may exist in order to achieve academic progress with their students.

Conference attendees taking part in this proposed poster presentation will learn about the use of Blackboard Collaborate, an on-line browser-based meeting platform that allows University students to remotely tutor students in “Bush” Alaska. This interactive on-line classroom has tools that allow tutors to see, hear, and engage with students in real-time, using PowerPoint, websites, and videos. It has proven to be an effective means of providing on-line tutoring. The poster will include detailed information and data collected over the past five years that highlight the benefits the program has provided to Alaskan students, as a direct result of their weekly tutoring sessions. In addition, it will highlight the benefits the program has provided to the “Bush” Alaska tutors, who are studying to become future educators. Through the use of the on-line tutoring program, University students experience the effort and discipline involved in preparing weekly lessons. They develop the skills necessary to target student deficits in core subject areas, and how to support individual student learning styles. University tutors become knowledgeable of Response to Intervention (RTI), i.e., a multi-tier approach that supports student learning and behavior needs.

In addition, this poster presentation will also highlight:

How It All Started: Pen Pal Letter Project

The tutoring program was an outgrowth of a pen pal project, a class assignment for University students enrolled in a children’s literature course. This project required University students to write letters to “Bush” Alaska students, to model proper grammar, punctuation and vocabulary in written communication. The recipient students, in coordination with their “Bush” Alaska teachers, would then write back to their University counterparts, thus providing them a “real life” letter writing/communication opportunity. Upon becoming familiar with their “Bush” Alaska student correspondents, the University students were then required to prepare and send educational activities to their students, such as file folder games that promote phonological and phonemic awareness, appropriate reading books that match
the student’s skill level, and other tools that the students in Alaska would be able to use in order to grow in the language area.

How It All Started: On-Line Tutoring

It was through the pen pal project eight years ago, (an assignment which continues to be given) that the on-line tutoring program was born. Through the exchange of written correspondence and the preparation of study tools, the University students soon became aware of their respective students’ academic strengths as well as deficiencies that could benefit from remediation activities, supplemental to their classroom lessons. Through the cooperation of the village classroom teachers and the school district, a more formal on-line tutoring program was developed to provide this supplemental instruction. Majority of the University tutors are volunteers who have taken part in the pen pal project in their children’s literature class. The program has been well received by both the village classroom teachers and the school district as it has made a positive impact on their students’ academic growth.

The Tutoring Experience and Beyond: Benefits to The University Students

The tutoring program not only has benefitted the academic development of Native American students in “Bush” Alaska, but has also enriched the development of our prospective teachers. For many of the tutors, this on-line experience has been their first opportunity to deal with and apply their classroom knowledge to actual students in a learning situation. In addition, the tutors become more acquainted to the roles of culture and environment in education, as most of their students are of Native American ethnicities.

Finally, students who have engaged in the on-line tutoring program can also choose to student-teach in Alaska or be hired after graduation at their “on site” location for a three month tutoring program. This program flies recently graduated University students to Alaska to partake in their first paid teaching position for a three-month, in-person tutoring position. The program runs each January through March and helps students prepare for their state testing and to reach state-mandated benchmarks.
Presidential Effects On The American Stock Market
Roland J. Sparks, Johnson & Wales University, USA

ABSTRACT

This paper examines if the election of an unexpected U. S. president can affect stock market values before the president-elect takes any actions. The paper analyzes the stock market during three distinct time periods: before the election (January 4, 2010 to November 4, 2016), after the election results to the inauguration (November 9, 2016 to January 19, 2017), and from the inauguration to before any presidential actions have taken place (January 23, 2017 to March 21, 2017).

The S&P 500 index served as an indicator of general stock market valuation. All three time periods were regressed individually to establish trends during the critical times. The trends were analyzed and compared using Robert Bram’s method on Statistical Test for Equality of Regression Coefficients. (1998)

The summary of the findings are:

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Dates</th>
<th>Slope (p)</th>
<th>Slope Percentage Change (p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-election</td>
<td>1/4/2010-11/4/2016</td>
<td>0.4883 (0.0000)</td>
<td>+230.96% (0.0000)</td>
</tr>
<tr>
<td>Post-election to inauguration</td>
<td>11/9/2016-1/19/2017</td>
<td>1.6161 (0.0000)</td>
<td></td>
</tr>
<tr>
<td>Inauguration to first action</td>
<td>1/23/2017-3/21/2017</td>
<td>2.0199 (0.0000)</td>
<td>+24.99% (0.0243)</td>
</tr>
</tbody>
</table>

The findings indicate that there were significant changes in stock market trends at the two critical points of the election results and inauguration. After the election results, the S&P 500 index trend increased by 231%. After the inauguration to first presidential actions, the S&P 500 index trend increased another 25%. Both changes were statistically significant indicating that unexpected political shocks can have long-term effects on stock market value even though underlying economic fundamentals remained unchanged.

Keywords: Presidential Effects on Stock Market, Political Shock On Stock Markets

AUTHOR BIOGRAPHY

Roland Sparks, DBA, PE, CPM is a professor of business at Johnson & Wales University. His areas of research are international finance, business technology, and college pedagogy. His recent works examined the Country Liquidity Index as a measure of financial stability and ranking of countries to foreign investment opportunities.
The Bank for International Settlements: An Evolutionary Institution
Michael P. Hughes, Francis Marion University, USA

ABSTRACT
Established in 1930 in Basel, Switzerland, to facilitate and oversee the payment of reparations by Germany to the victors of World War I, the Bank for International Settlements (BIS) quickly evolved into a banking establishment for various national central banks to negotiate and work out mutually beneficial monetary policies and financial arrangements outside of the usual political channels. During World War II the BIS stayed open as a neutral central bank for central banks and provided significant back-channel communications between the Allied and Axis powers that could not have occurred any other way. As an example, discussions for the reconstruction of post-WWII Germany were underway between German and Allied representatives to the BIS at least two years prior to Germany’s surrender in May 1945. The post-WWII BIS then went on to become a true central bank for the world’s central banks. In spite of the BIS holding so much international financial power, few have ever heard of the BIS. Why? Although technically not a secret organization, the BIS has always maintained an intentionally low profile. The BIS has never advertised its existence. It operates through many other organizations it has either directly created or where it holds major influence. This paper discusses the BIS, its history, and its impact and influence on world events. Questions concerning the role the BIS maybe should play in world events and central banking are raised for discussion near the end.
Moderation Effect Of Economics Education And Teacher Classroom Instructional Leadership On Student Learning Behavior Change

Michael Elonge, University of Maryland College Park, USA

ABSTRACT

Purpose

Students in inner-city urban communities are exposed to many economic activities that requires basic economics reasoning in order to engage in the activities - luxury boutiques, retail stores, expensive cars, liquor stores, corner stores, illegal drugs, guns and hoodlums. Yet, most inner-city urban schools do not offer basic economics education as standalone course to students in elementary and middle schools. Lack of basic economics education in a volatile inner-city environment position students to bad economics judgements. The purpose of this study is to examine the moderation effect of basic economics education and teacher classroom instructional leadership on student learning behavior change.

Design/Methodology/Approach

Elementary and middle school students (N=216) from a metropolitan inner-city school system in North East USA were participants in the basic economics study. A 5-point Likert Scale questionnaire was used to capture data from pre and post basic economics study. Data was analyzed using Process moderation analysis in SPSS.

Findings

The result of the study finds that basic economics education has a significant effect in moderating the relationship between teacher classroom instructional leadership and student learning behavior change with regards to understanding economics.

Research Limitation/Implications

Research was limited to few inner-city schools and cannot be generalized to rural schools. Inner-city high school students were not included in the study. This study could be a good starting point for future studies.

Practical implications

Basic economics is the underpinning of everyday activity in the neighborhood, environment of the economy. Basic economics concepts are practicable and applicable at every moment in the economy and as such, students and adults need to know it.

Originality/Value

Research discusses the importance of teaching economics to students, but not much has been discussed about the importance of basic economic education to inner-city elementary and middle schools. The result indicates not just the importance but an urgency to teach basic economics in inner-city elementary and middle schools.

Keywords: Basic Economics; Teacher Classroom Leadership; Student Learning Behavior
Does Exporting Reduce The Gender Difference In Production?

Ruohan Wu, Alabama State University, USA

ABSTRACT

This paper empirically examines gender differences in workers’ contributions to production through labor efficiency and productivity, which are defined separately. We use panel data on Chilean manufacturing firms from 2001 to 2007. Non-linear estimations are conducted to determine the gender differences in these firms. The results show that, among domestic firms which do not export, female workers contribute significantly lower efficiency and productivity than male workers. Among firms which participate in the exporting market, the differences in the efficiency and productivity of female and male workers are insignificant. Therefore, gender production differences are found to be significant in domestic but not exporting firms. Various robustness tests support this finding.

Keywords: Gender Differences; Labor Efficiency; Productivity; Exporting Firms; Domestic Firms

1. INTRODUCTION

Trade liberalization has been widely recognized to have a profound influence on the labor market, especially in developing countries. Amid the transformation of gender roles, the improvement of female workers’ welfare has received increasing attention. In such studies, the gender wage gap generally is the focus, and the residual wage gap is commonly used to measure discrimination. Unequal wages and other welfare treatments between men and women create many issues with workers, especially female workers’ efficiency and motivation. Therefore, enforcing gender equality is traditionally accepted as an important method of production development (O’Connor et al., 1999; Inglehart and Norris, 2003).

This research deviates from traditional wage-gap analysis by using production capability to study gender production differences, which provide an important channel to understand firm development. Amid globalization, how have female workers’ capabilities developed? Have gender differences diminished or increased? In addition, production differences could explain the wage gap because wages are seen as reflecting how much employees can contribute to the job.

We use firm-level data on Chilean manufacturers from 2001 to 2007. Chile presents an interesting case study. Starting in the 1970s, the Chilean government implemented a series of trade liberalization programs that reduced trade barriers. This strong commitment to free trade continued through the 1990s, and in the 21st century, Chile has signed free-trade agreements with major economies around the world: the European Union (2002), United States (2003), South Korea (2004), China (2006), and India (2007). Over the past three decades, Chile has experienced one of the fastest increases in trade openness and gross domestic product growth in Latin America (Monfort, 2008).

According to the “Global Gender Report 2014” released by the World Economic Forum, the gender gap in Chile shrunk during late 20th century. Despite continuous improvements in the lives and rights of Chilean women, their labor force participation rate is among the lowest in Latin America, and gender differentials remain significant. According to the 2007 World Bank report “Chile: Reconciling the Gender Paradox,” women earn 20% less than their male colleagues in the same positions. The findings of this research show that the average female labor input among Chilean manufacturers is 23%, and 85% of firms hire more men than women. However, very little work has been done on gender imbalance issues in Chile, especially under globalization.

In this paper, non-linear estimations are conducted jointly on two methods of decomposing male and female labor contribution. Following Dong and Zhang (2009)’s method, we decompose male and female labor efficiency based on
a traditional Cobb-Douglas production function. Next, we extend the Cobb-Douglas function and use a semi-parametric method (Olley-Pakes, 1996) to remove endogeneity and reduce bias estimation. We also decompose female and male workers’ contributions to productivity. Generally, we find that Chilean female workers work much less productively, and significant gender production differences exist. This finding is confirmed among domestic firms which do not export. However, gender differences are not significant among exporting firms. In examining how exports affect gender differences, this paper is the first to focus solely on production capability. Gender differences are innovatively redefined as unequal production contributions by male and female workers.

We select firms’ exporting status (they do or do not export) to represent their globalization roles in line with two theories. One, self-selection theory argues that production is a sufficient condition of exporting (Melitz, 2003; Bernard et al., 2000; Bernard and Jensen, 2004). To enter a foreign market, a firm incurs entry costs and typically faces higher sunk costs of production over time. Developing new marketing strategies, lobbying foreign officials and customers, and complying with foreign standards for quality and packaging—these steps all require additional expenditures. Exporting, therefore, is feasible only if the firm is productive enough to generate sufficient exports and exporting revenue to cover these costs. Second, learning-by-exporting theory posits that productivity results from exporting (Marin 1992; Sala-i-Martin and Barro, 1997). Compared with domestic firms, exporting ones have access to more globally advanced skills and market information via ex post benefits. Firms learn from foreign business partners while undertaking exporting activities, and this learning process greatly enhances firm production.

We also make a unique contribution by exploring different aspects of firms’ globalization roles. In addition to exporting status, we consider firms’ capital ownership and revenue origins. Joint and non-linear estimation methods yield similar findings. Female workers work less productively than males in firms with 100% of domestic-owned capital, compared to partly foreign-owned capital. Female workers make significantly lower contributions only in firms which earn less than half of their revenue from exporting.

A wide range of researchers attempt to address the effect of globalization on gender differences. Empirical works in the United States (Black and Brainerd, 2004), Taiwan (Berik, 2000), and Germany (Klein et al., 2010) find a narrower wage gap in firms involved in international trade. Data from Mexico (Brown and Cunningham, 2002; Artecona and Cunningham, 2002) and South Korea (Berik et al., 2003), however, indicate that globalization positively affects wage discrimination.

Recently, labor productivity has received increasing attention and been considered as important a factor as gender in career selection (Dohmen and Falk, 2011). Based on data from the United States (Haltiwanger et al., 1999, 2007), China (Dong and Zhang, 2009), Norway (Hoel, 1999), and Sweden (Hibbs and Locking, 2000; Lundborg, 2005), it is concluded that productivity differences between men and women are a major determinant of the wage gap. Wu and Cheng (2016) has also made a thorough study about this issue. Male workers demonstrating higher productivity also enjoy higher incomes. A matched employer–employee dataset in France, however, offers little evidence of wage discrimination against less productive females (Crepon et al., 2003).

2. METHODOLOGY

We use two methods to estimate gender differences in production contribution. One follows the decomposition method used by Dong and Zhang (2009). The second has two steps: we first use a semi-parametric method (Olley and Pakes, 1996) to estimate firm-level productivity and then decompose the productivity between the two genders.

2.1 Dong and Zhang (2009)’s Method

Following Dong and Zhang (2009), labor efficiency is treated as attached to labor input. It is derived from a typical Cobb-Douglas production function:

\[ Y_{it} = A_{it}(E_{it}L_{it})^{\alpha \beta} R_{it}^{\gamma} K_{it}^{\delta} \]  

(1)

For firm \( i \) at time \( t \), \( Y_{it} \) is the value of outputs, \( A_{it} \) is productivity, \( R_{it} \) is material costs, \( K_{it} \) is capital, and \( E_{it} \) is average labor efficiency. \( E_{it} \) is a weighted average pf male efficiency \( E_{it}^{m} \) and female efficiency \( E_{it}^{f} \):
\[ E_{it} = E_{itm} \times M_{it}/L_{it} + E_{itf} \times F_{it}/L_{it} \]
\[ = E_{itm} [1 + (\psi - 1) F_{it}/L_{it}] \quad (2) \]

where the efficiency ratio between female and male workers \( E_{itf}/E_{itm} \) is rewritten as \( \psi \). \( M, F, \) and \( L \) represent the number of male workers, female workers, and all workers \( (L_{it} = M_{it} + F_{it}) \), respectively. The logarithm of equation (2) is:

\[ \log(E_{it}) = \log(E_{itm}) + \log(1 + (\psi - 1) F_{it}/L_{it}) \quad (3) \]

Combining the log form of equation (1) and substituting the unobservable \( \log(A) + \alpha \log(E^m) \) with stochastic linear terms, equation (3) can be specified as:

\[ \log(Y_{it}) = \phi_0 + \alpha \log(1 + (\psi - 1) F_{it}/L_{it}) + \alpha \log(L_{it}) + \beta \log(R_{it}) + \gamma \log(K_{it}) + X_{it}' \phi + \nu_{it} \quad (4) \]

where \( X \) includes a vector of variables that determine production. This vector includes firm-level characteristics: labor quality, measured as the percentage of high- and low-skilled workers in the total workforce; energy efficiency, measured as the ratio of specific energy expenditures to total production value; and overseas connections, such as the amount of production materials and technical supports from abroad. These characteristics measure a firm’s production capabilities and overseas connections. \( \nu \) is the random error term. If \( \psi < 1 \), female workers are considered to be less efficient than males.

### 2.2 Adaptation of the Olley-Pakes (1996) Method

We also conduct an alternative method to estimate and decompose firm manufacturing productivity. We use the Olley-Pakes (OP) method to estimate manufacturing productivity. This semi-parametric method effectively removes simultaneity and endogeneity during the estimation. It uses an extended Cobb-Douglas production function based on equation (1):

\[ Y_{it} = A_{it} L_{it}^{\beta_l} K_{it}^{\beta_k} R_{it}^{\beta_r} \exp(\beta_f f_{it} + \varepsilon_{it}), \quad (5) \]

where \( f_{it} = F_{it}/L_{it} \) (female worker percentage) is the percentage of female workers among all workers at each firm \( i \). It is included in the production function as an adjustment variable, which influences the productivity estimation from the perspective of gender distribution. \( \beta_f \), therefore, is the coefficient of the female-worker percentage. Log linearizing equation (5) yields:

\[ y_{it} = a_{it} + \beta_l l_{it} + \beta_k k_{it} + \beta_r r_{it} + \beta_f f_{it} + \varepsilon_{it} \quad (6) \]
\[ \varepsilon_{it} = \omega_{it} + \eta_{it}. \quad (7) \]

Here, all lower-case input indicators are the logarithm of the corresponding upper-case ones (e.g., \( k_{it} = \log K_{it} \)). The error term \( \varepsilon_{it} \) has two parts: a firm-specific productivity shock \( \omega_{it} \), known by the firm but not captured in the dataset, and a white noise \( \eta_{it} \), which is neither known to the firm nor captured in the data.

The estimation has two steps. First, a firm’s profit maximization yields an invertible investment decision function, which depends on capital \( k_{it} \) and productivity shock \( \omega_{it} \). Next, this unobserved productivity shock \( \omega_{it} \) is assumed to follow a first-order Markov process and is rewritten as a function of investment and capital to obtain estimates of \( \beta_l, \beta_k, \) and \( \beta_r \). Second, we use a semi-parametric method to separate capital elasticity \( \beta_k \) from firm-level investment decisions. Following Olley and Pakes (1996), we assume that plant managers analyze current productivity \( \omega_{it} \) before making profit-maximizing selections of labor, materials, and intermediates. These are combined with the quasi-fixed input of capital and its quality and product outputs. The investment decision is used as an intermediate input which increases monotonically with productivity, conditional on capital input. The inverse of the investment decision, which is observed from the data, depends only on observable capital and investment. Given the estimated coefficients on the input variables \( (l_{it}, k_{it}, r_{it}, f_{it}) \), we then estimate productivity \( a_{it} \) based on equation (6).
Traditional ordinary least squares linear estimation ignores that firms choose inputs based on their knowledge of $\omega_{it}$, or potential productivity shocks. Based on a Cobb-Douglas production function, linear estimation tends to overestimate the coefficients of production factors, such as labor inputs and material costs, and to underestimate that of the capital input. By removing bias in these coefficients, the OP method more accurately estimates productivity and corrects the endogeneity of input choices regarding productivity shocks. Its nonparametric estimate can control unobservable productivity shock and remove simultaneity bias.

Consistent with the previous assumptions, the productivity of firm $A_{it}$ is a weighted average of male productivity $A^m_{im}$ and female productivity $A^f_{it}$, specified as:

$$A_{it} = A^m_{it} \times M_{it}/L_{it} + A^f_{it} \times F_{it}/L_{it}$$

$$= A^m_{it} + (A^f_{it} - A^m_{it}) \times F_{it}/L_{it}$$

Using $\theta = A^f/A^m$ as the ratio of female and male employees’ productivity, equation (8) can be simplified as:

$$A_{it} = A^m_{it} \left[ 1 + (\theta - 1) \frac{F_{it}}{L_{it}} \right]$$

The logarithm form of equation (9) is:

$$\log(A_{it}) = \log(A^m_{it}) + \log \left( 1 + (\theta - 1) \frac{F_{it}}{L_{it}} \right)$$

$A^m$ is unobservable; therefore, we replace it with a linear stochastic function. In other words, equation (10) is estimated as:

$$\log(A_{it}) = \lambda_0 + \log \left( 1 + (\theta - 1) \frac{F_{it}}{L_{it}} \right) + X_{it}' \lambda + \nu$$

where $X$ includes a vector of variables that determine the productivity, as explained in section 3.1. If $\theta < 1$, female workers have lower productivity than male workers.

3. DATA DESCRIPTION

The panel data are drawn come from the Annual National Industrial Survey (ENIA) conducted by the National Statistics Institute of Chile (INE, Instituto Nacional de Estadísticas Chile). This research uses annual firm-level manufacturing information from 2001 to 2007. The INE includes all operational firms and excludes those that stopped operating in the previous year. Each firm is assigned a specific identification number, which enables tracking its longitudinal activities over the years.

Table 1 compares the non-exporting and exporting firms surveyed. Of the 34,238 firms, 80% did not export. There are also significant differences among workers in exporting firms. For labor quality, we select two types of workers: high-skilled workers, including specialized workers who hold required diplomas or training certificates, and low-skilled workers, which include those with low levels of education and who work only in auxiliary capacity. Exporters have more high-skilled workers and considerably fewer low-skilled workers than domestic firms.

Compared to domestic firms, exporting enterprises have significantly higher numbers of employees, production levels, tax payments, and capital stock. Exporting firms generate much higher production value, accumulate more capital stock, and pay more taxes than firms which do not export at all. Energy intensity measures the ratio between energy (e.g., electricity, fuel) consumed for industrial purposes and a firm’s total production value. Exporters also have lower energy intensity. Traditionally, they achieve higher energy efficiency by consuming less energy during production.

The imported resource ratio indicates what percentage of consumed materials comes from overseas. Foreign technical support is the ratio of the value of overseas technical support and the total technical expenses of a firm. Unsurprisingly, we find that exporters have a significantly closer relationship with foreign sources than domestic firms. On average,
exporters import 14.5% of materials and 0.14% of technical support, while domestic firms import only 2.2% of materials and 0.04% of technical support.

Table 1. Comparison between Domestic and Exporting Chilean Manufacturers, 2001 - 2007

<table>
<thead>
<tr>
<th></th>
<th>Average of All Firms</th>
<th>Average of Domestic Firms</th>
<th>Average of Exporting Firms</th>
<th>Significance for T-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Employees</td>
<td>70</td>
<td>42</td>
<td>178</td>
<td>***</td>
</tr>
<tr>
<td>High-skill worker %</td>
<td>24.3</td>
<td>19.9</td>
<td>25.4</td>
<td>***</td>
</tr>
<tr>
<td>Low-skill worker %</td>
<td>6.1</td>
<td>8.2</td>
<td>5.6</td>
<td>***</td>
</tr>
<tr>
<td>Female worker %</td>
<td>23.1</td>
<td>23.4</td>
<td>22.3</td>
<td>**</td>
</tr>
<tr>
<td>Production</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annual Total Production Value (Billions of CLP)</td>
<td>8.2</td>
<td>3.6</td>
<td>25.8</td>
<td>***</td>
</tr>
<tr>
<td>Annual Capital Stock (Thousands of CLP)</td>
<td>11.9</td>
<td>11.3</td>
<td>14.1</td>
<td>***</td>
</tr>
<tr>
<td>Annual Income Tax (Millions of CLP)</td>
<td>91.7</td>
<td>21.5</td>
<td>361.1</td>
<td>***</td>
</tr>
<tr>
<td>Electricity intensity (%)</td>
<td>1.4</td>
<td>1.5</td>
<td>1.4</td>
<td>**</td>
</tr>
<tr>
<td>Fuel intensity (%)</td>
<td>0.7</td>
<td>0.7</td>
<td>0.63</td>
<td>***</td>
</tr>
<tr>
<td>Foreign Connection</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Imported resources ratio (%)</td>
<td>4.7</td>
<td>2.2</td>
<td>14.5</td>
<td>***</td>
</tr>
<tr>
<td>Foreign technical support (%)</td>
<td>0.6</td>
<td>0.04</td>
<td>0.14</td>
<td>***</td>
</tr>
<tr>
<td>N. obs.</td>
<td>34,238</td>
<td>27,160</td>
<td>7,078</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: National Institute of Statistics of Chile, ENIA Survey.
Note: CLP, as Chilean Peso. ** and *** represent significance at 1% and 5% respectively.

3.1 OP-Estimated Productivity Distribution

Table 2 shows the distribution statistics of the OP-estimated productivity. In the full sample, the majority (74%) of firms has a productivity logarithm between 0.5 and 1.5. Only 2.4% of firms have a productivity logarithm less than 0.25. Approximately 20% of firms have an $a_0$ higher than 1.5. This table also compares the distribution of productivity of exporting and domestic firms. Statistically, exporting firms have a more left-skewed productivity distribution. More than 6% of domestic firms but less than 5% of exporting have a productivity logarithm of less than 0.5. Approximately 56% of domestic firms’ and 64% of exporting firms’ productivity logarithm exceeds 1. Therefore, exporting firms can expect higher productivity than domestic ones. The $t$-test confirms the productivity difference between domestic and exporting firms.
Table 2. Distributions of Olley-Pakes Estimated Productivity among Chilean Manufacturers, 2001 - 2007

<table>
<thead>
<tr>
<th></th>
<th>Full Sample</th>
<th>Domestic Firms</th>
<th>Exporting Firms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>34,238</td>
<td>27,160</td>
<td>7,078</td>
</tr>
<tr>
<td>Percent</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

\[ a_t = \log A_{it} \]

- \[ a_t < 0 \]
  - Number: 287
  - Percent: 0.8%
  - Number: 250
  - Percent: 0.9%
  - Number: 37
  - Percent: 0.5%

- \[ a_t \in [0.25) \]
  - Number: 1,482
  - Percent: 4.3%
  - Number: 1,261
  - Percent: 4.6%
  - Number: 221
  - Percent: 3.1%

- \[ a_t \in [0.5, 0.75) \]
  - Number: 11,790
  - Percent: 34.4%
  - Number: 9,952
  - Percent: 35.3%
  - Number: 2,198
  - Percent: 31.1%

- \[ a_t \in [1, 1.5) \]
  - Number: 13,443
  - Percent: 39.3%
  - Number: 10,463
  - Percent: 38.5%
  - Number: 2,980
  - Percent: 42.1%

- \[ a_t \geq 1.5 \]
  - Number: 6,700
  - Percent: 19.6%
  - Number: 5,144
  - Percent: 18.9%
  - Number: 1,556
  - Percent: 22.0%

‘T-test significance between non-exporters’ & exporters’ productivity’

Note: ‘***’ represents significance at 1%.

These findings are consistent with those reported in Table 1. Exporting firms are considered more productive and competent in self-selection and learning-by-exporting theories. In this research, a positive correlation between exporting status and production is again found among Chilean manufacturing firms.

4. TEST RESULTS

The estimation results for gender differences in labor efficiency (equation (4)) and productivity (equation (11)) are shown in tables 3 and 4. Panel A presents the test results for efficiency differences, and Panel B the productivity differences. Throughout the estimation, fixed effects on firms’ location, time, and industry category are included. It is highly likely that firms’ heterogeneity also influences gender differences. For example, regions with various traditions and cultures affect local firms’ managerial conditions, which result in differences between female and male workers. For all firms, the female–male efficiency ratio (\( \psi \)) is 0.673, and the female–male productivity ratio (\( \theta \)) is 0.706. Both ratios are significantly lower than 1. A production-contribution difference between male and female workers persists among Chilean manufacturers. This difference is easily explainable. In a developing country, such as Chile, women generally are minorities in the labor force, as shown in the statistics reported. There are, of course, reasons for this unequal gender distribution, and unequal productivity is a major one. The long history of discrimination against women creates a lack of opportunities for education and necessary professional training. Even if a woman successfully finds a job, she very likely is less productive than a male worker with better education. In addition, family issues and maternal responsibilities cause women to contribute less.

It is also found that the high-skilled worker ratio exerts a significant, positive influence on firms’ production and productivity, while the low-skilled worker ratio has the opposite effect. Consuming less energy to produce the same amount of products is a more efficient technique and increases productivity. Moreover, importing resources and technical support indicates a close relationship with the global market, which also significantly improves firm production. Therefore, more productive firms with higher labor quality and energy efficiency generate more outputs. Firms with fewer resources and imported technical support have lower production.

4.1 By Exporting Status: Domestic vs. Exporting Firms

We look at the gender difference in production between domestic and exporting firms, as shown in columns (ii) and (iii) in Table 3. Among non-exporting firms, the female–male efficiency ratio \( \psi \) is 0.654, which is significantly lower than 1 and suggests that female workers contribute less than male. The productivity ratio \( \theta \) is 0.447, significantly lower than 1. These results suggest that female workers work less efficiently and productively than male.

Among exporters, however, the findings are different. The gender difference ratios for labor efficiency (\( \psi \)) and productivity (\( \theta \)) are less than 1 and insignificant. The gender difference in production among exporting firms is not observable. Female and male workers, thus, are considered to contribute equally to production.
Other determinants, such as labor quality, energy efficiency, and foreign connections, contribute positively to firm production regardless of exporting status. Specifically, hiring more high-skilled workers, consuming energy more efficiently, and importing more resources and technical support will significantly increase a firm’s production, no matter whether it exports.

Table 3. Simultaneous Test Results for Gender Difference in Production, Full Sample and by Exporting Status

<table>
<thead>
<tr>
<th>Panel A</th>
<th>Full Sample</th>
<th>Domestic Firms</th>
<th>Exporting Firms</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(i)</td>
<td>(ii)</td>
<td>(iii)</td>
</tr>
<tr>
<td>(\psi) (efficiency ratio between female and male workers)</td>
<td>0.673*** (0.114)</td>
<td>0.654*** (0.038)</td>
<td>0.872(1.991)</td>
</tr>
<tr>
<td>Significance for null (\psi=1)</td>
<td>***</td>
<td>***</td>
<td></td>
</tr>
<tr>
<td>(\theta) (productivity ratio between female and male workers)</td>
<td>0.706*** (0.131)</td>
<td>0.447*** (0.045)</td>
<td>0.911(1.008)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Panel B</th>
<th>Full Sample</th>
<th>Domestic Firms</th>
<th>Exporting Firms</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(i)</td>
<td>(ii)</td>
<td>(iii)</td>
</tr>
<tr>
<td>(\psi) (efficiency ratio between female and male workers)</td>
<td>0.706*** (0.131)</td>
<td>0.447*** (0.045)</td>
<td>0.911(1.008)</td>
</tr>
<tr>
<td>Significance for null (\psi=1)</td>
<td>***</td>
<td>***</td>
<td></td>
</tr>
<tr>
<td>(\theta) (productivity ratio between female and male workers)</td>
<td>0.706*** (0.131)</td>
<td>0.447*** (0.045)</td>
<td>0.911(1.008)</td>
</tr>
<tr>
<td>Significance for null (\theta=1)</td>
<td>***</td>
<td>***</td>
<td></td>
</tr>
<tr>
<td>(\psi) (efficiency ratio between female and male workers)</td>
<td>0.673*** (0.114)</td>
<td>0.654*** (0.038)</td>
<td>0.872(1.991)</td>
</tr>
<tr>
<td>Significance for null (\psi=1)</td>
<td>***</td>
<td>***</td>
<td></td>
</tr>
<tr>
<td>(\theta) (productivity ratio between female and male workers)</td>
<td>0.706*** (0.131)</td>
<td>0.447*** (0.045)</td>
<td>0.911(1.008)</td>
</tr>
<tr>
<td>Significance for null (\theta=1)</td>
<td>***</td>
<td>***</td>
<td></td>
</tr>
</tbody>
</table>

**Table 3.** Simultaneous Test Results for Gender Difference in Production, Full Sample and by Exporting Status

**Note:** ***, **, and * represent significance at 1%, 5% and 10% respectively.

### 4.2 Capital Ownership and Revenue Orientation

In addition to exporting status, we estimate the impact of capital ownership and exporting revenue on gender. In the 100% domestic-owned category, firms have exclusively domestic capital ownership, while in partially domestic-owned firms, some or all capital ownership comes from foreign countries. As reported in Table 4, among the 100% domestic-owned firms, the female–male productivity ratio is 0.226, significantly more than 0 and less than 1. So is the female–male labor efficiency ratio of 0.577. Gender differences are significant only in domestic-owned firms. Among firms with foreign capital, gender differences in productivity cannot be detected.

In addition to exporting status and capital ownership, we also consider how much of firms’ total annual revenue comes from exporting. If 50% of revenue is earned from exporting, firms are classified as export oriented. If a firm’s export revenue contributes less than half of total revenue, it is a domestic-oriented firm. At domestic-oriented firms, female
employees work significantly less efficiently ($\psi = 0.597$), and less productively ($\theta = 0.297$) than male. However, gender differences do not appear to be significant among export-oriented firms.

Among other production and export-related variables, better labor quality and energy efficiency significantly increase firms' average production. More resources and imported technical support also significantly raise firms' output. These findings are consistent with those also reported in this paper.

### Table 4. Simultaneous Test Results for Gender Difference in Production, by Capital Ownership and Revenue Orientation

<table>
<thead>
<tr>
<th>Panel A</th>
<th>100% Domestic-owned (i)</th>
<th>Partially Domestic-owned (ii)</th>
<th>Domestic-oriented (iii)</th>
<th>Export-oriented (iv)</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\psi$ (efficiency ratio between female and male workers)</td>
<td>0.577*** (0.113)</td>
<td>0.834 (0.294)</td>
<td>0.597*** (0.052)</td>
<td>0.770 (2.277)</td>
</tr>
<tr>
<td>Significance for null $\psi=1$</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Labor Quality</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High-skill worker ratio</td>
<td>2.035*** (0.193)</td>
<td>0.747 (0.832)</td>
<td>1.426*** (0.155)</td>
<td>1.139 (0.671)</td>
</tr>
<tr>
<td>Low-skill worker ratio</td>
<td>-2.045** (0.325)</td>
<td>-1.219 (1.728)</td>
<td>-1.478*** (0.260)</td>
<td>-5.030 (4.025)</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electricity intensity</td>
<td>44.536*** (3.657)</td>
<td>36.942*** (12.453)</td>
<td>34.602*** (3.223)</td>
<td>18.592 (10.801)</td>
</tr>
<tr>
<td>Fuel intensity</td>
<td>25.198*** (2.258)</td>
<td>36.333*** (15.868)</td>
<td>19.892*** (1.979)</td>
<td>9.018 (5.625)</td>
</tr>
<tr>
<td>Foreign Connection</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Imported resources ratio</td>
<td>-0.101 (0.190)</td>
<td>1.829*** (0.627)</td>
<td>0.456*** (0.157)</td>
<td>3.879 (2.467)</td>
</tr>
<tr>
<td>Foreign technical support</td>
<td>0.139*** (0.011)</td>
<td>0.283*** (0.062)</td>
<td>0.105*** (0.927)</td>
<td>1.245* (0.725)</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.604</td>
<td>0.464</td>
<td>0.599</td>
<td>0.400</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Panel B</th>
<th>100% Domestic-owned (i)</th>
<th>Partially Domestic-owned (ii)</th>
<th>Domestic-oriented (iii)</th>
<th>Export-oriented (iv)</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\theta$ (productivity ratio between female and male workers)</td>
<td>0.226*** (0.034)</td>
<td>0.910 (0.901)</td>
<td>0.297*** (0.037)</td>
<td>0.867 (1.135)</td>
</tr>
<tr>
<td>Significance for null $\theta=1$</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Labor quality</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High-skill worker ratio</td>
<td>10.351*** (0.559)</td>
<td>22.954*** (4.576)</td>
<td>9.574*** (0.493)</td>
<td>16.533*** (3.973)</td>
</tr>
<tr>
<td>Low-skill worker ratio</td>
<td>-0.109 (0.234)</td>
<td>-2.455 (1.254)</td>
<td>-0.249 (0.215)</td>
<td>-0.601*** (0.165)</td>
</tr>
<tr>
<td>Energy efficiency</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electricity</td>
<td>3.488*** (0.167)</td>
<td>2.707*** (0.805)</td>
<td>3.151*** (0.150)</td>
<td>4.513*** (0.890)</td>
</tr>
<tr>
<td>Fuel</td>
<td>8.984*** (0.563)</td>
<td>21.328*** (6.884)</td>
<td>8.673*** (0.527)</td>
<td>36.056 (22.291)</td>
</tr>
<tr>
<td>Foreign Connection</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Imported resources ratio</td>
<td>2.460*** (0.134)</td>
<td>4.108*** (0.113)</td>
<td>2.358*** (0.124)</td>
<td>2.967*** (0.730)</td>
</tr>
<tr>
<td>Foreign technical support</td>
<td>7.791*** (0.312)</td>
<td>9.125*** (1.561)</td>
<td>7.186*** (0.282)</td>
<td>9.710*** (1.103)</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.307</td>
<td>0.386</td>
<td>0.368</td>
<td>0.306</td>
</tr>
</tbody>
</table>

Region FE | Yes |
Time FE | Yes |
Industry FE | Yes |
N. obs. | 32,494 | 1,744 | 32,140 | 2,098 |

Note: ***, ** and * represent significance at 1%, 5% and 10% respectively.

### 4.3 Discussion

We group firms by their exporting status, capital ownership, and revenue orientation, and the findings remain consistent. Firms involved in foreign markets—by, for instance, exporting or adopting foreign capital—have significantly lower gender differences in production. Firms operating exclusively in the domestic market have significant, unequal distributions of labor efficiency and productivity between female and male workers. Female workers contribute much less than their male coworkers.
Export-market participation reduces gender differences and guarantees similar contributions by female and male employees. Several implications flow from for this conclusion. First, according to self-selection theory, exporting indicates high production capability. Technological progress is a powerful driver of improved equality between men and women. Advances in the developing world offer increasing numbers of women more opportunities for basic and advanced education and training. Modern industries which require high technique inputs demand employees with such professional backgrounds. Whether male or female, a worker with sufficient technical and intellectual skills can perform job responsibilities without any significant difference. Modern education and techniques thus increasingly empower women.

Second, involvement in the international market requires advanced managerial philosophy. Reducing production differences and equalizing treatment of male and female employees are widely adopted trends in the business world. Emphasizing employees’ professional capabilities is a typical promotional strategy among firms. For example, showcasing successful businessmen and -women and fair treatment and promotion tracks for all workers regardless of gender attracts high-skilled employees, especially female specialists, and increases firm production.

Global competition could be another cause of decreasing gender difference. Engaging in economic activities abroad brings more opportunities to access globalization, which increases firm competitiveness and the quality of labor inputs. More advanced techniques result in higher requirements for all employees, which reduces the gender gap in workers’ welfare and capabilities. Our findings are consistent with those of previous studies (Black and Brainerd, 2004; Berik, 2000; Klein et al., 2010) arguing that the gender gap has narrowed during globalization.

5. CONCLUSION

In this paper, we use a unique firm-level dataset among Chilean manufacturers between 2001 and 2007 and study the gender differences in worker efficiency and productivity. The joint and non-linear estimation results show that gender differences persist in domestic firms which do not participate in the export market. Specifically, female workers contribute significantly lower production than males. Meanwhile, among firms which export, operate with foreign capital, or earn more than half of revenue overseas, gender differences in labor contributions are not significant. Exporting improves firms’ manufacturing capabilities and guarantees equal contributions from males and females. Female workers, a minority in the Chilean labor force, can made significant advances during globalization and economic development.

REFERENCES


Teacher Professional Development
For A K-8 Stem Initiative: A Responsive Integrated Coaching Partnership Model
Nichole Walsh, California State University, Fresno, USA
Nancy Akhavan, California State University, Fresno, USA

ABSTRACT

In the current educational climate, Science, Technology, Engineering, and Mathematics (STEM) education is at the forefront of district initiatives (ECS State Policy Database, 2017); however, K-8 teachers feel inadequately prepared in engineering design and appropriate instructional pedagogy to facilitate inquiry and project-based learning (Epstein & Miller, 2011; Nadelson, Callahan, Pyke, Hay, Dance, & Pfiefer, 2013) which opens an opportunity for coaching as a model for teacher professional development. Adult learning suggests that coaching, where a teacher and coach work together through a cycle of planning, modeling and conferencing, is an effective method to increase teacher ability (Akhavan, 2011; Akhavan & Tracz, 2016). Since teachers spend the majority of the day with students their impact on students makes a tremendous difference (Stronge, Ward, Tucker, & Hindman, 2008); thus, the possibility of increasing teacher effectiveness is a driving force for school reform and change. Numerous studies link teacher effectiveness to student achievement (Darling-Hammond, 2000; Darling-Hammond, Holtzman, Gatlin, & Heilig, 2005; Darling-Hammond & Youngs, 2002; Peske & Haycock, 2006; Wayne and Youngs, 2003).

As part of the California Mathematics and Science Project (CaMSP) grant, a K-8 STEM education partnership (SPARK into Pathways) between one rural PreK-12 school district in California’s Central Valley, Public Works, and Fresno State emerged. Participating university faculty developed and implemented a responsive integrated coaching model to support the K-8 teachers in the implementation of district STEM initiatives as related to the grant objectives. The work with teachers included evening meetings, weekend workshops, and coaching sessions. Since Teacher self-efficacy as a measure of growth, has been found to be one of the most powerful influences on teacher receptivity to change (Tschannen-Moran & McMaster, 2009), both qualitative and quantitative methods were used to monitor growth in Teacher Efficacy over year one of the grant term.

