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Editorial

Academic Journals -4

Donald G. Perrin

The multi-faceted turmoil between educational journal knowledge bases and publishers and their clientele - researchers, academics, librarians, and the public at large - is growing in intensity

The public complain they are excluded from reading current scientific and medical research because it is hidden behind paywalls. The cost of access to even one single paper, typically $36-$40, is prohibitive. Also, research that is funded with taxpayer dollars should be accessible to everybody free of charge. Researchers, academicians and librarians complain that publishers charge too much, as evidenced by Elseviers 37% profit in 2016.

When an article is accepted for publication, researchers must give up ownership of their copyright, research report, data findings and intellectual property in order to get published. Then they discover access for their readership greatly diminished because of the paywall and archaic business models. Researchers want open access so everybody can have access free of charge.

Librarians dislike having to subscribe to each individual journal. They would prefer access to all of the resources each publisher has to offer and pay for the actual use of these resources.

Academicians provide peer review for journal articles. The peer review validates the significance and quality of the research and informs the journal editors, who usually are the ones to decide which articles to publish. Historically, peer reviewers provide their services to the publisher for free, even though their efforts contribute substantially to the bottom line. This is basically unfair. The publisher gets the rights to the research for free, the peer review for free, and then sell access to researchers, academicians, librarians, students, and interested members of the public.

The publishing industry has been slow to respond to the need for change. The result is increasing pressure from stakeholders and governments to address these concerns. The United States government has negotiated an agreement that all federally funded projects will be open access after one year. In Germany, 150 libraries, universities and research institutes are uniting to force academic publishers to change their business model.

> Instead of buying subscriptions to specific journals, consortium members want to pay publishers an annual lump sum that covers publication costs of all papers whose authors are at German institutions. Those papers would be freely available around the world; meanwhile, German institutions would receive access to all the publishers' online content.

Libraries and universities in many countries are pushing for similar agreements but with limited success, particularly with the publishing giant Elsevier. The forces for open access are growing stronger and ultimately should force journal publishers to provide better service at lower cost. In the process, adjustments will probably be made to the funding and process for peer review. Research has exposed a number of problems in the volunteer peer review process that will be discussed in a future editorial.

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Drechen Vogel, Kai Kupferschmidt. A bold open-access push in Germany could change the future of academic publishing. Huuboa /Wikimedia Commons August 23, 2017.

TED.com Erica Stone points out the need for change. Filmed March 2018

Editor's Note: When we adopt an alternative method or technology to achieve a specific result, we need experimental data to determine "does it work", and "how well". Discussion boards can emulate many aspects of face-to-face discussions. Grading criteria show that asynchronous discussions are effective in developing communication skills, including writing skills among graduate students in education.

Enhancing the development of ideas through asynchronous discussions among graduate students

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Abstract

Technological advances have significantly expanded the teaching and learning spaces within universities, especially at the graduate level. As a greater number of adults seek educational attainment of advanced degrees, the diversity among graduate students becomes greater and represents different learning needs. Recently, faculty members have expressed concerns with writing proficiency among graduate students. As online learning spaces become more prevalent, digital tools, such as asynchronous discussions, have the potential to be effective pedagogical techniques that promote writing success among graduate students. The purpose of the present study was to explore participation in asynchronous discussions and enhancement with written expression. Using a descriptive, quantitative research design, participants included graduate students ($N = 48$) enrolled in a writing-intensive education course delivered during two different semesters. An asynchronous discussion learning task was implemented in small groups as a way for participants to develop ideas related to a subsequent lesson assignment. Data were collected and explored the quantity of interactions, levels of interactions, and academic performance on the corresponding lesson assignment. Findings were reported, and one limitation of the present study was described. A discussion related to the findings, as well as recommendations were also provided.

Keywords: asynchronous discussions, graduate students, online instruction, online interaction, writing ideas, writing quality

Introduction

Technological advances and digital technologies have significantly expanded the teaching and learning spaces within universities, especially at the graduate level (Allen, Seaman, Poulin, & Straut, 2016). The most recent data available reported that during the Fall 2014 semester almost one million graduate students at degree-granting postsecondary institutions in the United States had enrolled in at least one distance education course (U.S. Department of Education, National Center for Education Statistics, 2016).With the access and convenience offered through online learning spaces, a greater number of adults encounter fewer barriers to higher education and have increased opportunities to further their education (Cahill, 2014).

The popularity of online learning spaces at the graduate level has brought to light concerns regarding writing proficiency among students (Duchardt, Furr, & Horton, 2016). Faculty and instructors likely assume their university students have an acceptable level of proficiency with writing, particularly at the graduate level. However, recent literature has indicated that faculty and instructors across disciplines recognize that some students enrolled in graduate courses experience challenges and struggles with academic and basic writing skills (Duchardt et al., 2016; Price, 2017; Roulston, Teitelbaum, Chang, & Butchart, 2016; Salani, Albuja, & Azaiza, 2016; Schultz, Agrimonti, & Higbee, 2016). Understandably, these challenges and struggles with writing are even more pronounced among graduate students who are not native English speakers (Fenton-Smith & Humphreys, 2017; Sidman-Taveau & Karathanos-Aguilar, 2015).

As new technologies continue to expand online learning spaces, faculty and instructors must "strive to provide quality and sustainable online learning experiences" (Linder-VanBerschot & Summers, 2015, p. 107). Recent literature has described a variety of pedagogical techniques that promote success among graduate students enrolled in online learning spaces, including:

- e-mentoring and e-portfolio program-level strategies to promote retention (Shepherd & Bolliger, 2014; Truluck, 2007);

- digitally-based, course-level resources (e.g., podcasts, formative assessment techniques, time management tools) to facilitate self-regulated learning (Mello, 2016; Sharp & Sharp, 2016); and

- use of technology tools to foster collaboration and social learning experiences among peers (Swaggerty & Broemmel, 2017; Waugh & Su, 2016).

With the latter in mind, participation in asynchronous discussions has been frequently cited as an effective online pedagogical technique to create a collaborative community of learners (Akcaoglu & Lee, 2016; Bryce, 2014; Trespalacios & Perkins, 2016) through carefully structured learning experiences that stimulate critical inquiry (Gao, 2014; Koh, Herring, & Hew, 2010; Lee & Tsai, 2011). A modest amount of available literature has also acknowledged that participation in asynchronous discussions has the potential to enhance written expression among graduate students (Acolatse, 2016; Black, 2005; Vonderwell, Liang, & Alderman, 2007). The purpose of the present study was to further explore this understanding and add empirical findings to address this gap in the available literature.

Review of relevant literature

Due to the rapid expansion of online learning spaces, asynchronous discussions have become a widely accepted way to simulate discussions and interactions virtually that would normally take place in a face-to-face traditional classroom setting (Ahern & Repman, 1995). For over a decade, asynchronous discussion systems (a.k.a., computer mediated communication, discussion boards, electronic discussion groups, online discussion forums) have been documented as a digital, pedagogical technique that promotes "the development of conceptual understanding," as well as the "development of good communication skills" (Mazzolini, 2002, p. 453). Much research has explored the use of asynchronous discussions among graduate students and described fundamental characteristics that lead to optimal collaborative, online learning experiences. A description of these characteristics, along with related theoretical underpinnings, is provided below.

Personal identity and community

Cultivating an interactive and social learning community among a group of learners is an extremely influential aspect of teaching and learning (Vygotsky, 1978). Through structured language-driven interactions, 'communities of practice' are established (Lave & Wenger, 1991) as individuals makes unique contributions that have been shaped by their own personal culture and experiences (Pavlenko, 2016). As such, the co-construction of knowledge also advances understandings among each individual learner (Lave & Wenger, 1991; Pavlenko, 2016; Vygotsky, 1978).