Mid-year findings based on analysis of data collected using several different evaluation tools including feedback surveys, a teacher efficacy survey and teacher portfolios, revealed significant growth in Teacher Efficacy, particularly in the areas of incorporating mathematical thinking and practices, facilitating collaborative experiences for student learning, and planning in grade-level teams.

REFERENCES

Epstein, D., & Miller, R. T. (2011). Slow off the Mark: Elementary School Teachers and the Crisis in Science, Technology,


An Examination Of
Venture Capital Certification Role:
Using High Frequency Data
Tarek Miloud, INSEEC Research Center, France

ABSTRACT

The main objective of the paper is to study whether the presence of venture capital firm contributes to reduce the
time asymmetry on the stock price during the IPO process. Using high frequency data, we examine the French
market microstructure trading characteristics of venture capital backed and non-venture capital backed initial public
offerings. We have developed an empirical model to predict the certification role played by the venture capital
company to reduce the information asymmetry on financial markets. The model was developed using microstructure
measures including bid-ask spreads, the component of information asymmetry and volatility.

We find that the cost of information asymmetry and price volatility is higher for the venture backed initial public
offerings. Moreover, the study shows that underpricing is positively correlated to the cost of information asymmetry.
Our results, also show that the certification and monitoring effects of venture capital are not perceived by the investors
on the French market.

Keywords: Information Asymmetry; Market Microstructure; IPO Underpricing; High Frequency Market Data

I. INTRODUCTION

The initial public offering (IPO) process is known for its information asymmetry between investors. In fact, the
insiders can have access to private information much more easily than individual investors. To reduce this information
asymmetry and in order to ensure the success of the process, it’s necessary for it to be undertaken by a third party
stakeholder. Wang, Wang and Lu (2003) confirm that venture capital (VC) certification is the best, and this is for two
reasons. Firstly, they have more reliable information on the issuing company as being members of the board of
directors, they benefit from special working relations with the board members. Secondly, the VC have to verify false
certification to preserve their reputation.

Apart from their certification role, the VC also have a monitoring role in the companies they finance. Because of their
numerous investments, they are also encouraged to use diverse methods to supervise or verify opportunist behavior in
these firms. According to Barry, Muscarella, Peavy and Vetsuybens (1990), Megginson and Weiss (1991), Jain and
Kini (1995) and Brav and Gompers (1997), the certification and monitoring role during an IPO can increase the value
and improve the performance of issuing firms. However, numerous research studies have shown that VC firms have
a negative effect on IPOs. Amit, Brander and Zott (1998) identified an adverse selection problem where the less
experienced entrepreneurs ask the VC firms to share the risk, whereas the more experienced ones manage their firms
without requesting outside finance. Consequently, the firms with VC may perform badly because of information
asymmetry. Gompers (1996) suggests a ‘grandstanding’ hypothesis on the part of young VC firms, where they are
encouraged to reveal their abilities too soon to potential investors by assisting the firms in their portfolio in the
financial markets. Therefore, they may find that they perform badly because of a lack of IPO experience. Generally
during the IPO, either the adverse selection effects or grandstanding aggravate the information asymmetry problem
between the initiates and the individual investors.

The existing empirical studies generally use accounts data. Our approach differs; we use microstructure measures
from the markets including bid-ask spreads. This information asymmetry and the volatility component should be
studied when investigating whether the participation of a VC firm contributes to reducing the information asymmetry during the IPO process. The markets microstructure literature shows that the spread and the volatility of prices increase according to the information asymmetry that exists between the insiders and the outsiders. The certification/monitoring effects are stronger than the effects of adverse selection/grandstanding; however, reducing information asymmetry in the financial marketplace would consequently diminish the spreads and the price volatility for the IPOs financed by the VC firms. However, if the effects of certification and monitoring are dominated by the effects of adverse selection and grandstanding, then the spread and the price volatility become too high. Moreover, the pricing and disclosing information process during a VC-backed IPO could be clarified by examining the microstructure data in the financial markets because, according to O’Hara (1999) and Madhavan (2000), the negotiation mechanism and the structure regulating the stock markets both have an effect on investor behavior.

II. CERTIFICATION AND THE ROLE OF VC FIRM

1. The Methodological Approach

The samples were taken from 2nd January 2000 to 31st December 2015 and concerned the IPOs in the Nyse-Euronext regulated market. The high frequency data on the stock market prices, the volume of negotiations and the bid-ask prices are from Euronext databases. A highly detailed examination of all the available data gave us a sample of 93 VC-backed IPOs. Each IPO was paired with a non VC-backed operation (IPO year, sector and size) to create our control sample. We adopted several microstructure measurements to ascertain the degree of information asymmetry including the bid-ask price spread, the information asymmetry component that concerns the spread and the volatility.

- **The effective spread**

Demsetz (1968) define the bid-ask spread as a recompense granted to market-makers to undertake immediate negotiations. We estimated the effective spread \( S_{l,j} \), and the relative effective spread, \( RS_{l,j} \) in the same way as Hebb and MacKinnon (2004):

\[
S_{l,j} = 2 \times |P_{i,j} - MP_{i,j}| \text{ et } S_{l,j} = \frac{2 \times |P_{i,j} - MP_{i,j}|}{MP_{i,j}}
\]

where \( P_{i,j} \) designates the firm’s closing price \( i \) on day \( j \), and \( MP_{i,j} \) represents the middle of the bid-ask spread defined as \( \frac{\text{ask}_{i,j} + \text{bid}_{i,j}}{2} \). The terms \( \text{ask}_{i,j} \) and \( \text{bid}_{i,j} \) respectively represent the required closing price and that of the offer for the firm \( i \) on day \( j \).

- **The component of information asymmetry in the spread**

To measure the cost of the information asymmetry in the bid-ask price spread, we used a method employed by George, Kaul and Nimalendran (1991). It is defined as \( \phi_{i,j} = 1 - \pi_{i,j} \) and indicates the proportion of the bid-ask spread resulting from the information asymmetry of an action \( i \) on day \( j \). \( \pi_{i,j} \) represents the proportion of the spread due to another piece of information asymmetry; it is described as follows:

\[
\sigma_{i,j}^2 = 0,511(a - b)^2 - 0,019[x(a + b) - 2ab] - 0,383x^2
\]

where \( RD_{i,t} = R_{i,t} - R_{i,t-1} \), \( R_{i,t} \) represents 10 minutes of intraday yield for the firm \( i \) according to transaction price \( T \) in a lapse of time \( t - 1 \) and \( t \), \( R_{i,t} \) represents 10 minutes of intraday yield calculated according to the bid price (Bid) \( B \). \( S_{i,t} \) is the arithmetical average over 27 periods of 10 minutes per day for the firm \( i \) and \( \text{Cov}(RD_{i,t}; RD_{i,t-1}) \) represents the covariance of the statistical series \( RD_{i,t} \).

- **Volatility**

Since the share price is supposed to follow a Brownian motion without breaks, we have estimated the volatility according to Garman and Klass (1980) approach, using the following formula.
\[ \pi_{i,j} = \frac{2\sqrt{\text{Cov}(RD_{i,j}, RD_{i,j-1})}}{\sigma_{i,j}} \]  

(2)

Where \( a = \ln(H/O), b = \ln(L/O), \ln(C/O) \) and \( \sigma^2_{i,j} \) represents the volatility of firm \( i \) on day \( j \).

2. Information Asymmetry and Volatility

Table 1 presents the panel data for the two sub-samples on the relative differences of the effective spread. Panel A presents the average of the daily spread between the 1st and 5th day after the start of negotiations and panel B, for the different periods of time. Apart from the fifth day, our results do not show any significant difference in the relative effective spread between the two sub-samples. The results for the two first observation windows (1st – 10th day and 11th – 20th) show a lower relative effective spread for the IPOs with VC firms, whereas the contrary is true in the case of the third observation window (21st – 30th).

<table>
<thead>
<tr>
<th>Panel A: Daily measure</th>
<th>VC-backed IPOs</th>
<th>Non VC-backed IPOs</th>
<th>Difference*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day 1</td>
<td>0.003</td>
<td>0.004</td>
<td>-0.517 (-0.70)</td>
</tr>
<tr>
<td>Day 2</td>
<td>0.006</td>
<td>0.007</td>
<td>0.062 (0.15)</td>
</tr>
<tr>
<td>Day 3</td>
<td>0.008</td>
<td>0.007</td>
<td>-0.386 (-1.10)</td>
</tr>
<tr>
<td>Day 4</td>
<td>0.246</td>
<td>0.010</td>
<td>1.068 (1.13)</td>
</tr>
<tr>
<td>Day 5</td>
<td>0.006</td>
<td>0.013</td>
<td>-2.201 (-2.84)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Panel B: Interval measure</th>
<th>VC-backed IPOs</th>
<th>Non VC-backed IPOs</th>
<th>Difference*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Days 1-10</td>
<td>0.005</td>
<td>0.011</td>
<td>-0.874 (-0.82)</td>
</tr>
<tr>
<td>Days 11-20</td>
<td>0.010</td>
<td>0.036</td>
<td>0.169 (0.45)</td>
</tr>
<tr>
<td>Days 21-30</td>
<td>0.08</td>
<td>0.007</td>
<td>0.727 (0.84)</td>
</tr>
</tbody>
</table>

Note: Z-statistic of Mann-Whitney U test; This nonparametric test is used to compare two independent small samples; t-statistics are reported between brackets: * mean a significant coefficient at the level of 1%.

We agree that the certification/monitoring effect is weaker than that of adverse selection/grandstanding effect. As a consequence, the cost of the information asymmetry of VC-backed IPOs is stronger. However, these IPOs are characterized by a relative effective spread that is lower during negotiations.

Table 2 presents the empirical results for information asymmetry costs in the two sub-samples. In general, costs are lower for operations with VC firms in the first few days following the IPO. For the three observation windows, the results in panel B also show that costs of operations with VC are not lower than the others.

Consequently, we rejected the second hypothesis. As far as volatility is concerned, it is higher for operations with VC firms than that of others, but this difference is less marked and not significant. According to table 3, the volatility of VC-backed IPOs is higher for the three observation windows.

<table>
<thead>
<tr>
<th>Panel A: Daily measure</th>
<th>VC-backed IPOs</th>
<th>Non VC-backed IPOs</th>
<th>Difference*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day 1</td>
<td>0.236</td>
<td>0.300</td>
<td>-0.208 (-0.26)</td>
</tr>
<tr>
<td>Day 2</td>
<td>0.302</td>
<td>0.331</td>
<td>-0.130 (-0.01)</td>
</tr>
<tr>
<td>Day 3</td>
<td>0.304</td>
<td>0.382</td>
<td>-0.178 (-0.35)</td>
</tr>
<tr>
<td>Day 4</td>
<td>0.603</td>
<td>0.494</td>
<td>1.706* (1.14)</td>
</tr>
<tr>
<td>Day 5</td>
<td>0.539</td>
<td>0.610</td>
<td>-0.104 (0.19)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Panel B: Interval measure</th>
<th>VC-backed IPOs</th>
<th>Non VC-backed IPOs</th>
<th>Difference*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Days 1-10</td>
<td>0.440</td>
<td>0.406</td>
<td>0.101 (0.79)</td>
</tr>
<tr>
<td>Days 11-20</td>
<td>0.468</td>
<td>0.490</td>
<td>-0.106 (-0.92)</td>
</tr>
<tr>
<td>Days 21-30</td>
<td>0.495</td>
<td>0.431</td>
<td>1.068 (1.07)</td>
</tr>
</tbody>
</table>

Note: Z-statistic of Mann-Whitney U test; This nonparametric test is used to compare two independent small samples; t-statistics are reported between brackets: * mean a significant coefficient at the level of 5%.
Our results prove that the degree of information asymmetry in IPOs with VC firm involvement, perceived by the financial market, is not lower than those without VC firm involvement as far as the relative effective spread, the information asymmetry costs and the volatility are concerned. The results also indicate that a reduction in information asymmetry because of the effect of certification/monitoring by the VC firm may be largely compensated for by the VC firm’s adverse selection/grandstanding effect.

### Table 3. Analysis of price volatility

<table>
<thead>
<tr>
<th>Panel A: Daily measure</th>
<th>VC-backed IPOs</th>
<th>Non VC-backed IPOs</th>
<th>Difference*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day 1</td>
<td>0.006</td>
<td>0.005</td>
<td>1.001 (-0.02)</td>
</tr>
<tr>
<td>Day 2</td>
<td>0.004</td>
<td>0.003</td>
<td>0.617 (0.79)</td>
</tr>
<tr>
<td>Day 3</td>
<td>0.004</td>
<td>0.003</td>
<td>0.700 (0.58)</td>
</tr>
<tr>
<td>Day 4</td>
<td>0.003</td>
<td>0.003</td>
<td>0.198 (0.05)</td>
</tr>
<tr>
<td>Day 5</td>
<td>0.004</td>
<td>0.003</td>
<td>0.533 (1.01)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Panel B: Interval measure</th>
<th>VC-backed IPOs</th>
<th>Non VC-backed IPOs</th>
<th>Difference*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Days 1-10</td>
<td>0.003</td>
<td>0.003</td>
<td>0.601 (0.53)</td>
</tr>
<tr>
<td>Days 11-20</td>
<td>0.003</td>
<td>0.002</td>
<td>1.024 (1.40)</td>
</tr>
<tr>
<td>Days 21-30</td>
<td>0.003</td>
<td>0.002</td>
<td>0.803 (0.44)</td>
</tr>
</tbody>
</table>

### 3. Information Asymmetry and Volatility

Panel A (Table 4) presents estimations relating to the relations between bid-ask spreads and the factors associated with the characteristics of IPOs. In accordance with the results presented in the previous section, we observe no relationship between VC-backed firms and bid-ask spreads. This may be due to the particular characteristics of the French stock market, particularly the dominance of small investors. The bid-ask spread in this market is not affected by information on share prices as most of these investors are not informed.

Panel B presents the results of the estimation of the relationship between information asymmetry costs and the characteristics of an IPO. Model 2 indicates that the presence of VC within the board of directors has a positive impact on the information asymmetry cost. Once again, VC-backed IPOs do not present a lower level of information asymmetry compared to non VC-backed IPOs. Our results also shows that, thanks to better transparency, information asymmetry costs incurred by large companies are lower than those for small companies.

Moreover, information asymmetry costs are positively correlated with the degree of underpricing. Panel C shows that there is no relationship between VC-backed IPO and the volatility of the IPOs. Consequently, the monitoring carried out by VC firms has no effect during the IPO process on the French market.
Table 4. Cross-sectional analysis of explanatory variables (N = 186)

<table>
<thead>
<tr>
<th>Model</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Panel A: Relative spread (RS)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dependent variables:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>-0.139(-2.06)</td>
<td>-0.174(-2.74)</td>
<td>-0.179(-2.68)</td>
<td>-0.180(-2.83)</td>
<td>-0.220(-2.72)</td>
</tr>
<tr>
<td>Underpricing</td>
<td>0.186(1.20)</td>
<td>0.201(1.00)</td>
<td>0.218(1.09)</td>
<td>0.183(1.19)</td>
<td>0.262(3.37)</td>
</tr>
<tr>
<td>Shares</td>
<td>0.086(1.73)</td>
<td>-0.027(-1.65)</td>
<td>0.356(1.25)</td>
<td>0.027(0.63)</td>
<td></td>
</tr>
<tr>
<td>VC (= 1, VC-backed IPO)</td>
<td>0.165(0.93)</td>
<td></td>
<td></td>
<td>0.356(1.25)</td>
<td></td>
</tr>
<tr>
<td>Board (=1, if VC in the board)</td>
<td>0.019(0.58)</td>
<td>-0.026(-0.195)</td>
<td>-0.201(-1.24)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of VC in the capital</td>
<td></td>
<td>-0.207(-0.84)</td>
<td>-0.301(-1.724)</td>
<td>-0.256(-1.098)</td>
<td>-0.256(-1.26)</td>
</tr>
<tr>
<td>Ln(Market Value)</td>
<td>-0.003(-0.43)</td>
<td>-0.065(-0.434)</td>
<td>-0.014(-0.057)</td>
<td>-0.067(-0.247)</td>
<td>0.116(0.63)</td>
</tr>
<tr>
<td>I/AGE</td>
<td>0.065(0.50)</td>
<td>0.038(0.236)</td>
<td>0.015(0.083)</td>
<td>0.036(0.326)</td>
<td>0.072(0.32)</td>
</tr>
<tr>
<td>Earnings per share</td>
<td>0.010(0.054)</td>
<td>0.001(0.003)</td>
<td>-0.006(-0.009)</td>
<td>0.025(0.02)</td>
<td></td>
</tr>
<tr>
<td>Average number of trades (1-30)</td>
<td>0.153</td>
<td>0.173</td>
<td>0.185</td>
<td>0.199</td>
<td>0.208</td>
</tr>
<tr>
<td>Adjusted $R^2$</td>
<td>0.259*</td>
<td>24.34*</td>
<td>35.19*</td>
<td>28.41*</td>
<td>14.23*</td>
</tr>
<tr>
<td>F-Stat.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Panel B: Asymmetric information ($\phi$)**

| Dependence variables: |        |         |          |         |         |
| Constant | -0.213(-2.22) | -0.192(-2.69) | -0.201(-2.74) | -0.193(-2.81) | -0.220(-2.79) |
| Underpricing | 0.285(2.31) | 0.297(2.51) | 0.294(2.25) | 0.283(2.19) | 0.312(2.68) |
| Shares | 0.164(1.21) | 0.237(1.55) | 0.196(0.59) |         |         |
| VC (= 1, VC-backed IPO) | 0.216(1.45) |         |          |         |         |
| Number of VC in the capital | 0.450(2.38) | 0.473(1.54) | 0.037(0.39) | -0.221(-1.49) |         |
| Ln(Market Value) | -0.704(-2.84) | -0.603(-3.32) | -0.591(-2.89) | -0.630(-3.01) | -0.605(-3.38) |
| I/AGE | 0.186(1.26) | 0.131(0.80) | 0.189(1.06) | 0.155(0.95) | 0.247(1.34) |
| Earnings per share | 0.152(1.18) | 0.211(1.42) | 0.102(0.68) | 0.157(0.960) | 0.199(1.28) |
| Average number of trades (1-30) | -0.066(-0.450) | 0.028(0.230) | -0.043(-0.24) | -0.023(-0.127) | 0.083(0.460) |
| Adjusted $R^2$ | 0.103 | 0.113 | 0.145 | 0.150 | 0.163 |
| F-Stat. | 18.58* | 17.52* | 21.68* | 19.04* | 19.32* |

**Panel C: Price volatility ($\sigma^2$)**

| Dependence variables: |        |         |          |         |         |
| Constant | -0.129(-1.87) | -0.154(-2.61) | -0.151(-2.74) | -0.163(-2.76) | -0.171(-2.79) |
| Underpricing | 0.121(0.70) | 0.121(0.74) | 0.068(0.44) | 0.075(0.45) | 0.069(0.39) |
| Shares | 0.303(1.47) | 0.261(0.980) | -0.326(-1.07) |         |         |
| VC (= 1, VC-backed IPO) | 0.139(0.806) |         |          |         |         |
| Number of VC in the capital | 0.298(1.60) | 0.374(1.41) | 0.198(1.12) | 0.091(0.401) |         |
| Ln(Market Value) | -0.30(-1.39) | -0.289(-1.73) | -0.250(-1.25) | -0.301(-1.38) | -0.306(-1.65) |
| I/AGE | 0.264(1.50) | 0.136(1.10) | 0.162(0.81) | 0.265(1.01) | 0.104(0.307) |
| Earnings per share | -0.081(-0.51) | -0.021(-0.11) | -0.057(-0.39) | -0.042(0.36) | 0.010(0.08) |
| Average number of trades (1-30) | 0.591(3.24) | 0.601(3.54) | 0.621(2.99) | 0.701(3.50) | 0.815(3.38) |
| Adjusted $R^2$ | 0.135 | 0.190 | 0.280 | 0.261 | 0.280 |
| F-Stat. | 20.95* | 21.45* | 23.54* | 24.32* |         |

α, β and γ respectively mean a significant coefficient at the level of 1%, 5% and 10%.

**III. CONCLUDING REMARKS**

This paper examines whether the presence of a VC company during an IPO enables a reduction in information asymmetry, between the insiders and the outsiders, using high frequency data from the French stock exchange. The results show no significant difference between the bid-ask spreads of VC-backed IPOs in comparison to non VC-backed IPOs. The information asymmetry costs for the VC-backed IPOs are no different from non VC-backed IPOs. However, when using the price volatility, we observe that VC-backed IPOs is more important for the non VC-backed IPOs. Consequently, the empirical results show that the reduction in information asymmetry caused by the VC firms’ certification/monitoring effect on the IPO can be largely compensated by the adverse selection/grandstanding effect. Moreover, the study concludes that underpricing positively influences the information asymmetry cost. In fact, VC-backed IPOs are characterized by considerable underpricing which significantly increases their information asymmetry costs.

© Copyright by author(s)
REFERENCES

Influence Of International Performance Measurement On Curriculum And Assessment Policy
Ammar Husnain Khan, Forman Christian College Pakistan

ABSTRACT

The process of globalisation brings a huge impact around the world in the field of education. The third world countries are on the verge of making an influential change in their education system. The neoliberal structure being practiced at the present time is also enforcing the restructuring of education system in Pakistan. These changes seem to be shaping notions regarding the policies in education system of Pakistan. The educational polices will be reviewed along with the educational reforms in this paper and critically analysed which show that how curriculum and assessment are under influence of international performance measurement system. The basis of this study is to identify, analyse and evaluate the key drivers of these educational policies in Pakistan and what impact do they bring in the system. The paper also considers the fundamental concept of curriculum given by Dewey which gives a pretty clear idea that Pakistan needs immediate and good educational reforms that need to be implemented. Emphasis will be laid upon that Pakistan to compete in the global economy, needs an effective education system that can sustain and bring changes in the curriculum and assessment accordingly.

Keywords: Globalisation; Assessment; Curriculum; Pedagogy; Global Education Policy Field; Knowledge Economy; International Performance Measurement
Class Size And Student Academic Performance In A School Context: (Gauteng, South Africa)

Lydia Kgomotso Mphahlele, Tshwane University of Technology, South Africa
Sakge Harry Rampa, Tshwane University of Technology, South Africa

ABSTRACT

Class size has been arguably regarded as one of the significant determinants of students' academic performance globally (Muraina's and Olatunde). Empirically, there exist some contentions and arguments about the validity of the relationship between class size and student's outcomes because of other controlled variables that influence students' performance (Joseph, and Olatunde). Monks and Schmidt argue that class size is believed to affect students' academic performance in elementary, secondary, and tertiary level of education. An exploratory/interpretive design was conducted through the use of semi-structured interviews. Three teachers and three students from surrounding schools were selected as respondents, who were reliable insiders and purposefully selected based on their experiences and exposure to class size. Findings revealed that class factors are very important in the teaching-learning activities, particularly when students' academic performance is being considered. Class size is an important factor in relation to student's academic performance and that there is a close relationship between small class sizes, teachers' experience, perceptions and individual choice are needed to guarantee high student academic performance. Findings also reveal that government, parents, community and school administrator are the next agencies that need to enforce the adaptation of student teacher ratio in every school by improvising a means where there is shortage of educational infrastructure to bring about equality in educational facilities available for any student to learn.

Keywords: Class Size; Performance; Perceptions; Relationship; Experience
Relationship Between Initial Teacher Education And Continuous Professional Development: Challenges And Prospects

Mphahlele Lydia Kgomo, Tshwane University of Technology, South Africa
Rampa Sakge Harry, Tshwane University of Technology, South Africa

ABSTRACT

Several countries around the world face various challenges in their teacher education system. Various international studies highlight that effective schools are those which have good quality teachers who are reliable in meeting the supply and demands of systematic challenges in teacher recruitment. These studies have reached similar conclusions; included are key strategies identified for improving student outcomes centred around developing a quality teacher workforce, which aims to 1) attract, recruit and retain high quality candidates into teacher training, 2) train with high level subject specialisation and academic rigour and 3) provide teachers with personalised continuing professional development (CPD). In the South African context there are systemic concerns about attracting and recruiting the best teachers in terms of size, shape and substance to redress the unequal apartheid legacy confounded by current inequalities in education. Teacher education practice is viewed negatively as it is functioning and operates in negative culture. An interpretive design was conducted with Bachelor of Honours students at a University of Technology for an empirical study leading to epistemological inductions. The inductive results elicited some continuous improvements in the key strategies for the improved and developed quality teacher workforce, which aims to attract, recruit and retain high quality candidates into teacher training with high level subject specialisation and academic rigour and provide teachers with personalised continuing professional development for sustainable quality of teacher supply and demand.

Keywords: Initial Teacher Education; Professional Development; Quality Teacher Workforce; Supply and Demand
Corporate Governance Mechanisms And Income Smoothing: The Case Of European Union Banks

Konstantinos Vasilacopoulos, Athens University of Economics and Business, Greece
Christos Tzovas, Athens University of Economics and Business, Greece
Apostollos Ballas, Athens University of Economics and Business, Greece

ABSTRACT

This study investigates whether corporate governance mechanisms have an impact upon EU Banks’ accounting policy decisions. We investigate if certain banks’ corporate governance characteristics are related with the level of Loan Loss Provisions (LLPs) reported by a sample of EU Banks. We examined the accounting policy decisions of a sample of 98 banks from 23 EU countries regarding the level of LLPs. Initially, we investigate whether banks adjust LLPs in order to smooth their reported earnings. Subsequently, we investigate the association between two corporate governance characteristics of the sample banks, i.e. the structure of the board of directors (one-tier vs. two-tier system) and the disclosure of CEOs’ remuneration, with their accounting policy decisions regarding LLPs. We found that banks with a two-tier board system are more likely, comparing to the one-tier system banks, to adjust the level of LLPs. Furthermore, we found that banks that do not disclose CEOs’ remuneration are more likely to report higher Loan Loss Provisions.

Keywords: Banks; Provisions; Corporate Governance; Board of Directors; Remuneration

1. INTRODUCTION

Previous research has provided substantial evidence that banks use accounting accruals in order to smooth their reported income. (Ma, 1988; Greenawalt and Sinkey, 1989; Moyer, 1992; Collins et al., 1995; Laeven and Majnoni, 2003; Kanangaretnan et al., 2004; Fonseca and Gonzalez, 2008). The European Union (EU hereinafter) has adopted International Financial Reporting Standards (IFRS hereinafter) and the Basel I & II regulatory framework in order to harmonize accounting and regulatory practices across EU countries and limit banks’ accounting discretion. Furthermore, enhanced corporate governance mechanisms have been proposed. In particular, in June 2010, in the aftermath of the financial crisis of 2008, the European Committee issued a Green Paper addressing various issues relating with the corporate governance of the financial institutions. The Green Paper addresses issues relating to: the structure and the functions of the board of directors; the role of external auditors; the disclosure of remuneration policy; the duties of supervisory authorities; and the rights of shareholders.

Despite the efforts of the European Union, income smoothing has not been eliminated (Gebhardt and Farkas, 2011; Hamadi et al., 2016). This paper investigates the impact of specific corporate mechanisms upon accounting policy decisions of EU banks. In particular, we examine whether the structure of the board of directors (one-tier vs. two-tier system) and the disclosure of Chief Executive Officers’ (CEO hereinafter) remuneration have an impact upon banks accounting policy decisions. We use a sample of sample 98 banks from 23 European Union countries (392 observations) for the period 2010-2013. In line with previous research, we examine loan loss provisions (hereinafter, LLPs) as a smoothing accounting tool.

Our results suggest that LLPs remain a significant income-smoothing tool for EU banks. In addition, the empirical findings of this study indicate that the structure of the board of directors and the disclosure of the CEO’s remuneration are associated with the level of LLPs. LLPs are higher for banks with a two-tier structure boards. Similarly, we find that LLPs are higher for banks, which do not disclose CEO’s compensation.
The findings of this study contribute to the existing literature concerning firms’ income smoothing behavior, by providing insights focusing on banks’ income smoothing management behavior. The findings of this study can be useful to regulators, since we provide some evidence regarding the effectiveness of the EU corporate governance framework. The evidence provided by this study can have some policy implications since it appears that the implementation of an intergraded and strict corporate governance framework can improve accounting quality and restrain bank managers from opportunist actions.

The remainder of this paper is organized as follows. Section 2 discusses the hypotheses regarding income and regulatory capital management. Section 3 describes our sample and methodology. Section 4 reports the empirical results of univariate and multivariate analyses, as well as the results of robustness analysis. Finally, section 5 presents our conclusions.

2. HYPOTHESES DEVELOPMENT

Similarly to managers of other industries, bank managers may smooth income in order to maximize their own compensation and/or secure their jobs (Healy, 1985; Kanagaretnam et al., 2003). In addition, banks’ managers may smooth or manipulate income to avoid regulatory intervention (Moyer, 1990).

Prior studies have provided evidence that LLPs comprise one of the main tools used by banks’ management for income smoothing purposes (Ma, 1988; Greenawalt and Sinkey, 1989; Beatty et al., 1995; Collins et al., 1995). The adoption of the Basel Regulatory framework enhanced bank managers’ motivation for smoothing income through LLPs. In contrast with the old regulatory regime, the Basel regulatory framework eliminated loan loss provision from the calculation of Tier I regulatory capital. Therefore, bank managers have the opportunity for a simultaneous management of earnings and regulatory capital ratios (Kim and Kross, 1998; Ahmed et al., 1999).

In an attempt to improve accounting quality and deter bank managers from managing earnings, EU adopted IFRS. Banks recognize provisions for loan losses only when a “loss event” has already occurred at the balance sheet date. Gebhardt and Farkas (2011) found that the adoption of IFRS significantly reduced income smoothing. Subsequently, the Basel II regulatory framework imposed even stricter rules regarding loan loss recognition. However, Hamadi et al. (2016) found that despite the adoption of the new regulatory regime, EU banks continue to manipulate their LLPs.

Corporate governance mechanisms have been introduced, among other reasons, for refrain EU banks from involving in earnings’ management strategies. Although banks face corporate governance issues similar to those of other firms, Levine (2003) argued that banks have two special attributes that require special consideration. Specifically, the opaqueness of banks’ assets reduces the ability of debt holders to exert effective control upon banks’ management. As a result, banks’ management may take over increasing risk at the expense of the interest of other stakeholders. Furthermore, regulatory restriction on ownership and the existence of deposit insurance schemes amplifies the moral hazard problem and reduces the motivation of depositors to monitor bank managers effectively.

The attributes of banks’ corporate governance systems along with the impact of the financial crisis of 2008, led the European Commission to examine the introduction of corporate governance rules and practices pertaining specifically to financial institutions. In June 2010, the European Commission issued a Green Paper and provided a series of guidelines for the general improvement of corporate governance framework for financial institutions. These guidelines refer to: the structure, the duties and the operations of the board of directors; the rights of shareholders; the disclosure of directors’ remuneration, including CEO’s remuneration; the responsibilities and duties of the external auditors; and the role of supervisory authorities.

Ideally the study of corporate governance mechanisms would involve the joint examination of all relevant mechanisms (Ahmed and Duelman, 2007; Cornett et al., 2009). In this study, we focus on two corporate governance mechanisms: the structure of the board of directors and the disclosure of the CEO’s remuneration.
2.1 Board of Directors

The board of directors comprises a fundamental mechanism of the corporate governance system. Within the framework of a classic principal—agent relationship, the board of directors takes the role of the principal in the monitoring process of the agent-manager. Board monitors senior management decisions because it is efficient to separate decision initiation and implementation (Fama and Jensen, 1983). Furthermore, the board members have the responsibility to fire or hire managers, determine management compensation and approve crucial projects that demands high amounts of investment (Grinstein and Tolkowsky, 2004).

The monitoring function of the board of directors can have some implications regarding managers’ accounting discretion. Accounting data is a crucial information input for board’s decisions. As a consequence, board will require comparable and verifiable information in order to take decisions and monitor managers. Knowing that their accounting discretion is closely monitored, managers will refrain from managing accounting figures. Cornett et al. (2009) found that certain board’s characteristics can be negatively associated with earnings management. In particular, they found that when firm’s board of directors include more independent members is less likely that earnings manipulation will occur. Moreover, an independent and strong board of directors is likely to demand the implementation of more conservative accounting policies. Ahmed and Duelman (2007) argue that accounting conservatism will deter managers from withholding information on expected losses. In fact, Ahmed and Duelman (2007) found that there is a negative relation between the percentage of the board inside directors and accounting conservatism and a positive relation between accounting conservatism and the percentage of shares owned by outside directors.

We investigate whether specific board characteristics influence banks accounting policy decisions. Banks differ from other firms with regard to the structure of their board directors (Adams and Mehran, 2003). According to the Council Regulation 2157/2001, banks are free to provide for a supervisory and management organ (two-tier system) or an administrative organ (one-tier system). Under the two tier-system, the management board is responsible for the management of the bank, while the supervisory board undertakes the role of supervising the management organ. In contrast, under the one tier-system, bank’s management is carried out by the board of directors or may be delegated to executive directors with the remaining non-executive directors monitoring the work of senior managers. Although, both European Committee and Basel Committee argue that corporate governance rules are uniform regardless the type of board structure, the differentiation of structure may have an impact upon managers’ monitoring by the board of directors. In the case of two-tier board of directors, the existence of a supervisory board in the governance structure may restrict management’s opportunistic behavior. On the other hand, the separation of duties between the board members that prevails in the two-tier system, may allow the emergence of a 'free-rider problem' that may result to ineffective governance. In order to investigate whether the adoption of a two-tier system improves the effectiveness of corporate governance applied in a bank we test the following hypothesis:

H1: There is no difference in association between loan loss provisions and earnings before tax and provisions between One Tier System and Two Tier System Banks.

2.2 CEO Compensation

Compensation schemes are supposed to be an important factor in aligning managers’ and owners’ interests, aiming to the maximization of firm’s value (Lambert, 1984). Previous research has provided mixed evidence regarding the effectiveness of compensation schemes as a value increasing mechanism (Healy, 1985; Holthausen et al. 1995; Guidry et al., 1999). In the case of accounting-numbers based compensation schemes, firm’s management may manipulate accounting figures in order to maximize their compensation at the expense of shareholders interests (Healy, 1985). Core et al. (1999) investigated the relation between boards’ characteristics, ownership structure and managers compensation. They found that managers’ compensation was higher when governance structures were less effective. Cornett et al. (2009) found that CEOs’ compensation is related with the effectiveness of governance mechanisms. Furthermore, they found that bank CEOs’ compensation was positively associated with the level of earnings management.

In April 2011, the European Commission issued a second Green Paper that recommended the disclosure of entities’ remuneration policy for their directors and managers. In addition, the commission recommended that entities ought to
disclose remuneration of individual directors (executive and non-executive) and managers, including the remuneration of CEO. The Committee emphasized that some Member States do not adequately address issues relating to the remuneration policy for directors and upper management. In particular, many banks do not disclose the remuneration amounts for their directors and managers, despite the fact that they prepare a Corporate Governance Statement. The absence of managers’ remuneration disclosure may imply that banks’ management attempt to conceal from other stakeholders a possible connection between bank’s accounting result and managers’ remuneration. We focus on the disclosure of CEOs’ remuneration, since CEOs are responsible for banks accounting policy decisions (Adams and Mehran, 2003). We tested the following hypothesis:

**H2:** The association between loan loss provisions and earnings before tax and provisions for banks that disclose CEO remuneration is not significantly different from the association between loan loss provisions and earnings before tax and provisions for banks that do not disclose CEO remuneration.

### 3. RESEARCH DESIGN

Our sample consists of 392 hand-collected annual observations regarding 98 banks from 23 EU countries for the period 2010 to 2013. The initial year 2010 is related with the issuance of the Green Paper including corporate governance recommendations for financial institutions. We exclude Croatia because it joined the EU in 2014 and Luxembourg, Estonia, Malta and Romania due to lack of corporate governance data. Our initial sample consists of 8,019 banks according to the ECB records of 2014. We exclude all banks that were not rated by an official rating agency during this period and the total number of banks is limited to 2,021. We exclude all banks with missing data and we finally ended up with sample of 98 banks from 23 EU countries. Banks and other public entities domiciled in the European Union were required to prepare group accounts in accordance to IFRS from the 1st January 2005. Furthermore, the European Union has adopted both Basel Accords (I & II). Subsequently, all banks in our sample report their financial statements under a uniform accounting framework (IFRS) and operate under a uniform regulatory environment.

Our research proceeded in two stages. In the first stage, we investigated whether EU banks manipulate their earnings through LLPs. In the second stage, we tested our hypothesis by examining whether earnings management is associated with the structure of the board of directors (one-tier or two-tier system) and the disclosure of bank managers’ remuneration. In order to investigate whether EU banks manipulate their earnings through LLPs we estimated the following model:

\[
\text{LLPt} = \beta_0 + \beta(1)*\Delta\text{NPLt} + \beta(2)*\Delta\text{NPLt-1} + \beta(3)*\text{SIZEt-1} + \beta(4)*\Delta\text{LOANt} + \beta(5)*\Delta\text{GDPt} + \beta(6)*\Delta\text{UNEMPt} + \\
\beta(7)*\text{ALWt-1} + \beta(8)*\text{EBTPt} + \beta(9)*\text{LOANT} + \beta(10)*\text{BoardSize} + \beta(11)*\text{IND} + \beta(12)*\text{NEXEC} + \beta(13)*\text{DUAL} + \epsilon
\]

where

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LLP</td>
<td>Loan loss provision scaled by lagged total loans</td>
</tr>
<tr>
<td>ALW</td>
<td>Loan loss allowance divided by total loans</td>
</tr>
<tr>
<td>LOAN</td>
<td>Total loans divided by total assets</td>
</tr>
<tr>
<td>NPL</td>
<td>Non-performing assets divided by lagged total loans</td>
</tr>
<tr>
<td>ΔGDP</td>
<td>Change in GDP</td>
</tr>
<tr>
<td>ΔLOAN</td>
<td>Change in total loans divided by lagged total loans</td>
</tr>
<tr>
<td>ΔNPL</td>
<td>Change in non-performing assets divided by lagged total loans</td>
</tr>
<tr>
<td>ΔUNEMP</td>
<td>Change in unemployment rates</td>
</tr>
<tr>
<td>EBPT</td>
<td>Earnings before taxes and provisions scaled lagged total loans</td>
</tr>
<tr>
<td>SIZE</td>
<td>The natural log of total assets</td>
</tr>
<tr>
<td>BoardSize</td>
<td>The natural log of board members</td>
</tr>
<tr>
<td>IND</td>
<td>Percentage of outside directors in the board</td>
</tr>
<tr>
<td>NEXEC</td>
<td>Percentage of non executive members in the board</td>
</tr>
<tr>
<td>DUAL</td>
<td>Dummy that takes the value of 1 if the CEO is the chairman of BoD and 0 otherwise</td>
</tr>
</tbody>
</table>
Loan loss provisions in year $t$ reflect managers’ expectations of loan losses based on information about loans that became delinquent during the previous year ($\Delta NPL_{t-1}$) or the current year ($\Delta NPL_t$). According to the incurred loss model of IAS 39, banks should only recognize loan loss provisions when there is objective evidence about a counterparty’s credit quality deterioration. When banks assess either individual loans or a group of smaller and homogeneous loans, they compute loan losses and probability default based on past experience and statistical analysis of previous credit losses. Thus, non-performing loans are expected to be positively correlated with loan loss provisions. A large number of past-due loans is associated with the current year's write-offs and subsequently with the previous year’s loan loss provisions.

The variable $EBPT_t$ equals earnings before loan loss provisions and taxes at the end of the year $t$ and is used as a proxy for income smoothing; if a manager is engaged with smoothing or managing earnings, this independent variable will be positively associated with loan loss provisions.

We control for bank size ($SIZE_{t-1}$) because banks of different sizes may be subject to a different level of regulatory scrutiny or monitoring (see, Watts and Zimmerman, 1986; Moyer, 1990; Bishop, 1996). Furthermore, we control for loan growth ($\Delta LOAN$) and total lending ($LOAN$) because loan loss provisions may be higher when banks extend credit to more clients with lower credit (Laeven and Majnoni, 2003). Thus, we expect loan growth to be positively related to loan loss provisions. We also include the variable $ALW_{t-1}$ to control for the past year's loan loss allowances. The rationale for controlling for past allowance is that if banks recognize sufficiently high provision in the past, the current provision may be lower. Within this context, we expect a positive sign regarding the relation between $ALW_{t-1}$ and $LLP_t$. We also include $\Delta GDP_t$ and $\Delta UNEMP_t$ to control for macroeconomic trends in the overall economy. Bushman and Williams (2012) argue that income smoothing through loan loss provisions is suggested by regulators to offset the pro-cyclical effect of bank capital. In particular, regulators argue that the IFRS proposed “incurred loan loss model” significantly limits bank managers’ discretion to incorporate forward looking judgments into loan loss provisions. Subsequently, when loan loss reserves cannot absorb recessionary credit losses, greater loan loss recognition reduces capital adequacy and forces banks to reduce lending by exacerbating the downturn. Within this context, Laeven and Majnoni (2003) argue that when loan loss provisions are negatively associated with GDP growth, bank managers demonstrate imprudent loan loss provisioning behavior. During economic booms, GDP growth is positive and unemployment decreases. Subsequently, we expect a positive sign for GDP, as banks are expected to increase loans. In contrast, we expect a negative sign for unemployment because it is used as a proxy for individuals' credit quality.