Within online learning spaces, asynchronous discussions provide a platform to foster a sense of community among graduate students (Trespalacios & Perkins, 2016). Well-designed asynchronous discussions promote peer-to-peer interactions that foster individual understandings of course material and a sense of connectedness among the group (Acolatse, 2016; Trespalacios & Perkins, 2016). Moreover, asynchronous discussions are optimal forums with which to promote the construction of professional identities among graduate students (Bryce, 2014). As

students participate in small group asynchronous discussions, they have the opportunity to read and interpret the written discourse of their peers and consider social presence (Akcaoglu & Lee, 2016). By doing so, they develop their capacity to establish their own professional identity using professional discourse (Bryce, 2014). Graduate students who have participated in well-designed asynchronous discussions reported that their experiences were "beneficial" and "valuable to their overall learning experience" (Trespalacios & Perkins, 2016, p. 38).

Cognitive engagement

Cognitive engagement refers to the quantity and quality of effort that students invest in their learning (Corno & Mandinach, 1983). Understandings about cognitive engagement are rooted in theories of motivation and self-regulation (Meece, Blumenfeld, & Hoyle, 1988; Pintrich & De Groot, 1990), which work together to support levels of engagement with learning tasks (Pintrich & Schrauben, 1992). With respect to online learning spaces, recent literature has reaffirmed the importance of motivational (Marchand & Gutierrez, 2017) and self-regulatory (Sun & Rueda, 2012) instructional supports to promote cognitive engagement among graduate students.

To achieve higher levels of cognitive engagement, asynchronous discussions must weave instructional supports that encourage "deeper levels [of discussion] that involve negotiating meanings, synthesizing or applying newly acquired knowledge" (Gao, 2014, p. 2). Instructional supports should be purposefully selected according to the learning task and may require explicit modeling of its use. More importantly, the learning task itself inherent within an asynchronous discussion must be carefully designed to stimulate desired cognitive engagement among students (Lee & Tasi, 2011). Embedding problem-based (a.k.a. project-based) learning tasks within asynchronous discussions provides graduate students with concrete situations with which to flesh out ideas and seek plausible solutions (Koh et al., 2010; Lee & Tsai, 2011).

Writing discourse

Writing is the primary discourse used in asynchronous discussions (Black, 2005). As students in online learning spaces create original texts and respond to the texts of their peers, faculty and instructors receive products with which to assess student learning (Vonderwell et al., 2007). While this approach to teaching and learning has value, lack of proficiency with writing may hinder a student's ability to participate and express their ideas in an asynchronous discussion meaningfully. Thus, the present study sought to explore the connection between participation in asynchronous discussions and written expression among graduate students with the following guiding question: How does participation in asynchronous discussions impact the development of ideas among graduate students?

Methodology

Context

The present study was conducted during the Summer 2016 and Fall 2016 semesters in an online graduate course offered in the education department at a regional, public university in the Southern United States. The course, which was entitled EDPD 6303 Educational Research, addressed content related to methods of research in educational settings (i.e., quantitative, qualitative, and mixed methods). At the time of the present study, successful completion of this course was a degree plan requirement for all graduate students seeking attainment of a master's degree offered through the education department. The culminating activity for this course was the development of a research manuscript that (a) identifies a specific educational problem to research, (b) incorporates an introduction that utilizes a social science deficiency model of writing, and (c) outlines an appropriate methodology with which to explore their identified problem. Therefore, this course was writing-intensive and required a significant amount of competence with academic and basic writing skills.

In order to explore the guiding question of the present study, an asynchronous discussion learning task was designed as a way for participants to develop their ideas for a subsequent lesson assignment. The asynchronous discussion learning task was deployed with the second lesson of the course and utilized the following procedures during both semesters. First, the asynchronous discussion learning task was created using the discussion board community tool available in the Blackboard 9.1 learning management system. Three different asynchronous discussion small groups were formed by randomly assigning six to eight participants to each group. After participants completed the lecture and designated readings associated with the second lesson, they were provided access to their asynchronous discussion small group. Each participant was expected to create one original post that addressed each of the following:

- What is your research question?