The control variables BoardSize, IND, NEXEC and DUAL are used to control for specific characteristics of the Board. Board Size equals with the natural logarithm of board members. This variable is included because related literature argues that large boards are less effective while smaller boards manage to monitor managers in an a more effective manner (Yermack, 1996; Anand, 2008). The variable DUAL takes the value one if the CEO is also the Board's chairman and 0 otherwise. Within this context, CEOs with dual duties may have greater influence on board's decisions (Tricker, 1994). The variable IND equals the percentage of outsiders in the board composition. For the purpose of this study, each member of the Board is classified as independent according to the Corporate Governance Statement of each bank. Independent members play the monitoring role inside the board (Clarke, 1988; Hermalin and Weisbach, 2000). Finally, the variable NEXEC equals with the percentage of non-executive members in the board, who also play a monitoring role for senior management (Staikouras et al., 2009).

In order to investigate the impact of board structure on income smoothing (H1), we estimate our base model for two separate clusters. The first cluster consists of banks with an one-tier board at the end of the year $t$; the second one includes banks with a two-tier board. If the estimated coefficients of the variable $EBPT_t$ are significantly different, bank managers' income smoothing behavior is affected by the board structure.

Our second hypothesis (H2) examines whether banks that disclose managers’ remuneration are less likely to manage their income in comparison with banks that do not disclose such information. To test this hypothesis, we estimate our base model for two separate sub-samples. The first cluster consists of banks that disclose annual director's remuneration at the end of the year $t$; the second cluster includes banks that do not provide any disclosures for the individual executive and non-executive directors' compensation. If the estimated coefficients of the variable $EBPT_t$...
are significantly different between the two clusters, it can be inferred that banks’ income smoothing behavior is affected by the compensation disclosure.

4. RESULTS

The descriptive statistics of the pooled sample for the period 2010-2013 are presented in Table 1. Banks’ earnings before provision and taxes are positive (0.011), while both GDP growth and loan growth (ΔLOAN) are positive as well (0.006 and 0.67 respectively). With respect to corporate governance variables, it appears that on average sample banks’ boards of directors consists by 17 members, while the average percentage of independent directors is 56% and the proportion of non-executive directors is 73%. The higher proportion of non-executive directors can be attributed to the significant number of sample–banks that adopt a two-tier system where the board members of supervisory board are independent and non-executive (Jungmann, 2006).

Spearman rank correlation (Table 2) shows that there is a positive association between loan loss provisions and non-performing loans (ΔNPL). Furthermore, LLPs are positively associated with the level of previous year's loan loss allowance (ALWt-1). This finding implies that provisions in prior years have an impact on the current year's provisions. The negative association between provisions and Loan growth (ΔLOANt) and GDP growth (ΔGDP t) implies a pro-cyclical effect of provisions on capital. Loan loss provisions of the current year (LLPt) are positively associated with earnings before taxes and provisions (EBPTt) and this relation implies that bank managers smooth income through loan loss provisions. Moreover, univariate analysis results show that there is a negative association between LLPs and the control variables of boards’ characteristics. In line with Ahmed and Duelman (2007), we found that board size, independent directors’ percentage and non-executive directors’ percentage have a negative impact on LLPs recognition.

The results of the multivariate analysis (Table 3) for the pooled sample show that there is a positive and significant association between loan loss provisions and earnings before taxes and provisions (EBPTt), implying that bank managers use LLPs to smooth income. This result is consistent with the results of previous studies (Ma, 1988; Greenawalt and Sinkey, 1989; Laeven and Majnoni, 2003; and Fonseca and Gonzalez, 2008, Hamadi et al., 2016). In line with the results of univariate analysis, LLPs are negatively associated with GDP growth, a result that confirms the pro-cyclical effect of LLPs on banks’ capital. With the exception of the percentage of the non-executive officers in the board, control variables concerning board characteristics have no significant impact on LLPs. In contrast with the results of the univariate analysis, the association between non-executive officers and LLPs is positive and significant, implying that the higher presence of non-executive officers in the board does not reduce managers’ accounting discretion.

With respect to the association between board structure (one-tier vs. two-tier system) and earnings management (H1), our findings do not provide substantial evidence for income smoothing for the cluster of One-tier banks (see Table 4). Although there is a positive relation between earnings before taxes and provisions with LLPs, this association is not significant. On the other hand, for the two-tier banks there is a significant positive association LLPs and EBPTt. In addition, the cluster of the two-tier banks presents a positive and significant association between the percentage of non-executive directors and LLPs. This finding implies an ineffective monitoring role of the supervisory boards, the members of which are typically independent and non-executive according to the governance code of those banks. This finding may imply that the separation of duties across the board members may create free-rider problems that make monitoring ineffective (Tricker, 1994; Jungmann, 2006; Solomon, 2013).

With respect to the association between the disclosure of CEOs’ compensation and income smoothing (H2), the analysis of our sample indicates that during the period 2010-2013, a considerable number of banks (145 of 392 observations) did not disclose individual officers compensation at all (see Table 5). It should be noted, that European Committee (April 2011) stressed that a number of Member States have not addressed this issue adequately. The absence of such disclosure is compatible with CEOs’ attempt to conceal a possible association between accounting figures’ manipulation and their compensation. Indeed, the cluster analysis indicates that in the cluster of banks that provide no compensation disclosure, there is a positive and significant association between LLPs and EBPTt (Table 5). This result implies that bank managers may manage income to maximize their individual compensation. In contrast,
banks that provide compensation disclosures do not seem to engage in income smoothing patterns. The multivariate results for this cluster imply a negative but not significant association between earnings and LLPs.

5. CONCLUSIONS

After the financial crisis of 2008, the European Committee issued a series of recommendations for the improvement of the corporate governance mechanisms of financial institutions. The Committee addressed various issues relating to: the structure and the functions of board of directors; the role of external auditors; the disclosure of remuneration policy; the duties supervisory authorities; and the rights of shareholders.

Although prior literature has thoroughly investigated the impact of corporate governance mechanism on firm performance, only a few papers attempted to directly associate governance characteristics with accounting policy decisions. This study investigates whether bank managers use accounting discretion through LLPs and whether the structure of specific governance mechanisms affect bank managers' accounting discretion.

In line with previous research, our findings show that during period 2010-2013, there is a positive relation between LLPs and earnings before taxes and provisions, implying that banks' management may engage in income smoothing practices. Our study examined whether banks’ board structure and CEOs’ compensation disclosure affect banks' accounting discretion. Our analysis suggests that managers of two tier banks are more likely to use LLPs for earnings management purposes. In contrast, we did not find substantial evidence to support the income-smoothing hypothesis for the "one-tier" banks. Furthermore, our results suggest that difference regarding the disclosure compensation have an impact on managers’ discretion to smooth income.

The European Committee attempted to improve EU financial institutions through recommendations and regulations. The findings of this study may confirm the concerns of the European Committee regarding the weaknesses of bank governance mechanisms and imply that regulators and accounting standard setters should work towards the improvement of the both regulatory and accounting regime in order to eliminate stakeholders' concerns about the strength and transparency of financial institutions.

ACKNOWLEDGEMENT

Authors acknowledge financial support received from the Research Center of the Athens University of Economics and Business in the framework of the project entitled “Original Scientific Publications” (EP-2732-01).

REFERENCES


Table 1. Descriptive statistics

<table>
<thead>
<tr>
<th></th>
<th>LLPt</th>
<th>ALWt-1</th>
<th>ΔNPLt</th>
<th>ΔNPLt-1</th>
<th>ΔLOANt</th>
<th>ΔGDPt</th>
<th>ΔUNEMPt</th>
<th>EBTPt</th>
<th>BoardSize</th>
<th>IND</th>
<th>NEXEC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>0.009</td>
<td>0.040</td>
<td>0.080</td>
<td>0.011</td>
<td>0.002</td>
<td>0.007</td>
<td>0.101</td>
<td>0.011</td>
<td>17.033</td>
<td>0.567</td>
<td>0.730</td>
</tr>
<tr>
<td>Median</td>
<td>0.006</td>
<td>0.030</td>
<td>0.054</td>
<td>0.003</td>
<td>-0.006</td>
<td>0.008</td>
<td>0.083</td>
<td>0.011</td>
<td>16.000</td>
<td>0.632</td>
<td>0.739</td>
</tr>
<tr>
<td>Maximum</td>
<td>0.141</td>
<td>0.275</td>
<td>0.581</td>
<td>0.340</td>
<td>0.726</td>
<td>0.066</td>
<td>0.275</td>
<td>0.087</td>
<td>43.000</td>
<td>1.000</td>
<td>1.000</td>
</tr>
<tr>
<td>Minimum</td>
<td>-0.830</td>
<td>0.000</td>
<td>0.000</td>
<td>-0.201</td>
<td>-0.312</td>
<td>-0.071</td>
<td>0.042</td>
<td>-0.828</td>
<td>7.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Std. Dev.</td>
<td>0.046</td>
<td>0.039</td>
<td>0.084</td>
<td>0.040</td>
<td>0.110</td>
<td>0.024</td>
<td>0.053</td>
<td>0.046</td>
<td>6.586</td>
<td>0.249</td>
<td>0.148</td>
</tr>
</tbody>
</table>

Variable Definitions

LLPt, current year's loan loss provision scaled by lagged total loans; ΔNPLt, current year's change in total loans divided by lagged total loans; ΔNPLt-1, previous year's change in total loans divided by lagged total loans; ΔLOANt, current year's change in total loans divided by lagged total loans; ΔGDPt, current year's change in GDP; ΔUNEMPt, current year's change in unemployment rates; ALWt-1, previous year's loan loss allowance divided by total loans; EBTPt, current year's earnings before taxes and provisions scaled lagged total loans; LOANt, current year's total loans divided by total assets; BoardSize, the natural logarithm of total number of directors in the board at the end of the year t; IND, the percentage of independent directors in the board at the end of year t; NEXEC, the percentage of non-executive directors in the board at the end of year t.
<table>
<thead>
<tr>
<th></th>
<th>LLPt</th>
<th>ALW t-1</th>
<th>LOANt</th>
<th>ΔNPLt</th>
<th>SIZE t-1</th>
<th>ΔGDPt</th>
<th>ΔLOANt</th>
<th>ΔNPLt-1</th>
<th>ΔUNEMPt</th>
<th>EBTPt</th>
<th>BoardSize</th>
<th>DUAL</th>
<th>IND</th>
<th>NEXEC</th>
</tr>
</thead>
<tbody>
<tr>
<td>LLPt</td>
<td>1,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ALW t-1</td>
<td>0,819</td>
<td>1,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LOANt</td>
<td>0,305</td>
<td>0,357</td>
<td>1,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ΔNPLt</td>
<td>0,788</td>
<td>0,875</td>
<td>0,390</td>
<td>1,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SIZE t-1</td>
<td>-</td>
<td>0,256</td>
<td>-0,361</td>
<td>-0,547</td>
<td>-0,343</td>
<td>1,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ΔGDPt</td>
<td>-0,423</td>
<td>-0,346</td>
<td>-0,170</td>
<td>-0,350</td>
<td>0,093</td>
<td>1,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ΔLOANt</td>
<td>-0,069</td>
<td>-0,154</td>
<td>0,095</td>
<td>-0,064</td>
<td>0,040</td>
<td>0,262</td>
<td>1,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ΔNPLt-1</td>
<td>0,531</td>
<td>0,409</td>
<td>0,295</td>
<td>0,504</td>
<td>-0,250</td>
<td>-0,304</td>
<td>0,128</td>
<td>1,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ΔUNEMPt</td>
<td>0,483</td>
<td>0,484</td>
<td>0,269</td>
<td>0,424</td>
<td>-0,211</td>
<td>-0,376</td>
<td>0,034</td>
<td>0,395</td>
<td>1,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EBTPt</td>
<td>0,263</td>
<td>0,164</td>
<td>0,015</td>
<td>0,133</td>
<td>0,029</td>
<td>0,158</td>
<td>0,400</td>
<td>0,098</td>
<td>0,177</td>
<td>1,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BoardSize</td>
<td>-</td>
<td>0,270</td>
<td>-0,264</td>
<td>-0,199</td>
<td>-0,286</td>
<td>0,344</td>
<td>0,099</td>
<td>-0,017</td>
<td>-0,141</td>
<td>-0,300</td>
<td>-0,159</td>
<td>1,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DUAL</td>
<td>0,199</td>
<td>0,127</td>
<td>0,048</td>
<td>0,119</td>
<td>-0,020</td>
<td>-0,167</td>
<td>0,117</td>
<td>0,254</td>
<td>-0,042</td>
<td>-0,173</td>
<td>1,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IND</td>
<td>-0,153</td>
<td>-0,227</td>
<td>-0,224</td>
<td>-0,176</td>
<td>0,102</td>
<td>0,210</td>
<td>-0,144</td>
<td>-0,193</td>
<td>-0,561</td>
<td>-0,089</td>
<td>0,045</td>
<td>-0,031</td>
<td>1,000</td>
<td></td>
</tr>
<tr>
<td>NEXEC</td>
<td>-0,150</td>
<td>-0,220</td>
<td>-0,274</td>
<td>-0,203</td>
<td>-0,213</td>
<td>-0,059</td>
<td>-0,144</td>
<td>-0,035</td>
<td>-0,181</td>
<td>-0,292</td>
<td>0,062</td>
<td>0,121</td>
<td>0,419</td>
<td>1,000</td>
</tr>
</tbody>
</table>

Variable Definitions

LLPt, current year's loan loss provision scaled by lagged total loans; ΔNPLt, current year's change in total loans divided by lagged total loans; ΔNPLt-1, previous year's change in total loans divided by lagged total loans; SIZEt-1, natural log of previous year's total assets; ΔLOANt, current year's change in total loans divided by lagged total loans; ΔGDPt, current year's change in GDP; ΔUNEMPt, current year's change in unemployment rates; ALWt-1, previous year's loan loss allowance divided by total loans; EBTPt, current year's earnings before taxes and provisions scaled lagged total loans; LOANt, current years total loans divided by total assets; BoardSize, the natural logarithm of total number of directors in the board at the end of the year t; DUAL, dummy variable that takes the value 1 if the CEO holds the board's chair and 0 otherwise; IND, the percentage of independent directors in the board at the end of year t; NEXEC, the percentage of the non-executive directors in the board at the end of year t.
Table 3. Income smoothing hypothesis

<table>
<thead>
<tr>
<th>Independent variable</th>
<th>Sign</th>
<th>Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALW t-1</td>
<td>+</td>
<td>0.269***</td>
</tr>
<tr>
<td>LOANt</td>
<td>+</td>
<td>0.005</td>
</tr>
<tr>
<td>ΔNPLt</td>
<td>-</td>
<td>-0.001</td>
</tr>
<tr>
<td>SIZE t-1</td>
<td>-</td>
<td>-0.001*</td>
</tr>
<tr>
<td>ΔGDPt</td>
<td>-</td>
<td>-0.280***</td>
</tr>
<tr>
<td>ΔLOAN t</td>
<td>-</td>
<td>-0.044***</td>
</tr>
<tr>
<td>ΔNPLt-1</td>
<td>+</td>
<td>0.045</td>
</tr>
<tr>
<td>ΔUNEMPt</td>
<td>-</td>
<td>-0.055***</td>
</tr>
<tr>
<td>EBTPt</td>
<td>+</td>
<td>0.895***</td>
</tr>
<tr>
<td>BoardSize</td>
<td>+</td>
<td>0.002</td>
</tr>
<tr>
<td>DUAL</td>
<td>+</td>
<td>0.010*</td>
</tr>
<tr>
<td>IND</td>
<td>-</td>
<td>-0.008</td>
</tr>
<tr>
<td>NEXEC</td>
<td>+</td>
<td>0.032***</td>
</tr>
<tr>
<td>Intercept</td>
<td>-</td>
<td>-0.014</td>
</tr>
<tr>
<td>R-squared</td>
<td></td>
<td>0.849</td>
</tr>
<tr>
<td>OBS</td>
<td></td>
<td>392</td>
</tr>
</tbody>
</table>

***, ** and * represent 1%, 5%, and 10% significance (two-tailed or one-tailed, as appropriate), respectively.

The t-stat in parenthesis under the coefficient.

Variable Definitions

LLPt, current year's loan loss provision scaled by lagged total loans; ΔNPLt, current year's change in total loans divided by lagged total loans; ΔLOANt, previous year's change in total loans divided by lagged total loans; SIZEt-1, natural log of previous year's total assets; ΔGDPt, current year's change in GDP; ΔUNEMPt, current year's change in unemployment rates; ALWt-1, previous year's loan loss allowance divided by total loans; EBTPt, current year's earnings before taxes and provisions scaled lagged total loans; LOANt, current year's total loans divided by total assets; BoardSize, the natural logarithm of total number of directors in the board at the end of the year t; DUAL, dummy variable that takes the value 1 if the CEO holds the board's chair and 0 otherwise; IND, the percentage of independent directors in the board at the end of year t; NEXEC, the percentage of the non-executive directors in the board at the end of year t.
Table 4. Impact of board structure on Income smoothing

<table>
<thead>
<tr>
<th>Independent variable</th>
<th>PANEL A -ONE TIER BANKS</th>
<th>PANEL B -TWO TIER BANKS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sign</td>
<td>Coefficient</td>
</tr>
<tr>
<td>ALW t-1</td>
<td>+</td>
<td>0.296***</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(3.832)</td>
</tr>
<tr>
<td>LOANt</td>
<td>+</td>
<td>0.009**</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.757)</td>
</tr>
<tr>
<td>ΔNPLt</td>
<td>-</td>
<td>-0.085**</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(-2.407)</td>
</tr>
<tr>
<td>SIZE t-1</td>
<td>+</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.412)</td>
</tr>
<tr>
<td>ΔGDPt</td>
<td>-</td>
<td>-0.117**</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(-2.535)</td>
</tr>
<tr>
<td>ΔLOANt</td>
<td>-</td>
<td>-0.006</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(-0.585)</td>
</tr>
<tr>
<td>ΔNPLt-1</td>
<td>+</td>
<td>0.162***</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(3.815)</td>
</tr>
<tr>
<td>ΔUNEMPt</td>
<td>+</td>
<td>0.008</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.458)</td>
</tr>
<tr>
<td>EBTPt</td>
<td>+</td>
<td>0.004</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.058)</td>
</tr>
<tr>
<td>BoardSize</td>
<td>-</td>
<td>-0.003</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(-0.989)</td>
</tr>
<tr>
<td>DUAL</td>
<td>+</td>
<td>0.005*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.839)</td>
</tr>
<tr>
<td>IND</td>
<td>+</td>
<td>0.002</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.416)</td>
</tr>
<tr>
<td>NEXEC</td>
<td>-</td>
<td>-0.003</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(-0.58)</td>
</tr>
<tr>
<td>Intercept</td>
<td>-</td>
<td>-0.009</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(-0.872)</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.685</td>
<td>0.946</td>
</tr>
<tr>
<td>OBS</td>
<td>185</td>
<td>207</td>
</tr>
</tbody>
</table>

***, **, and * represent 1%, 5%, and 10% significance (two-tailed or one-tailed, as appropriate), respectively.

Variable Definitions

LLPt , current year's loan loss provision scaled by lagged total loans; ΔNPLt, current year's change in total loans divided by lagged total loans; ΔNPLt-1, previous year's change in total loans divided by lagged total loans; SIZEt-1, natural log of previous year's total assets; ΔLOANt, current year's change in total loans divided by lagged total loans; ΔGDPt, current year's change in GDP; ΔUNEMPt, current year's change in unemployment rates; ALWt-1, previous year's loan loss allowance divided by total loans; EBTPt, current year's earnings before taxes and provisions scaled lagged total loans; LOANt, current year's total loans divided by total assets; BoardSize, the natural logarithm of total number of directors in the board at the end of the year t; DUAL, dummy variable that takes the value 1 if the CEO holds the board's chair and 0 otherwise; IND, the percentage of independent directors in the board at the end of year t; NEXEC, the percentage of the non-executive directors in the board at the end of year t.

1 The variable dual is 0 for all the observations of panel B. Subsequently the variable was dropped from the model.
### Table 5. Impact of CEO disclosure on Income smoothing

\[
LLPt = \beta_0 + \beta(1) * \Delta NPL_t + \beta(2) * \Delta NPL_{t-1} + \beta(3) * SIZE_{t-1} + \beta(4) * \Delta LOAN_t + \beta(5) * \Delta GDP_t + \beta(6) * \Delta UNEMP_t + \beta(7) * ALW_{t-1} + \beta(8) * EBTP_t + \beta(9) * LOAN_t + \beta(10) * \text{BoardSize} + \beta(11) * \text{IND} + \beta(12) * \text{NEEXEC} + \beta(13) * \text{DUAL} + \epsilon
\]

<table>
<thead>
<tr>
<th>Independent variable</th>
<th>PANEL A - CEO DISCLOSURE</th>
<th>PANEL B - CEO NON DISCLOSURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>(ALW_{t-1})</td>
<td>+</td>
<td>(0.446^{***})</td>
</tr>
<tr>
<td>(\Delta NPL_t)</td>
<td>-</td>
<td>-0.003</td>
</tr>
<tr>
<td>(\Delta NPL_{t-1})</td>
<td>-</td>
<td>-0.054***</td>
</tr>
<tr>
<td>(\Delta GDP_t)</td>
<td>-</td>
<td>-0.047</td>
</tr>
<tr>
<td>(\Delta LOAN_t)</td>
<td>+</td>
<td>0.005</td>
</tr>
<tr>
<td>(\Delta UNEMP_{t-1})</td>
<td>+</td>
<td>0.042</td>
</tr>
<tr>
<td>(\Delta UNEMP_t)</td>
<td>+</td>
<td>0.022</td>
</tr>
<tr>
<td>(EBTP_t)</td>
<td>-</td>
<td>-0.029</td>
</tr>
<tr>
<td>(\text{BoardSize})</td>
<td>-</td>
<td>-0.001</td>
</tr>
<tr>
<td>(\text{DUAL})</td>
<td>+</td>
<td>0.003</td>
</tr>
<tr>
<td>(\text{IND})</td>
<td>+</td>
<td>0.006</td>
</tr>
<tr>
<td>(\text{NEEXEC})</td>
<td>-</td>
<td>-0.007</td>
</tr>
<tr>
<td>(\text{Intercept})</td>
<td>+</td>
<td>0.011</td>
</tr>
<tr>
<td>(R^2)</td>
<td>0.742</td>
<td>0.933</td>
</tr>
<tr>
<td>(\text{OBS})</td>
<td>247</td>
<td>145</td>
</tr>
</tbody>
</table>

***, **, and * represent 1%, 5%, and 10% significance (two-tailed or one-tailed, as appropriate), respectively. t-stat in parenthesis under the coefficient.

**Variable Definitions**

- \(LLPt\), current year's loan loss provision scaled by lagged total loans;
- \(\Delta NPL_t\), current year's change in total loans divided by lagged total loans;
- \(\Delta NPL_{t-1}\), previous year's change in total loans divided by lagged total loans;
- \(\text{SIZE}_{t-1}\), natural log of previous year's total assets;
- \(\Delta LOAN_t\), current year's change in total loans divided by lagged total loans;
- \(\Delta GDP_t\), current year's change in GDP;
- \(\Delta UNEMP_t\), current year's change in unemployment rates;
- \(\text{ALW}_{t-1}\), previous year's loan loss allowance divided by total loans;
- \(\text{EBTP}_t\), current year's earnings before taxes and provisions scaled lagged total loans;
- \(\text{LOAN}_t\), current year's total loans divided by total assets;
- \(\text{BoardSize}\), the natural logarithm of total number of directors in the board at the end of the year t;
- \(\text{DUAL}\), dummy variable that takes the value 1 if the CEO holds the board's chair and 0 otherwise;
- \(\text{IND}\), the percentage of independent directors in the board at the end of year t;
- \(\text{NEEXEC}\), the percentage of the non-executive directors in the board at the end of year t.
Employee Training
And Organizational Success
Nuha Alhusayni, Southern Illinois University Carbondale, USA

CHAPTER 1 - INTRODUCTION

Background of the Study

Undoubtedly, organizations operate with the principal motive of making profits and achieving sustainable competitive advantage in the markets they serve. Still, it cannot be argued that a corporation is successful by solely evaluating its profitability. In this regard, there are a number of inherent factors that define this success, and the key focus of this research is on the contribution of employee training towards the performance of a business. Invariably, organizational success is promoted by the performance of the employees in and organization, and performance is closely linked to training. Indeed, the history of employee training in firms is extensive, and it closely relates to the historical performance of businesses over the years. Primarily, this is due to the fact that the skills and knowledge base of the average employee in the market is not always adequate and may come short in meeting specialized assignments, obligations, and tasks within an organization. In as much as organizations have always engaged in various forms of trainings for their employees, this field of study did not feature a lot in academia until a century ago when research started focusing on the connection between the training of employees and the success of organizations. However, employee training is not a new concept. Notably, its origin can be traced back to as far as the Middle Ages when apprenticeships were used as the fundamental form of training workers. In ancient Egypt, for instance, apprenticeships were common among many areas of work and spanned almost every realm of the work life. Notably, they were among the first types of training processes that were widely acknowledged and used during this time. With the rise in demand for craftsmanship and an increase in trade, young children were often sent to craft masters to learn the requisite knowledge of any specific art, from tool making to iron smelting. These children would often live with the masters of the particular form of craft who would then share with their knowledge with the learners over a certain period of time. In the 1800s, the Industrial Revolution intensified employee training, as it was necessary for factory workers to have the required set of skills and knowledge to operate the various machines used in the production of materials and goods. During this time, vestibule training became a popular training activity in the factory industry. Vestibule training referred to training done near the job and was carried out in designated separate rooms inside the factory, where workers would be taught by a special trainer in a room full of machines that they were supposed to operate. In the early 1900s, role playing emerged as the new form of training for workers. In this method, employees would often be placed in situations they were likely to encounter in the workplace albeit in a controlled environment with minimal exposure to risks. During the period of World War 2, training of employees advanced and took the form of work instruction training, which was specifically structured, for workplace supervisors. The training was meant to give these higher levels of employees the requisite skills that would enable them to train other workers below them in various areas of their work. The 1980s saw the advent of computer based training since computers had started becoming popular during this period. As Derimbag, Tatoglu, Tekinkus, and Zaim (2006) observe, rapid technological advancement and modernization made computer based training popular as organizations and employees encountered increased need for technology in the workplace.

Current research studies are now focusing on different attributes of training programs for workers and the benefits and costs they have on the success of organizations. Furthermore, corporations have come to a better comprehension of the significance of employee training for survival in today’s volatile and highly unpredictable markets. Therefore, the link between employee training and organizational success has become a key area in research and needs additional and extensive studies, considering the key role it plays in today’s world which is characterized by the demand for advanced knowledge and specialized skills in different realms.
Statement of the Problem

Indeed, most organizations place a high focus on gaining profits while forgetting to initiate the training of employees, which is one of the best tools for achieving organizational success. Increasingly, highly successful firms in today’s world are becoming aware of the importance of training workers. Such corporations are recognizing the need to employ the best training strategies and approaches in order to achieve and increase competitive advantage. Training is a critical element of any business, if the potential and value of its employees is to be harnessed and developed for the success of the organization. The importance of training staff is often not given sufficient attention as related to the overall success of an organization. Consequently, this has led to failure of most entities, since they have been unable to tap into the training of workers and link it to the health of the organization. Employee training is one of the most significant elements of organizational success, and understanding the various processes of the concept enables one to evaluate the degree of this significance and its link to the success of any entity.

Employees’ perception on training plays a key role in the success of an organization. If the employees are satisfied with the firm’s programs, procedures, and strategies of training, the result is bound to be a positive influence to the productivity and output of the business. In this regard, employees’ attitudes and perceptions are translated into negative or positive behavior, which impacts the organization. This underlies questions such as the manner in which employees view the training strategies and programs of the organization, the seriousness with which the organization and its management take training processes and procedures and the structure of the training policies for both the organization and its employees. Some organizations would consider the training of employees as a waste of resources and time which would have been directed towards the production of services and goods that would increase profit for the business. Other times, certain factors may affect training of employees in an organization such as the fear of an employee leaving the organization after it has invested in their training. This may make employee training erratic and disorganized.

The processes and procedures that are often adopted by some businesses in identifying employees in need of training can be troublesome and worrying. In some cases, employees go for training for different reasons, such as self-development, self-improvement, preparation for positions in different organizations, and power play and politics within the workplace among other reasons that are not specifically focused on an identified knowledge gap or skill gap that requires filling through training. Invariably, the HR department in some firms fails to carry out an effective needs assessment for training. The selection criterion for training needs to be carried out in a methodical and systematic manner that is devoid of any form of bias. The procedure has to follow a set plan in order to ascertain the selection of the right candidates for training for a progressive effect on organizational success.

It has been established that previous research and studies into the area have largely focused on the benefits of employee training and organizational performance while neglecting the importance of employee training in increasing the success of the organization. To fill this gap in the study, the research is compelled to conduct a study on the importance of employee training in increasing organizational success. It will focus on the procedures and processes of identifying skill and knowledge gaps, delivery style, design of training and perception of employees towards training and the role these play in increasing the success of an organization.

Research Questions

The research questions were developed in line with the statement of the problem as follows:

- Is there any positive link between employee training and the performance of an employee?
- To what extent does the selection processes for employee training affect the success of an organization?
- To what extent does the design of training affect the performance of an organization?
- To what degree does the delivery style of training impact organizational success?
- What is the extent of employee training and its impact on organizational success?
Significance of the Problem

The relevance of the problem cannot be emphasized enough and can be looked at from different perspectives. In this regard, the research will help organizations and the management faction of corporations to take strategic steps that improve the training of employees for the overall success of the organization. Moreover, firms will acquire adequate knowledge related to the importance of employee training in achieving growth, and the reasons for implementing such knowledge into the structure of the organization. Furthermore, the study will aid businesses and the human resource planning departments of organizations in appropriate planning and execution of employee training programs and strategies.

To a great extent, this work will be useful for future research focused on the connection between employee training and organizational success. It will, therefore, act as a reference material for other studies yet to be done while also building on the knowledge and research already existing on the concept of employee training and the success of organizations. The research is also useful in expanding the existing comprehension of the connection between the concept of employee training and the success of organizations. Ultimately, the findings of the study are expected to establish the value of training workers with a directive aimed at establishing an organizational culture of training, which has to be aligned with suitable corporate approaches that appreciate the need for training employees to improve the overall success of the organization.

Limitations of the Study

One of the limitations of the study was that it was largely focused on previous research for information, which was then deduced for findings. Perhaps it would have benefitted more from a field research with respondents of various physical organizations to establish more validity. Moreover, dearth of research materials was a limiting factor. In this regard, the study was constrained when it came to searching for materials. Most of the current journals, scholarly materials, and books that are related to the area of focus are not freely accessible. This meant the researcher was limited to using the materials that could be afforded. Time was also a limiting factor, since the research was bound by a period. With a longer timeframe, it would have been possible to expand the study’s focus and include numerous areas of employee training processes and how they are tied to a firm’s success.

Definition of Terms

Training

Training as used in the context of this research refers to the continuous process through which employees get the requisite set of skills and knowledge on how they can perform well and contribute towards the success of the organization. Consequently, training equips workers with the skills and knowledge needed to operate within the standards, regulations, and systems set by the management faction of a business. Notably, training is an essential aspect that improves the proficiency of an employee while having a positive effect on his or her attitude towards work obligations.

Off the Job Training

This refers to training that is done away from the actual and physical work environment. It may include the utilization of case studies, lectures, simulation and role playing.

On the Job Training

This is training done at the work place while the employee is in the process of doing his or her work. Often, a professional trainer or an employee with more experience will take on the role of an instructor and employ a hands-on approach to training that is often backed by formal training.
Training Design

This refers to the process of creating a plan or an outline for the development of instructions to be used for training to attain a positive effect.

Style of Delivery

This refers to a set of methodical processes that are designed to meet the learning goals of employees in relation to their present obligations as well as future work assignments.

Organization

This refers to a social unit structured and managed to pursue and meet a collective objective, work towards a stipulated goal or pursue collective interest. Organizations are characterized by a structure of management, which governs relationships between the different activities of its employees, assigns responsibilities and roles and demarcates the various procedures that constitute the overall entity. Organizations are also open systems that are subject to influence by the environment as they also affect the environment around them. Organizations are made up of three features, which include the people, the systems, and the objectives or goals. Every organization has a unique purpose, which is expressed, as the organizational goals.

Employees

Employees are the people within an organization working towards the achievement of the entity’s goals and objectives.

CHAPTER 2 – RESEARCH METHOD AND REVIEW OF LITERATURE

Overview

The main focus of this study is the relationship between employee training and the success of an organization. A descriptive approach to research was applied to deduce the contribution training makes to organizational success. The literature reviewed sought to identify training and organizational success, as well as establish any underlying relations between the two concepts. The review revealed several chief themes, which include the impact training has on employees, its contribution to organizational success, the beneficial impact it has on organizations, and the various training designs and approaches.

LITERATURE REVIEW

Training

Different researchers and studies have developed varying definitions and interpretations of what entails training in the context of organizational success. According to Akhtar, Ali, Sadaqat, and Hafeez (2011), training is a structured process to adjust the knowledge, skill or attitude behavior through instruction and learning in order to achieve a highly affective performance in any given activity or a set of actions. The purpose of training in the work environment is to cultivate and advance an individual’s ability and to successfully meet and satisfy the present as well as the future labor requirements of any organization.

A similar understanding is evident in other works of research. For instance, training is understood to mean any processes that help individuals increase their knowledge, capabilities and skills (Shaheen, Naqvi & Khan, 2013; Uma, 2013). In an organization, training is undertaken to help employees conduct required business processes and tasks in an efficient manner (Saleem, Mehwish & Naseem 2011). This indicates that training is undertaken to increase the overall efficiency and performance of the employees. In this manner, it also impacts directly on the overall production of the organization (Laing, 2009).
Training and Employees

Some studies have focused on the impact training has on the employees. According to Batool and Bariha (2012), trained employees possess valued skills and knowledge. They are considered a valuable asset in any given organization. Owing to this, these employees tend to develop a sense of self-worth and confidence. Employees who know that they are valued by a company tend to develop a high sense of dignity and self-confidence (Shaheen, Naqvi & Khan, 2013).

Training has also been positively linked to a high sense of job satisfaction amongst employees. According to Shaheen, Naqvi and Khan (2013), training allows employees to develop positive feelings about themselves, hence increasing their satisfaction with their jobs. Hafeez and Akbar (2015) also discovered that training that has been founded on employees’ feedback, has the capacity to improve their satisfaction with their jobs. A study conducted on Irish software companies provided evidence of the link between training and job satisfaction. According to this research’s findings, the employees found that training went hand in hand with their expectations, hence increasing their job satisfaction (Acton & Golden, 2003).

The most important relation between training and employees is evident in their performance. Numerous studies have offered support for the existence of a positive correlation between employee training and employee performance. For example, research has shown that training improves the overall productivity of the employees. Employees that have been well-trained demonstrate an increase in the quantity of the overall output (Hafeez & Akbar, 2015; Uma, 2013). At the same time, evidence indicates that employees with more training tend to have a higher quality of productivity. This has a direct impact on their performance as less time is wasted, errors are minimized and more money and resources are saved (Uma, 2013). Other studies have shown that training employees on how to balance their work and personal lives has reduced absenteeism (Lotich, 2014). Research has also shown that training employees on teamwork tends to increase overall efficiency and performance (Mary Jane, 2017). At the same time, research has shown that training has created a positive relationship between employees and their employers, hence improving performance (Smith, 2017).

According to Abbas and Yaqoob (2009), the impact of training on employees is a key element of organizational success since all companies rely on employees for their performance. In essence, there exists a positive correlation between employee performance and organizational performance (Mwita, 2000; Shaheen, Naqvi & Khan, 2013). Uma (2013) also notes that increased employee motivation directly contributes to organizational success as motivated employees tend to have lower rates of absenteeism and turnover. A similar sentiment is shared by other studies which note that reduced errors and increased employee safety makes a direct contribution to a company’s success (Pfeffer & Veiga, 1999).

Organizational Success

Organizational success involves the actual performance of an organization as evaluated against the anticipated output or the objectives of the corporation. Measuring the success of a business, thus, entails assessing the performance of the entity. Organizational performance covers three particular areas of the entity’s outcomes; market performance, financial performance, and return of shareholders. A firm may have anticipated to achieve a particular objective by the end of a given year; for instance, the production of a million units. If by the end of that year it will have managed to produce the stipulated number of units or even gone above the number, it can then be said to have achieved in performance, since it has achieved the intended outcome.

Generally, the inherent objective of performance management is to enhance and enrich the effectiveness of employees. It is therefore a continuous process that requires the management and the workforce to work collaboratively in planning, monitoring and reviewing the employee’s work obligations and goals and their overall contribution towards the success of the organization. It is important to note that before developing an efficient system of managing performance, the organization has to consider whether it has the best human resources practices in place that can be supportive to the process. These practices include an all-inclusive training and orientation program for employees (Garcia, 2005). It therefore points back to the object of this research in establishing the importance of employee training in increasing the success of an organization.
Training and Organizational Success

Training is a crucial strategic tool for the success of an organization since it deals with the enhancement of employee performance. Most organizations today invest heavily in employee training, as it has been found to play a significant and critical role in the overall success of the organization. Agarwal, Corey, and Magni (2009) explain that the concept of training is also central to attaining and maintaining competitive advantage in today’s market that is not only volatile and unpredictable but also reliant of advanced knowledge and specialization of skills. Training is in itself, a chief source of competitive advantage (Pfeffer & Veiga, 1999). In today’s competitive market, Agarwal et al. (2009) establish that for any organization to be successful, remain relevant, and attract the right candidates, it must inculcate the training of employees into its structure. According to Armstrong (2000), organizations are expected to identify the training needs of staff, develop, and design the most suitable training programs that address these needs and implement delivery of training that will optimize the strengths of its workforce and enhance their various capabilities. Training, therefore, entails the techniques that are used in transferring relevant skills and knowledge to employees to improve performance and capability, which will have a positive effect on the general performance of an organization (Aguinis & Kurt, 2009). The training of employees is a strategic resolve focused on facilitating the learning skills and knowledge that are related to the job in addition to attitudes and behavior that are critical to efficiency in performance, which enhances the overall success and effectiveness of the organization.

Invariably, before training programs are planned, the organization needs to make efforts to identify the needs of individuals (Luo, 2000). Studies have shown that companies that have managed to design training approaches in accordance to the needs of their employees often attain commendable results (Tihanyi et al. 2000; Boudreau, Boswell & Judge, 2001). Hamid (2011) further advances that this can be done through appraisals to select the right candidates for specific training sessions. After the training, evaluations are undertaken to determine the effectiveness of the process in relation to the identified needs. The significance of evaluation is to have an awareness of the extent to which the process has positively affected the productivity of the individual. Various studies have looked at the relationship between performance output before and after training and the findings establish the positive effect it has on the performance and productivity level of an employee. The success and development of an organization is directly linked to the development of its employees. Therefore, an organization’s effectiveness and efficiency is in jeopardy until its workforce acquires and applies the necessary knowledge and skills that would benefit its bottom line.

Furthermore, training is considered to be a critical part of a “high performance” work system (Pfeffer & Veiga, 1999). This is because intellectual capital has been positively linked to the success of an organization. A system that places emphasis on employee skills relies on their problem-solving capacities. They also rely on the same employees for quality work output. Most importantly, a high performance system also needs employees that are up to date and those that can easily adapt to changes. Since training equips employees with these skills, it plays a significant role in organizational performance (Pfeffer & Veiga, 1999).

Benefits of Training for the Organization

According to a study by Noe (2008), most training programs are hardly evaluated in terms of how they benefit the organization financially. Numerous studies have reported that performing a returns-on-investment calculation on training is either impossible or difficult (Pfeffer & Veiga, 1999). In this regard, companies that choose to train their employees do so based on their beliefs. The act of training employees is considered a critical part of the management process, and its financial implications are not required as a prerequisite for application.

However, this is different among organizations that are acknowledged for their dedication and commitment to employee training. Most of these organizations evaluate the effect of innovative training programs on the success of the organization. Usual measures of performance include the evaluation of the improvement of productivity, revenue, and sales, and the general profitability of training programs. In general, research related to the organization’s benefit is scarce compared to the resources available on team and individual benefits. For instance, Men’s Wearhouse, is a retailer company that specializes in the sale of male business wear. In 1995, the company noted that it experienced a 32% increase in revenue. It also reported a 41% increase in its net earnings the same year. Moreover, the overall value of its stock had experienced a 400% increase (Pfeffer & Veiga, 1999). The company credited its immense improvements that year on the new training program it has established the previous year. In Fremont, California,
Men’s Wearhouse had set aside more than 30,000 square feet from its training facility, which included a suits university and selling accessories, which led to the graduation of more than 600 ‘clothing consultants’ that year (Men’s Wearhouse 1994 Annual Report).

Few empirical studies look at the impact of training on the success of an organization and the ones that have been conducted normally employ the use of self-report information and imprecise casual connections to the training practices (Graham & Tierney, 2003). However, the studies that were available could be used to deduce the benefits of employee training to the organization by looking at the benefits and impact the concept of training has to the various aspects of the entity. For instance, the application of the principles of effective training often leads to numerous benefits for the organization. Some of these benefits include the minimization of training costs, focusing on the development of individual performance, and team performance and training that is focused on the improvement of employee’s speed, productivity, and quality (Noe et al., 2006). These together with expanding the range of skills employees have a positive effect on the operational flexibility of an organization and the overall success of the organization. Additionally, the general success of the organization increases through attracting workers of high quality by offering prospects for growth, knowledge, and development. Undoubtedly, increasing the capability of employees enhances their overall job satisfaction and, ultimately, plays a significant role in improving the success of the organization.

Studies have also shown that employee training has a direct impact on turnover rates. It helps employees to pursue career growth and development opportunities. According to Uma (2013), this is a key component of employee retention. Kayode (2001) notes that increasing the skills and knowledge of employees is a key solution to a significant amount of the problems they face. For instance, training is an effective solution to waste, lateness, absenteeism and low job productivity. At the same time, training is directly associated with a reduction in the overall overhead costs of an organization (Shaheen, Naqvi & Khan, 2013). With reduced turnover, the company no longer has to spend an immense amount of money of recruitment and orientation. In fact, Olaniyan and Ojo (2008), note that training reduces the amount of money lost to the obsolescence of employee skills and knowledge.

Another significant benefit of training on organizations identified by research is evident in diversity training. Diversity training allows organizations to manage their internal diversity. Noe, Hollenbeck, Gerhart, and Wright (2014), observe that diversity training allows employees to identify stereotypes and understand how they influence their behavior and perceptions towards others. It also allows them to acknowledge and accept other cultures that are different from their own. Most importantly, it allows them to identify and avoid practices that may either intimidate or marginalize members of a minority ethnic, racial or cultural group.

Research also identifies the benefits training has on personnel with minority backgrounds. Training can focus on enabling these minorities to develop technical and language skills that will not only allow them to conduct their job-related tasks efficiently, but also interact well with other employees. According to Marquis et.al. (2008), minority employees require additional professional development training to place them on an even playing field with other professionals. At the same time, training through mentorship programs allows minority employees to cope with work-related stress, and other challenges. In turn, their overall productivity and performance increases, hence contributing to the organization’s own success.

CHAPTER 3-CONCLUSIONS AND RECOMMENDATIONS

Summary of Findings

Training is the activity through which employees become equipped with relevant skills and knowledge. Employee training is mainly undertaken to help meet organizational objectives. Organizational success is understood to mean the optimum performance of an organization and it is often weighed against anticipated output. Employees play a critical part in organizational success, and training allows them to play their role towards the attainment of this success.

Training presents numerous implications for employees. For instance, it increases their motivation, job satisfaction, and overall performance. The impact training has on employees is directly related to organizational success. Increased workplace safety, high levels of motivation and job satisfaction, and increased job security brought about by training
allows employees to increase their productivity and performance. In turn, the organization is able to meet its goals, hence excelling.

Training is a chief source of competitive advantage. Companies use training to ensure that that remain competitive in the modern dynamic market. Training helps companies attract and retain suitable employees. Training also helps organizations create employees that can easily adapt to change. Not all forms of training contribute to success. On the contrary, organizations must effectively manage training for them to reap its benefits. In fact, the needs of the individual must be determined before training commences. Training is associated with “high-performance” work systems. In this regard, organizations tend to fail in the absence of employee training. They experience workplace accidents, errors, increased employee mistakes and low productivity.

The particular type of training in any given organization is determined by the gaps in skills and knowledge that need to be filled. It is also determined by job qualifications, changes in the market, job descriptions and various responsibilities associated with a particular job. The two main types of training include on-the-job and off-the-job training. Other approaches to employee training include the reactive, proactive, active learning, political, administrative systematic and welfare approaches. Strategic training is a form of training that allows organizations to focus on the right thing. It is driven by the company’s bottom line and it seeks to attain certain goals. The delivery of training is also equally important.

Training is beneficial to the organization in a number of ways. While it may be hard to determine the financial benefits, training is associated with improved employee productivity. It also reduced the rate of employee turnover, increases retention, and also resolves issues of waste, lateness, and absenteeism. Furthermore, training is also beneficial to organizations as it reduces its overall overhead costs. Training also improves diversity management within the corporation.

CONCLUSION

The findings of the study establish a significant relationship between employee training and organization success. Indeed, the analysis showed that the performance of workers is determined by training and is also influenced by the performance of an organization. Daley (2012) noted that most of the previous studies conducted have focused on employee training and employee performance, and particularly, the effect on team performance. However, the study under consideration has sufficiently articulated the issue of employee training and its importance on increasing organization success. In this regard, this research has evaluated the different aspects that underlie the concept of organization success and employee training. Agreeably, these include the process of selection, training, and delivery of training performance. These are then evaluated from the perspective of their contribution to the overall success of an entity.

Notably, the selection process for training has an effect on the success of an organization, as the right candidate will contribute towards the achievement of organizational objectives. Batool and Bariha (2012), note that an employee’s learning ability must be determined before he or she is subjected to the training process. Identification of the right candidate entails identifying the needs of individual employees, which is done through procedures such as assessments and appraisals (Wilson, 2005). In this way, the right employee when subjected to specific training that addresses his or her knowledge and skills gap will be improved. Consequently, the worker can apply the knowledge acquired towards achieving the objectives of the business. For employee training to contribute towards increase of organization success, it has to be effective and for training to be effective, it has to subjected to the right candidate. Evaluation done after employee training determines the effectiveness of the procedure as tied to the initial needs that have been identified. Successful employee training supplies the management with awareness of its effectiveness through evaluating aspects such as performance and productivity of the individual or even their attitudes and perception. This enables the organization to realize the extent to which such programs have had a positive effect on the employee.

Indeed, training design and delivery impact the outcome of the training process. Training programs have to be structured in a manner that meets the required standards if they are to be helpful in advancing the success of the organization (Haugh & Talwar, 2010). The findings from this research establish that different types of trainings achieve different outcomes, which all contribute to the realization of organizational goals. Cascio (2006) asserts that...
on-the-job training, which is designed and delivered practically, impacts performance of both the worker and the institution positively. Similarly, off-the-job training has a positive effect on attitude, morale, perception, and job satisfaction. These factors make workers more dedicated to performing highly and increasing the success of the organization. Certainly, these training approaches emphasize the positive link between employee training and performance, which contributes towards the success of an organization.

Employee training has a big impact on the success of an entity, since workers are the primary drivers of any firm. The extent to which employee training impacts organizational success can be determined through the position of employees in an organization. An organization is said to be only as good as its employees (Farris et al., 2009), which means that an effective workforce translates into an effective organization. Moreover, the performance of employees, their output and productivity is directly reflected on the organization. It is, therefore, difficult to have an ineffective workforce and expect a productive organization.

- Is there any positive link between employee training and the performance of an employee?
- Literature has pointed to the existence of a positive correlation between training and employee performance. It increases the employee’s skills and knowledge, hence turning him into a valuable asset. This in turn increases the employee’s motivation, self-confidence and overall satisfaction with the job. All these aspects help improve his overall productivity and output in the job.
- To what extent does the selection processes for employee training affect the success of an organization?
- Only the right employee and the right training process can help the organization realize its goals and objectives. This creates a need to ensure that the right employee, his needs and effective training are identified in the selection process.
- To what extent does the design of training affect the performance of an organization?
- Evidence has shown that applying the wrong training design and approaches will result in the waste of precious resources. The design is a significant determinant for training’s effectiveness. In fact, factors such as employee needs, skills and knowledge gap as well as job description and qualifications determine the most appropriate training required.
- To what degree does the delivery style of training impact organizational success?
- While the training design may be right, a wrong approach to delivery might jeopardize its effectiveness. Without engaging the target audience, training tends to be deductive, and it does not support the organization’s success.
- What is the extent of employee training and its impact on organizational success?
- Employees are an important determinant of organizational success. Training increases their efficiency, performance and productivity. It also eliminates room for error, and also works to reduce turnover and overhead costs. Employee training also helps organizations resolve key issues such as workplace safety issues, absenteeism and the waste of important resources. In this manner, training does contribute to organizational success.

REFERENCES

2018 IACB, 2018 ICE & 2018 ICTE Proceedings  Washington D. C., USA


Luo, X (June, 2000). The rise of personal development training in organizations: A historical and institutional perspective on workplace training programs in the U.S. Perspectives, 16(6), 1-15. http://www.oycf.org/Perspectives26_063000/risepersonal_development_tra.htm


Nielson, B. (2010), Identifying your organizational training needs. Your Training Edge. Retrieved from
The Clute Institute

http://www.yourtrainingedge.com/identifying-your-organizational-training-needs-1
Energy Efficiency Promoting Program  
And Market Competition In Taiwan  
Jin-Long Liu, National Central University, Taiwan  
Ling-Ju Lin, Industrial Technology Research Institute, Taiwan  

ABSTRACT  
To overcome the global warming and mitigate the carbon dioxide emissions, energy efficiency standards and labelling (EESL) programs have been extensively adopted by policy makers worldwide in the past decades. Annual reports published by the International Energy Agency (IEA) have indicated that the estimates of EESL programs contribute to energy savings between 10% and 25% of national energy consumption.  

To following the international practices, Taiwan government launched the Compulsory Energy Efficiency Rating Label Program in 2010. The programs require all the assigned electronic appliances must to show the energy label that has been approved by the government. In this study, we use a unique administration data to examine whether the program would hinder the market competition.  

By using the measurement of market concentration ratio and Herfindahi-Hirschman Index (HHI), we extend the previous study to analyze the assigned electronic appliances including air-conditioners, refrigerators and dehumidifiers during the years of 2010 and 2016. Our results indicate that all markets for the three products were classified as a tight oligopoly at the initial stage of the system in Taiwan. However, the market for all three products underlying the energy efficiency level one which is identified as the most energy-saving is gradually toward to perfect competition. The results imply that consumer’s cognition about the performance of appliances is the driving forces for the market competition.
Peer To Peer-Based Social Network
Fatimah Alanazi, Southern Illinois University, USA

ABSTRACT

The aim of this paper is to shows peer-to-peer networks (P2P), its advantages, disadvantages, applications and few examples. Two P2P protocols, Gnutella and Bit Torrent are explained in detail in this project. Advantages, disadvantages and network architecture of these two protocols are covered.

Keywords: Gnutella; Bit Torrent; Peer-to-Peer; HPOSN

INTRODUCTION

A computer network is a collection of computers with the shared motive of sharing resources. There are two types of computer networks: Server-based networks and P2P networks.

Server-based networks are in which, the resource sharing and communication between the computers is done by via Server, and there is no direct connection between the clients

P2P networks are the second type of computer networks. In P2P there is no servers and computers can share resources directly with each other.

Server Based Network    P2P Network

Definition of Peer-To-Peer Network

A peer-to-peer network is a distributed network architecture in which hardware resources are sharing between the participant nodes. The shared hardware resource can be processing power, network link capacity, storage capacity, printers, etc. These resources will be reachable by all the peers that happen without any server or supervisor. In this way, every peer can act as a server and provide service for other peers in the network.

Peer to Peer Protocols:

P2P network has many protocols or technology to solve some existing problems. For example, Bit Torrent, Gnutella, and Napster. In this paper, we will focus on Bit Torrent and Gnutella.
Bit Torrent

Bit Torrent is a protocol for the peer-to-peer network this protocol used for distributing and sharing files over the Internet.

Bit Torrent protocol commonly uses for transferring files with a big size on the internet such as video files or audio. So Bit Torrent protocol used to download moves or song from the internet it makes the download faster and easy for you because it's free protocol.

The idea of the Bit Torrent is having many sources that can work together to download one big file. However, every source should have the same requested file, these sources are known as seed and there are a Bit Torrent Trackers, they keeping track of all the seeds which they have complete or part of the requested file. So when the client wants to download the movie from the internet using Bit Torrent protocol he needs to download torrent file from the server and using this file connected to Bit Torrent Trackers then, he can have a list for all the other computers that have the same movie, some of them have part of the movie because they still downloading this movie from other computers(seed).

In the normal download, the client downloads a file from the single server and that work just fine but when a different client wants to download the same file at the same time the single source may that effect in his performance or may be shut down. For this reason, the idea of Bit Torrent protocol comes to solve this problem by making every downloader works as sources to help to download and distribute the large files on the internet.

How Bit Torrent Works:
1. The client or the peer which is wishing to download a specific file, an e-book or Movie or songs searches for it on Torrent hosting sites and downloads the corresponding .torrent file. A torrent file contains a unique hash value and a list of trackers.

2. The Bit Torrent clients then connect to the trackers. Trackers are web-servers which track the peers. The files are divided into smaller units called pieces. The trackers maintain the database of pieces and the peers having specific pieces.

3. The clients then download the client list from the tracker.

4. The client then connects with the peers and downloads the corresponding pieces from them.

**Advantages of Bit Torrent:**

i – Simplicity

Download files and media using Bit Torrent is very easy. The Bit Torrent client is also a small software. Other P2P protocols are very complicated to use and hence are not as popular as Bit Torrent

ii - Free to use

iii - Files are easy to find and download

iv - High-speed downloads

Since multiple peers are present and files are divided into pieces, a peer can download multiple pieces from different clients at the same time.

v - Overcomes free-rider problem

**Disadvantages of Bit Torrent:**

i - If the file you are after has no ‘seeds’, then the file cannot be downloaded

ii - Lack of anonymity can lead to IP attacks

iii - Due to nature of P2P file sharing, can lead to illegal activities, which can then lead to program hindrance. Often pirated movies, songs, e-books are shared using Bit Torrent. It caused a lot of losses to the movie industry, music industry, and publications. Many torrent hosting sites were taken down because of this.

iv - .torrent files must be found separately from a client for use, unlike other p2p programs

**GNUTELLA**

Gnutella was the first decentralized peer-to-peer file sharing network which was established in the year 2000. It is still active today. With a Gnutella client, it’s users can download and upload files across the internet. Users can also search for files. It is less popular than the widely known peer-to-peer protocols such as Bit Torrent and eDonkey2000.

The first client which was also called Gnutella was created by two Null soft employees Justin Frankel and Tom Pepper in early 2000.

Gnutella nodes are called servants (SERVers + cliENTS) as they perform tasks normally associated servers as well as clients. They implement interface for the client in a way the client can view and queries the results, also he can accept the request from other, check for matches and respond similar result. The nodes responsible for managing the background traffic which spreads the information.
The new device (node) can join the Gnutella network and be a peer node by contacting one of the existing peer nodes in the Gnutella network and then sending a message to other peers to let them know about the new node. This message is called a ping, and all the nodes that receive the ping message will send a pong message back as a response. In this way, all the nodes in the Gnutella network will know about the new joining node.

i) Random ID will be generated for each message.

ii) There is a short memory in every node, which helps to provide back-propagation and reject re-broadcasting.

iii) To prevent the message flooding in the network, every message has a time-to-live (TTL) and a field for "hops passed".

The messages in Gnutella are of three types:

i) PING & PONG

PING: It is used to discover hosts on the network

PONG: It is the response to the ping

ii) Message for searching:

QUERY:

Search for a file

QUERY RESPONSE:

Reply to the query

iii) Message transferring:

GET:

Direct file download between two peers using get messages

PUSH:

Direct file download between two peers using push messages

The messages in Gnutella are of three types:

i) PING & PONG

PING: It is used to know which hosts are available on the network

PONG: It is the response to the ping

ii) Message for searching:

QUERY:

Looking for a file
QUERY RESPONSE:

Reply to the query

iii) massage transferring:

GET:

Direct file download between two peers using get messages.

PUSH:

Direct file download between two peers using push messages.

The client sends a query message to all the peers that he contact with, then the peers that got the query message to pass it to their neighbor and so on. After the client got the result he will choose the better match to the query. Then a direct link for transfer between the client and the peer which has the best match for the query. In this way, no need for the central servers to do that.

File location in Gnutella

Gnutella is a system to helps the personal computers to exchange files easily. It is decentralized peer to peer network. A query packet sends for all the computers in the network. After that, all the PCs will do two things:

First of all, every computer needs to checks if it has the file that matches the requested file that sent query message for looking method.

second, each computer will send the received query to its neighbor to check if they have the same file that matches the looking file. After that, these CPs will send the query packet to their neighbor and so on this process will continue
Advantages and Disadvantages of Gnutella

Advantages:

i) Distributed network structure

Data is spread over multiple nodes in the network, and hence data is safe.

ii) Scalable network

The architecture of Gnutella allows new nodes to join the network and old nodes to leave the network without any disturbances and effortlessly.

Disadvantages:

i) Bounded breadth depth search leads to implicit network partition

ii) Search may not always be successful

iii) It takes long paths for search and hence slow latency

CONCLUSION

A peer-to-peer network is powerful, efficient and robust networking model. P2P networks are widely used these days and their uses are growing every day. Hybrid P2P networks, which is a combination of traditional server-client network model and P2P network model has increased the usability by combining the best features of both models.

Two peer-to-peer protocols, Gnutella and Bit Torrent, were discussed elaborately in this paper. Gnutella, being the first peer-to-peer protocol had many drawbacks and was very difficult to use. Bit Torrent which can much later was very successful and became the most used peer-to-peer protocol.

REFERENCES

Schollmeier, Rüdiger. A Definition of Peer-to-Peer Networking for the Classification of Peer-to-Peer Architectures and Applications

Wang, J., Liu, F., Li, X., Liu, H., Zhao, X. HPOSN: A Novel Online Social Network Model Based on Hybrid P2P


Saumay, Pushp. Priya, Ranjan. Hybrid Content Distribution Network with a P2P Based Streaming Protocol
Exploring Grade 10 Learners’ Science Conceptual Development Using Computer Simulations
Israel Kibirige, University of Limpopo, South Africa
Hodi E. Tsamago, University of Limpopo, South Africa

ABSTRACT
One of the effective ways of teaching science is by developing the thinking abilities of individuals through enquiry-based learning. Computer Simulations (CS) can enhance science conceptual development. This study explored Grade 10 learners’ science conceptual development when conducting practical work using CS. We used a pre-post quasi-experimental design. 105 Grade 10 learners participated: 53 were included in the Experimental Group (EG) taught using CS, while 52 were included in the Control Group (CG) taught using the Traditional-Chalk-and-Talk (TCT) approach. To determine learners’ performance, a test was used to identify science conceptual development before and after intervention. The overall results show that learners in the EG outperformed those from the CG (T-test, $p < 0.05$ and ANCOVA, $p < 0.01$). Also, results revealed that the girls’ performance in EG ($M=54.60$, $SD=10.93$) and boys ($M=54.39$, $SD=7.90$) after intervention was not different ($t$-test $(51) =-0.08$) at ($p < 0.05$). Therefore, the results show that CS did not discriminate between girls and boys in the EG. In addition, the results from interviews indicate that EG enjoyed, developed interest more than the CG. This implies that the EG were excited to observe phenomena on the screen of a computer that they would otherwise not do in a manual laboratory.
The Doctorally-Qualified Accounting Faculty Shortage And The Demand For Non-Traditional Doctoral Programs: Additional Insights

Douglas M. Boyle, The University of Scranton, USA
Brian W. Carpenter, The University of Scranton, USA
Amanda S. Marcy, The University of Scranton, USA
Ashley L. Regan, The University of Scranton, USA

ABSTRACT

In recent years, the accounting profession’s increased demand for accounting graduates has resulted in rapid growth in enrollment in undergraduate accounting programs. Despite this, enrollment in accounting Ph.D. programs has decreased, leading to a shortage of doctorally-qualified accounting faculty in the United States. This shortage has had a negative impact on accounting program quality and viability forcing many accounting departments to increase undergraduate class sizes, reduce the number of elective offerings, and rely on hiring part-time or adjunct, non-doctoral instructors to teach classes. The accounting profession has made various efforts to remedy this shortage with minimal success. One forthcoming potential solution is to expand the number of non-traditional doctoral programs to enable accounting practitioners to make the transition into academia without the loss of income and disruption to personal life that are frequently associated with traditional doctoral education. Compared to traditional programs, non-traditional doctoral programs have key characteristics related to program and tuition structure that make them an attractive option to practitioners. Increasing the number of practitioners that are able to join the ranks of doctorally-qualified accounting faculty will not only help combat this noted shortage, but will also improve accounting program quality by bringing real-world practice experience and perspectives into the classroom setting and academic research. The purpose of this presentation is to discuss the background of the growing shortage of doctorally-qualified accounting faculty, examine the transitioning of accounting practitioners into academia through the use of non-traditional doctoral programs as a possible solution to mitigate the shortage, address academics’, practitioners’ and accounting agencies’ perspectives on non-traditional doctoral programs, and highlight the first-hand experiences and progress of two accounting faculty specialists who recently transitioned from practice to academia via non-traditional doctoral programs.
Give Peace A Chance:  
The Fight Between Marketing And Sales  
William R. Smith, Jr., Pepperdine University, USA

INTRODUCTION

There are certain types of intra-organizational conflict that can lead to improvements in performance but, perhaps more often, such conflict can become dysfunctional for the organization. For a humorous, but sadly realistic, synopsis of the conflicts that can arise between the marketing and sales functions in an organization take a look at Hoogveld's (2014) video on YouTube (sometimes you have to laugh to keep from crying).

This type of conflict has been chronicled in management literature for decades as evidenced by taking a glance at the Harvard Business Review (e.g., Martin 2010, Shapiro 1977 and 2002, Kotler et al, 2006, Zoltner et al, 2013).

HISTORICAL BACKGROUND OF THE RELATIONSHIP

Neil Borden first used the term “marketing mix” in the late 1940’s (Culliton, 1949) and Jerome McCarthy referred to the “4 Ps” in 1960 (McCarthy, 1960). In those times, the promotion piece of the marketing mix (often referred to today as communication) contained elements such as advertising and sales promotions but a major form of promotion was personal selling. In those early days of modern marketing, personal selling was just one of several ways that a company could choose to communicate its messages to prospective customers and other interested parties. It was, then, natural that the sales function would be managed by the leaders of the marketing function of the organization. If you look at some of the early writings in the Harvard Business Review that focus on conflicts that marketing could have with other functional areas, there is a built-in assumption that the sales function was subsumed by the larger area of marketing (Shapiro, 1977). Shapiro talks about, “… the conflict between the production scheduler and the sales manager …” as part and parcel of the overall conflict between the marketing and manufacturing (production) functions. It seems clear that at this point he felt that the sales function was contained within the marketing function. Twenty-five years later, Shapiro (2002) discusses, “… the twin customer-facing functions of marketing and sales.” What caused this evolution from thinking of sales as part of marketing to viewing it as a similar, but separate, function? And, that evolution has, in the view of some (e.g., Kotler, et al 2006), been flipped: “The marketing group is no longer a humble ancillary to the sales department.” What? From the late 1940’s to at least the 1980’s it was accepted wisdom that the sales function was a part of the larger marketing function. Not that many years later the marketing function is being described by one of the world’s most prominent marketing scholars as, “… a humble ancillary to the sales department.”

The overarching conflict is succinctly captured by Kotler, et al (2006) as follows:

When sales are disappointing, Marketing blames the sales force for its poor execution of an otherwise brilliant rollout plan. The sales team, in turn, claims that Marketing sets prices too high and uses too much of the budget, which instead should go toward hiring more salespeople or paying the sales reps higher commissions. More broadly, sales departments tend to believe that marketers are out of touch with what’s really going on with customers. Marketing believes the sales force is myopic—too focused on individual customer experiences, insufficiently aware of the larger market, and blind to the future. In short, each group often undervalues the other’s contributions.

One can observe that as organizations grow and become more complex, there is a natural tendency towards specialization of functions. Those childish organizational days of the marketing mix/4 P’s seemed to be driven by a comfortable naivete that is in need of greater sophistication in terms of people and process. As marketers begin to specialize in activities such as promotion (or even one type of it), distribution, pricing, etc., they risk losing touch with the need for an integrated view of the overall marketing function. This certainly opens up the door for the people-oriented sales function to find its own way. Another part of the growing specialization is the increased fighting for
access to human and financial resources, aka, budget fights. As these increasingly specialized managers become more short-sighted and internally focused, they begin to feel that managers in the other functional areas aren’t very good at their jobs. So, the sales people begin to feel that they could do a better job of performing the marketing activities and vice versa. The conflicts between the areas of marketing and sales grow in intensity and inevitability.

WHERE ARE WE HEADED NOW?

As you peruse the plethora of articles written over the past 20 years about the conflict between marketing and sales, they are filled with suggestions for how to ameliorate or even eliminate the conflicts. For example, a common prescription is to have personnel rotate between jobs in the two functional areas. Another is to improve (not necessarily increase) communication through the use of regular joint meetings and a third is to integrate the metrics that are used to evaluate the two functions. There are dozens of other ideas that could be considered and many of them seem to have genuine merit (e.g., Moorman, 2013).

With access to all of this prescriptive advice, as some of the articles referenced indicate there are still numerous examples of organizations experiencing a great deal of dysfunction as a result of ongoing conflict between sales and marketing functions. However, there do seem to be some cases that would lead to optimism that there are approaches that might actually work. For example, there are cases of reorganizations that have resulted in reductions of sales cycles, reductions of the costs involved in entering new markets, and reductions in the cost of sales. What wonder-working practice could be leading to these incredible results in companies such as IBM. When this well-known organization integrated (well, really, re-integrated) its sales and marketing groups to create a new function called Channel Enablement (Kotler, et al, 2006), the aforementioned benefits sprang forth. Perhaps this case study of IBM re-integrating the marketing and sales functions could serve as a harbinger of things to come. Maybe there will be a return to the days when, by force of organization, these two functions were required (forced, if you prefer) to work together. There are other examples of organizations moving in this direction with positive results and we may discover, once again, that there’s not much new under the sun!

CONCLUSION

With such a mass of thoughts about this issue, perhaps it has been overthought. What if organizations returned to a simpler time when the two functions were both part of a larger function? It wouldn’t seem to matter whether one of the senior executives from sales or one from marketing became the highest level executive within this re-integrated function but it would matter that there was one person who was given the authority to manage this encompassing function. In this sort of environment, it seems likely that conflicts that would arise over issues such as access to human and financial resources would, at a minimum, be alleviated.

REFERENCES

The Impact Of Job Stress On Employees’ Behavior
Bayan Aldissi, La Roche College, Saudi Arabia

ABSTRACT

Problem Statement

People around the world are always complaining about difficulties and strains that they face to live. Having a job to survive sometimes adds stress to these people. “Managers who have the responsibility of decision making should have composure to discharge their responsibilities effectively. As such, the job and environment in the organization should be designed in such a way that it contributes to the effective performance of managers who are responsible for the result of the organization. Stress influences their performance and, thereafter, the organizational results. It will be useful as such, if a systematic study could be carried out to shed light on an important matter. Stress has its origin in the demands of organizational and personal life” (Swaminathan & Rajkumar, 2013, p.80). This research discusses job stress sources in workplace, job stress impacts on employees’ behaviors, and examines the pros and cons that result from this stress. Also, the research highlights the damage that is caused by job pressures on both their behaviors and their lives. The research will suggest some solutions to reduce the unfavorable effects and support the advantages of stress; in addition to some suggested solutions for the research problem.

Research Objectives

The aim of this research is to measure the effects of job stress on employees’ behaviors, especially the negative side of stress. The goal is to increase awareness and to reduce harm that is caused by these stressors. The research will provide recommendations that benefit employees who deal with stress, without changing their behaviors on a personal and professional level. This research focuses on the following areas:

1- What are the impacts of job stress on employees’ behaviors?
2- How can employees maintain positive behaviors under stress?
3- Does stress affect employees’ behavior in a positive way?
4- What are the effective ways to deal with job stress?

Importance/Benefits

It is known that stresses in the workplace have undesirable effects on employees’ behavior on the professional and personal level (Swaminathan and Rajkumar, 2013). The research target is to benefit organizations by discovering the behaviors most influenced by stress and trying to preserve high performance, high productivity, and good engagement. In addition, ensuring that employees are not affected with any kind of negative stress can easily raise organization profits, which is management’s priority in the first place.

Research Design

Exploration: Quantitative: The researcher will define employee’s behaviors caused by stress through an online survey in addition to paper survey if needed. The collected responses will be analyzed.

Questionnaire Design: The researcher will create an online survey through the website Survey Monkey. This survey will include some open – ended questions with the purpose of getting more details, then it will be send to participants via email and social networks. Also, a paper surveys may be used.
Logistics: The researcher will use Survey Monkey for designing questions and collecting answers because it is easy to use, inexpensive, and has a variety of ways to create questions.

Pilot Test: Because the sample size is small (30 individuals), the pilot test will be the choice to find out weaknesses in design and provide the needed data from participants.

Evaluation of Nonresponse Bias: To avoid bias, the sample will be self-selection by ensuring that individuals voluntarily participate by asking them first if they want to participate in the study or not. The researcher will be able to use email and phone to follow up on non-respondents.

Data Analysis

Survey Monkey will be a helpful tool in analyzing the data and will include some charts and graphs to make it easy to understand the data. Moreover, the researcher will provide an explanation for the provided charts.

Results: Deliverables

1. The researcher expects to receive weekly data from Survey Monkey to make the final report.
2. Results will show what kind of effects that happen because of job stress.
3. Results will provide additional suggestions from the sample to reduce the negative effects and pressures from stress.
4. Results will help organizations to reduce the undesirable employees behaviors that are caused by stress.

LITERATURE REVIEW

Employees are one of the significant factors for organization’s success. Because employees' work behaviors can be negatively affected by stress, job stress can become one of the biggest barriers to organizations’ employees earning satisfactory performance evaluations. Serious consequences may impact the work behaviors of stressed employees, especially if employers don’t give this issue the needed attention (Aftab and Javeed, 2012). Anton (2009), in the study, “The impact of role stress on workers’ behaviour through job satisfaction and organizational commitment” agreed with (Aftab and Javeed, 2012) about the huge number of consequences that affect workers’ behaviors and organizations as well. Anton assumed that most of the impacts are negative.

Nowadays, many researchers focus on studying the relationship between stressors and employees’ behaviors in workplaces hoping to relieve the negative effects that work stress may cause employees (Chang and Lu, 2009). Also, Anton (2009) cited a 1997 Princeton Survey Research Associates study that claimed having a job for life support is becoming harder than ever before, and this is causing a considerable increase in job stress. Therefore, Anton decided to study how job stress can control employees’ behaviors toward their work and how that stress influences their workplace performance.

Swaminathan and Rajkumar (2013) in their study titled, “Stress Levels in Organizations and their Impact on Employees Behavior,” stated that under high competition between organizations, it is hard to have a job without stress, and every person who works is face with some stressors. They also defined stress as circumstances faced by individuals that lead to creating chances or challenges that affect his or her expectations. Swaminathan and Rajkumar agreed with one of the previous studies that employees are a major key to winning any competition, even though most of employees don’t realize this fact; consequently, it is important to protect employees’ performance from on-the-job pressures. Also, it is more important to understand the conditions that could affect their behaviors.

Other studies have defined job stressors as one of the key terms of their analyses. First, Sonnentag and Spychala (2012) used Beehr, Jex, Stacy, and Murray’s (2000) definition of stressors as the factors in work environments that cause strain for employees. When employees are prevented from ending their tasks because conditions push them beyond their endurance, and when the needed resources to complete the tasks successfully are not available, then these conditions create stressors, as Aftab and Javeed cite McGrath (1976). Jones (n.d.), in one of his lessons on Study.com, clarified the meaning of stressors as those forces that help to generate a negative impact on people, either physically, psychologically, and emotionally.
Besides defining stressors, researchers are eager to determine the sources of stress. In an article from HELPGUIDE.ORG, Segal, Segal, and Robinson (2016) offer a general explanation for the causes of stress. They identify both external and internal reasons that cause stressors and affect people. External factors could be work, financial problems, and having a busy life. Whereas internal factors are related to employees’ personalities, thoughts, and feelings, such as chronic concerns, general negativity, and lack of flexibility. Another study conducted by Banerjee and Mehta (2016) emphasized the causes of stress in the workplace; too much workload, long hours, unhealthy or negative environment, complex relationships, harassment, lack of motivation, lack of achievement, lack of resources, and unclear roles are all examples that definitely will cause stressors. This study also drew upon occupational health statistics, collected as part of the 1990 Labor Force Survey stating that, 55% of employees report experiencing work stressors. Another article referred to additional negative stress sources, such as job insecurity, lack of training, and difficult travel schedules that make employers concerned about stress and its affects on their employees’ behaviors (Mills, Reiss, and Dombeck, 2008).

Although some employees can adapt to stress, others have difficulties to facing stressors, such as working with conflicts, controlling themselves in sudden emergencies, and feeling comfortable with deadlines. These different abilities to handle stress come under two types of stress: negative stress and positive stress, and many researches covered stress types (Swaminathan & Rajkumar, 2013). A study by Greenidge and Coyne (2014) focused on the positive and negative feelings that occur between job stressors and work behaviours. Another study by Saksvik & Hetland (2011) who constructed a part of their study relying on Nelson and Simmons (2003, 2005, 2007) presented two different types of stress, and they named positive stress and negative stress. The objective of their study is to test how personality plays a role in understanding positive stress which is called eustress and negative stress that is named distress.

Brock University (2016) defined distress as the result that occurs when a person cannot withstand good stress anymore. Also, distress causes physiological and behavioral symptoms. Ladebo, Awotunde, & AbdulSalaam-Saghir (2008) cited by Vigoda (2002) define distress as the interaction between employees and stress that is connected to work environment. On the other hand, there are several researchers who defined positive stress, or in other words, eustress.

Eustress is also the focus of attention for a lot of researchers. “Selye (1976) was the first to describe eustress as positive affect following a response” (Saksvik & Hetland, 2011, p.3). Later, many studied eustress and are still seeking clear information about both kinds of stress. Jones in one of his lessons on Study.com clarified the meaning of stressors as those reasons that help to generate a negative impact on people from the physical, psychological, and emotional side. Also, he described eustress by emphasizing that eustress is motivating people to overcome obstacles and promote the desire of achievement. He believes that if stress is not overwhelming, it is positive. As stated in an article by The Coaching Tools Company. Com, who was interested in improving employees’ ability to have more insights about themselves, eustress is the resource of power to face challenges, keep working on tasks, and achieving goals that make employees feeling satisfied.

Both types of stress have some of the same characteristics. Distress is causing anxiety, disorders, and discontent. Employees have limited endurance and poor performances. It also could be long term or short term, and it leads to serious health problems. However, Eustress promotes motivation and provides energy. Also, it gives them excitement the feeling of and improves their performance. It is a short-term stress, and employees become more able to endure it (Mills, Reiss, & Dombeck, 2008). Stresses can impact both personal and organizational level. For example, organizations would lose employees loyalty and commitment. Also, organizations may have little productivity that causes a reduction in profits. Having higher costs to replace the poorly performing employees is an additional problem too (Banerjee & Mehta, 2016). All these factors could prevent the organization’ from growing.

Numerous studies addressed negative and positive stress effects on employees. Back to Anton’s study on (2009), he presented several studies about the impact of stress and workers’ behaviors. He tried to prove through some studies that stress affects performance, increasing turnover, job satisfaction, and employees’ loyalty. Also, stress has three common effects. First, physical effects include those consequences such as a headache, tiredness, exhaustion, and pain in some parts of the body. Second, psychological effects like anxiety, insomnia, loss of motivation, and having confused feelings such as anger, sadness, and depression. Employees’ behaviors could be affected in a very negative way because of stress. Some employees’ ends abusing alcohol, drugs, and tobacco. Also, their appetite for food can
be affected (Mayo Clinic Staff, 2016). Another study showed that stress and healthy behaviors have a negative correlation, and job circumstances impact employees’ healthy practices (Fodor, Antoni, Burkert, & Wiedemann, 2014).

In addition to the physical and mental effects, stress influences the extend to force employees show up late to their work. Absenteeism and presenting a low level of commitment are problems too (Chang & Lu, 2009). Aftab & Javeed listed in their study on 2012 similar negative effects for stress on employees’ behavior. They added to the previous point that negative effects can indicate low efficacy and low improvement and creativity. Some employees become more willing to leave their jobs due the stress. Finally, according to the website The American Institute of Stress (AIS) explained about 50 symptoms of negative stress that could lead to very serious disease like heart attacks, stroke, and hypertension.

**METHODOLOGY**

One hundred and ten participants completed the survey, and were recruited from the United States (U.S.) and Saudi Arabia (K.S.A), with the majority coming from K.S.A. All responses were gathered between 11/13/2016 and 11/16/2016 using Survey Monkey, a web-based survey tool.

The survey contained 11 questions related to stress and behavioral changes in the workplace. The primary goal of this survey was to collect employees’ opinions about stressors’ sources and stressors’ impacts on their behaviors as well as to gather some suggestions to reduce distress. The survey included several open-ended questions to allow the participants to give more details.

The survey’s link was sent to participants in different ways. First, some copies were sent via email to professors and employees who work at La Roche College, and to classmates who have jobs. Also, several employees across K.S.A received the link through some apps in social media such as WhatsApp and Facebook. Although the initial plan was to conduct face-to-face interviews and to send reminders to participants, the researcher didn’t need to carry out this strategy to collect data because of the high rate of participants’ response to surveys sent electronically. The only request that the researcher made besides asking the employees to participate was to emphasize the importance of completing the entire survey.

Employees’ responses were used in a descriptive analysis.

In the following pages, there are detailed analyses and comprehensive explanations for each question’s result. In the first question, the employees were asked to choose one of two statements that best reflected their opinions about the concept of work-related stress. This question tries to figure out whether or not employees believe that this factor could cause serious problems. As shown below, 75.93% of total participants agreed that job-related stress is a serious problem. On the other hand, only 24.07% believe that this concept is an exaggerated expression.
Also, 53 employees added their comments under this question to explain their choice. Four of these participants gave a neutral explanation about their feelings such as “it depends” and “I feel that way.” Two tried to be positive and linked job stress with lack of time management. Only one participant didn’t agree with both statements. Nineteen of the participants who agreed that work-related stress is a serious problem, justified their beliefs by listing causes of stress such as many tasks, deadlines, and having children. 8 participants described health related factors causing stress such as having diseases, illnesses, lack of sleep, and mental health issues. Also, some employees listed causes of stress that occurred in the workplace such as absenteeism, low morale, bad mood, lack of productivity, and lack of performance. Examples of participants’ comments about the seriousness of stress in the workplace are: “Because it affects the concentration, problem-solving skills, and quality of doing things.” and “I know one of my friends who died at work because of work-related stress.”

The following figure indicates the percentage of employees who believed they had stressors in their current job. Approximately fifty seven percent of employees felt that sometimes they have stressors related to their jobs. 29.36% of employees felt stressed because of their jobs. Only 13.76% of believed that they didn’t have work-related stress.

Those participants indicating that they did have stressors in their current job continued on with question 3. Those participants indicating that they did not have stressors in their current job jumped to question 8. In question 3, the employees were asked to determine their job stress level. The vast majority of employees, 94 out of 110, reported that they feel stressed or sometimes stressed in their current job. Only 15.31% reported having a low level of stress in their jobs.
Figure 3. Employees’ job stress level

Question 4 was an open-ended question to allow participants to list possible causes of their job-related stress. The essential purpose of the fourth survey question was to determine whether their job-related stress was due to workplace or external factors. The question received 79 responses that were categorized thematically. Based on this categorization, deadlines, time pressure, and work overload were the most commonly cited stress causes. Some participants described the allotted time to finish tasks as "unrealistic" and "aggressive." Other participants described their tasks and said that the nature of their roles causes them job stress. For example, having a sensitive job like dealing with patients, or dealing with difficult customers makes completing tasks harder. For teachers, students’ poor ethics sometimes caused additional stress. Other survey participants agreed that stress increased due to managements’ practices such as troubleshooting, the lack of motivation and appreciation, the lack of understanding employees’ role, ambiguity in roles, multi-tasks, frequent changes, exaggerated periodic meetings, critical supervisors, and shortage in staff. Other cited sources of job stress were low salary, bad work environment, and negative relationships with coworkers and supervisors. There were 3 responses that did not fit into any category: computer technology, a lot of paperwork, and working with males.

In question 5, the participants’ responses showed whether or not job stressors affect their behaviors in the workplace. Most participants, 77%, said that job stressors influenced their behaviors at least sometimes. Only 23% of participants indicated their behavior was not influenced by stress.