- Would a theoretical or conceptual framework be more appropriate to guide your research? Why?

- Describe your theoretical or conceptual framework.

Participants were also expected to create three replies to original posts made by their small group members that were specific, detailed, and thoroughly added to the interaction among group members.

Participants

At the beginning of each semester, students who were enrolled in this course were sent a recruitment email. Forty-eight students in total provided consent to participate in the study, of which 29 were female and 19 were male. Participants were also asked to indicate whether they had previous academic and/or non-academic experiences with asynchronous discussions. A little less than half of the participants ($n = 21$) indicated that they had no previous experience in academic settings, while a little more half ($n = 28$) indicated that they had no previous experience in non-academic settings.

Research design

The present study employed a descriptive quantitative research design to explore the guiding research question (Creswell, 2014). During each semester, data from asynchronous discussion small groups (i.e., posts and replies) were collected, and tabulations were made for each participant regarding the quantity of interactions (i.e., number of original posts and replies). Word counts were also tabulated for Questions 1, 2, and 3 in the original post and each reply to determine the levels of interactions. Means for levels of interactions were calculated within each small group and reported by semester. Data were also collected for lesson assignment grades and categorized by quantity of interactions. Among each category (i.e., 3, 4, 5, 6, 7), means were calculated and reported.

Findings

Descriptive data for quantity of interactions, levels of interactions, and academic performance were collected, and separate analyses for each were conducted. These analyses produced interesting results, which are reported below.

Quantity of interactions

Quantity of interactions described the number of original posts and replies made by each participant. As shown in Figures 1 and 2, the majority of participants ($n = 47$) made the expected number of original posts and replies, which resulted in four interactions. One participant did not meet these minimum expectations, and 11 participants exceeded them.
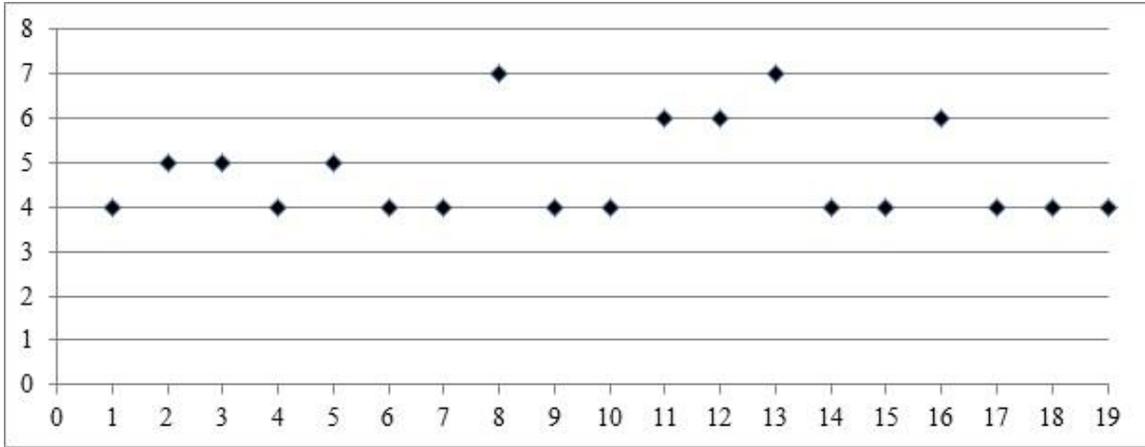
Figure 1. **Quantity of interactions during the Summer 2016 semester.**
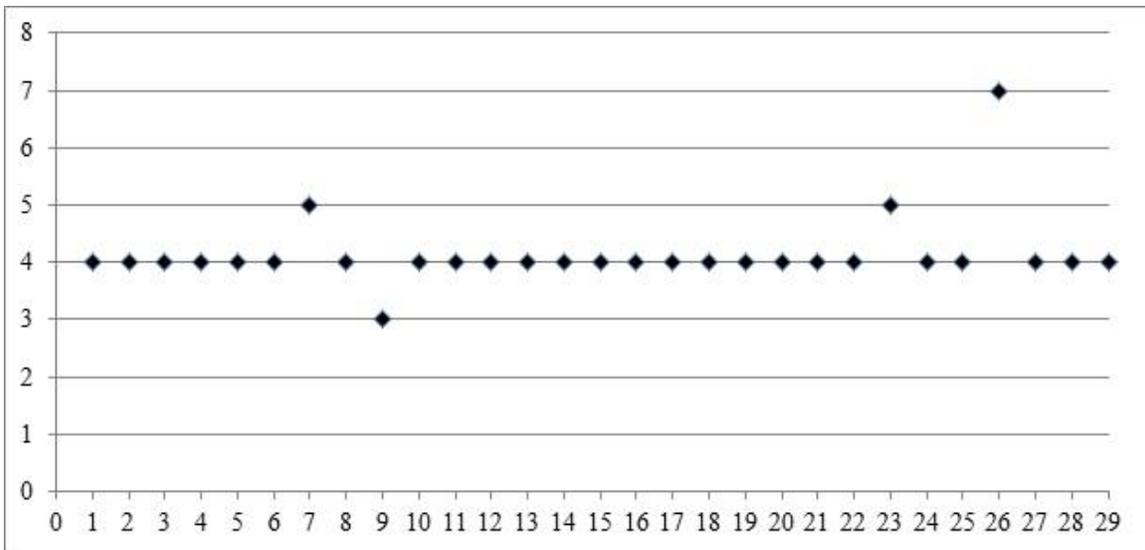
Figure 2. **Quantity of interactions during the Fall 2016 semester.**

Levels of interactions

Levels of interactions described the mean word counts for each small group, which consisted of interactions made by each small group member for Questions 1, 2, and 3 in the original post and each reply. As shown in Table 1 and Figure 3, levels of interactions were mostly comparable among each small group during the summer and fall semesters.

Table 1
Levels of Interactions

		Group 1 M	Group 2 M	Group 3 M	Group Mean M
Question 1	Summer 2016	37.43	29.83	24.33	30.53
	Fall 2016	38.20	27.20	22.00	29.13
Question 2	Summer 2016	76.86	114.67	114.5	102.01
	Fall 2016	132.00	63.60	52.00	82.53
Question 3	Summer 2016	99.86	157.50	105.33	120.90
	Fall 2016	131.60	132.60	68.00	110.73
Reply 1	Summer 2016	109.67	112.80	87.80	103.42
	Fall 2016	110.00	119.33	85.00	104.78
Reply 2	Summer 2016	73.20	79.00	98.00	83.40
	Fall 2016	98.14	94.67	116.00	102.94
Reply 3	Summer 2016	92.00	117.00	114.25	107.75
	Fall 2016	116.33	111.40	102.00	109.91
Reply 4	Summer 2016	117.00	153.00	126.25	132.08
	Fall 2016	85.00	123.50	90.00	99.50
Reply 5	Summer 2016	87.00	88.67	64.00	79.89
	Fall 2016	95.50	126.50	--	111.00
Reply 6	Summer 2016	--	107.33	--	107.33
	Fall 2016	120.50	121.00	--	120.75
Reply 7	Summer 2016	--	207.00	--	207.00
	Fall 2016	--	165.00	--	165.00
Reply 8	Summer 2016	--	--	--	--
	Fall 2016	--	52.00	--	52.00