Figure 4. Do job stressors affect employees’ behaviors in workplace or not.
To find out more about the behaviors that may change because of stress, the survey asked participants to identify some of their behaviors that they believed changed with stress. Based on the 61 comments, it appears that several employees have similar symptoms caused by stress. The vast majority face changes related to mood that they described as being in a bad mood, feeling angry, feeling anxious, short tempered, impatient, tired, feeling depressed, and frustrated. Moreover, many participants indicated they preferred to keep quiet and resist contact with other employees when they felt stressed. Many of them mentioned low motivation, poor productivity, and poor decision making as examples of changes in their performance. Finally, a minority reported extremely negative feelings like grudges, hostility, hatred, and aggressiveness against their companies and workmates. Postponing tasks, apathy, and procrastination also were mentioned by a few in the sample.

Some of the employees pointed out behavioral changes on a personal level including eating disorders, overeating, nail biting, over consumption of coffee and cigarettes, and an unbalanced life. Although participants mentioned many negative behavioral changes, two individuals did describe ways of dealing with stress positively. One participant stated: “I try not to let it bother me to the point where I would be emotional and behave negatively. I try to keep that hidden away, it is not good for office moral.” The other stated: “The work environment and co-workers were absolutely wonderful people; we were all a little stressed by the rapid expansion.”

As shown below in Figure 5, employees were in agreement as to how work-related stress affected their personal life. About 74% reported that job stressors affect their personal life, and only 26% didn’t see such affects. Most of them believe that spending long hours at the workplace and needing to finish tasks at home sometimes increased stress. These long hours caused family problems, lack of socializing with others, and limited free time to have some fun. Unfortunately, losing one’s temper with spouses and children was mentioned frequently by the participants. Job stressors were also related to over thinking and difficulties relaxing. One of the participants said “When I have had a hard day at work, it’s hard to come home and be all happy about life. Often my husband and I have to take adequate time to unload from our day, rather than jumping straight to just enjoying time together.” This comment represented the majority of views.

![Figure 5. Do job stressors affect employees' personal life or not.](image)

The following figure shows the result of question 7, which focused on employees’ trends to find a new job in the last 6 months. The results show that 54% reported that they had already, at sometime planned to change their jobs. On the other hand, 46% of employees reported that they did not want to find a new job.
Figure 6. employees who planned to find a new job in the last 6 months.

Figure 7. employees’ responses about spending time at work.

Figure 7 represents employees’ thoughts on whether or not the amount of time that they spent at work ever gets in the way of their personal life. The majority, 69.72% believe that their personal lives are always or sometimes affected by the number of hours that they spend on their jobs. About 30.28% didn’t see that their personal lives were affected by their work commitments. The employees’ used very negative descriptors to express their feelings about spending long hours at their jobs. The majority felt uncomfortable, exhausted, and guilty because most of them connected their feelings with their unwitting neglect of their families.

To obtain information about participants’ background about eustress, the survey asked employees if work-related stress had positive side effects.
As shown in figure 8, in total 63.30% of employees see that work-related stress had may have positive side effects. Only 13.67% of employees were not sure if stress could cause positive effects. 54 participants explained their point of view. Although there were a considerable number of opinions that focused only on the negative side of stress, the majority were familiar with eustress and they provided great examples of eustress effects. Improving experience, managing time, and having positive behaviors such as being wiser, patient, and more understanding were the most frequently mentioned. A lot of participants agreed that stress increases productivity and efficiency. Also, in their opinions, stress is a good motivator and helps them to work harder and overcome stress in the future. Only a few employees felt that if stress was related to personal gains such as promotions or salary increase that would have positive effects.

To evaluate employees’ satisfaction about their current job position under the same work circumstances, the survey asked them to rate their level of satisfaction on a scale of 1 to 5, with 1 being the lowest and 5 the highest.

As shown in the figure above, the majority were satisfied with their current position. Although only 12.84% of the sample felt strongly satisfied with their positions, overall more than 80% indicated that they were at least on average, satisfied, with their current jobs. Only 13% were not satisfied.
The last question in the survey tried to gain information about what employees do to deal with stress. Eighty three out of the 110 employees participating in the study suggested a number of solutions to overcome feelings caused by stress. Some of them try to avoid thinking about stress and shift the focus of their thinking to outcomes such as money, promotion, and the next vacation. The majority rely on their relationships with family and friends to reduce stress. Moreover, a lot of relaxation techniques were mentioned such as watching TV, eating, practicing hobbies, traveling, exercising, and having short breaks. Several employees also depend on some religious practices to overcome negative stress. Finally, few of them provided suggestions related to the job such as trying to organize their work efficiently, and improving their knowledge and skills to avoid stress in future situations.

**LIMITATIONS**

The current study was informative although it does have a few limitations. For example, a lot of participants did not answer questions, especially the open-ended questions. Moreover, because most participants chose the option “sometimes” for the closed questions, this limited the information that could be used to evaluate the role of stress in the workplace.

Categorizing information was difficult because of the varied responses given to the several open-ended questions. These varied responses seemed to be related to specific types of jobs. For example, teachers identified different job stressors than health care practitioners. Thus, future research should focus on the relationship between type of stress and job category.

Another limitation was that the researcher was not able to ensure that participants understood the questions. Some participants misunderstood some questions and gave responses unrelated to the questions, and some made spelling errors, which made their responses unclear. It was of some concern that one of the participants used bad language and abusive words against the researcher.

**FINDINGS**

**Conclusions**

This study provides basic information that indicates the issue of stress in the workplace should be taken seriously, and should be the subject of future research. Although a considerable number of researchers have studied the relationship between stress and employees’ behavioral changes, participants’ complaints about stress in the current study is evidence that many organizations still don’t have a healthy work environment.

Results of the open-ended questions provide interesting details about stress sources, behavioral changes, and ways to overcome stress impact from the employee’s point of view. Survey Monkey analyses were used to identify patterns in employees’ responses. After using this feature, it was interesting to know that the 94 out of 110 participants who have job stressors also have behavioral changes in the workplace and their personal life. These employees tended to be less satisfied about their current roles, and they did not believe that stress could have positive effects. However, these participants also want to stay in their current job roles, which is unexpected. It would appear that these people are not stressed enough to want to leave their jobs.

Overall, the results of current study show that most of the participants have job stressors and most of these stressors are connected to their jobs. Also, most of them behave negatively in their workplace and in their personal lives as a result of this stress. The negative effects of stress in the workplace, indicates that organizations should become more aware and proactive in addressing this issue.

**Recommendations**

This study provides a deeper understanding of the impact of job stressors on employees’ behaviors that can lead to recommendations that might help employees to deal with stress effectively, and encourage managers and HR professionals to improve their practices. If managements take these results seriously, especially those relating to managements’ practices, they might reduce some negative behavioral changes on the workplace and try to provide
flexible policies that help to create a motivating environment. Reducing job-related stress and balancing tasks provides efficient results with fewer potential losses. The researcher suggests the following ideas to raise awareness and help managements address this issue:

- Promote educational curriculums with topics about managing stress and time management to raise awareness for individuals from earlier ages.
- Require new employees to join sessions and workshops about the nature of the work and all needed information.
- Provide current employees with sessions and workshops about managing stress and time management.
- Provide specialists in case employees need help to overcome job stress.
- Require managers and HR professionals to join training programs that improve their skills to create flexible work policies.
- Take into consideration employees' opinions to improve productivity and reduce work-related stress.

REFERENCES


Is Unemployment Caused By Socio-Economic Phenomenon For The Case Of Kuwait

Wael M. Alshuwaiee, Public Authority for Applied Education and Training, Kuwait
Nayef N. Al-Shammari, Kuwait University, Kuwait
Nour W. AL-Mubarak, Kuwait University, Kuwait

ABSTRACT

This study investigates the major macroeconomic factors causing unemployment in Kuwait. Particularly, it examines the impact of GDP growth, inflation rate, government expenditure on education, oil prices and population growth on the unemployment. The yearly data sample covers the period between 1993 and 2016. The estimated model is tested using time series analysis such as unit root test (ADF), multivariate Johansen co-integration test, Vector Error Correction Model (VECM) and Granger causality test. Findings indicate that oil prices, population growth, GDP growth, government spending on education Granger cause the unemployment rate in both the short run and the long run. Moreover, oil prices and government expenditure on education exhibited a significant negative effect on the unemployment over the long run. Given the unique characteristics of the demographic features of the population of Kuwait, this paper finds that the growth rate of population contributes to the unemployment rate in Kuwait, indicating that the increased population of expatriates causes unemployment among Kuwaiti nationals.
Using Short Videos To Teach Vocabulary For EFL High School Students
Jia-Jiunn Lo, Chung Hua University, Taiwan
Yu-Chih Huang, Chung Hua University, Taiwan

ABSTRACT

This study conducted an experiment to examine the possibility and effects of using short videos to teach vocabulary for EFL (English as a Foreign Language) students. Two classes of Taiwanese ninth grade high school students were involved. Both classes were taught by the same English teacher. One class was the experimental group and the other was the control group. The experimental group was under the instruction of using short videos in class, while the control group received didactic teaching. The videos were from OMG English, a channel on YouTube. Each OMG English includes a specific theme to introduce three to five words or phrases and the length is about two to four minutes. The video presenter used both Chinese and English in OMG English. It took six weeks for the experiment, one video for each week. The control group learned the same words with similar instructional procedure except watching the OMG English video. Two instruments, English vocabulary test and response to English short videos questionnaire, were used. The experimental results verified the effectiveness of using short videos in vocabulary learning. From the comparison of the English vocabulary pretest and posttest, it is found that through watching English short videos, the experimental group significantly outperformed the control group in the posttest of the target words. It implies that short videos can bring more positive effects for learners on acquiring English vocabulary. The results of the response to English short videos questionnaire showed that the participants did not have burden to watch English short videos and they preferred watching short videos to didactic teaching. They felt that it made the instruction more interesting. The participants also agreed that watching English short videos aroused their learning interests in words and phrases. These findings imply that short videos are beneficial to EFL students’ learning of English vocabulary and provide EFL teachers an effective approach for teaching vocabulary.

Keywords: Short Video; EFL (English As A Foreign Language); English Vocabulary; Vocabulary Learning
Influence Of Transformational Leadership On Proactive Work Behavior: Mediating Role Of Psychological Empowerment

Ali Javed, University of Management and Technology (UMT), Pakistan
Atif Hassan, University of Management and Technology (UMT), Pakistan

ABSTRACT

Purpose

The basic purpose of the study is to examine the relationship between transformational leadership and proactive work behaviors through the mediating role of psychological empowerment. The paper also attempt to provide logical and thorough understanding regarding how transformational leadership boost up the state of psychological empowerment and how in turns psychological empowerment influence the proactive behavior of employees.

Methodology

Based on theoretical and empirically supported arguments and theories, this hypothesized study builds upon 16 hypotheses including main hypothesis, sub-hypothesis and mediation hypothesis. To test these hypotheses, data were collected from 278 followers working in the service sector of Lahore, Pakistan through the disproportionate quota sampling.

Findings

Findings of the study supported the proposed hypothesis which can be used by the organizational leaders to enhance productivity among their followers.

Originality

This study will help in realizing Pakistani organizational leaders that the power distance approach or authoritarian approach they are following is not suitable for producing proactive employees, they need to give them a feel that they are empowered and empowerment is not something which a leader should announce, in fact they need to transform their followers in such a way that they psychologically consider themselves as empowered.

The study also add value by using self-concept based theory of leadership and social exchange theory to support the relationship between transformational leadership and employees' proactive behavior thus provided a motivational mechanism of psychological empowerment that link up their relationship.

Keywords: Transformational Leadership; Proactive Work Behaviour; Psychological Empowerment, Service Sector
High Stakes Examination And Curriculum Constriction In Pakistan
Sajid Masood, University of Management & Technology, Pakistan
Abdul Hameed, University of Management & Technology, Pakistan

ABSTRACT

Examination conducted by the Punjab Examination Commission (PEC) at grade VIII is high-stakes as intended and unintended consequences are associated with result of the examination. A mixed methods sequential explanatory study was conducted to investigate effects of the examination conducted by the PEC on curriculum. In quantitative phase survey data was collected from 521 elementary school teachers teaching in seven districts of the Punjab selected through simple random sampling. The quantitative results were used to select participants for qualitative phase of the study through maximum variation strategy of purposive sampling. Quantitative phase identified no significant differences in perceptions of teachers about effect of the examination on curriculum. Teachers irrespective of gender, school location and type, experienced similar effects of examination on curriculum in grade VIII. Qualitative analysis yielded theme “Examination controls the Curriculum.” It was further explored that teachers used helping books in their classes and thus dictated curriculum. Old examination papers were extensively used and became the curriculum, the examination fostered selective study in classes and the curriculum was reduced to objective type items only. Furthermore subjects not tested in the examination were affected more as compared to tested subjects. One of the objectives of this examination reform was to improve curriculum and in the light of this study it remains rhetoric. The findings of the study have posed several challenges for curriculum authorities, examination and educational authorities in the Punjab.

Keywords: Examination Reforms, High-Stakes, Curriculum Narrowing, Disequilibrium in Content
ABSTRACT

The South African education system has been undergoing extensive restructuring since the advent of democracy. Though there were efforts to improve the quality of teaching and learning, nothing specific was done to support teachers in dysfunctional rural schools. The purpose of this study was to explore the support that teachers expect from the University to improve their mental health and sustain the quality of teaching and learning in dysfunctional rural schools. A qualitative action research study design using focus group interviews was conducted with the participants who were purposively selected. Data were analysed using the open coding method. Findings of the study established that teachers morale was down and working with colleagues poor. Teachers expect collaboration with the university to support them through professional development and mental health promotion. They think that improving their mental health would promote self motivation which would improve their teaching skills. They want to be teachers who are capable of facing and solving new challenges in their fields. Teachers want to scquire new teaching skills towards improving the quality of teaching and learning and become subject specialists. The study recommends that further research on the advancement of curriculum knowledge in the subjects of Physical Science, Life Science, Mathematics, English and Life Orientation be conducted.

Keywords: Sustainable; Learning And Teaching; Mental Health; Teacher Professional Development
In It For The Long Haul: How Rural Veteran Teachers Persist In The Profession
DeJuanna M. Parker, Winona State University, USA

ABSTRACT
Research has determined that experienced teachers are more effective in the classroom; thus, efforts to retain them in the profession becomes an important issue to all stakeholders (Ladd, 2013; Mirza, 2011; Sawchuk, 2015; Walker, 2016). The key to retention of this valuable educational coalition lies partly in understanding factors that influence persistence in the profession. Respect, recognition, and connectedness with the community, along with intrinsic rewards, and the “call” to teach are prominent components in veteran teachers’ decisions to remain in the profession (Chiong, Menzies, & Parameshwaran, 2017; McCoy, 2006). Educational executives may find that understanding these factors may be useful in developing practices to help new teachers become veteran teachers.

INTRODUCTION
Experienced teachers are vitally important to education. Ladd (2013) asserted experienced teachers have a greater impact on student achievement than do inexperienced teachers. Additionally, Ladd (2013) purported experienced teachers with 20 years of classroom experience are more pedagogically effective than are those with fewer years in the profession. Veteran teachers also contribute to the growth and development of novice teachers and add value to the school community (Clotfelter, Ladd, & Vigdor, 2010; Glazer, 2013; Grissom, 2011; Ladd, 2013). With attrition rates as high as 40% for teachers with fewer than five years’ experience (Ingersoll, 2004; Sutcher, Darling-Hammond, & Carver-Thomas, 2016), retaining effective veteran teachers becomes even more significant.

Research supports that teachers with 10 or more years of experience demonstrate attrition at a lower rate than novice teachers do (Deruy, 2016; Keigher, 2010). Studies have reported a myriad of factors that influence veteran teacher retention. Those factors relate to salary, advancement, and administrator support. Recent research, however, has revealed specific persistence factors of veteran teachers, which are not explored deeply in previous findings. These factors are the focus of this writing.

Theoretical Framework
Super’s Developmental Self-Concept Theory (1963) was the overarching theory for this phenomenological study. The theory holds through the life span, the self-concept becomes more realistic and stable. As a result, vocational choice and behavior tends to align with the self-concept. Super (1963) contends five stages of development: growth, exploration, establishment, maintenance, and disengagement. Through the lens of this theory, the researcher was able to view career longevity of veteran teachers at a prolonged stage of maintenance, and delayed entry into the stage of disengagement.

Pretorius’ Fortigenesis Theory (2004) guided the exploration of veteran educators’ connectedness with teaching that contributes to sustained careers in education. Fortigenesis distinctly refers to the internal wherewithal summoned to preserve an individual when other forces do not suffice. It is often called “inner strength”. This theory assisted the investigator in understanding veteran teachers’ resilience factors that produced continued commitment and dedication to the profession and to individual schools.

METHODOLOGY
This study employed a qualitative research design with a phenomenological approach, purposing to explore the lived experiences of participants. Moustakas (1994) described phenomenology as “the method of reflection that provides a
logical, systematic, and coherent resource to arrive at essential descriptions of experience”. Consequently, in order to produce the “essential descriptions” cited by Moustakas (1994), Creswell (2009) contends the use of qualitative methodological traditions will assist the researcher in conducting the inquiry. The researcher conducted focus group interviews with educators with a minimum of 20 years of teaching experience. Interview questions were open-ended, so as to allow for rich and thick responses from the participants. The raw data from the interviews were transcribed. The researcher used open and axial coding to triangulate textural analysis. The following sections reflect the themes that emerged through the analytical process.

Community Ties, Respect, and Involvement

Schools are often a central component of a community; therefore, especially in rural areas, teachers become prominent citizens because of their connection to the school (Fowler, 2012). School-community relationships are often representative of rural culture, which is now more geographically and socioeconomically diverse than in the past. Suburban sprawl has contributed partially to the rural shift. Researchers have found evidence of a juxtaposition of residents who desire the “rural life”, but continue to desire metropolitan amenities. Rural districts, therefore, have become less rural in the traditional sense. Jaques (2014) conducted a grounded theory study to investigate the culture of a small, rural, and diverse community of Native American, Hispanic, and Anglo populations in Colorado. The core issue that emerged from the data described the behavior of how people become involved in and integrated into a community, what the researcher termed as “binding to the community” (Jacques, 2014). The key concepts of binding to community consist of the following:

- prospecting to seek out a place to call home
- outreaching to make purposeful contact with community members and organizations
- being guided to learn from and interact with community members and organizations to gain knowledge of community norms, traditions, and values
- being accepted into the community through being valued and finding common threads; and finally,
- engaging community to perpetuate norms, rituals, and practices through continued interaction with the other community members.

The researcher also noted that for people who are new to the community, efforts to develop and cultivate relationships are best approached through the workplace. Consequent efforts to integrate include neighboring activities directly related to community cohesion, such as attending local events, and joining organizations (Jaques, 2014). These findings revealed that becoming a member of the community can be a protracted process for newcomers, as the timeframe for completion of each part of the binding process may vary from one individual to another.

Parker (2016) claims that connectedness, respect, and involvement in the community are factors of veteran teacher persistence. Parker (2016) supports the binding process offered by Jacques (2014). Veteran teachers developed connectedness in the community through seeking out a place to call home, interacting with and learning from residents, gaining acceptance, and perpetuating community culture. One participant noted,

When we were searching for a home and talking to people about where to live, we actually went to the police station in town and the Chief gave us some of his time to talk about the community. We had a daughter in elementary and one in high school, and the principals of the schools gave us their time. I can’t think of anything else that would draw us to the community more than this display of rural community culture.

When asked about community attitudes towards veteran teachers, participants in the phenomenological study responded that they were well regarded in the community, and were respected professionally and personally (Parker, 2016). Another respondent explained that behavior towards teachers by the community is not limited to simple respect within the school setting, but respect was evidenced through widespread recognition in the community. The veteran Art teacher remarked, “When out and about in public, my husband says I should run for public office since I am met and greeted by students/parents/alumni wherever I go.”

Much of the recognition and respect derives from veteran teachers’ community embeddedness. Some are lifelong community members, but many others are transplants from other areas who have made the school district locale their
home. As such, these educational professionals are able to leverage social standing in the community with respect in the school setting, and vice versa. One female English teacher shared, “Having born and raised my children here, in the public school system, in school and community sports programs and in church, after 39 years here, it is "home."”. Another teacher intimated,

When I first arrived, I bought a small farm and raised horses and crops. This gave me something in common to talk about with the natives and mitigated the idea I was just another Yankee schoolteacher.

Many of the study participants frequent businesses owned by parents of their students. These seasoned professionals sponsor community sports teams, attend local celebrations, and support local charity events. In all, the teachers who feel that they are connected to the community, and are respected in the community, tend to persist in the profession (Parker, 2016), Huysman (2007), Battatori (2009)

Intrinsic Rewards Based on Student Success

Day and Gu (2009) described the outward expression of commitment and internal rewards found in motivated teachers who believe in making a difference to student learning and achievement. In the emotional context of teaching, pupils’ progress and positive teacher-student relationships provide the main source of job satisfaction, especially for teachers in the later phases of professional life. Many teachers indicated professional and personal interactions with students help to renew commitment to the profession (Meister, 2010).

Parker (2016) supports Meister (2010) regarding the relationship between internal rewards gained from student success and veteran teacher persistence. Parker (2016) characterized commitment to the teaching profession as revealed through dedication to student success, willingness to take measures to ensure success occurs, and fulfillment experienced as a result. Each participant in the study spoke of actions undertaken to ensure student success, including staying late hours after school for supplemental instruction, and taking on mentor roles for students (Parker, 2016). One male History teacher related,

Watching them get it. Watching students grow or have original ideas. When they actually get excited about doing something well. Laughing together. Having dedicated colleagues. Getting feedback from adult students after years have passed. These are the fruits of my labor.

Another participant shared,

I write numerous letters of recommendation for students and being asked to do this is time-consuming but gratifying. I have had students come back years later and tell me that my class was one of their favorites or that they are going into teaching because of my influence. Helping a student be the first to graduate from high school and college in his family. That, to me, is what keeps me coming back.

Another 22-year veteran teacher related,

I was in line at the grocery store, and someone touched my shoulder. I wasn’t sure what to do because I was at the store by myself. But then a soft male voice spoke in my ear and said ‘Out of the night that covers me, black as a pit from pole to pole, I thank whatever God may be for my unconquerable soul …’ It was a former student reciting a poem I had made them memorize in my 10th grade English class. He went on to recite the entire poem while we were still in line. It brought me to tears. It had been at least 10 years since he had been in my class. But I was so touched, and in that moment, I was even more convinced than ever that my work as a teacher was important because I had touched this student. He asked if I were still teaching, and I said that I was. He smiled and said that he was glad. These are the things that reinforce my decision to teach. They’re the true rewards.

These findings support earlier work of Edwards (2003), Hofstetter (2014), and Kearney (2011), who held that though the needs of veteran teachers were not always met, rewards were found in watching children learn, creating learning cultures in the classroom and promoting learning in the community. Moreover, Taylor et al. (2014) conducted a
qualitative study seeking to find the rewards that teachers say keep them in the profession. The investigators found that intrinsic motivators had most influence on intentions to stay in the profession.

Self-Identified Drive to Teach

Crosswell (2006) asserted passion as a disposition aligned with teachers’ personal attributes. This dimension relates to other personal factors such as identity, values, and beliefs that teachers bring into professional roles. Furthermore, Crosswell (2006) found these factors to be influential in terms of commitment and longevity. Many teachers feel a passionate connection to teaching (Crosswell, 2006; Day, 2004). Research has found that teachers’ passions, coupled with other factors such as ideology and identity, influence willingness to commit and reveal ways in which commitment is demonstrated in the school context (Crosswell, 2006; Day, 2004).

Parker (2016) concurs with earlier findings related to veteran teachers’ emotional attachment and sense of calling as factors of professional persistence. In examining attachment, respondents reported having a strong emotional attachment to the profession and difficulty with the idea of leaving. One respondent said,

I am more attached to this school than I have been to any except the first one. I am still dedicated to teaching, not just because this is all I’ve done for 30 years, but because it’s what I should have been doing for the past 30 years. I am the job.

Another participant shared,

After doing this for 40 years, I may retire, but I will never be able to stop teaching. I am currently applying for a position at the local community college and will still give lectures to various groups. I was at some function not too long ago, and someone I was talking to said, ‘I know you’re a teacher because you have been lecturing me for the past 10 minutes.’ I thought that was spot-on. I mean, come on, I’m a teacher through and through. I don’t care what the situation is, I will find a way to teach.

In many instances, the attachment to teaching was related to a deeply rooted, “calling” to teach based on values and beliefs. A qualitative collective case study was conducted with teachers in an inner-ring suburban district located in very close proximity to an inner-city urban area. The teachers in the study had 10 years of teaching experience. The study found that teachers’ personal values based on a sense of obligation to make a difference in the community influenced the career choice to become and remain teachers (Beasley, 2013). Parker (2016) returned similar findings. One 20-year English teacher noted,

I didn't necessarily have the best experiences in high school. My dad became an alcoholic (non-abusive, just absent), my mom a recluse, I wasn't in the ‘popular’ crowd nor was I a top student. I think part of my calling came from the fact that I understand this pain in others. My dad became sober and by the time I got to college, I was an ‘A’ student. I had always been a reader, so being an English teacher was a win-win. I have an empathy and a natural love of learning that I felt obliged to pass on. Is this a calling? I think so. I never felt that I had to do something else, just teaching.

A veteran Art teacher intimated,

Of course, teaching is a calling. There are people who are knowledgeable in a subject, but do not have the rapport to actually be a teacher. Finding a way to reach a hundred different students each day requires a special ability. I feel that teaching is a gift and thus a passion. Not everyone can teach. Those who can, teach.

Rural veteran professionals noted the consuming nature of teaching and the need for inner strength to accomplish the goal of having a long and successful career. Some estimated that the call to teach comes from understanding the pain of others. The rural veteran professionals noted the consuming nature of teaching and the need for inner strength to accomplish the goal of having a long and successful career (Parker, 2016).
CONCLUSION

With so many novice teachers leaving the profession, it is imperative for educational policy makers, district school boards, and building administrators to understand how to retain veteran teachers. Research supports that experienced teachers are essential to education because of the impact they exert on student development and success. One of the first steps to retaining these valuable professionals is to understand and leverage factors influencing the persistence of veteran teachers, especially in rural and other hard-to-staff areas where need is high. Knowledge of persistence factors such as community connections, respect, intrinsic rewards, and deep attachment may help decision makers to develop initiatives specifically targeted to retention of this population of educational professionals.

REFERENCES


Ladd, H. F. (2013, November). Why experienced teachers are important and what can be done to develop them. Scholastic Strategy Network


Academic Factors Affecting Student Achievement: Predictors Of Success On Certification Scores
Scott P. Paetzold, University of Wisconsin, USA

ABSTRACT
While much has been written about classroom factors predicting academic success, there is little to no research investigating the link between classroom achievement and success when taking professional certification exams. The purpose of this research was two-fold: Firstly, the study explored various aspects of student learning to determine if any were predictors of academic achievement. Secondly, the study explored the same aspects of student learning to determine if any were predictors of success when taking a professional certification exam. Academic aspects investigated included: lab assignment scores, simulation software assignment scores, quiz scores, attendance, and total number of assignments not submitted. The professional certification exam used for the second part was the Interconnecting Cisco Networking Devices Part 2 (ICND2). The research was conducted at a public university and issued to 42 students enrolled in three sections of a networking fundamentals course. Results of this study found several aspects were predictors of student success in the course as measured by the final course grade. However, none of the various aspects of learning were found to be reliable predictors of success on the certification exam. Results indicate classroom success are not predictors of higher scores when taking the professional exam (ICND2).

Keywords: Professional Networking Certification; Student Achievement; Higher Education; Prediction

AUTHOR BIOGRAPHY
Scott Paetzold is an assistant professor of Information Communications in the Computer Networking and Information Technology program at the University of Wisconsin – Stout. His interests include technology in the classroom, pedagogy, and cybersecurity.
Do Cross Border Acquisitions Into Africa Add Value?

Chimwemwe Chipeta, University of the Witwatersrand, South Africa
Prince Nkiwane, University of the Witwatersrand, South Africa

ABSTRACT

This study examines whether Cross Border Acquisitions (CBAs) from developed and emerging markets into Africa create value for acquirer shareholders in the long run. Buy and hold abnormal returns realised by the stocks of acquiring firms are calculated for the three years that follow the completion of a deal. We find that CBAs into African countries underperform. However, CBA originating from emerging markets perform better than those from developed markets. Further, CBAs into the countries with the most advanced financial markets perform better than the CBAs into countries with the least developed financial markets.
ABSTRACT

The focus of this paper is how the Fourth Amendment applies to dormitory searches in public colleges and universities. College administrators, residence hall personnel, and campus security officers all play a major role in these searches and, therefore, this paper is directed to them. It describes the legal principles, and other constitutional cases related to this topic. As such, this paper discusses the circumstances in which college and university employees lawfully can enter and search a student's room. Finally, some suggestions are offered to reduce the legal liability surrounding the dormitory searches in public colleges and universities.

College and university students have strong expectations of privacy about their dormitory rooms, which they perceive as home away from home (Morale v. Grigel, 422 F. Supp. 988, 997 D.N.H. 1976). Despite the fact that they recognize and treasure these rooms as their second home, the institution’s officials have the authority to visit and search them. These searches are carried out to ensure that the students are complying with the institution's rules and regulations, for example, the health and safety rules against students harboring pets, when college officials have credible information that a student holds a weapon in their respective room or rather in the event student deals with drugs from their room. Most of these practices not only violate the college policy but also breaks the law.

At one point in 2007, Boston College police officers received a tip that two students were harboring weapons in their dorm room. The police officers sought the help of the resident life officials and visited the probable culprits’ room. Once they knocked on their room, one student came out brandishing a knife while the two came out with a seemingly spiked martial arts weapon and a replica gun. Given that these items were evidently illegal at the campus premises, the police officers asked to comb the room for more weapons and any other illegal item stuffed in the room. The students agreed to the police demands and consented by signing the waivers with the police proceeding with the search. After the search, the police recovered psilocybin mushrooms, cocaine, and marijuana. These items warranted the students a heavy jail term sentence. Nevertheless, the Massachusetts appeal court ruled that the search carried out by the police officers was certainly legal and that they had carried out the duty, as the students were a threat to the security and safety of the campus. Therefore, the police officers had the right to enter but not essentially search the room. Moreover, when the students gave out the weapons and consented to the search, the police took a legal channel where they ended up seizing other illegal items (Goga, 2010). Thus, the Boston College case and other similar cases indicate similar scenarios that other officials in other colleges and universities experience that subjects them to enter and search dormitory rooms. Evidently, the dormitory searches are warranted by the colleges and universities regulations and stipulated in the residence hall contracts. The courts still recognize the university's broad power to enforce regulations, which are necessary to achieve its educational goals, but the university must be aware of Fourth Amendment constraints (Smith & Strope, 1995).

Legal Implications

Legally, the Fourth Amendment as outlined by the United States Constitution governs room searches that are conducted in public institutions. According to Alexander and Alexander (2012), the Fourth Amendments stipulates that:
The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and No Warrants shall issue, but upon probable cause, supported by Oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized. (p. 460)

In taking Due Process form the Fourth Amendment into account, federal and state officials are prohibited from obtaining evidence without warrants excepts in the case of school officials (Alexander & Alexander, 2015). As such, only a search that is authorized with a valid warrant need to be carried supported further with a probable cause. Nevertheless, there are circumstances where searches are carried out without taking into consideration the issuance of a search warrant. Examples of such exemption cases are depicted by crucial circumstances where there is a looming threat to life or risk of injury and that the search is related to a lawful arrest (Jones, 2007; O’Leary, Lapp, & Wintner, 2009). In addition to a plain view search carried out in an incident manifested by a lawful entry of the premises, an exemption case is also marked when a consent is given out for a search by an individual qualified to give consent as detailed in the case Georgia v. Randolph, 547 U.S. 103 (2006). Another case scenario is manifested where the government without a reasonable doubt believe that a felony has been conducted in that particular premises, thus, no need for a search warrant. There is also the need for a search without seeking a search warrant could be elicited with the objective of protecting a law enforcement officer carrying out an arrest to safeguard evidence that could otherwise be destroyed by the culprits or their partners in crime.

According to Alexander and Alexander (2012), a valid search warrant needs to manifest three elements, namely, a statement indicating clearly that a crime has been committed, the specified area that needs to be searched, and the description of the particular search. Therefore, the exception to these requirements in the colleges and universities room search is evidenced with a consent given to authorities to carry out the search. The consent that is in the form of a housing agreement details that college and university officials have the right to enter and search students' rooms when the need arises. However, Piazzola v. Watkins, 442 F.2d 284 (5th Cir. 1971) elucidates that institutions cannot give the students liberty to waive their Fourth Amendment protections as occupants in the residential rooms (Kaplin & Lee, 2014). Furthermore, the higher learning institutions can carry out searches that are aimed at protecting health and safety of the students, for example, enforcing health regulations. However, Kaplin and Lee (2014) account those such searches need a warrant when students fail to give consent.

Current Case Law

Various interesting court cases are often cited that involve the students and the Fourth Amendment rights, for example, the Piazzola v. Watkins, 442 F.2d 284 (5th Cir. 1971). In this ruling, two students were convicted to five years in prison after state narcotics agents and university officials made a detection of marijuana in their room. After their conviction for possessing marijuana, the federal trial court upheld the sentence given by Fifth Circuit. In the ruling, despite their residence in the university premises and the right to search dormitory rooms, the court pointed out the rights of the students and the protection of their Fourth Amendment (Smith & Strope, 1995). The court further attributed that such a regulation could not be interpreted as consent to a search simply to gather evidence for a criminal hearing. Nevertheless, the court reiterated that the regulation would be attributed as an illegal attempt that forces students to relinquish their constitutional right from such inflexible searches and confiscations as a condition of gaining accommodation in the college dormitories (Kaplin & Lee, 2014).

There are other judgements made by courts that have defended students’ Fourth Amendment rights. For example, in the case, Washington v. Chrisman 455 U.S. 1 (1982), a search was conducted in Chrisman’s dormitory room after a police officer in the institution’s compound happened to witness a drunk student who was supposedly aged below 21 years leave the room whilst carrying a gin bottle. The officer went ahead, stopped the student, and asked for his identification. Given that the student had not carried his identification card, the officer accompanied to collect the documentation. From the doorway, the officer was able to notice marijuana seeds and a pipe placed on the student’s table. Subsequently, the officer entered the room and confirmed that the seeds were indeed marijuana’s and that the pipe smelled marijuana. The officer further communicated to the student and his roommate of their rights and waited for the second officer to arrive.

Upon the arrival of the second officer, the students waived their Miranda rights of remaining silent or have an attorney present and willingly consented to the search of the room. The room search yielded marijuana and another controlled
substance that subjected the roommates to being charged with two counts of possessing controlled substances. The Supreme Court of Washington annulled the search process that led to the sentence of the roommates; however, the U.S. Supreme Court overturned the ruling in favor of the state. The court pointed out that it was not realistic for the police to accompany the student just to remain in the doorway. Therefore, the police officer was there legally and with the marijuana and the pipe “in plain view” meant that it was visible, thus, the court upheld that the seizure of the drugs did not contravene the Fourth Amendment as explained by Christman (2002).

Similarly, another case, Commonwealth v. Neilson, 666 N.E.2d 984 (Mass. 1996) is an example of search decisions extended lawfully in accordance with the culprit’s context. This case is mentioned and cited frequently in student search decisions based on the ruling where the validity of housing agreement for the Fourth Amendment purposes was overrun. Neilson a student at Fitchburg State College for illegal ownership, farming, and supplying of marijuana. Given that the student had signed the housing resident hall agreement, this gave the residence life staff members the authority to enter into the premises carry out an inspection to ascertain personal safety and health hazards. When one of the maintenance workers heard a cat inside a dormitory suite, the students’ college officials placed notices on the four bedrooms inside the dormitory suite stipulating their intention of conducting a door-to-door check at 10 p.m. on that particular night to remove the cat (Kaplin & Lee, 2014, p. 458).

The college officials returned later that day and they did not find the student. After the officials gained entrance into the room and started searching, they noticed some light coming from the student’s closet. They checked out the closet thinking that it could be hazardous only to find two marijuana plants growing alongside other paraphernalia for cultivating and using the drug. The officials alerted the campus police who without seeking a search warrant, visited the student’s room and took photographs with relevant evidence. Furthermore, with the help of the college officials, they transferred the evidence from the room. Therefore, the Supreme Judicial Court ruled that the college official did not violate the Fourth Amendment when they entered and searched the room. Accordingly, the entry was aimed at implementing a health and safety rule that is instituted by the college’s overall function as a higher learning institution.

In another case, the United States v. Heckenkamp 482 F.3d 1142 (9th Cir. 2007), had a Wisconsin graduate student charged with a federal crime of suspected hacking into the institution’s computer system. The university officials worked with the FBI agents to investigate the hacking activities and the former was in the processing of seeking a warrant to advance the investigation process. The university employee was afraid that the student would damage the computer system before the issuance of the search warrant. Therefore, the employee was accompanied by police officers to the student’s room where the detached the computer from the institution’s network. The employee wanted to carry out further commands from the student’s computer but did not have the password codes to the computer. An officer found the student where he voluntarily gave out his password for his computer to be accessed.

The court charged the student with a federal crime but the latter moved to have the charges overturned because the searches involved in the investigation process including the examination of his computer violated his rights as stipulated under the Fourth Amendment. The Seventh Circuit kept into consideration the student’s constitutional protection on the privacy of his computer went ahead and upheld the search. The court’s final decision indicated that a limited warrantless remote search was permitted and defensible under the unusual events. Nevertheless, the exception of a warrant in this scenario was ignited with the thought of the student’s harm to the system without permission authorization (Fossey, 2015).

It is evident from the cases discussed that the courts support officials and staff from colleges and universities to enter and search students’ rooms as stipulated by the institutional commitment, which involves safeguarding and promoting students’ safety and health. The courts make a determination in their ruling by first looking into the housing agreements between students and the institutions as a proof for enhancing the legitimacy of the search processes. Nevertheless, Lemons (2012) elucidate that the courts also recognize the limitation of the relevance of consent particularly when law enforcement officers are involved and evidence retrieved through the search is presented in the criminal proceedings. Furthermore, it is vital to note that most legal questioning revolves around the following issues, namely, whether the search process intervened the principles stipulated in the Fourth Amendment, and whether the student has given consent either during the search or through housing contract agreement (O’Leary, Lapp, & Wintner, 2009).
Reducing Legal Liability

University and college officials inclusive of the law enforcement officials should note that students have the rights to privacy in their dormitory rooms. Additionally, the administrators from these institutions should ensure that their search processes take into consideration the aspects of the Fourth Amendment. The institutions should take a central role in ensuring that they provide a safe educational environment for the students coupled with practical health and safety inspections of the students’ halls of residence. The searches should be documented and permitted under specified terms and agreements between the students and the institutions. Nevertheless, these searches should not be utilized to uncover criminal evidence even when the institutions are concerned with the matter (Lemons, 2012).

REFERENCES

Piazzola v. Watkins, 442 F.2d 284 (5th Cir. 1971).
United States v. Heckenkamp, 482 F.3d 1142 (9th Cir. 2007).
Using Text Messaging To Improve Performance And Engagement In The Online Classroom

Mary Lynn Cluff, University of Phoenix, USA
Wendy Schmidt, University of Phoenix, USA

ABSTRACT

In the online classroom, there is a growing need to improve communication between instructors and students. To that end, this study examines university students’ experience with texting in an online, asynchronous classroom as understood through the student viewpoint and how it relates to student performance and retention. The questions this study hopes to address are as follows:

1. What options do students themselves see as having the greatest potential for enhancing communication in the online classroom between themselves and their instructor, and to what degree are students engaging in these activities and benefiting from them?
2. Does texting between instructors and students result in higher academic performance or retention?

It is hypothesized that students who have the option of texting with their instructors not only communicate more frequently with their instructor and have a stronger sense of connectivity to the class, but have better academic performance and higher retention rates than those who do not have that option.

Most studies that explore texting are interested in how it impacts the on ground classroom experience. They have found that it negatively affects academic performance, sometimes as much as lowering a test score by a full grade and a half. (Kuznekoff, 2013; McDonald, 2013) Students who text during class, in other words, perform worse than those who do not. However, a better understanding of how and if texting might be leveraged for positive outcomes is needed, especially for the online classroom. Boath et al., (2016) found that among undergraduate nursing students, text messages were seen as supportive, engendered a sense of belonging, and encouraged retention. Heafner & Plaisance (2014) argued that synchronous texting enhances enjoyment, achieves community, and bridges theory to practice and Lauricella & Kay (2013) likewise established that texting was the preferred mode of communication for students with both peers and instructors. Yaros (2012) found consistently higher quiz scores for those who received guided text messages. On the other hand, Swartwelzer (2014) concluded just the opposite: that texting had no positive impact on grades or learning outcomes. Motiwalla (2007) acknowledge that the extensive use of mobile technologies can result in information and interaction overload. Finally, Thompson (2017) found that “research suggests a negative relationship between frequent use of communication technologies, such as text messaging and social network sites, and academic performance, but the nature of the relationship needs to be explored in greater detail” (p. 257).