Academic performance

Since the purpose of the asynchronous discussion learning task was to promote development of ideas among participants, earned grades for the corresponding lesson assignment were collected as a measure for academic performance. For each semester, lesson assignment grades were categorized by the quantity of interactions. Mean lesson assignment grades for each category of interactions (i.e., 3, 4, 5, 6, 7, 8) were then calculated (see Figures 4 and 5). As shown in Figure 4, participants enrolled in the summer semester who experienced greater levels of interactions earned higher lesson assignment grades. However, with the exception of one outlier, data from the fall semester did not reflect this phenomenon. Rather, lesson assignment grades were very similar among participants despite the differences in the quantity of interactions (see Figure 5).
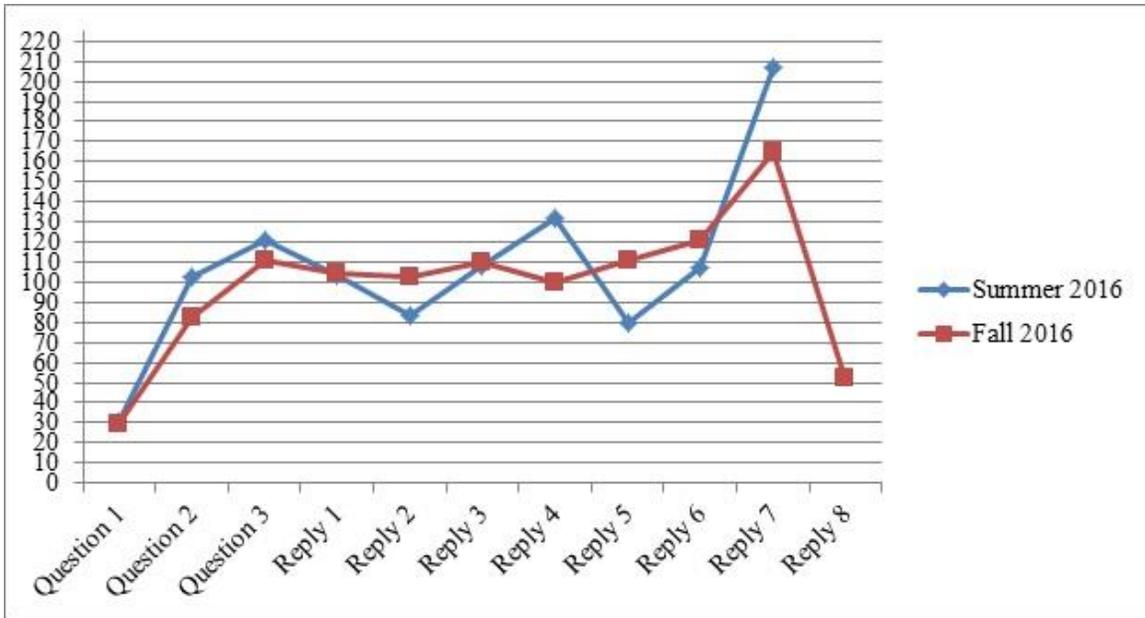
Figure 3. **Levels interactions during the Summer 2016 and Fall 2016 semesters.**
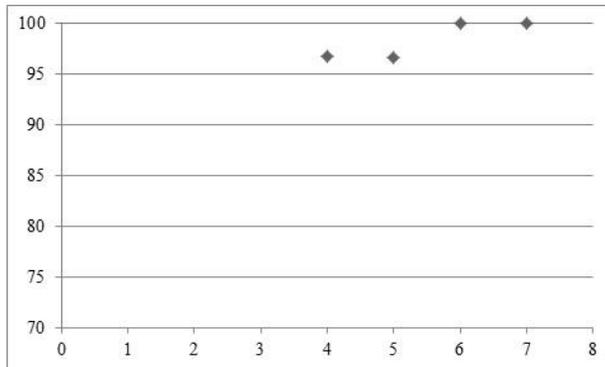
*Figure 4.* **Lesson assignment grades categorized by quantity of interactions during the Summer 2016 semester**
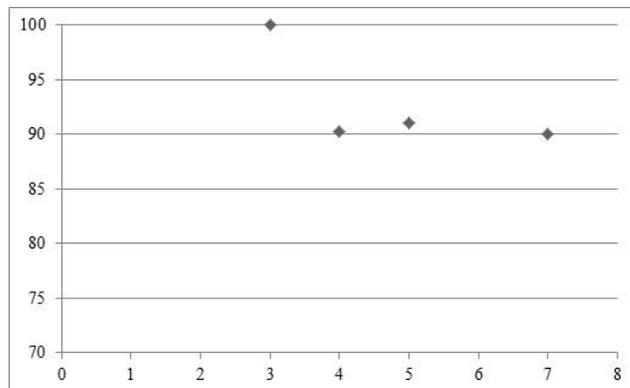

Figure 5. Lesson assignment grades categorized by quantity of interactions during the Fall 2016 semester.