Approximately 200 students in several online courses were given the chance to respond to a discussion question that asked them to share their best practices for communication in the classroom. Specific topics included private messaging within the online classroom, phone calls, and texting. Students were asked which method of communication was most beneficial to them and if they felt it helped them succeed in class. It was demonstrated that of the three available communication possibilities, students preferred texting, private messaging, and phone calls in that order. Even more, students expressed how texting especially decreased their sense of isolation and appreciated knowing that someone was there to help them when needed. This seems to confirm that texting can promote a more inclusive and engaging classroom experience. Approximately 300 students were given the opportunity to respond to regular texts (approximately two per week) sent by instructors over the course of their class. It was found that there was a slight increase in the grades and retention of a) students in classes that had the opportunities for texting compared to classes that did not; and for b) students who chose to engage in texting compared to those who did not.

© Copyright by author(s)
This study concluded that when texting is presented as an informal option for communication between instructors and students, a significant number of students take advantage of it, communicate more frequently, reach out for help and support, and, in the end, feel less isolated and more invested in the class. Students develop a relationship with their instructor that translates to better academic performance and higher retention rates.

Keywords: Online Classroom; Texting; Student Engagement; Isolation; Communication Tools

REFERENCES


McDonald, S., (2013). The effects and predictor value of in-class texting behavior on final course grades. *College Student Journal, 47*(1) 34-40.


Exploring The Quality Needs Of Saudi Electronic University Students: A Learner Perspective

Fawzia O. Alubthane, Ohio University, USA
David R. Moore, Ohio University, USA
Email: fa161611@ohio.edu

ABSTRACT

The main purpose of this study is to explore students' perspectives about what constitutes quality in Saudi Arabian online courses (as developed by Saudi Electronic University (SEU)). In addition to general Saudi cultural attributes, the study also investigated whether students' genders or ages significantly affected their views of online course quality. The study utilized a questionnaire and semi-structured interviews. Quantitative data revealed that the participants viewed quality in a similar ways as their North American counterparts. While both the quantitative and qualitative results showed that interaction with instructors using different communication methods, meaningful interactions among students, stating course objectives, connecting course content to real world applications, providing resources, well-organized interface, and working with other students collaboratively are very important factors. There are no statistically significant differences between students' perspectives due to their age or gender. While the qualitative results suggested that there are no differences due to age, students' gender did affect how students viewed social media and social reticence, common among Saudi women, seemed to affect some students' willingness to participate in virtual lectures.

INTRODUCTION

Online Learning in Saudi Arabia

Saudi society has some cultural, religious, and social considerations that should be taken into account when developing electronic universities and online courses. Hence, there is a need to find out what factors correspond with the specific needs of students enrolling in online courses in Saudi Arabia. Based on that, this study seeks to determine how quality is perceived by Saudi online students. Gender and age have a significant role in Saudi society; this study specifically explored online course quality as it related to gender and age, in addition to the more general analysis. This study is significant because it is one of the first to investigate online course quality perceptions in a highly structured culture. The study focused on students' perceptions, because prior researchers have reported on faculty's perceptions; minimal study has been conducted regarding learners' perceptions regarding online course quality (Dabney, 2012).

Investigating Online Course Quality

Wang and Reeves (2007) found that the students’ intrinsic motivation, including challenge, control, curiosity, and fantasy, improved after completing the 3-day student-centered learning activity. Salloum (2011) suggested that the participants felt comfortable using CMC tools and considered email, discussion forums, news forums, web-conferencing, and text chat useful tools for social and teaching presence communications. Dixon, Dixon, and Siragusa (2007) found that “online learning can occur through meaningful interactions with other students and their lecturer using online communication facilities” (p. 208). Kuo, Walker, Belland, and Schroder (2013) showed that learner-
instructor interaction, learner-content interaction, and Internet self-efficacy were strong predictors of student satisfaction. With respect to the Saudi context, few studies have assessed the effectiveness of online learning in Saudi Arabia. In one small study, Al-Jarf (2006) found that the grades and the performance of students who were taught using a combination of online instruction and traditional instruction were better than grades and the performance of students who were taught using traditional face-to-face classroom. The study also showed that online courses improved less skilled students’ writing ability.

According to Alebaikan and Troudi (2010), the most essential issues affecting online discussion use in blended courses are “[e]pedagogy, e-plagiarism, infrastructure, Learning Management System tools, and demands on time” (p. 507). Findings of a study by Al-Abdullatif (2012) emphasize the need to maintain academic quality and a sense of community. Ali (2012) found that “learners’ attitude toward computers, learners’ computer anxiety, e-learning course flexibility, e-learning course quality, technology quality, perceived usefulness, perceived ease of use, diversity in assessment, and learner perceived interaction with others’” influenced students’ perceived satisfaction (p. 211). Al Zumor, Al Refaai, Eddin, and Al-Rahman (2013) identified enhancing students’ skills in reading and English vocabulary and providing an environment for meta-cognitive strategies, affective strategies, and social strategies as the most important advantages of blended learning. To address the limitations, the students suggested resolving technical problems, providing appropriate training to students, increasing the number of labs, and recognizing the good performance of both teachers and students. Zouhair (2010) revealed that ease of use, usefulness, attitude, and organizational support are critical factors affecting students’ intentions to accept and use a web-based LMS. Al-Fahad (2009) noted that Saudi Arabia had established a robust infrastructure for e-learning and distance learning. However, Abou Hassana (2008) suggested that there is little evidence of the effectiveness of online learning courses in Saudi Arabia. While Alaugab (2007) showed positive attitudes of participants toward online instruction, Al-Shehri (2010) reports that resources, organization, management, and information technology are the most important challenges of e-learning. Al-Harbi (2011) showed that students’ attitudes toward e-learning, subjective norms, perceived behavioral control, and e-learning systems’ attributes are key factors affecting students’ behavioral intentions to use e-learning.

METHOD

The Research Design

The study investigated the following main questions:

A. What do SEU students identify as quality elements required for online course?
B. Do students’ perceptions of online course quality elements significantly differ due to gender?
C. Do students’ perceptions of online courses quality elements significantly differ due to age?

To address these questions a mixed method approach that involved quantitative and qualitative methodology was used.

Target Population

“The Saudi Electronic University (SEU) is the only specialized university in distance education in the Kingdom of Saudi Arabia that offers both graduate and undergraduate degree programs along with life-long education” (Saudi Electronic University, 2015, para. 1). As such students enrolled in SEU will be the population of study and will be used as a proxy for Saudi online learners. According to Saudi Electronic University (2016), in the 2016–2017 school year, 12793 male (64%) and female (36%) students were enrolled at SEU. 93% of them were undergraduate students, and 7% of them were graduate students.

Part I: Quantitative Design

The participants were randomly selected from the entire SEU student body using simple random sampling. The sample consisted of 373 participants. To get maximum number of responses, the researcher used the following the formula in illustrated in Figure 4 (recommended by Johnson & Christensen, 2014, p.268).
Therefore, the number of people to include in the original sample is 747. The researcher adopted a questionnaire developed by Hathaway (2009), called The Online Learning Quality Inventory (OLQI). The data from a pilot test was utilized to calculate the internal consistency where Cronbach's alpha was equal to 0.960. Hathaway (2009) indicated that the face validity and content validity of OLQI questionnaire was evaluated by a panel of six faculty. To analyze the quantitative data, descriptive statistics, a t-test, and a one-way ANOVA was used.

**Part II: Qualitative Design**

A semi-structured interview was conducted with a purposive sample of participants. The researcher conducted a pilot test to evaluate the interview questions. For the data trustworthiness, member-checking was used. To avoid researcher bias, a reflexive journal was used to describe any impact of on attitudes, culture, feelings, and gender on the study. Thematic analysis was used to analyze the qualitative data. The researcher interviewed four women students and three male students whose ages ranged from 21 to 37 years old.

**DATA ANALYSIS AND RESULTS**

As indicated previously, number of people to include in the original sample was 747. 564 responses were received from SEU students who differed in age, genders, major subject, and level of study.

**Research Question 1**

A. What do SEU students identify as quality elements required for online course?

**Part I: Quantitative Results: First Dimension: Instructor to Learner Interaction**

The outcomes showed that this dimension, interaction with the instructor, is important (\(M=3.2, \ SD=0.42\)). “Instructor’s knowledge is clear and evident” (\(M=3.78, \ SD=0.54\)) and “Timely responses to student” (\(M=3.59, \ SD=0.62\)) are the most important elements. Table 1 summarizes the results regarding interaction with instructors.

<table>
<thead>
<tr>
<th>Instructor to Learner Interaction</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Items</td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>Q19 - Instructor’s knowledge is clear and evident</td>
<td>3.78</td>
<td>0.54</td>
</tr>
<tr>
<td>Q6 - Timely responses to student concerns</td>
<td>3.59</td>
<td>0.623</td>
</tr>
<tr>
<td>Q7 - Thoughtful communication from the instructor</td>
<td>3.59</td>
<td>0.609</td>
</tr>
<tr>
<td>Q17 - Learners are provided opportunities to ask instructor</td>
<td>3.56</td>
<td>0.623</td>
</tr>
<tr>
<td>Q13 - Online lectures from the instructor</td>
<td>3.52</td>
<td>0.743</td>
</tr>
<tr>
<td>Q10 - Instructors provide frequent feedback</td>
<td>3.40</td>
<td>0.737</td>
</tr>
<tr>
<td>Q11 - Instructors provide meaningful and relevant feedback</td>
<td>3.38</td>
<td>0.735</td>
</tr>
<tr>
<td>Q16 - Conversational tone from the instructor</td>
<td>3.24</td>
<td>0.808</td>
</tr>
<tr>
<td>Q8 - Private communication with the instructor</td>
<td>3.13</td>
<td>0.874</td>
</tr>
<tr>
<td>Q12 - Active participation in discussions by the instructor</td>
<td>3.08</td>
<td>0.854</td>
</tr>
<tr>
<td>Q9 - Public communication with the instructor through discussion board</td>
<td>2.96</td>
<td>0.903</td>
</tr>
<tr>
<td>Q18 - Instructors recognize each student as an individual</td>
<td>2.95</td>
<td>1.041</td>
</tr>
<tr>
<td>Q14 - The instructor leads synchronous discussions</td>
<td>2.71</td>
<td>0.989</td>
</tr>
<tr>
<td>Q15 - The instructors leads asynchronous discussions</td>
<td>2.05</td>
<td>0.972</td>
</tr>
</tbody>
</table>
Students’ Comments

The students’ comments focused on instructor skills and roles and some important problems such as, technical problems, academic burdens, unfamiliarity with (LMS) environments and difficulty with English. The students suggested orientation courses and clear instructions to raise the awareness of students.

Second Dimension: Learner to Learner Interaction Quality Elements

The results revealed that the mean of this dimension was 2.46 (SD=.62). “Meaningful and relevant online interactions with other students” ($M=3.19$, $SD=.806$) and “Learning course content from other students” ($M=2.85$, $SD=.963$) are the most important elements. Table 2 illustrates the outcomes.

<table>
<thead>
<tr>
<th>Items</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q30 - Meaningful and relevant online interactions</td>
<td>3.19</td>
<td>0.806</td>
</tr>
<tr>
<td>Q31 - Opportunity to learn course content from other students</td>
<td>2.85</td>
<td>0.963</td>
</tr>
<tr>
<td>Q20 - Interaction with other students through a discussion board</td>
<td>2.67</td>
<td>0.959</td>
</tr>
<tr>
<td>Q27 - Opportunity to review assignments completed by others</td>
<td>2.62</td>
<td>1.03</td>
</tr>
<tr>
<td>Q29 - Opportunity to receive constructive feedback from others</td>
<td>2.6</td>
<td>0.951</td>
</tr>
<tr>
<td>Q28 - Opportunity to provide constructive feedback to others</td>
<td>2.6</td>
<td>0.977</td>
</tr>
<tr>
<td>Q23 - Interaction with other students through real-time chat</td>
<td>2.58</td>
<td>0.952</td>
</tr>
<tr>
<td>Q24 - Interaction with other students through email</td>
<td>2.52</td>
<td>0.975</td>
</tr>
<tr>
<td>Q25 - Interaction with other students through blogs</td>
<td>2.27</td>
<td>1.019</td>
</tr>
<tr>
<td>Q21 - Interaction with other students through web audio</td>
<td>2.11</td>
<td>0.994</td>
</tr>
<tr>
<td>Q26 - Interaction with other students through wikis</td>
<td>1.83</td>
<td>0.929</td>
</tr>
<tr>
<td>Q22 - Interaction with other students through web video</td>
<td>1.71</td>
<td>0.914</td>
</tr>
</tbody>
</table>

Students’ Comments

The students’ comments focused on the benefits of students’ interaction, suggested interaction tools, and the teacher's role in promoting interaction.

Third Dimension: Learner to Content Quality Elements

The mean of this dimension was high ($M=3.01$, $SD=.46$). “Stating course objectives clearly” ($M=3.56$, $SD=.67$) and “Use of timelines and due dates” ($M=3.49$, $SD=.68$) are the most important. The item with the lowest level of importance was that “A significant part of course grade depends on participation” ($M=2.34$, $SD=1.04$). The next table illustrates the results.

<table>
<thead>
<tr>
<th>Items</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q37 - Course objectives are clearly stated</td>
<td>3.56</td>
<td>0.673</td>
</tr>
<tr>
<td>Q36 - Use of timelines and due dates</td>
<td>3.49</td>
<td>0.678</td>
</tr>
<tr>
<td>Q39 - Use of an instructor-generated outline</td>
<td>3.38</td>
<td>0.684</td>
</tr>
<tr>
<td>Q35 - Use of instructor-generated summaries</td>
<td>3.21</td>
<td>0.899</td>
</tr>
<tr>
<td>Q38 - Use of online quizzes and tests</td>
<td>2.83</td>
<td>0.949</td>
</tr>
<tr>
<td>Q32 - Instructor use of a participation rubric</td>
<td>2.66</td>
<td>0.923</td>
</tr>
<tr>
<td>Q34 - Response to other students’ postings is required</td>
<td>2.61</td>
<td>0.997</td>
</tr>
<tr>
<td>Q33 - A significant part of course grade depends on participation</td>
<td>2.34</td>
<td>1.042</td>
</tr>
</tbody>
</table>
Student Comments

The students’ comments focused on the significance of providing a content summary and outlines and stating the learning objectives. Some commented that the instructor should adhere to the timetables and dates identified to respond to the students’ work. In addition, many participants expressed difficulties related to online exams.

Fourth Dimension: Learner to Instructional Strategies

The outcomes indicated that the overall mean for this dimension is high ($M=3.03, SD=.49$). The most important items are “Clear connections between course content and real world applications” ($M=3.62, SD=.64$) and “Availability of ample information and resources” ($M=3.57, SD=.69$). Table 4 presents the findings regarding this dimension.

<table>
<thead>
<tr>
<th>Items</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q47 - Clear connections between course content and real world applications</td>
<td>3.62</td>
<td>0.64</td>
</tr>
<tr>
<td>Q46 - Availability of ample information and resources</td>
<td>3.57</td>
<td>0.698</td>
</tr>
<tr>
<td>Q48 - Being presented with real world problem to solve</td>
<td>3.51</td>
<td>0.741</td>
</tr>
<tr>
<td>Q49 - Use of simulations</td>
<td>3.33</td>
<td>0.802</td>
</tr>
<tr>
<td>Q53 - Availability of models and examples</td>
<td>3.33</td>
<td>0.763</td>
</tr>
<tr>
<td>Q42 - Opportunities for applying knowledge to other situations</td>
<td>3.15</td>
<td>0.832</td>
</tr>
<tr>
<td>Q52 - Presence of diverse perspectives</td>
<td>3.1</td>
<td>0.821</td>
</tr>
<tr>
<td>Q43 - Freedom to explore and tackle interesting</td>
<td>3.04</td>
<td>0.829</td>
</tr>
<tr>
<td>Q41 - Opportunities for critical thinking about the course content</td>
<td>2.98</td>
<td>0.877</td>
</tr>
<tr>
<td>Q50 - Use of collaborative group projects</td>
<td>2.93</td>
<td>0.945</td>
</tr>
<tr>
<td>Q51 - Activities designed to promote reflection on content</td>
<td>2.91</td>
<td>0.909</td>
</tr>
<tr>
<td>Q44 - Freedom to explore and inquire about course content issues</td>
<td>2.7</td>
<td>0.993</td>
</tr>
<tr>
<td>Q45 - Use of role-playing</td>
<td>2.55</td>
<td>0.97</td>
</tr>
<tr>
<td>Q40 - Use of open-questions in discussions</td>
<td>2.39</td>
<td>0.976</td>
</tr>
<tr>
<td>Q54 - Availability of tutorials</td>
<td>2.27</td>
<td>1.096</td>
</tr>
</tbody>
</table>

Students’ Comments

Participants’ comments emphasized the importance of providing resources, using technological tools available in the LMS to support interaction, applying instructional methods enhancing student communication, and provide an opportunity for applying the knowledge in other situations. Some participants commented that cooperative learning might not be suitable. Other participants observed that content density is a problem causing excessive demands on course time.

Fifth Dimension: Learner to Interface

The results of the survey analysis showed that the mean of this dimension is high ($M=3.36, SD=.48$). The participants considered “Easily readable text” ($M=3.63, SD=.595$) and “Use of a Course Management System” ($M=3.60, SD=.69$) to be the most significant elements. Table 15 presents the results regarding the online course interface.
Table 4
Learner to Interface

<table>
<thead>
<tr>
<th>Items</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q58 - Easy-to-read text</td>
<td>3.63</td>
<td>0.595</td>
</tr>
<tr>
<td>Q65 - Use of Course Management System (i.e. Blackboard, WebCT)</td>
<td>3.6</td>
<td>0.691</td>
</tr>
<tr>
<td>Q59 - Clear and easy-to-understand course layout</td>
<td>3.58</td>
<td>0.65</td>
</tr>
<tr>
<td>Q57 - Clear navigation of course links</td>
<td>3.48</td>
<td>0.743</td>
</tr>
<tr>
<td>Q60 - Working hyperlinks</td>
<td>3.43</td>
<td>0.766</td>
</tr>
<tr>
<td>Q55 - Course divided into modules</td>
<td>3.41</td>
<td>0.711</td>
</tr>
<tr>
<td>Q63 - Consistent course design</td>
<td>3.41</td>
<td>0.784</td>
</tr>
<tr>
<td>Q61 - Hyperlinks clearly indicate where they lead</td>
<td>3.4</td>
<td>0.785</td>
</tr>
<tr>
<td>Q64 - Clearly stated course expectations</td>
<td>3.4</td>
<td>0.779</td>
</tr>
<tr>
<td>Q56 - Online grade book</td>
<td>3.34</td>
<td>0.783</td>
</tr>
<tr>
<td>Q62 - Availability of additional resource materials</td>
<td>3.34</td>
<td>0.829</td>
</tr>
<tr>
<td>Q68 - Color used to facilitate learning</td>
<td>3.23</td>
<td>0.899</td>
</tr>
<tr>
<td>Q67 - Use of Multimedia</td>
<td>3.21</td>
<td>0.945</td>
</tr>
<tr>
<td>Q66 - Use of instructor-created Web pages</td>
<td>2.63</td>
<td>1.087</td>
</tr>
</tbody>
</table>

Students’ Comments

A participant suggested dividing the course into instructional units. Other participants proposed that the interface should be well-organized and appealing.

Sixth Dimension: Social Presence

The mean of this dimension was 2.80 ($SD = .72$). “Opportunities to share experiences” ($M=3.13$, $SD=.84$) and “Activities designed to build trust among class participants” ($M=3.06$, $SD=.878$) are the most important items in this dimension. The next table showed the results regarding this aspect.

Table 5
Learner to Social Presence

<table>
<thead>
<tr>
<th>Items</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q72 - Opportunities to share experiences and beliefs</td>
<td>3.13</td>
<td>0.842</td>
</tr>
<tr>
<td>Q73 - Activities designed to build trust among class participants</td>
<td>3.06</td>
<td>0.878</td>
</tr>
<tr>
<td>Q71 - Working with other students collaboratively encouraged</td>
<td>3.02</td>
<td>0.903</td>
</tr>
<tr>
<td>Q69 - Humor encouraged</td>
<td>2.81</td>
<td>1.009</td>
</tr>
<tr>
<td>Q74 - Use of welcome message(s) at the onset of the course</td>
<td>2.66</td>
<td>1.063</td>
</tr>
<tr>
<td>Q70 - Sharing personal stories encouraged</td>
<td>2.54</td>
<td>1.061</td>
</tr>
<tr>
<td>Q75 - Use of student profiles</td>
<td>2.41</td>
<td>1.06</td>
</tr>
</tbody>
</table>

Students’ Comments

Some participants commented that most students enrolled in online learning are preoccupied with family and work obligations affecting their social presence activities.

Overall Online Courses Quality Elements Score

The overall mean for participants’ perceptions regarding online courses quality elements was 3.01 ($SD=.38$). This overall mean fell in the “important” category.
Part II: Qualitative Results

Using the technique of thematic analysis, the researcher developed a number of themes by relating previously identified codes. The themes, codes, and points were derived from interviews of participants

**Theme 1: Reasons for enrolling in online learning.**

Convenience and flexibility in time and place are the most important reasons for taking online courses. Participant 2 stated, “I am an employee and I aim to complete my education. It was very important for me to be in a convenient situation that is suitable with my job.” Gaining admission also is a significant reason for enrolling in SEU. Participant 3 stated that “This University is the first university that opened the door for me to complete my university education.”

**Theme 2: Orientation courses and training workshops.**

Participants described online learning as a new approach. Participant 1 stated, “Online learning is new in the field. Throughout our lives, we were accustomed to traditional learning.” Participant 1 recommended, “Orientation courses should be established to train and prepare students for this field.” Participant 2 added, “Instructors should be prepared for online learning.”

**Theme 3: Course design: Course introduction.**

*Well-defined overview.* The majority of participants identified a clear and well-defined overview of the course content as a very important. Participant 6 stated, “Course introduction should include a detailed structure of the content.”

*Course schedule and requirements.* Grading policies, assignment details, software requirements, the schedule, the number of hours expected, and definitions of terms are identified by participants as significant elements students require at the beginning of courses. Participant 7 said, “Introductions should present the course content details, the number of hours, grading policy, assignments details.”

*Learning objectives.* The participants of this study emphasized the importance of clarifying the objectives of the course. Participant 2 pointed out, “The objectives of the course should be clear.”

*Instructors’ introductions.* Some participants indicated that instructors should introduce themselves to enhance students’ communication with instructors. Participant 2 said, “At the beginning of the course, instructors should introduce themselves, inform us of their majors, and how to contact them by email and phone numbers.”

*Access and navigate the course.* Participants also noted that the course introduction should clarify how to access and navigate the course. Participant 2 said, “The course should include an instructional video for students and even for instructors to explain how to access the system.”

*A detailed syllabus.* Participant 5 suggested that a detailed syllabus, including the significant elements discussed above, is effective in assisting students to obtain clear information about the course content, objectives, requirements, assignments, grade policies, and reference materials.

**Theme 4. Course design: Providing technical support.**

Technical problems were mentioned by five participants as one of the main difficulties facing students enrolled in online learning. Participant 1 stated, “Technical problems affect the student's ability to catch up.” Participant 6 said that “The cause of the technical problem is that the Internet service is still in its infancy.” Participant 7 stated, “The number of technical support staff should be increased.”
Theme 5: Course design: Course interface.
The participants pointed out that the interface design should be well-organized, consistent, and appealing, with simple and clear language. Participant 3 emphasized that the interface design “should be well organized and each element in its place ..Consistency is the most important factor.”

Theme 6: Instruction: Learning methods and strategies.

Connecting course content to real-world problems. All participants emphasized the significance of connecting course content to real-world problems using practical and authentic projects. For example, participant 4 suggested that “We enjoyed doing projects helping us to get used to the atmosphere of future work projects”

Interaction and Discussion. The majority of the participants indicated that interactive programs, practical workshops, meaningful discussion, exchanging experiences, and cooperative learning are effective. Participant 7 said, “Discussion is essential. A large part of the students in online learning have experiences so they can discuss specific topics to share their expertise in a particular field”

Illustrating the content. The survey participants several strategies to illustrate the course content such as providing examples, summaries, and mind maps, as well as making effective use of live video. Several participants noted the importance of chunking information, using examples, or mind map. Participant 5 suggested that “To explain content, more than one method should be used. Sometimes a student needs several examples.”

Simple language and terms. The participants considered using simple language and terms, considering individual differences, and moving from simple information to complex information to be critical factors. Participant 5 stated, “Explanation should move from an easy level to a difficult level gradually.”

Theme 7: Instruction: Providing resources.
A lack of resources is one the most prominent obstacles mentioned by the participants. Participant 6 stated, “Searching for information is the university's policy but where should a student go looking for information? The student is probably looking for information in inappropriate sites.”

Theme 8: Instruction: Instructional media and technology.

Using video. Most of the participants supported using multimedia resources, including videos, to illustrate course content. Participant 5 proposed that the university should use the expertise of faculty to produce professional, interactive, live, high-quality videos divided into modules to facilitate adjustment and development of the material.

Interactive tools. Some participants suggested that interactive tools could help students to interact with the content. For example, participant 6 said that “Interactive programs are very useful for online learning.”

Using technological tool. The participants emphasized that technological tools should be of good quality and connected to the course content. Some of the participants suggested that instructional technologies should be used creatively to be useful for students. Participant 6 suggested that, “Now, we often use PowerPoint but it became similar to traditional learning.”

Theme 9: Interaction: Interaction with the instructor.

Communication and interaction with the instructor. Communication with teachers and other students is a vital issue. Most participants pointed out that instructors should use a variety of tools to communicate and interact with students, such as email, discussion boards, virtual classes, and What’s App. The majority of the study participants considered fast response to students as an important element of effective course delivery. Participant 6 said, “Whatever students' questions are, instructors should respond quickly.” Therefore, participant 3 suggested that, “New technological tools and application, such as What’s App, should be used to activate continuous interaction.”

Online lectures. Some participants who are employed indicated that forcing students to attend online lectures at specific times is difficult for them. Participant 6 reported that sometimes the lecture time is incompatible with his work schedule. Participant 5 said, “I have to attend a lecture on time so what is the difference between regular and
online courses?”

**Office hours and informative feedback.** Reminding students of office hours and providing informative feedback were factors proposed by some participants to enrich students’ interaction with instructors. In this regard, participant 4 proposed, “It is very excellent that that instructors remind you of their office hours” Participant 6 suggested that, “The teachers should discuss students about their mistakes.”

**Instructor’s personality.** Some participants commented that the instructor’s personality, developing a good relationship with the students, and the commitment of students to course requirements are critical factors in fostering the interaction between instructors and students. Meanwhile, participant 7 noted that, “Instructors should know their students more and get some details about them and their jobs.”

**Using social media.** Some of the participants supported using social media, such as Facebook and Twitter to enhance the interaction between instructors and students. Participant 1 said “I strongly support using social media for interaction.” However, participant 5 did not support social media for interaction with instructors because its public nature creates risks for instructors.

**Theme 10: Interaction: Interaction among students.**

**Creating groups and collaborative projects.** Most of the participants supported creating groups and collaborative projects. Participant 3 suggested that “Creating groups, collaborative projects, discussion and activities that enhance collaboration among students will enrich the interaction among them.” However, participant 5 did not support cooperative projects because groups’ members may have differing goals. Participant 6 proposed, “The leaders of projects should be chosen correctly.”

**Suggested interaction tools.** The majority of the participants indicated that using social media could encourage students to interact. Participant 3 stated , “I encourage using social media, which is crucial for interaction.” Some participants suggested using tools and applications like wiki, What’s App, discussion boards, forums, and virtual classes. Participant 5 stated, “We created virtual classes for us as students. We were trying to explain content to each other. They were successful.”

**Theme 11: Interaction: Interaction through course activities.**

This theme includes three sub-themes:

**Assignments.** Most of the study participants indicated that the amount of homework should be reasonable and assignment should focus on the practical applications of the content to the real world. Participant 7 stated that, “Assignments should focus on the aspects that benefit students in their workplace.” Participant 6 suggested, “Assignments should be varied and clear.” Participant 5 expressed a negative attitude toward traditional assignments.

**Assessment and grading strategies.** The majority of the participants suggested that grades should be distributed fairly and appropriately among all activities. Some participants indicated that the assessment criteria should be clarified. Participant 4 suggested that involving students in the assessment process.

**Course wrap-up.** The participants suggested that the closing section should include a course overview, an outline of the content, and connecting the sections of the course together. Participant 1 said that, “Closing course should include an overview of the course content.” Participant 1 suggested posting a questionnaire to survey students’ views about the course quality.
Presentation of Results: Research Question 2

B. Do students’ perceptions of online course quality elements differ significantly due to gender?

Part I: Quantitative Results

Table 6
T-test for Gender Differences Regarding Online Course Quality Elements

<table>
<thead>
<tr>
<th>Quality Elements (QE)</th>
<th>Levene's Test</th>
<th>T-test for Equality of Means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>Sig.</td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>.636</td>
<td>.426</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-.765</td>
<td>511.247</td>
</tr>
</tbody>
</table>

As shown in Table 18, the \( p \)-value was greater than the significance threshold (0.05). Thus, there is no statistically significant difference between male and female students regarding their perceptions.

Part II: Qualitative Results

After comparing male and female responses for each theme discussed previously, the results showed that differences between male and female participants’ perceptions were limited to two points.

Theme 1: Using social media.
While all female participants supported using social media as a means of interaction, male participant had three distinct opinions where participant 6 supports using social media, participant 5 supports using it only among students, and participant 7 supports does not support the use of Facebook.

Theme 2: Participating in online discussion.
Some female participants indicated that some female students feel shy to talk in virtual lectures. Participant 2 stated, “Some female students feel shy to talk.”

Presentation of Results: Research Question 3

C. Do students’ perceptions of online course quality elements differ significantly due to age?

Part I: Quantitative Results

Table 7
One-way ANOVA for Age Differences Regarding Quality Elements

<table>
<thead>
<tr>
<th>Quality Elements (QE)</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>.262</td>
<td>4</td>
<td>.066</td>
<td>.460</td>
<td>.765</td>
</tr>
<tr>
<td>Within Groups</td>
<td>79.613</td>
<td>559</td>
<td>.142</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>79.875</td>
<td>563</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 19 shows that the results revealed no significant differences in students’ perceptions due to age since the \( p \)-value was greater than the significance threshold (0.05).

Part II: Qualitative Results
Based on comparing the participants’ answers, there are no significant differences among study participants related to their age.

DISCUSSION AND RECOMMENDATIONS

The quantitative and qualitative data suggested that interaction with the instructor is critical. Instructor’s knowledge, timely responses and meaningful feedback are all vital elements. Frequent, and timely discussions with instructors could promote student participation (Dennen, Darabi, and Smith, 2007; Jiang & Ting, 2000; Vonderwell, 2003; Young & Norgard, 2006). Some studies showed that providing constructive feedback to students is important (Bassoon, 2014; Borgemenke et al., 2013; Fisher, 2010; Kiriakidis, 2008; Rao & Tanners, 2011; Redmond, Devine, Bassoon, 2014). The qualitative data suggested using social media to interact with instructors. Rutherford (2010) and Weiser, Friedman, and Friedman (2010) support using social media. The quantitative and qualitative results showed that the participants appreciated meaningful interactions among students through discussions, constructive feedback, and learning course content from other students. These results are supported by some studies (Andresen, 2009; Dixon et al., 2007; Dziorny, 2012; Kruger, 2006; Hathaway, 2009; Lee, 2005; MacKnight, 2000; Ma & Yuen, 2011; Peltier, Schibrowsky, & Drago (2007); Pena-Shaff, Altman, & Stephenson 2005). The qualitative results suggested using synchronous and asynchronous tools and social media for students’ interaction. Fill (2010), Rey-López et al. (2008), and Zhang et al. (2006) supported these outcomes.

The quantitative data revealed that stating course objectives, using timelines and due dates, using an instructor-generated course outline, and providing instructor-generated summaries of course material are seen as the most important elements for learner to content interaction. These findings are confirmed by the qualitative results. Studies by Benton, Li, Gross, Pallett, and Webster (2013), Wozniak et al. (2012), Sheridan and Kelly (2010), Chaney et al. (2007), Chen (2007), and Conrad (2002) support these results. Rao and Tanners (2011) and Borgemenke et al. (2013) showed that a detailed syllabus is very critical. Some studies indicated that stating the course objectives is necessary (Ally, 2004; Dennen et al., 2007; Jiang & Elen, 2011; Rao & Tanners, 2011; Reeves & Reeves, 1997; Spallek et al., 2000; Song et al., 2004, Song, 2005; Swan, Matthews, Bogle, Boles, & Day 2012).

The participants in both quantitative and qualitative portions of the study emphasized that instructional strategies should focus on connecting course content to real world applications using practical and realistic project-based assignments. Constructivist theory emphasizes that the instructional methods used should foster active and meaningful learning, creative thinking, and problem-solving (Ally, 2004; Bruning, 2005; Herrington et al., 2003; Reeves & Reeves, 1997; Woo and Reeves, 2007). Armstrong (2010) supported project-based and problem-based assessments. Participants in the questionnaire and interviews considered the availability of ample information, resources, models and examples to be essential. Pena-Shaff et al., (2005) and Young (2006) have reported that the availability of models and examples is vital. Chaney et al. (2007), Hirner (2008), and Lebec and Luft (2007) revealed the importance of providing access to diverse resources. The quantitative and qualitative data showed that collaborative group projects offer important chances to promote students’ interaction. Woo and Reeves (2007) and Huang (2002) support cooperative learning. However, some survey participants suggested that collaborative group projects are not effective because students’ objectives may vary. Westera (1999) indicated that students in cooperative learning often differ in their goals, capabilities, and ambitions. Another participant pointed out that choosing an appropriate leader for each group is vital.

Both survey and interview participants indicated that easy to understand course layout, working hyperlinks, and dividing the course into modules were very important. Similar ideas are found in other studies by Bailey & Card (2009), Borgemenke et al. (2013), Rao and Tanners (2011), Shiratuddin et al. (2003), and Song and Kidd (2005), Shiratuddin et al. (2003), and Johnson and Aragon (2003). The quantitative and qualitative survey suggested that using multimedia is significant. These results are supported by researchers such as Hathaway (2009), Johnson and Aragon (2003), and Song and Kidd (2005). In the social presence dimension, the questionnaire and interview participants supported the sharing of experiences and views among students. Similar results have been suggested by Aragon (2003), Tee and Karney (2010), Pena-Shaff et al. (2005), and Coppola, Hiltz, and Rotter (2004). Technical problems and Internet speeds problems were stated as crucial obstacles. These results are consistent with studies, such as Berge (1998), Song et al. (2004), Muilenburg and Berge (2005), Panda and Mishra (2007), and McBrien, Cheng and Jones (2009). Therefore, the availability of technical support for students is necessary (
The quantitative outcomes disclosed that there are no statistically significant differences between students’ perspectives due to their age or gender. The qualitative results showed that there are no significant differences due to students’ age while their gender affected their views regarding social media. Also, shyness seemed to affect some female students’ willingness to participate in virtual lectures. Al-Jarf (2005) noted that female students fear of making mistakes could prevent them from participating actively.

**RECOMMENDATIONS**

The main goal of this study is to explore the perspectives of SEU students in relation to the quality elements required for online learning. It should be re-emphasized that this study’s results based upon student’s perceptions of quality. These students have, as most students do, experience in traditional classrooms and may express preferences for quality that align with those experiences. It also should be mentioned that students may not be in the best position to judge quality objectively. Nonetheless, the perceptions of students can be invaluable in prioritizing course elements towards maximizing quality. Online courses should focus on enhancing the interaction between instructors and students through thoughtful feedback, timely responses, and meaningful discussion. Faculty members and students need to be trained and prepared for online learning environments by training courses and workshops. Students should be encouraged to engage in thoughtful discussion, exchange experience and information, cooperative projects, and use tools such as, social media. Guiding students to apply their knowledge and to conduct practical projects related to their present or future jobs would be very useful in providing students with skills and experiences. Develop rubrics including the required criteria for assignments and producing professional, interactive, live, videos of high quality is strongly recommended. It is suggested that the university administration and instructors educate students about the technical support services provided by the university.

Because the current study is limited to the context of SEU, the study could be replicated in other Saudi universities providing online courses to address different contexts for online learning. A similar study could be conducted to investigate faculty perspectives about the quality elements required for online courses. Studies focusing more deeply on the interaction in online courses are also required to shed light on the dynamics, organizational factors, and tools that promote the interaction. It is recommended that additional studies address the use of social media for interaction. As seen in the discussion of study outcomes, applying new learning strategies is another significant factor to investigate deeply. Consequently, it is highly recommended that future studies identify effective instructional strategies for online courses and how to apply these strategies successfully. Evaluating online courses developed by SEU or other universities is an important topic for future studies. The present study revealed some important quality indicators that could be used as standards in assessing the quality of online courses.

**CONCLUSION**

This mixed-method study was conducted to investigate the perspectives of SEU students regarding the quality elements of online courses. Both the quantitative and the qualitative findings showed that an active interaction with instructors, active interactions among students and peer learning of course, working with other students collaboratively, stating course objectives clearly, providing summaries, outlines, resources, and examples, and a well-organized and consistent interface are important factors. Both survey and interview participants supported instructional strategies focused on connecting course content to real world applications and problem solving. The quantitative results showed no differences between students’ perspectives due to their age or gender. On the other hand, the qualitative results found no significant differences among study participants related to their age, but some differences emerged according to gender regarding social media and the effect of shyness in some female students’ participation in virtual lectures. Finally, it is worth mentioning that some quality elements were assessed to be more significant than others. Consequently, prioritizing the quality items within the study instrument should be considered.
REFERENCES


Dziorny, M. A. (2012). Online course design elements to better meet the academic needs of students with dyslexia in higher


Educational Technology & Society, 6(4), 112–124.


Young, A., & Norgard, C. (2006). Assessing the quality of online courses from the
A Warning To The West: How Quickly Formerly Successful Resource-Rich Countries Can Self-Destruct Seemingly “Overnight”?  
Elizabeth Olson, Pepperdine University, USA  
Terry Young, Pepperdine University, USA  
Linnea B. McCord, Pepperdine University, USA  

ABSTRACT  
Venezuela is a resource rich country with the largest oil reserves in the world (larger than Saudi Arabia) and yet its people today are starving. South Africa has enjoyed extraordinary wealth and economic success since World War II largely because of its monopoly on diamonds, yet today South Africa, too, appears headed towards its own crippling food shortages and an economy in shambles. This paper will discuss why and how both countries in a few short decades destroyed their successful resource-rich economies by making the wrong choices and decisions. By failing to follow the essential, non-negotiable ethical standards of conduct required to create and maintain a prosperous, stable, secure and peaceful country based on trust and effective Rule of Law, Venezuela and South Africa have condemned their citizens to economic misery and privation. Both countries serve as a warning to countries in the West about how quickly economic success, political stability, social harmony, and security can be replaced by economic failure, political instability, social disruption and insecurity on a grand scale. This is how countries fail.

To remain a viable, independent successful country, every country in the world must be able to do the same four interdependent functions: (1) maintain a successful economy, (2) maintain a stable political system, (3) maintain social harmony among the people living within their borders, and (4) protect themselves from both internal and external security threats. In the end, there are only two basic ways this can be accomplished: either through trust and effective Rule of Law or force through military or other dictatorship. Although Venezuela and South Africa, have different types of legal systems, both require trust and effective Rule of Law. However, in neither country were they able to effectively widely distribute the wealth of their economies among the general population, leading to a few very rich people at the top, while the majority of the population remained poor. Because of these serious imbalances, the South African black majority wrested political control from the small white minority. Poor Venezuelans elected a charismatic socialist leader who used their votes to change the constitution to effectively give himself lifetime tenure. Once in power, their leaders compounded the problem by making the wrong choices and decisions that resulted in the destruction of their formerly prosperous economies and the creation of widespread misery for the masses.
Crucial Components For Undergraduate Student Leadership Development Programs

Carson Perry, Aquinas College
Alicia Markland, Aquinas College

ABSTRACT

Colleges and universities are tasked with developing dynamic and well-rounded leaders who are prepared to enter today's workforce. Undergraduate student leadership development is the topic of many research studies that are the foundation for existing university programs. Exploring existing practices and innovative research to find crucial components of leadership development programs provides a framework for new program development. While there are many elements that can be incorporated into undergraduate leadership development programs, several crucial components emerge from existing programs and research. Programs focused on holistic development provide the flexibility to meet the diverse needs and goals of participants and the workforce they are entering. Incorporating opportunities to engage with faculty and community partners through co-curricular experiences allow participants to customize the experience to fit their individual needs and outcomes. Traditionally, leadership development programs focus on horizontal development. Recent research suggests it is essential for programs to provide opportunities for both the vertical and horizontal development of participants. Finally, assessment and feedback is crucial for students to maximize growth and development while enrolled in a leadership development program. This feedback loop not only allows participants to self-reflect and gauge their own learning, but also provides insight into the strengths and deficiencies of a program, providing information critical to maximizing the customizability of the curriculum. The process of undergraduate student leadership development is complex. Requiring adaptable program components ensures colleges and universities are providing the workforce with well-rounded leaders equipped to meet the challenges of tomorrow.
Effective Practices For Cultivating Pre-Service Teachers’ Cultural Competence

Joanna Greer Koch, North Carolina State University, USA

ABSTRACT

Within teacher preparation education programs at higher education institutions, pre-service teachers are typically enrolled in a single diversity course and experience minimal learning activities that develop their cultural competence. Subsequently, the pre-service teachers rarely have the access, time, or the finances to experience community-based and international teaching opportunities. The reality is that teachers must be prepared to teach in culturally and linguistically diverse classrooms. Cultural competent teachers are educators who value learning about their own cultural identity and their students’ cultural identities to prepare culturally relevant lessons. If pre-service teachers are not having opportunities to learn about cultural competence, then these teachers enter the profession feeling unprepared to meet the learning needs of their students by preparing culturally relevant lessons. Therefore, the purpose of this presentation is to discuss effective practices that cultivate pre-service teachers’ cultural competence within undergraduate and graduate level education programs. Specifically, the presentation will draw on data and insights from scholarly literature and a qualitative research study that included ethnographic field site visits. The research study’s findings suggest that pre-service teachers need multifaceted practices within their entire education program that includes multicultural course readings, diverse learning activities, community-based experiences, and international teaching opportunities. The research study’s results indicate that when multifaceted practices were implemented, participating pre-service teachers had more academic and emotional success with their students, teaching colleagues, and students’ families. Additionally, the pre-service teachers became more culturally conscious and sensitive when teaching in culturally and linguistically diverse classrooms. Furthermore, the pre-service teachers understood the responsibility of learning about their future students’ culture and using the students’ culture as a foundation of learning in K-12 classrooms. In presenting this research study’s findings, the presentation will provide suggestions on how higher education institutions can implement similar practices from an economically and convenient approach within teacher education programs in order to cultivate their pre-service teachers’ cultural competence.
A Look Into German Housing Markets: A Bubble Call?

Jan R. Kim, Hankuk University of Foreign Studies, South Korea

ABSTRACT

The steep rise in the German house prices in recent years raise a question whether a speculative bubble has already emerged. Using a modified present-value model, we estimate the size of speculative house price bubbles in German housing market. We did not find evidence for positive bubble accumulation in recent years, and interpret the current bullish run as reflecting the correction of house prices that have been undervalued for more than 10 years. Finding that house prices are close to their fair values as of 2017:Q4, our answer to the question is “Not yet, but it may”

1. INTRODUCTION

Until recently, the movement in the German housing market has been fairly decoupled with those in other advanced countries. Figure 1 provides an example: over the period 1995 to 2007, real house prices in the UK and US increased at an annual rate of 8.9% and 3.8%, respectively, whereas the German housing market was stable and even registered a slight decrease at the rate of 1.7%. During the subsequent housing market downturn spanning 2008 to 2011, the decrease in the real house price amounted to 3.4% and 5.6% in the UK and the US, respectively, over a year on average. In contrast, German housing market remained dormant again, with a slight increase in prices at the annual rate of 0.58% during the same period. In recent years in 2010s, however, the German housing market began to be considerably ‘synchronized’ with those in the other two counties, as the global economy and housing markets recover from the Great Recession: the annualized rate of house price increases in Germany was as high as 3.2%, readily comparable to 3.9% and 4.8% in the UK and US, respectively. The steep increase in house prices in Germany raises concerns about the expansion of bubbles, particularly in major cities such as Berlin, Frankfurt or Munich.

In spite of the heated debate over the possibility of house price bubbles, however, there are few empirical studies on recent German housing market development, other than Chen and Funke (2013), Kholodilin et al. (2014), and an der Meulen and Micheli (2013). Motivated by this blank, this study examines whether the current house prices in Germany are in line with the fundamentals or ridden with bubbles. Our analytic framework is the present-value model developed by Campbell and Shiller (1988a, 1988b), linking the price of an asset to the expected present value of the future payoffs
inherent to the asset. Adapted to housing market, this model predicts that house price and rents should move together, resulting in a ratio of house price to rent, i.e., the price-rent ratio. The movements in the actual price-rent ratio in Germany are, however, difficult to justify by the predictions of the standard present value model. As shown in Figure 2, the price-rent ratio exhibits a long downswing starting in the late 1970s and a steep upswing since the late 2000s, rendering the price-rent ratio deviating from its historical average for extended periods.

To capture the apparent instability in the price-rent ratio, therefore, we incorporate a bubble term that forms and disappears sporadically into an otherwise standard present-value formula. As will be shown later, the bubble component captures most of the dynamics in the German housing market, over the whole sample in general and in recent years in particular.

Two main findings emerge from our study. First, the German housing prices had been increasingly ‘undervalued’ for more than two decades since the late 1990s. Second, the surge in house price as well as its ratio to rent during the past 7 to 8 years mainly reflects the correction of housing market toward fair valuation. Although our results do not preclude the possibility of self-reinforcing evolution of a bubble down the road, and therefore support the need for preemptive actions by the Bundesbank, German housing market as of 2017:Q4 is about fair-valued and has not entered the territory of a bubble. Not yet, at the least.

![Figure 2. Price-Rent Ratio in Germany (in logs)](image)

### 2. THE MODEL, DATA, AND KEY ESTIMATES

#### 2.1 Collapsing Bubbles in a Present-Value Model

We set off with the present-value relation between the house price and rent:

$$ pr_t = \frac{\mathcal{K}}{1-\rho} + E_t \{ \sum_{j=0}^{\infty} \rho^j (\Delta r_{t+j+1} + h_{t+j+1}) \} $$ (1)

where $pr_t = \log (P_t / R_t)$ is the logged ratio of the real house price to real rent, $r_t = \log (R_t / R_{t-1})$ is the increase in real rent, $h_t = \log (H_t) = \log [(P_t + R_t) / P_{t-1}]$ is the log of one-period gross return from housing investment, $\rho = e^{\rho^P} / (1 + e^{\rho^P})$ with $\rho^P$ being the average of $pr_t$ over the sample, and $\mathcal{K}$ is a linearization constant. Equation (1) presents the price-rent ratio in logs as a discounted sum of the expected rent increases, $\Delta r_{t+j+1}$, and gross real returns, $h_{t+j+1}$, for $j \geq 0$.

We introduce a pair of modifications to equation (1): first, following previous studies (e.g., Campbell and Ammer (1993) and Campbell et al. (2009)), we decompose the log of gross real return, $h_t$, into the risk-free real interest rate,
The price-rent ratio is allowed to deviate from what is postulated by (1), so that
\[
pr_t = \frac{\kappa}{1-\rho} + E_t \{ \sum_{j=0}^\infty \rho^j (\Delta r_{t+j+1} - i_{t+j+1} - \pi_{t+j+1}) \} + b_t = pr_t^f + b_t
\]
(2)

where \(pr_t^f\) is the fundamental part of the price-rent ratio, and \(b_t\) is an extraneous component of the ratio whose properties will be explained later. As in van Binsbergen and Koijen (2010), we treat the one-period-ahead expectations of the three housing market fundamentals, \((\Delta r, i, \pi)\), as unobserved components whose DGP's are simple AR(2) processes:
\[
g_t - \gamma_0 = \gamma_1 (g_{t-1} - \gamma_0) + \gamma_2 (g_{t-2} - \gamma_0) + \epsilon_t^g,
\]
(3a)
\[
\mu_t - \delta_0 = \delta_1 (\mu_{t-1} - \delta_0) + \delta_2 (\mu_{t-2} - \delta_0) + \epsilon_t^\mu,
\]
(3b)
\[
\lambda_t - \theta_0 = \theta_1 (\lambda_{t-1} - \theta_0) + \theta_2 (\lambda_{t-2} - \theta_0) + \epsilon_t^\lambda.
\]
(3c)

We view the non-fundamental component \(b_t\) as a rational speculative bubble. Following Balke and Wohar (2009), we further specify \(b_t\) as one switching between two regimes, i.e., a non-exploding regime and an exploding regime, so that the bubble can from and collapse sporadically. The actual regimes that prevail each period are in turn determined by a hidden Markov-Switching variable, \(S_t\), with the time-invariant transition probabilities
\[
\text{Prob}[S_t = 1|S_{t-1} = 1] = p, \quad \text{Prob}[S_t = 0|S_{t-1} = 0] = q.
\]
(4)

In the non-exploding regime with \(S_t=0\), \(b_t\) is a stationary AR process:
\[
b_t = \overset{\cdot}{b} + \psi b_{t-1} + \epsilon_t^b, \quad 0 < \psi < 1
\]
(5a)

so that, the bubble decays slowly in this regime\(^2\). If the regime in the current period switches to the exploding one from the non-exploding one of the previous period, (i.e., if \(S_t = 1\) follows \(S_{t-1} = 0\)), the law of motion for \(b_t\) is
\[
b_t = \frac{q \overset{\cdot}{b}}{(1-q)} + \frac{1}{1-q} \left[ \frac{1}{\rho} - q \psi \right] b_{t-1} + \epsilon_t^b.
\]
(5b)

Finally, if the bubble continues to stay in the exploding-regime (i.e., \(S_t = 1\) is preceded by \(S_{t-1} = 1\),
\[
b_t = (- \frac{1-p}{p}) \overset{\cdot}{b} + \frac{1}{p} \left[ \frac{1}{\rho} - (1-p) \psi \right] b_{t-1} + \epsilon_t^b.
\]
(5c)

We close the model by relating the actual data and model variables via measurement equations. Equations (3) and (5) together link the actual price-rent ratio to the expectation and bubble terms \((g_t, \mu_t, \lambda_t, b_t)\). The actual data series of the rent growth, \(\Delta r_t\), real interest rate, \(i_t\), and excess returns, \(\pi_t\), are the sum of respective one-step-ahead expectations and idiosyncratic disturbances:
\[
\Delta r_t = g_{t-1} + u_{t-1}^r, \quad i_t = \mu_{t-1} + u_{t-1}^i, \quad \pi_t = \lambda_{t-1} + u_{t-1}^\pi
\]
(6)

\(^2\) Unlike previous studies adopting AR(1) specification, we use higher order to better fit the model to actual data.

\(^3\) We specify \(\epsilon_t^b\) as a Gaussian i.i.d. process, not related with any of other sources of disturbances.
where the disturbances, $u_t = (u^*_t, u^I_t, u^p_t)$, are a Gaussian i.i.d. distribution with a covariance matrix, $\Sigma_u = \text{diag}(\sigma^2_Y, \sigma^2_P, \sigma^2_{\bar{W}})$. We finally assume that the innovations $(\varepsilon^*_t, \varepsilon^I_t, \varepsilon^p_t)$ and the disturbances $u_t$ are independent of each other.

### 2.2 Data and Key Estimates

The above present-value model can be cast into a state-space form subject to Markov-Switching. As such, the model can be estimated by the maximum likelihood method of Kim and Nelson (1999). For actual estimation of the model, we use the quarterly housing market data of Germany spanning 1971:Q1 to 2017:Q4. The raw series of the real house prices, real rents, and price-rent ratio, all seasonally adjusted, are available from the OECD database. As the nominal interest rates, we use the 10-year Treasury Bond Yield Rates obtained from the Federal Reserve Economic Data of the St. Louis Fed (FRED). The risk-free rate of return is then proxied by the real interest rates, i.e., the nominal interest rates minus the inflation rates, where the latter is calculated from the German core CPI series obtained from the FRED. The rates of excess returns are then calculated as the log of the one-period return minus the real interest rate.

Some key estimation results are presented in Table 1. From the top panel, we can deduce the following: the long-run autoregressive coefficients $\delta_1 + \delta_2 = 0.8971$ and $\theta_1 + \theta_2 = 0.9292$ for the expectations of future real interest rate and excess returns, respectively, show that investors change their expectations very slowly. In contrast, the long-run AR coefficient of $\gamma_1 + \gamma_2 = 0.5394$ exhibits a modest degree of persistence in the expectation of future rent growth.

<table>
<thead>
<tr>
<th>Table 1. Key Maximum Likelihood Estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fundamental Part</strong></td>
</tr>
<tr>
<td>$\gamma_1$</td>
</tr>
<tr>
<td>$\gamma_2$</td>
</tr>
<tr>
<td>$\delta_1$</td>
</tr>
<tr>
<td>$\delta_2$</td>
</tr>
<tr>
<td>$\theta_1$</td>
</tr>
<tr>
<td>$\theta_2$</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Bubble Part</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>$q$</td>
</tr>
<tr>
<td>$\rho$</td>
</tr>
<tr>
<td>$\bar{b}$</td>
</tr>
<tr>
<td>$\psi$</td>
</tr>
</tbody>
</table>

Note: All parameters in Table 1 are sharply estimated at the 5% critical level.

The properties of the bubble components are reported in the bottom panel. In terms of the expected duration, the exploding regime turns out a lot more persistent lasting 1/(1-0.9751)=40.16 quarters, whereas the non-exploding regime continues 1/(1-0.9403)=16.75 quarters on average. The AR coefficient and transition probabilities for the bubble component depict how the bubble evolves switching between the two regimes. More specifically, the bubble has a strong tendency of self-reinforcing once it has entered the explosive regime. Suppose that a mild overvaluation of house prices was developed in a non-explosive period $t$, and that the bubble regime switches to the explosive one in the next period $t+1$. The corresponding AR coefficient in period $t+1$ is $1 - q \frac{1 - \frac{1}{\rho}}{1 - \frac{1}{\rho} - q\psi} = 3.0842$, which explains a sudden expansion of bubble frequently observed in the earlier phase following its birth. If the exploding regime continues in the subsequent period $t+2$, the AR coefficient is then $\frac{1}{\rho} \frac{1 - \frac{1}{\rho} - (1 - p)\psi}{1 - \frac{1}{\rho} - (1 - p)\psi} = 1.0394$, so the bubble goes on even without any further news driving it. Now suppose that the regime switches back to the non-exploding regime and remains there. As the AR coefficient $\psi=0.9059$ implies, the bubble that has developed so far goes a long way until it dies away, were it not for a sudden development of pessimistic innovation in $\varepsilon^p_t$.

### 3. BUBBLE VS. FUNDAMENTAL: WHAT HAS DRIVEN THE GERMAN HOUSING MARKET?

We now address the main question as to the sources of variations in the German price-rent ratio Panel (a) of Figure 1 plots the estimated fundamental price-rent ratio (in the solid line) and the actual ratio depicted by the shaded area. A few finding emerge. First, whereas the actual price-rent ratio exhibits a large swing, the fundamental ratio turns out...
considerably stable. Historically, the late 1970s and early 19080s are deemed periods with possible bubbles in the German housing market. The above results lend further support to this view, showing that the surge and fall in the price-rent ratio in these periods is caused by the bubble component of the ratio. Second, the continued fall in the ratio since the mid-1990s and the equally long upturn that follows reflect the undervaluation and correction in the price-rent ratio toward its fundamental level. In particular, the rise in the ratio in recent years accompanies a similar increase in the fundamental ratio, which supports the view that the current bullish run in the German housing market does not necessarily involve bubble formation.

**Figure 3. Decomposing the Price-Rent Ratio**

(a) Fundamental (solid) vs. Actual (shade)

(b) Percentage of Bubble and Probability of Exploding Regime

In panel (b), the proportion of speculative bubble in the house prices is plotted against the estimated probability of the non-exploding bubble regime (in shades), from which more detailed feature of the bubble emerge. House prices were overvalued up to 20% by speculative bubbles at the peak of the bullish run in 1981, but the bubble subdued to zero by the mid-1980s. Since the mid-90s, however, the price-rent ratio continued to fall for more than two decades, owing to the ‘negative’ accumulation of the bubble. The estimated feature of the bubble component provides more detailed description of this phenomenon. A negative bubble was initially formed prior to 1995. Since the bubble remained in the exploding regime where the AR coefficient 1.0394 larger than one, the fast accumulation of the negative bubble

---

4 Note that we are not imposing the non-negativity constraint on the bubble term $b_2$, because the bubble is formed in the price-rent ratio not in the price. Also, as Weil (1990) argues on theoretical grounds, it is possible for an asset to be undervalued when the economy is in a bubble equilibrium.
incorporates not only the self-reinforcing nature of the speculative bubble but also the effects of ‘news shocks’ that caused a stream of negative innovations in it. As a result, the house prices were undervalued by around 37% over the period of the subprime financial crisis.

Given the concern about the overheated housing market during the current bullish run, the movement of the bubble component since 2010 provides useful information. Although there has been a continued rise in the percentage of bubble, it is not justified to give a bubble call on such account. There are two reasons: First, the rise in the bubble is toward zero, not above. As mentioned above, such movement should be deemed not so much of bubble expansion as a correction toward fair valuation. Second, the increase in the bubble percentage (again, toward zero) has considerably slowed down since 2012 compared with the preceding two years. All in all, the percentage of bubble as of the end of our sample period is nearly 0.

A few final words are in order about the possibility of overvaluation around the corner. We note that the bubble regime seems to have switched in 2017:Q4 from the non-exploding regime to the exploding one. If the current regime continues along with a few occurrence of positive innovations in the bubble component, housing market may step into the territory of explosive and self-reinforcing bubble. In this regard, the warnings and monitoring by Bundesbank is deemed timely.

REFERENCES


5 Note that estimated probability of regime increased above 50% in 2017:Q4 for the first time in a decade.
Faculty Perceptions Of Awareness And Preparedness Relating To ADA Compliance At A Small, Private College

Chad M. Stevens, Keystone College, USA
Elizabeth Schneider, Keystone College, USA
Patricia Bederman-Miller, Keystone College, USA

ABSTRACT

This paper explores post-secondary faculty perceptions of awareness and preparedness relating to Americans with Disabilities Act (ADA). Institutions of higher education are businesses. The largest threat to sustained viability for many businesses is litigation. Business-related litigation is often the result of non-employment discrimination or torts (violation of civil rights). Lack of knowledge (awareness and preparedness) is usually not a sufficient reason for defendants in business-related litigation. The number of college students reporting learning-related disabilities is growing. About 2.2 million students enrolled in higher education institutions have a documented disability (National Center for Education Statistics, 2016). Disability related litigation is a trending concern for institutions of higher education. Are post-secondary faculty ‘aware’ and ‘prepared’ to make the necessary accommodations for students with qualified learning disabilities in classrooms? ADA awareness is defined as cognizance relating to the Rehabilitation Act of 1973 and Americans with Disabilities Act of 1990. ADA preparedness is defined as readiness and ability to follow obligations relating to the Rehabilitation Act of 1973 and Americans with Disabilities Act of 1990. A moderate, positive correlation was discovered between the two variables, indicating the more awareness one has of ADA laws and requirements, the more prepared one is in dealing with accommodations for those with learning disabilities. Research indicates a need for updated and current training in the area of ADA awareness and preparedness of post-secondary faculty.

Keywords: Awareness; Disability; Litigation; Post-Secondary Faculty; Preparedness

AUTHOR BIOGRAPHIES

Dr. Stevens has over 25 years of academic and professional experience. As a full time faculty member at Keystone College, he teaches management/administration, organizational behavior, research methods, and marketing. His research focuses on variables including emotional intelligence, cognitive/affective behavior, stress and coping, turnover, leadership styles, and awareness/preparedness in business/professional settings. His research led to the creation of a research variable: personal-career turnover (PCT). Dr. Stevens teaches undergraduate students and taught graduate students at both traditional and online higher-education institutions. His professional experience includes management and administrative positions with both national and international public companies and private practices and companies.

Attorney Elizabeth Schneider has over 30 years of private practice as a business lawyer in Pennsylvania. She is currently a full time faculty member at Keystone College and continues to maintain a small private business practice. She teaches Business Law, Business Ethics, Business Capstone, Conflict Management, Sports Law and Employment Law. She also has an MBA with a concentration in conflict management. Her research interests lie primarily with litigation avoidance and effective conflict management and resolution in business and education. Attorney Schneider teaches both undergraduate and graduate students in traditional face to face and online classes.

Dr. Bederman-Miller has over 40 years of teaching experiences in high school and college. The majority of her career was spent at the college level, teaching various mathematics courses, from basic math skills through Statistics and
Research. Her research includes topics such as math anxiety, student grade perception, global citizenship, exploration of healthy eating of college students, and Supplemental Instruction (SI). Some of her current research involves faculty evaluations and online versus face-to-face statistics classes. Dr. Miller was the recipient of the 2005 Margaretta Belin Chamberlin Chair for Distinguished Faculty Service at Keystone College.
ABSTRACT

While timely doctoral completion and low attrition are of constant focus in higher degree research, there is typically too little focus on individual student differences and needs in favour of general approaches to what are a complex set of issues behind delays and problems in doctoral candidature.

In the literature there is a lack of accessible, validated instrumentation to support both understanding of those issues and early detection of potential reasons for attrition or delayed completion. Despite recognition that there should be significant support for students early in candidature to facilitate transition to doctoral level study (Lovitts, 2008), there is less direct recognition of student well-being or why progress is slow despite adequate supervision. It is equally important to ensure that student hopes and expectations for their well-being, as well as their academic development and career, are recognised and articulated and that any persistent reasons for mismatch or misunderstanding are identified and addressed (Holbrook et al. 2014). This study focuses on the early stage of candidature, looking closely at candidate expectations, what they worry about, and how these may play out in satisfaction with their experience. The link between satisfaction, expectations and well-being has only been hypothesised. Addressing this, the paper draws on data collected from an Australian on-line survey to pilot three new Instruments – Expectations, Satisfaction and Well-Being of Research Students – comprising 124 items. Four institutions from three states participated in the study with 383 responses. Over 50% of this cohort were under 50 years of age; Education and Arts, Health and Medicine and Science had the strongest representation; mean time enrolled was just over two years; and for a quarter of respondents, English was not their first language. Employing Principal Components Analysis, a set of valid and reliable scales, developed for each instrument, will be presented. The paper will then discuss the findings in relation to what doctoral students bring to candidature over and above academic ability - an important and often overlooked element in graduate research induction programs and the debate on "engagement".
Negotiating Resistance To Breast Self-Examination In Women From Lower Socioeconomic Communities

Maali Alruwaili, Southern Illinois University, USA

ABSTRACT

The practice of breast self-examination (BSE) has been shown to have a positive effect on early diagnosis statistics, which lead to higher rates of positive outcomes. However, according to Tao et al (2014), women who live in lower socioeconomic levels tend to have lower levels of knowledge concerning benefits and skills needed to perform BSE. One of the most prominent problems related to breast self-examination, or BSE is the issue of resistance. Resistance can be based in a number of different mental states including avoidance, a lack of understanding, a lack of skills, and the belief that self-examination will not have a benefit to the individual. The intentions of this study are to examine how health beliefs and lack of awareness related to BSE influence in the practice of BSE in women from lower socioeconomic communities.

Purpose of the Study

The purpose of the study will be to determine factors that contribute to resistance to breast self-examination in women in lower socioeconomic communities.

Research Questions

1. What part does health belief play in the problem of resistance to BSE?
2. What part does a lack of awareness play in the problem of resistance to BSE?
3. What part does a lack of skills and knowledge have in relationship to resistance to BSE?
4. What are the perceptions of women related to the benefits of BSE and in relationship to resistance?
5. Do women who are resistant to BSE have a willingness to consider change?
Airline Customer Satisfaction
2015-2017 Results
Michelle M. Bennett, Embry-Riddle Aeronautical University, College of Aviation, USA
Brent D. Bowen, Embry-Riddle Aeronautical University, College of Aviation, USA
Erin E. Bowen, Embry-Riddle Aeronautical University, College of Aviation, USA
Timothy J. Holt, Embry-Riddle Aeronautical University, College of Aviation, USA
Jacqueline R. Luedtke, Embry-Riddle Aeronautical University, College of Aviation, USA

ABSTRACT
Previous research on perceptions, satisfaction, and attitudes regarding the major commercial air carriers in the United States has provided little more than an interesting descriptive representation of the average air traveler. This study moves beyond basic descriptive information of air travelers to identify attitudinal patterns and relationships in the way consumers at varying levels of travel frequency view the commercial air industry. The Airline Passenger Survey (APS) elements developed via the utilization of rigorous scientific methodology, with the intention of capturing the most important data from passengers while reducing confusion or variability in comprehension of questions. APS items are a combination of demographic variables, categorical data, and Likert-type scale responses asking participants to evaluate statements regarding the current state of the airline industry. Implementation of such a survey allows key players the ability to improve their understanding of the prime drivers and perceptions of passenger behavior. The modeling of attitudinal patterns and perceptions plays an important role in determining the need and priority, and potential consequences of such action. This study exemplifies the connectivity between subjective measures as reported by the survey respondents, and other measures of airline passenger satisfaction. Cumulative results from the most recent three years of a ten year data collection project are reported with a summary of preliminary conclusions as well as details of the most recent National Airline Quality Rating.
Impact Factor And Scholarly Research: An Examination Of Marketing Analysis On Scholarly Research
Brent D. Bowen, Embry-Riddle Aeronautical University, USA
Hunter M. Watson, Embry-Riddle Aeronautical University, USA
Michelle M. Bennett, Embry-Riddle Aeronautical University, USA
David A. Ehrensperger, Embry-Riddle Aeronautical University, USA
Timothy B. Holt, Embry-Riddle Aeronautical University, USA
Jacqueline R. Luedtke, Jennah C. Perry

ABSTRACT
The research method for this project – examining the dissemination of research artifacts through social media as well as the impact social media can have on scholarly research – originated with Brent Bowen of Embry-Riddle Aeronautical University (ERAU) at the Prescott, Arizona campus and Dean E. Headley of Wichita State University. Bowen and Headley introduced the Airline Quality Rating (AQR) in early 1991 as an objective method for comparing and scoring airline performance in areas deemed to be important for consumers. Scores are calculated by defining 15-elements in four major areas, focusing on airline performance and the significance the factors to consumers of air travel in a given calendar year. The report is a summary and evaluation of month-by-month ratings for U.S. airlines, based on domestic performance data which these companies are required to publish. The general case study focus of this research is the AQR as it relates to the news of the AQR’s release as disseminated through social media platforms, the subsequent utilization of and references to the research by social media users, and the global reach of social media. We will examine social media metrics, based on traditional news releases. These news releases, when amplified by social media platforms, assist in broadening the viewership and the utilization of research. The AQR’s Visibility Reports evaluate four aspects of online traffic - Total Pickup, Traffic flow, Audience, and Engagement. We will discuss how the AQR has helped to facilitate a worldwide discussion on U.S. airlines and domestic air travel within the U.S.

Keywords: Scholarly Research; Social Media; Airline Quality Rating; AQR; Metrics

INTRODUCTION
In this article, we examine how social media platforms facilitate research utilization, reaching audience members on an international scale, and increasing the visibility of given research. Since 1993, the Airline Quality Rating (AQR) has been considered a credible information source, ranking airlines’ performance using a quantitative method based on 15 elements from four main focus areas. Utilizing years of consecutive data, the AQR has gained audience viewers through several social platforms by using press releases and new broadcasts, and by incorporating newer social media platforms and tools. The AQR’s Visibility Reports give the most useful data by providing a detailed breakdown of the report’s four categories - Total Pickup, Traffic activity, Potential Audience members, and Engagement. Each category is broken down further, detailing the sources from which the data is drawn. This includes such new media as Facebook, Instagram, and Twitter, which are managed by ERAU’s marketing team.

The AQR also utilizes news broadcasts, which formally announce the AQR’s release on TV before a live press audience. These press releases give Dr. Bowen immediate feedback on the AQR. Traditional methods of releasing information to users, like using the news media broadcasts, remain one of the most effective means of reaching a global audience.
Scholarly Commons, the online home of the AQR, is ERAU’s open-access institutional repository, and it allows free access of its content for internet users. Among other things, Scholarly Commons features the scholarly activity by Embry-Riddle faculty, students, and staff. Pertaining to the AQR, the repository provides monthly reports for the authors of scholarly works. These reports contain much data regarding how, where, when, and by whom particular works are used. Details include the industry researching the report, the geographic area of the download point, and the source through which the user downloaded the AQR.

This annual collaboration between ERAU and Wichita State University continues to increase its reach by expanding outreach to new audience members. In creating the AQR, these two universities have created an increasingly trustworthy airline evaluation tool based on decades of reliable data for public use.

In conclusion, the AQR has served as a key example of how vast a publication’s reach can be (or can become using social media). Current metrics show that the 2016 AQR has reached a total of 1.29 billion viewers in over 1,043 print and online venues, stemming from news broadcasts, which aid in the dissemination of the research. Such news broadcasts come from companies that include Yahoo! News, ABC, CBNC, and TIME magazine. It should be noted that the release of the AQR generated roughly 12 million dollars in advertisement value for these companies. This outreach benefits researchers by increasing online visibility of the specific report on a global scale, and it also helps generally by raising public awareness to the overall research topic.

Airline Quality Rating (AQR)

Drs. Bowen and Headley, of Embry-Riddle Aeronautical University in Prescott, Arizona and Wichita State University respectively, introduced the Airline Quality Rating (AQR) in early 1991 as an objective method for comparing and scoring airline performance in areas deemed to be important for consumers. The AQR includes not only a development history but also calculation details for the AQR rating system. New AQR reports, based on data collected during given years, are compiled annually. Scores are calculated by examining 15 elements in document’s four major areas, which focus on airline performance. The overall context – the importance of each area to consumers – remains the focus. The report is a summary and evaluation of month-by-month ratings for U.S. airlines, based on domestic performance data, which these companies are required to publish.

Visibility Report

Our metrics are drawn from social platforms and press releases in an effort to gain qualitative and quantitative information about the Airline Quality Rating (AQR). The AQR’s Visibility Report examines the data points from social media accounts and press releases, examining and evaluating the data in the report’s four elements – Total Pickup, Traffic Flow, Audience, and Engagement.

Total Pickup

The first element - “Pickup” or “Total Pickup” - represents the relevancy to media’s placement and influencers’ interactions with and about research content. Pickup also includes the Twitter engagement about news releases. Here, exact matches and tweets are key pieces of data. Exact matches are based on press releases published online with full-text postings monitored by PR Newswire and Embry-Riddle Aeronautical University, and they are found using algorithms created for tracking Embry-Riddle’s international reach. Twitter users generate tweets by tweeting (posting) or retweeting content. These tweet and retweets are subsequently tracked by the PR Newswire. For the “2015 Airline Performance Improves Slightly” [2,8], there were a total of 196 exact matches. The potential global audience for this number of exact matches was estimated to have been 12.4 million viewers who either downloaded or read the year’s AQR on or near the April 4, 2016 press release date. Figure 1.0 below, from the homepage of the Total Pickup section, offers a visual breakdown of the relationship between the media outlet used and the industries included in the calculation. [3]
This section examines various media outlets, from old to new, emphasizing social media platforms that market to all generations. As per Figure 1.0 above newspapers, media broadcasts, blogs, and trade publications are used to illustrate a publication’s reach for targeting these multi-generational audiences. Total Pickup by Industry examines information by sector yielding a different perspective on how the AQR is used. PR Newswire traces the data back to discover what companies were interested in the AQR press release.

Traffic Flow

Traffic Flow is a very efficient technique for tracking the multiple publications scholars publish, and it is often used to determine which research is gaining the most attention. The AQR uses four broad Traffic Flow categories to collect view statistics. - Web Crawler Hits, Network, Websites, and Mobile Websites. Results were gained by tracking social media posts, with each post containing direct links to news publications, the AQR website, or to another site for downloading the document. The traffic flow data for the “2015 Airline Performance Improves Slightly” release indicated that the report had 267 views and 3,268 web crawler hits across the internet. [4] From four search engines, a total of 73 web sources had 40 hits by web crawlers, which used one or more of the keywords listed in Figure 1.1. Search engines like Google give searchers, or marketing coordinators, the chance to purchase advertising. For Google, this means the ability to purchase Google AdWords. Similar advertisements are also available for Bing, another popular search engine. Figure 1.1 below shows some of the combinations of keywords used to find the AQR on particular search engines. [4]
Audience

In analyzing Traffic Pickup, the process is broken down further by identifying the audience or users by industry, media types, and geographic region/country. For the media release of the “2015 Airline Performance Improve Slightly,” the top industries examining the AQR had a concentration, or interest, in travel and transportation. These industries were followed by industries focusing on technology, consumer products and media. All industries were graded on a scale from zero to one hundred twenty-five, roughly giving the number of individuals who downloaded the report or blogged about the research by industry. Figure 1.2 displays this breakdown by industry and media type.
Examining the rest of Figure 1.2 Top Media Types displays data from Web/On-line Services, Bloggers, Freelance/Writers, Trade Periodicals, and Newspapers. These are sources, or online tools, members of the public use to spread the word about the report. On the metrics, the scale for Top Media Types goes from zero to eighty. Web/On-line Service comes in with the highest score, and numbers dwindle for the remaining categories.

In addition to the breakdown of data by industry and media type, geographic location by country is also useful. Figure 1.3 below shows the global concentrations of research downloads by country. [5] It should be noted that the AQR rates only domestic airlines and flights within the United States. Airlines like United Airlines or American Airlines (large companies in the U.S. aviation market) fly internationally, but those routes are not included in the AQR. Given this, it is not surprising that the United States has a greater number of views for the AQR because the document itself directly relates to the evaluation of domestic airlines.

Visibility Report Overview

The Visibility Report incorporates these four categories into an overall report that gives users greater insight into the public’s participation in the reading of or sharing the AQR across the world. The Total Pickup category yields information about users’ interactions about the research with the longitudinal increase in numbers being of interest. The Traffic Flow category involves the way members of the public find the research through social media, news articles, personal blogs, and search engines by tracking users’ engagement. The Audience category examines media demographics by industry, media type, and geographic area/country. Together these data provide the quantitative data to compare 2015 with other years. Figure 1.4 below is an image of the homepage for the “AQR 2015 Airline Performance Improves Slightly; Virgin America Narrowly Retains Top Spot” webpage. [3]
Business Outcomes

Today’s virtual world has transitioned from the static digital tools of Web 1.0 to the interactive digital environments (aka social media) of Web 2.0. In this new environment, social media gives content creators the ability to track the online activity of users, thus gaining direct and immediate feedback on the content posted. In the case of the AQR, this report accumulates such data from several in-house social media platforms hosted by Embry-Riddle’s marketing team, and from the AQR’s Twitter page. The data points presented in Figure 2.0 below are all metrics from Embry-Riddle’s marketing team for the official April 3rd 2016 release of the AQR.
Embry Riddle’s marketing team uses the college’s Facebook page for disseminating campus news on social media, and the Embry-Riddle Prescott Campus community works to create the content there. In this regard, the marketing team uses Facebook to spread news of the AQR’s release as part of this outreach effort. For 2016 alone, news of the AQR’s April 3rd release on Embry-Riddle’s Facebook page reached over 115,300 people. The initial post resulted in 1,933 individual likes (which include reactions in Facebook’s newest version) and 62 subsequent comments. After the initial post on Embry-Riddle’s Facebook page, followers responded by posting news of the AQR’s release on their homepages 277 times. This type of research dissemination represents an additional way to increase resource visibility online.

Twitter is another popular social media platform. While tweets, or messages on Twitter, are limited to 144 characters, account holders can post URLs in tweets to direct followers to other sites for further information. Embry-Riddle’s marketing team manages the AQR Twitter account and all the tweets posted (aka Embry-Riddle’s Twitter feed). This Twitter feed has yielded a total of 30,052 impressions, 246 retweets, 201 link clicks, and 329 post engagements for 2016. To elaborate, an “impression” is the post delivered to other followers’ Twitter feeds. Out of the 30,052 impressions, 246 followers retweeted the post on their own pages.

While Facebook and Twitter are both social networking tools, and interactive platforms, they complement one another in the context of metrics data. Facebook and Twitter users tend to be from different demographics (e.g., age, race, sex, gender, etc.), and the differences provide valuable insights into just who is accessing, using, and sharing the AQR. Instagram is an additional social network for those with an artistic bent. Instagram merges much of what Facebook and Twitter do separately, but it does so visually. With the AQR, Instagram posts were infographics for this reason. The AQR infographic reached 4,200 people through Instagram, with 291 likes from 3,733 followers of the Instagram page for Embry-Riddle’s Prescott campus. Figure 2.1 below is an image of the AQR 2016 Instagram infographic. [7]

<table>
<thead>
<tr>
<th>Platform</th>
<th>Facebook</th>
<th>Twitter</th>
<th>Instagram</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reach</td>
<td>115,315</td>
<td>30,052</td>
<td>4,200</td>
</tr>
<tr>
<td>Likes</td>
<td>1,933</td>
<td>246</td>
<td>291</td>
</tr>
<tr>
<td>Comments</td>
<td>62</td>
<td>201</td>
<td>0</td>
</tr>
<tr>
<td>Shares</td>
<td>277</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Figure 2.0. Social Media Platforms
In summary, the 2016 AQR directly reached an estimated 1.1 million people, and yielded an estimated 3.2 million subsequent impressions, with 59 comments and 2,274 likes. Of those social media users, 48% were male, and 52% were female. Geographically, the top countries accessing or following the AQR were Argentina, Turkey, France, El Salvador, the United States, Germany, United Kingdom, Chile, and Ireland. While social media users in the United States represented the majority of online activity pertaining the AQR, the activity of social media users in other countries directed toward the report show the global reach of the technology.

CONCLUSION AND FUTURE STUDY

In this article, we studied social media and the dissemination and utilization of scholarly research through some of its tools/platforms. We used several social networking platforms (e.g., Facebook, Twitter, and Instagram) to increase the online visibility of scholarly research (in this case the AQR) through the use of press releases and news broadcasts. The AQR’s Visibility Reports yielded the most detailed breakdown of this data by allowing us to examine Total Pickup, Traffic activity, Potential Audience members, and Engagement.

The availability of longitudinal data for the AQR has been especially useful in the creation of a trustworthy tool for public use. Given existent data dating back to 1991, scholars at Embry-Riddle Aeronautical University in Prescott, Arizona, and Wichita State University have been able to create a valuable resource for evaluating domestic air travel in the United States.
Future research will involve increasing the number of social media tools and platforms under consideration in order to obtain a more in-depth view of how social media users use scholarly research and further disseminate it via the same or other social media tools. Our ultimate goal is to create a template for measuring social media impact on the dissemination and utilization of scholarly research across disciplines.

In conclusion, the AQR has served as a primary example for showing the vast reach of social media platforms. Current metrics show that the AQR 2016 reached 1.29 billion viewers through 1,043 print and online outlets using news broadcasts as a way to announce the publication of the research. Such news broadcasts came from companies that included Yahoo! News, ABC, CBNC, TIME magazine, and others. We estimate that this level of online visibility for official release of the AQR generated roughly 12 million dollars in advertisement value for these companies. For those responsible for the AQR (and similarly with other scholarly works), this increased online visibility benefited these researchers, first by increasing the number of overall users/viewers who see the work and also by increasing the diversity of places where the work is accessed, expanding to a global scale.

Next Steps

Future research will involve increasing the number of social media tools and platforms under consideration in order to obtain a more in-depth view of how social media users use scholarly research and further disseminate it via the same or other social media tools. Facebook, Twitter, and Instagram offer quality insights into social media events (e.g., sharing, liking, etc.), but they are far from the only social media tools available. We intend to increase the number and types of tools and platforms in our future evaluations to include Mendeley, ResearchGate, Academia.edu, and/or Impactstory, among others. Our ultimate goal will be to create a template for measuring social media impact on the dissemination and utilization of scholarly research across disciplines.

AUTHOR BIOGRAPHIES

Brent D. Bowen, Ph.D., is a Professor in the College of Aviation at Embry-Riddle Aeronautical University in Prescott, Arizona.


Timothy B. Holt, Ph.D., is the Dean for the College of Aviation at Embry-Riddle Aeronautical University in Prescott, Arizona.

Jacqueline R. Luedtke, Ph.D., is a Professor and Aeronautics Program Chair in the Department of Applied Aviation Sciences at Embry-Riddle Aeronautical University in Prescott, Arizona.

Hunter M. Watson is a student in the School of Business at Embry-Riddle Aeronautical University in Prescott, Arizona.

REFERENCES

Motivation Of Social Inequity Awareness In The Content Areas
Sherrie Wisdom, Lindenwood University, USA

ABSTRACT

Social inequities exist in numerous facets of society. Commonly noticed inequities exist between economic classes, genders, and ethnicities. Some less commonly recognized inequities may be related to living locations, as in urban, suburban, or rural. Inequities can affect quality of life through educational differences, differing access to technology, or availabilities to different levels of health care. One approach to increasing awareness of social inequity issues in our younger generations is through use of appropriate classroom lessons in the major content areas, related to common curriculum strands and designed to promote awareness and discussion in the classroom setting. Data-based discussions embedded into mathematics, language arts, and science courses can be used to motivate discussion among our youth. The technique could be useful in both higher education and high school settings. In this presentation, suggested approaches highlight the content area of mathematics.

Related Readings

Putting Students In The Front And Center: Exploring And Refining Student Centered Learning Techniques

Brent D. Bowen, Embry-Riddle Aeronautical University, USA
Michelle M. Bennett, Embry-Riddle Aeronautical University, USA
Anne Boettcher, Embry-Riddle Aeronautical University, USA
Dawn Groh, Embry-Riddle Aeronautical University, USA
Tyrone Groh, Embry-Riddle Aeronautical University, USA
Jacqueline R. Luedtke, Embry-Riddle Aeronautical University, USA
Scott Ritchie, Embry-Riddle Aeronautical University, USA

ABSTRACT

Knowledge acquisition will certainly remain a fixed component of higher education. Student-centered learning (SCL) represents a growing trend in higher education that emphasizes active learning strategies in lieu of more traditional passive strategies such as lecture. Many involved in education see SCL as an umbrella that represents a broad range of approaches designed to enhance student engagement. In addition to enhancing student engagement, SCL’s also seeks to develop a student’s long-term capacity to learn (Klemencic 2017). This study explores different techniques under the rubric of SCL to evaluate the utility of selected tools to enhance student knowledge and student learning. Specifically, this study tests the use of student portfolios, flipped classrooms, digital learning strategies, and problem-based learning to enhance a student’s learning experience. To this end, surveys have been designed to target student perceptions of their desire to attend classes based on SCL and the level of their perceived learning. Originating as a collaborative effort from a university faculty learning community, this study includes a multi-disciplinary look at the effects of SCL approaches in the fields of aviation, security, and intelligence. Specific classes range from research methods, capstone, basic knowledge courses, and social science courses. Preliminary data acquisition results are presented along with an examination of forthcoming longitudinal research in result.
Discovering The Data Of Safety: Embry-Riddle's Aviation Safety And Security Archives

Melissa Gottwald, Embry-Riddle Aeronautical University, College of Aviation
Michelle M. Bennett, Embry-Riddle Aeronautical University, College of Aviation
Brent D. Bowen, Embry-Riddle Aeronautical University, College of Aviation
Erin E. Bowen, Embry-Riddle Aeronautical University, College of Aviation
Jordan I. Brown, Embry-Riddle Aeronautical University, College of Aviation
Ed J. Coleman, Embry-Riddle Aeronautical University, College of Aviation
Timothy B. Holt, Embry-Riddle Aeronautical University, College of Aviation
William D. Waldock, Embry-Riddle Aeronautical University, College of Aviation

ABSTRACT

The path to the sky and beyond has not been simple or obstacle-free, but dedicated dreamers have worked to overcome obstacles, learn from mishaps, and develop new technologies to achieve their goals. As the leading university for aviation and aerospace education, Embry-Riddle Aeronautical University maintains a firm commitment to the practice and study of safety. As part of this mission, the university has established the Aviation Safety and Security Archives (ASASA) which is a national treasure of aviation safety history and information. As an archival repository and technical library focusing on the advancement of safety in aviation and aerospace exploration, ASASA provides access to an unparalleled collection for research and study in aviation safety and accident investigation. The collection provides real world examples to augment classroom learning—from accident case files exemplifying the investigative process to research into the creation and improvement of crashworthy systems. The records contain historic data showing accident trends as well as the impact of technological improvements on the safety record. Within the archives are records of the Flight Safety Foundation and other organizations as well as the papers and personal libraries of aviation safety pioneers such as Jerome Lederer (the "Father" of Aviation Safety) and S. Harry Robertson (inventor of "Crash Resistant Fuel Systems" in use on military and civilian aircraft worldwide). Cognizant of the need to serve the university's worldwide community of learners as well as the larger research community, the archives is positioning itself as a portal providing access to aviation safety data both within its physical collections and available online. A robust digital library makes digitized documents, reports, and images from ASASA's collections readily available and fully searchable from any location with an internet connection. In addition, the archives' curated resource pages serve as a discovery tool guiding researchers to the vast wealth of safety research available online from Embry-Riddle as well as other organizations and agencies. Aviation safety professionals worldwide are invited to explore and utilize this unique resource.
Climbing The Doctoral Mountain – From Doctoral Candidate To Dr. Ronald Black, Walden University & Grand Canyon University, USA

ABSTRACT

Online teaching and learning has many names and as many definitions. There is not one clear definition of online teaching and learning. Today, we know that online teaching and learning involves many different forms of technology that is used to present the course materials for student/faculty collaboration. Researchers have recognized that motivation plays an important role in traditional higher education but there is a lack of research on the effectiveness of online teaching and learning at the doctoral level. Motivation plays a significant role in a doctoral student’s journey through the doctoral study process. Doctoral learners enter into a doctoral program looking for motivation to be successful and ways to enhance their careers. The doctoral mentor has a lot to do with their students’ motivational level. A mentor’s collaboration and communication style sets the pace toward the doctoral learner’s successful doctoral journey.

Doctoral mentors play a large role in guiding the doctoral candidate up the doctoral mountain from identifying their topic through completion of their research study. E-mentoring doctoral candidates in online doctoral programs entails many of the same opportunities and challenges as serving candidates in programs that are offered in a traditional, face-to-face modality. The difference is e-mentoring interaction takes place 100% of the time from anywhere. The e-mentoring chair/candidate relationship begins as soon as the doctoral candidate completes doctoral content courses and begins their dissertation process. This presentation focuses on motivating the online doctoral student throughout the doctoral study process and the techniques that chairs and committee members can frame, and guide their candidates as they travel up their doctoral/dissertation mountain leading to success in their business career.

Focus of this paper and presentation will be on the factors that affect motivation of online doctoral learners as they climb the doctoral mountain to their degree.

AUTHOR BIOGRAPHY

Dr. Ronald (Ron) Black. A seasoned leader in higher education with an earned doctorate from a regionally accredited university with more than thirty years of senior administrative and academic experience, ranging from leadership positions in small and large colleges and universities to teaching and dissertation mentor/chair. Currently serving as an E-Mentor and doctoral instructor at two doctoral universities. Ron is an innovative teacher, with a passion for education. Dr. Black has a demonstrated track record of excellent teaching, faculty supervision, dissertation mentoring, and faculty/student collaboration. A dynamic speaker with published articles in peer-reviewed journals and an innovative developer of strategic educational programs.
A Review Of The Texas Freestanding Emergency Center + Urgent Care Market
Marina Amador, The University of the Incarnate Word, USA

ABSTRACT

The development of the Freestanding Emergency Medical Care Facility (FEC) market in Texas has remained steady in Texas due to the legislation that recognize the FEC as an emergency provider. Since 2009, the market has steadily grown with two types of FECs, the FEC and the FEC + Urgent Care. The majority of the FECs provide emergency services only. However, as of December 2017, 17% of the FEC market was comprised of FEC + Urgent Care. There are several pros and cons to the FEC + Urgent Care structure. The focus of this study is to provide an overview of the FEC and FEC + Urgent Care market in Texas.
Graduate Student Persistence In Academia: When Student Perspectives Matters

Barbara Holmes, Winona State University, USA
Dietrich Danner, Durham Public Schools, USA
Austin Opfer, Winona State University, USA
Jeffrey Thompson, Winona State University, USA

INTRODUCTION

The larger conversation about graduate student success focuses on persistence, rather than retention. Tinto (2016) posits that persistence embraces what the student must do rather than institutional actions associated with retention. Tinto (2016) asserts:

“Students have to be persistent in their pursuit of their degrees and be willing to expend the effort to do so even when faced with challenges they sometimes encounter. Without motivation and the effort it engenders, persistence is unlikely -- institutional action aside.” (p.1). Tinto (2016) identifies three major initiatives in addressing the persistence of graduate students: self-efficacy, sense of belonging and perceived value of the curriculum. Tinto (2016) concludes that:

“To promote greater degree completion, institutions have to adopt the student perspective and ask not only how they should act to retain their students but also how they should act so that more of their students want to persist to completion.” (p.1). It is understanding this notion of student motivation that helps to explain the factors that graduate students consider when balancing the demands of life and making choices that facilitate success.

Historically, research studies focused on retention factors and institutional actions needed to increase retention of all students groups including those most at risk of failure. However, the meta-analyses of research studies highlighted one factor that influenced persistence:

“According to research studies, a few factors that influence persistence include the intent to persist, institutional and student commitment, college grades, high school academic experience, and social and academic integration.” However, studies exploring factors that influence graduate student persistence at the master’s level is limited (Alexander, Kohnke, & Naginey, 2011; Cohen, 2012). Cohen (2012) contributes the lack of data as a barrier in supporting persistence at the master’s level. Attrition, including economic, social, and emotional costs, may be a supporting factor that effect graduate student persistence (Xu, 2015). Whereas, the lack of data and attrition are causal factors, colleges and universities remain challenged to increase the persistence of graduate students and graduation rates. It is this intent to persist that will be explored in this paper through the lived experiences of current graduate students enrolled a master’s program in educational leadership.

The Transition to Graduate Studies

Rigorous coursework and culture adjustment to a higher education environment requires considerable shifts in personal processes as well as stress management for graduate level students. There are a numerous variables that potentially impact student satisfaction and persistence in graduate programs. These factors may be common to both online and traditional graduate settings to varying degrees (Kupczynski, Mundy, & Jones, 2011).

Life alone is stressful for many students from being introduced to new responsibilities, new social environments, forming new relationships with peers and professionals, and adjusting to a new culture (Robotham, 2008). Even graduate students who continue studies at the same university he or she attended for undergraduate degree must adjust to new relationships and academic expectations (Martinez, 2016). The few studies that have examined stress in graduate students report stress related to role conflict, time constraint, financial pressure, and lack of family or program support (Hudd, et al., 2000). Additional stressors associated with academic achievement goals for students include
striving to meet deadlines, management and/or control of time to complete schoolwork, test taking, and a perception of little time and extensive course content (Robotham, 2008; Wilks & Spivey, 2010).

There was a clear shift in culture from undergraduate to graduate level education. Individual accountability and expectations were immense compared to undergraduate studies. Course enrollment for graduate level was far more diversified generationally and demographically compared to undergraduate and course enrollment size varies anywhere from twenty to as little as four students so there is far greater engagement with peers and instructors.

Since graduate level courses are hybrid (in person and/or online) and classes meet in person far less frequently than undergraduate courses, it falls on each individual to manage time for independent and collaborative coursework efficiently. Bearing this personal responsibility in mind, one’s ability to manage time with the extensive graduate course content while committing to other obligations such as family matters, assistantships, jobs, extra-curricular activities and athletics further evoked stress and an imperative for proper time management.

When graduate students try to cope with these pressures, they often experience internal conflict. If unresolved, they continually question their decisions and if resolved, the student may still experience physical and mental fatigue, burnout, depression, and guilt over their chosen priorities (Offstein, Larson, McNeil, & Mwale, 2004) and as a result experienced lower levels of self-esteem and perceived themselves as less healthy (Oswalt & Riddock, 2007).

One key to minimizing stress is social support, which especially helps young students cope with stress, as late adolescence and early adulthood are periods where peer group activity is of primary importance (Humphrey & McCarthy, p. 238). The social-personal aspects related to student persistence were supported by a study of graduate student retention in 2008 in which it was noted that the provision of structures for graduate school students to interact with peers and faculty were an effective key to improving student retention and satisfaction (Gross, Lopez, & Hughes, 2008). In a study examining factors impacting graduate school success in a hybrid environment offering both online and face to face instruction at Texas A&M – Kingsville, the strongest factors identified were increased self-esteem due to graduate school success experiences, the interest of professors in student success and the presence of a knowledgeable advisor. More importantly, the study found that establishing a sense of connectedness to the academic community was a key factor to success and student satisfaction (Bain, Fedynich, & Knight, 2010).

Finding time to manage academic obligations is an obvious priority but managing time for oneself will keep graduate students balanced and further minimize stress. The need for self-care is considered best practice for combatting stress. Self-care is identified as “the engagement in thoughts, feelings, and behaviors that maintain and promote physical, emotional, social, and spiritual wellbeing” (Tan and Castillo, 2014, p. 90). Self-care will likely vary based on individual values and interests. Highly regarded practices for individual stress reduction include, mediation, comfort food, sleep, and socializing with friends (Oswalt & Riddock, 2007).

The stress relief practice that remains prevalent with students is diet and exercise. Maintaining a proper diet remains one of the easiest practices to keep stress at bay since it simply takes a conscious effort by the individual to choose healthy options to put into his or her body. Dr. Mark Hyman (2018), world renowned family physician, author, and health and wellness advocate concludes, “Food literally controls almost every function of your body and mind…food exists specifically to energize, heal, repair and uplift us. Every bite you take is a powerful opportunity to create health and promote disease.” (pg. 5-6).

Studies show a connection between a student’s dissatisfaction with their dieting and/or exercise habits point to a positive correlation between stress levels (Humphrey & McCarthy, 1998). Health care professionals at Mayo Clinic (2017) infer regular exercise may help ease depression and anxiety by releasing feel-good endorphins and taking your mind off worries and provide psychological and emotional benefits such as confidence gains, additional social interaction and coping in a healthy way. Even a brisk walk can pay dividends on well-being and stress management. A 2014 conducted by University of Michigan Medicine concluded that frequent walking is linked with significantly lower depression, less perceived stress and enhanced mental health and well-being and is also an inexpensive, low risk and accessible form of exercise—combined with nature and group settings, it may be a very powerful, under-utilized stress buster.
Graduate student coursework remains a stressful endeavor for students but by remaining socially connected, collaborating with professors and classmates, as well as maintaining a conscious effort to care for oneself—students can remain balanced and minimizes stress during the challenging graduate coursework. To continue persistence, graduate students must prioritize well and develop structure in their daily academic life.

**Time Management**

After four years in the undergraduate level, and two at the graduate level, the ability of a graduate student to manage priorities through effective time-management remains to be an important skill. The expectations of a graduate student vary greatly in respect to the undergraduate student; it is assumed that a graduate student can prioritize the important tasks over unimportant tasks while managing time.

At the graduate level, time-management must be a priority to succeed, and small time consuming habits should be limited. There is a direct relationship between time-management and academic achievement among graduate students (Cemaloglu, N, & Filiz, S, 2010). Graduate students tend to spend less time within the classroom, and more time in self-led research. Most graduate students must complete a large research project, which is typically time intensive. In order to ensure adequate time is spent on quality coursework, a priority must be set.

Prioritization of day-to-day school work and job work is important to graduate student success. It is easy to become caught up in campus jobs; a graduate assistantship for example. For many graduate assistants it is likely that the job will mandate work for a period of time each day. It is then upon the graduate student to learn important time-management skills to accommodate for adequate study time.

Empie (2012) posits that campus employment can intentionally be designed to engage students from their first semester and develop time management skills that are important to academic success as well as student experience and career success. A part of persisting at the graduate level is completing tasks in a prioritized manner. It is no big surprise that the more important tasks should be done first, this includes research, classwork, and capstone revision, which tend to be more time sensitive. Additionally, time management can be utilized to structure each day.

Time management can be defined as the efficient use of resources to complete work and participate in social events or activities (Akatay, 2003). Furthermore, time management requires using time in the most effective way by determining priorities, as time is a limited resource (Efil, 2000). There are also other considerations to a graduate student’s life such as social gatherings, family, friends, health and wellness practices, and individual hobbies. A balance must be struck to facilitate graduate coursework completion. Short term goal setting provided an expedited solution to long term tasks. It is important to have a goal in mind for each day when it comes to completion of daily tasks. Problems arise when work exists but no efforts are being made to complete that work, even if it is writing a paragraph a day. Each day priority must be placed on research, writing and revision to ensure academic persistence.

**METHODOLOGY**

**Participatory Action Research**

The research methodology used for this study was Participatory Action Research (PAR). Using PAR, qualitative features of an individual’s feelings, views, and patterns are revealed without control or manipulation from the researcher for the primary purpose of imparting social change; a specific action (or actions) to achieve an ultimate goal (MacDonald, 2012).

**Focus Group**

Researchers method facilitated a PAR focus group interview to gather graduate student experiences about driving forces to achieve academic goals, stress induced by graduate level coursework and how to manage stress on a personal and academic basis. Tong, Sainsbury and Craig (2007) gather that focus groups are semi-structured discussions with groups of 4–12 people that aim to explore a specific set of issues by moderators asking broad questions about the topic
of interest. Focus group participants addressed three validated open-ended questions. The researcher recorded and transcribed the focus group interview, which lasted no longer than 1 hour.

Research Setting

The Par conversations and focus group were situated at a mid-western university, which has regional authority to offer graduate degrees. The university setting of choice has a total enrollment of 8,140 for the 2017-18 year. The university is comprised of 72 undergraduate programs, 19 master’s programs, 6 doctorate programs, 2 educational specialist degrees, and 16 graduate certificate programs. The university has three locations, one main location, and two smaller institutions. The university represents 35 states, and hosts students from 50 countries around the world. The average class size is 28 and the student to faculty ratio is 18:1.

As of the 2016-17 year, the student average ACT score is 22.7, average high school GPA is 3.35, and the student population is 63.2% female and 36.7% male (University Fast Facts, 2017). Ethnic demographics reported that 85.2% of the population is White, 2.9% is Hispanic/Latino(a), 2.7% is African-American, 2.3% is Asian American, 2.3% is more than one race, and <1% is Native American/Pacific/Hawaii Islanders, 43.3% of the student population is first generation students, and 15.5% are post-traditional students being 25 or older. 278 students are from a country outside of the US that include 71 from China, 36 from Taiwan, 34 from Saudi Arabia, 28 from Korea, 11 from Bangladesh, and 11 from Japan (University Fast Facts, 2017).

Participants

Thirteen graduate students enrolled in a Change Leadership class participated in the focus group, ranging in age from 23 – 45 years in age. Six of the informants were male and seven of the informants were female respondents were male. All students were Caucasian with the exception of one Asian female. All participants have at least one semester of graduate study completed.

Procedures

The focus group began with the instructor encouraging graduate students to reflect on their graduate experience and identify those factors that contributed to staying connected and involved in graduate studies. The instructor discussed current research about graduate student attrition and university concerns about improving the graduate student experience. The focus group session was guided by the following research questions:

1. What motivates graduate students to persist through graduate school rigor?
2. What types of stressors do graduate students encounter?
3. How do graduate students navigate the challenges of graduate study to stay connected to learning?
4. What can colleges and universities do to improve the graduate student experience?

RESULTS

Participants in the focus groups provided robust responses to the research questions. There were repeated comments about the importance of parental, instructor and self-expectations. One student responded “I am the first person in my family to attain a college degree, so there is heightened expectation for me to obtain the master’s degree.”. Graduate students then discussed similar responses together and worked on about making meaning of the phenomenon. Responses were then categorized into four emergent themes. The emergent themes are as follows:

Emergent Theme 1: Expressed expectations of significant other are powerful drivers of persistence

All participants indicated that the expectations of parents, instructors and others were the main reason why they were motivated to complete the master’s degree. One respondent indicated that being the first person in his family to obtain a college degree was viewed as a major generational accomplishment and the entire family would be disappointed if the pursuit of the graduate degree were abandoned.
Emergent Theme 2: Acquisition of the graduate school credential is critical to career success

Participants in the study considered themselves high achieving adults and felt that a part of their personal brand was the acquisition of a graduate school credential. They place high priority on positioning themselves to be competitive in the workplace and doing whatever was necessary to succeed.

Emergent Theme 3: Lifelong learning is highly valued by Millennials

All respondents expressed that they were lifelong learners and would continue their academic pursuits beyond the master’s degree. Graduate study represents a personal challenge and personal growth is essential to the millennial generation.

Emergent Theme 4: Stress associated with graduate study is inevitable and institutions can help students manage this stress

Every respondent reported some degree of stress associated with graduate study. Major stressors included time management, finances, family issues, and being able to produce quality graduate work. Another stressor mentioned was the how the reality of graduate study differed from initial expectations at the time of application for graduate school.

When asked what institutions can do to improve the graduate student experience, graduate students identified the following changes that institutions need to consider:

1. Train faculty to be more resourceful in preparing students for the rigor of graduate study.
2. Provide graduate students with mentoring advice in a supportive institutional culture.
3. Establish high expectations for graduate students and help them to meet those expectations.
4. Help graduate students build collaborative relationships within the classroom community as a network of support.
5. Assist graduate students in acquiring resiliency self-confidence in negotiating the graduate curriculum.

REFERENCES


The Evolving Role Of Higher Education In Workforce Development
Christopher Hahn, Winona State University, USA

ABSTRACT

Based on over 20 years of corporate experience, graduate school research, and his most recent project, Business Leadership and Education Exploring Higher Education & Workforce Development Needs in Southeastern Minnesota, Chris will address the findings and implications for post-secondary educators as it relates to development of learners preparing to enter an increasingly competitive workforce.
Developing Effective Change Management Strategies For ERP Implementations

Faisal Badi Alkhatteeb, Southern University at New Orleans, USA

ABSTRACT

The purpose of this article is to carry out a comparative analysis for the various change models in order to figure out the most suitable model to use in ERP implementation projects. This paper explores characteristics, commonalities, and differences between some of the highly used models in industry. It is concluded that Kotter’s change management model could be adopted as an appropriate change model in the ERP implementation.

The article shows that ERP implementers can benefit from understanding the diverse change models when considering what will work for their project and how to apply Kotter’s model in a most effective way.

1. INTRODUCTION

During the current digital transformation era, organisational restructuring, processes reengineering and pursuing technological upgrades are inevitable. The main feature of digital transformations is that they are cross-functional and rapid, but they are obstructed by the hierarchical structure and the “silos thinking” mindset (Ancarani and Di Mauro, 2018). For organisations to succeed, they need to maintain high change momentum in order to sustain their competitive advantage. Enterprise Resource Planning (ERP) system is one of the essential enablers of digital transformation initiatives.

The nature of ERP implementation projects entails substantial amount of socio-technical change on different aspects in the organisation such as the people, the processes and the IT systems. Finney and Corbett, (2007) argue that change management is “one of the most critical of all ERP implementation success factors”. Usually, implementing an ERP system result in some sort of restructuring of the organisation. This change needs to be well thought off to avoid any possible misalignment in functionalities and make sure that the streamline of work is flawless and efficient. The implementation of an ERP system always instigates major change to the organisation but many overlook this aspect, which leads to difficulties or failure to implementation (Kwahk and Lee, 2008).

Moreover, the introduction of ERP system to an organisation touches on, directly and indirectly, large number of people and this create anxiety and fear within employees of all levels (Foster, Hawking and Zhu, 2007). Number of managers might look at the new system as a source of potential threat to their administrative power (Kemp and Low, 2008). Those managers could form sort of allies and opposition groups to stop the alleged threats. Some users of the ERP system will perceive the change in the, used to, way of doing business as risk (Foster, Hawking and Zhu, 2007). The types of resistance form miss informed users vary between silent to intended low performance. Social obligation and people’s habit are not the drivers of resistance; rather it is the lack of skill and misunderstanding of the change initiated by the organisation and its associated implications (Umar et al., 2016).

The implementation of ERP systems necessitates business processes reengineering at the organisation (Alturkistani, Shehab and Al-Ashaab, 2014), which denotes new methods for designing jobs and work modules and leads to new work structures and procedures.

The restructuring of roles and responsibilities among employees could cause destruction to an organisation if it is not properly managed (Bagheri et al., 2014). Business processes are one of the major critical success factors of ERP implementation and changes of these processes are inevitable (Foster, Hawking and Zhu, 2007). Change management help in addressing this issue and enable the organisation to mitigate all possible risks that might rise from the new methods of delivering businesses. In some cases of ERP implementation, organisations build an interface between
their ERP system and the suppliers’ systems (Mabert, Soni and Venkataramanan, 2003). This is a type of change that most of the time is overlooked and result in negative reactions from suppliers that might jeopardise the business.

Change management helps propagating the voice of employees who are in favour of the change, which will have a positive effect on those who are against the change and resisting it (Masa’deh et al., 2015; Obeidat et al., 2016). Change management has been a focus area of research in the ERP implementation landscape.

The remaining sections of this article are structured as follow: a review for the literature to explore previous studies on comparing change management models and the use of change management in ERP implementations. The next section will present some of the change management models and scrutinizing their characteristics. The following section depicts the selection criteria and high-level guidelines to apply the recommended model. The paper will conclude with a discussion and conclusion section.

2. LITERATURE REVIEW

In today’s dynamic fast moving environment, organisations face enormous challenges in catching up with the rapid and disruptive change, and to avoid the risks of financial, social, and political factors. The habit of occasional update and modification of operational strategies is replaced by more agile and dynamic approaches.

Both Academics and practitioners thoroughly discussed the topic of change management types and approaches in general and the topic of change in ERP context in specific. Following section will explore the academic literature of the two topics.

2.1 Change Management Concept

The organisational change literature presents various perspectives on the types of changes and their approaches. Although there is a lack of consistency in naming the change types, the literature shares the fundamental views on these types. The type of change and organisational culture formulate the extent of the impact of that change.

Large amount of literature attests to the fact that successful implementation of organisational initiatives and projects are highly influenced by effective change management (Ann Gilley, Pamela Dixon, 2008). In support of this argument, (Kerzner, 2013) assert that organisational change has significant impact on the initiation and implementation of projects, change is an anticipated outcome of major project implementations, and excellent change management has noticeable impact on projects success. Kotter, (2008) emphasises that, for any change initiative, creating tangible improvement in business performance is an essential objective. Hence, the organization will be able to meet the demands of a changing market environment. The implementation of strategic changes is always a business difficulty that cannot be tackled by focusing only on project management approaches as explained by (Leybourne, 2007). With the current vibrant business environment, leadership are urged to develop an adoptive culture in their organisation. Such a culture will help minimising the risk of resistance and amplify the success of the implemented change.

Change could be initiated and led by a powerful group of people within the organisation such as trade unions or external group such as regulatory bodies. This type of change is usually planned and accompanied by a sheer thrust, and it involves lots of negotiations where the management of the organisation works on minimising its impact. Another type of change is the change that top management initiate, which could be planned or ad hoc. Sometimes, top management need to take major reactive steps and improvise some measures to important changes in the market with minimal planning. Proactive and planned change initiated by top management is the most common type of change that exists in organisations.

Price and Chahal, (2006) identified three main types of change that have major impacts on the organisation: developmental change, transitional change, and transformational change. Another classification of organisational change by (Szabla, 2007) is planned change, which they names (Episodic change) and on going change named (Continuous change).
Nakhoda, Alidousti and Fadaie, (2011) conducted a research on selecting the most suitable change management model for academic libraries. The covered models are: “Kotter’s Change Model, Penfold’s Information Services Framework for Managing Change, and Curzon’s Cycle of Change”. They used the consensus method to capture the views of a group of experts, then the results were analysed by Multiple Attribute Decision Making (MADM) techniques. Mitchell, (2013) studies three change theories; Kurt Lewin (1951), Ronald Lippitt (1958), and Rogers (2003). They concluded that the seven phases model of Lippitt in particular could be used in practice.

2.2 Change Management in ERP projects

Change Management has been identified, by many authors, as one of the important critical success factors for ERP implementation projects. One of the significant enablers for the successful acceptance and use of ERP systems is the good management of the associated socio-technical change. Focusing on technical aspects of change only without considering social and cultural aspects has been attributed as a cause of failure for many ERP implementations (Al-Mashari, Al-Mudimigh and Zairi, 2003).

The significance of change management to the success of ERP implementation projects has been addressed by many researchers. In the article of (Hau and Kuzic, 2010) they scrutinized twelve case studies with ERP implementation projects. The achieved results established that change management is an effective element in ensuring a successful implementation of ERP system. Kwahk and Ahn, (2010) conducted a literature review for 48 articles from 10 different countries on critical success factors of ERP implementation. They identified 18 critical success factors and concluded that the most commonly listed factor is change management as well. Furthermore, Change management, and Top management support found to be the most commonly cited “critical success factors” in ERP implementation literature where both are cited in all 25 reviewed articles (Finney & Corbett 2007).

The literature also revealed that many articles proposed different approaches to apply change management with ERP implementation projects.

Aladwani, (2001) developed a process-oriented conceptual framework to apply change in ERP implementation. The framework contains three phases: knowledge formulation, strategy implementation, and status evaluation. To overcome resistance to change, they demand matching the appropriate strategies with the appropriate phase. Another change model for ERP implementation is developed by Kemp and Low (208) and validated at an Australian Organisation. They concluded that change management activities do affect the implementation climate of (awareness, feelings, and adoption) which in turn affects the effectiveness of the ERP implementation.

(Bagheri et al., 2014) developed a conceptual framework using concept of information systems and organisational behaviour. The framework is designed to provide implementers with a change management approach to ERP implementation. The mapped the steps of Kotter's (1996) change process model to a typical ERP implementation process. Umar et al (2016) developed a change model to use in SAP implementation using 16 related critical success factors.

To summarise, previous literature render diverse views on the types of change, approaches of change, and what to consider in selecting a suitable change model. Many researchers emphasis on the need for change management in ERP put no recommendation on which one and how.

3. CHANGE MANAGEMENT MODELS

There are number of change management models and frameworks that are used in practice. The academic literature discussed the characteristics of the different models and frameworks and they highlighted the applicability of each framework in the industry.

To explore the available change management models and analyse their main prose and cones, the researcher reviewed the literature and employed a content analysis method through application of qualitative approach. Content analysis is fundamentally an exploratory method that provides understanding on insight, opinions, and issues related with the selected topic that aids in developing ideas for potential research (Taylor, Bogdan and DeVault, 2015).
In this research study the qualitative data collected via secondary resources. The secondary sources used in this study were, published and cited research works available in database such as Scopus, Taylor & Francis, Elsevier, Springer, Science Direct, Association for Computing Machinery (ACM) Digital Library, and the search engine Google Scholar. The assessment of secondary data aids the researcher in gathering thorough knowledge on the change management of research and increased understanding. The collected qualitative data on change models are comparatively analysed based on variable matrix inclusive of features, strategies, advantages, disadvantages and degree of applicability. The variable matrix measures the difference among the application of change management.

Comparative analyses of most commonly used change models are discussed hear after.

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Transition Strategy</th>
<th>Time Consumed</th>
<th>Advantages</th>
<th>Shortcomings</th>
<th>Degree of Applicability</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Kotter’s Model</strong></td>
<td>Linear simple model focused on importance of change</td>
<td>Good for long term projects</td>
<td>Deals with both the change and transition process</td>
<td>Mechanical process</td>
<td>Applied in top-down change processes</td>
</tr>
<tr>
<td><strong>Lewin’s Change Management Model</strong></td>
<td>Concept based on the transformation of ice cube through process of unfreezing and refreezing</td>
<td>Initial stage is more time consuming than the rest</td>
<td>Rational and objective oriented approach</td>
<td>Requirement of complete participation of employees</td>
<td>Mostly applied in organization with traditional organizational structure</td>
</tr>
<tr>
<td><strong>McKinsey 7 S Model</strong></td>
<td>Understanding the relation between inter-organizational elements</td>
<td>Strategy, system and structure are the time consuming elements</td>
<td>Strategic implementation of organizational change</td>
<td>Need of proper synchronization in all the elements</td>
<td>Mainly applied in checking readiness of the system for the change</td>
</tr>
<tr>
<td><strong>ADKAR model</strong></td>
<td>Builds change capability to engage employees through change.</td>
<td>-</td>
<td>A clear plan of action for both business and people dimension</td>
<td>No role of leadership specified</td>
<td>Applied in promotion programs, technology road mapping and shared governance</td>
</tr>
<tr>
<td><strong>Bridges’ Transition Model</strong></td>
<td>It explores human behaviors relevant to the change</td>
<td>It is a time consuming model as the process of transition occurs slowly</td>
<td>Understanding of attitude towards change and psychological effects</td>
<td>Limited only to transition phase and not independent</td>
<td>In transitional phase of organizational change at individual and organization level.</td>
</tr>
</tbody>
</table>

Table (2) presents the relevance of Kotter’s Change Management model in ERP implementation by reflecting the factors associated with the former, bearing usefulness for the latter. This is because ERP utilizes similar factors during its implementation in most organisations.
The literature revealed the existence of number of models to manage change where each model has its feature and characteristics. The preceding section presents some of the most widely used change models in the industry. The initial analysis suggests that Kotter’s change model is the best-suited and most efficient model for ERP implementation projects. The implementation of Kotter model is based on staged approach and planned change, which goes well with the nature of ERP implementations.

There are variances between the way change management presented and the way it is practiced (Cole, Harris and Bernerth, 2006). This argument is supported by the conclusion of (Appelbaum et al., 2012), which emphasise on the need for more practical researches that help practitioners in applying change management in real life. Studies by (Cole, Harris and Bernerth, 2006) and (Paper, Rodger and Pendharkar, 2001) assert on the importance of how the actual application of a change management is executed. This section is presenting some guidelines to apply Kotter’s change model during ERP implementation project.

The first principle in Kotter’s change model is to appoint “many change agents, not just the usual few appointees” (Kotter, 2012). This principle is reflected in the developed ERP implantation framework as one of the activities of the first stage. Organisations could create a pool of change agents by asking their employees, from all managerial levels, to volunteer for the post and apply for it. The benefits of this approach is that it will attract resources who are willing lead change and passionate about it. Moreover, the approach will cost much less than hiring outside resources and the quality would be better because internal employees are familiar with the culture and have good understanding of the business.

One of the important principles of Kotter’s accelerate model is ‘two systems, one organization”. This principle refers to two types of organisational structure; one is the classical management-driven hierarchy of the organisation structure and the second is a dynamic more agile network, where both are working in a conjoined and synchronized way. This setup works well in the context of ERP implementation project with the project teams resembling the network structure. The dual operating system is not introduced as two competing or contradicting departments; rather it should be two structures that complement each other.

The eight steps (named as Eight Accelerators) of Kotter’s model could be applied in the ERP implementation context as follows:

Create a sense of urgency around a single big opportunity. The change team need to prepare strong effective massages that clearly demonstrate the benefits of the new ERP system and the potential threats if the system is not implemented. The massages should be developed in different forms to address the diverse mind-sets of employees. Kotter asserts that failing to create a sense of urgency is a major mistake and will lead to the failing of the change initiative. Top management need to embrace the sense of urgency and keep it ongoing throughout the project duration, they need to make sure that all employees are on the same pace. When employees are encouraged to take daily actions that help them attain the final goals, sense of urgency will act as a competitive advantage in the organisation.

Build and maintain a guiding coalition. In ERP projects, this coalition is the change management team within the project team. It is essential to form the coalition as a flat structure where all members are equal; this will create a dynamic team that act swiftly with less bureaucracy. The change team should be fully authorised to take immediate decisions on which change activity to implement and when to do it. They need to interact with all involved parties; within the project team, in the departments, and the external suppliers. Organisations that are formed in silos and used
to work with strict hierarchical system will find some challenges in applying this approach at the beginning, but it will be smoother once the members absorb the concept.

**Formulate a strategic vision and develop change initiatives.** Top management should inspire the change team to formulate a vision that guide the project team to fulfill the ultimate goal of delivering an efficient working system. The vision should emphasise on the targeted big opportunity for the main organisation as well as the project team. (Kotter, 2012) define the right vision as being “feasible and easy to communicate. It is emotionally appealing as well as strategically smart”. The guiding coalition need to set some change initiatives that is critical to attain the vision, communicating the change plan is one of the very important initiatives in change management.

**Communicate the vision and the strategy.** No matter how good the change strategy and planning is, it will face the risk of failure if it is not communicated well. The guiding coalition needs to design a creative communication campaign that touch on the need of all stakeholders in order to acquire the buy in from them.

Following are some examples of what the communication massages could address. Reassuring employees that introducing a new ERP system will not lead to layoffs, and that transferring employees from one position to another is beneficial to all parties. Other massage could highlight how modifying some of the current business process will reduce the time or effort required by staff. For the communication campaign to be successful, massages should be memorable and authentic and top management should always emphasise on this aspect. Use all possible communication channels such as (emails, posters, roll-ups, seminars special event, and all available social media). The massages need to be augmented in every event that takes place during implantation period. The communication campaign should start well before the project kick off.

5. **DISCUSSIONS AND CONCLUSION**

This paper featured the significance of change management during the development of executing ERP systems. In the study, there are several change management types, techniques, and strategies that are common to effective ERP executions. The paper concisely inspected the change management and resistance challenges in ERP execution projects and required to construct clear relations between the process of executing ERP systems and a variety of types of change management. This article attempts to reveal insight on some of the commonly used change administration models in the industry, and distinguish the most reasonable for ERP execution setting.

The research revealed that many models for organisational change exist, and some share common features. The wide range of models is to satisfy the vast array of variables in the nature and types of change.

The paper featured that Kotter change model is one of the most adopted models in the industry and that could be due to its continues update. ERP implementation projects are of planned change not emergent change that led to selecting Kotter’s model as an appropriate model.

**REFERENCES**


The Internal And External Challenges To China-Pakistan Economic Corridor (CPEC)

Ghulam Murtaza Khoso, University of Sindh, Pakistan

ABSTRACT

Pakistan-China cooperation on the series of infrastructure projects, which is also officially referred as “China-Pakistan Economic Corridor (CPEC)” is not a new development. The cooperation between the two countries is dated back to 1950 when Pakistan was among the first countries to cutoff its diplomatic relations with Taiwan (also denoted as Republic of China) and recognized “People’s Republic of China” as a legitimate representative in the international community. The relationship between the two neighboring countries is also termed as 'higher than the mountains and deeper than the oceans'. China maintained close trade relations with Pakistan and became Pakistan’s third largest trading partner. The military cooperation among two countries has also been very strong and China is Pakistan’s largest arms supplier country in the world. The “China-Pakistan Economic Corridor (CPEC)”, has, however, boosted the economic bonding between two neighboring countries.

The China-Pakistan Economic Corridor (CPEC) is a term used for series of infrastructure and investment projects which will be built by China in Pakistan in order to connect China, through Pakistan (mainly through Gwadar Port), to Central Asia and through maritime routes to West Asia and Africa. Most of the infrastructure projects are already underway and many are about to be initiated. The China-Pakistan Economic Corridor (CPEC) is also facing various challenges. The challenges are in the form of reservations expressed by various ethnic groups and communities in Pakistan and in the form of outside involvement of various rival countries to sabotage such mega project which is considered to be a ‘game changer’ in the region. Both Pakistan and China are well aware of those challenges and working to tackle them.

This paper will try to explore the challenges for CPEC in the form of outside involvement and in the form of internal reservations expressed by various stakeholders in Pakistan. The paper will also try to examine how China and Pakistan will overcome those challenges and turn this mega project into a reality.

---

1 http://cpec.gov.pk/introduction/1
2 People’s Republic of China is official name of China
3 “Pak-China friendship is higher than mountains, deeper than ocean and sweeter than honey: PM”, The Nation, December 19, 2010
4 http://cpec.gov.pk/introduction/1
Business, Leadership, And Education: Exploring Higher Education & Workforce Development Needs In Southeastern Minnesota
Christopher Hahn, Winona State University, USA
Jeanine E. Gangeness, Winona State University, USA

ABSTRACT
Determining and addressing workforce needs in developing higher education curricula is essential as the expectation is that young people come to the workforce prepared not only with education and basic skill sets but the ability to immediately apply these skills in a work environment. Unprecedented staffing challenges are presenting themselves as the established, educated workforce of over 46 million baby boomers with education levels beyond post-secondary, approach retirement, resulting in a potential shortage of nearly 20 million skilled workers.

Institutions of higher education currently endure ever-increasing pressure to develop a workforce that is skilled, well-educated and ready to compete against highly motivated and trained students throughout the world to address the loss of jobs, contracts, and research to potentially better-skilled economies. This pressure is evident in Southeastern Minnesota an area recognized for its quality higher education offerings. Many organizations including the Mayo Clinic, the regions largest employer, currently struggle to find educated and skilled employees, as Southeastern Minnesota is experiencing an unemployment rate of 3.5% at the time of this study.

This study gathers real-time data from businesses and organizations, via survey and focus groups in Southeastern Minnesota, related to desired skills, accessibility of education, facilitation methods, duration of training and other labor and training challenges that employers currently face. This study also reviews apprenticeship and internship models as a practicum component in training the next generation of educated and skilled workers.

Keywords: Workforce Development; Higher Education; Minnesota; Internship; Entrepreneur; Mayo Clinic
Relationship Between Cardiovascular Disease And Mismanaged Stress
Maali Alruwaili, Southern Illinois University, USA

ABSTRACT

It is a common belief that there is a connection between cardiovascular disease and stress. However, even the American Heart Association (2017) supports the belief that more research is needed in order to determine the connection between cardiovascular disease and stress. There are studies that have been done to show that stress can be a contributor to high blood pressure, irritable bowel syndrome, and asthma. There are also studies that show a connection between stress and heart disease. However, there is also evidence to show that while stress creates risk for heart disease, it creates more risk for stress-related behaviors that contribute to heart disease. These behaviors include high blood pressure, use of alcohol, high cholesterol, smoking, inactivity, and overeating. There is a possibility that the management of stress through poor behaviors has a higher level of influence on our disease than stress itself.

This proposal suggests that the examination of the connection between cardiovascular disease and stress should not only focus on the evidence of the existence of stress, but also on contributing behaviors. A questionnaire study would provide information about past behaviors, present behaviors, and intended changes that relate to cardiovascular disease.

Research Questions

1. What types of health behaviors both past and present do patients with cardiovascular disease display?
2. Do poor health behaviors correlate to the existence of high levels of stress?
3. Is there a strong correlation between mismanaged stress and cardiovascular health or chronic high levels of stress without prior poor health behaviors?

This study will examine the gap between the literature that supports poor health behaviors in managing stress as an predictor to cardiovascular disease and high levels of chronic stress as a predictor for cardiovascular disease.