Discussion

Technology has transformed how teaching and learning are addressed at the university level (Allen et al., 2016). As enrollments within graduate-level courses and programs continue to rise (U.S. Department of Education, National Center for Education Statistics, 2016) and more adults have opportunities to further their education, the diversity among graduate students will continue to change (Cahill, 2014). Although attrition and retention among undergraduate students has received much attention, it is equally important that universities identify factors that enhance success among their graduate students (Bain, Fedynich, & Knight, 2010).

With this in mind, much recent literature has raised concerns regarding writing proficiency among students at the graduate level (Duchardt et al., 2016; Fenton-Smith & Humphreys, 2017; Price, 2017; Roulston et al., 2016; Salani et al., 2016; Schultz et al., 2016; Sidman-Taveau & Karathanos-Aguilar, 2015). Since so many graduate students complete coursework within online learning spaces, faculty and instructors must "provide quality and sustainable online learning experiences" (Linder-VanBerschot & Summers, 2015, p. 107) that employ inclusive and culturally competent pedagogical techniques (Cronley & Kilgore, 2016).

For many years, asynchronous discussions have been widely cited as an effective pedagogical technique within online learning spaces (Akcaoglu & Lee, 2016; Bryce, 2014; Gao, 2014; Koh et al., 2010; Lee & Tsai, 2011; Trespalacios & Perkins, 2016). However, closer inspection of available literature revealed that little was known about the connection between participation in asynchronous discussions and enhancement with written expression (Acolatse, 2016; Black, 2005; Vonderwell et al., 2007). This gap in the literature became the impetus for the present study, which sought to explore how participation in asynchronous discussion small groups impacted the development of ideas among graduate students.

Findings from the present study brought forth new empirical data for an under-represented topic. However, it is important to address one major limitation that was present with the methodology. Since the intent of the present research study was to explore collected data descriptively, it must be emphasized that reported findings should not be interpreted inferentially. This study employed a research design that was driven by a "discovery, integration, application, and teaching" scholarship approach (Boyer, 1990, p. xii). This approach, commonly referred to as Scholarship of Teaching and Learning (SoTL), has significant value (Hutchings, Hubere, & Ciccone, 2011). Through the SoTL approach, faculty and instructors engage in scholarly inquiry of their own teaching practices in order to improve student learning. As the present study was only intended to observe and describe the investigator's own teaching practices, it is strongly recommended that follow-up studies be conducted that employ more rigorous, inferential research methods.

With respect to quantity and levels of interactions, findings from the present study substantiated the importance of establishing and communicating performance criteria with structured asynchronous discussion learning tasks (Eccarius, 2012; Giacumo, Savenye, & Smith, 2013; Penny & Murphy, 2009). Faculty and instructors generally communicate performance criteria in the form of rubrics and should address evaluative criteria, quality definitions for each level of performance, and the overall scoring strategy (Popham, 1997). In the present study, all but one student completed the expected quantity of interactions. In addition, several students exceeded this expectation, which was supported within the collaborative structure of the asynchronous discussion learning task. Furthermore, reported levels of interactions among small groups were comparable, indicating that participants were aware and attending to the stated performance criteria. It is recommended that faculty and instructors who are inexperienced with asynchronous discussions work collaboratively with experienced colleagues to develop performance criteria for initial asynchronous discussion learning tasks.

With respect to lesson assignment grades, data from the present study presented mixed findings. For example, participants enrolled in the summer semester who exhibited greater levels of interactions earned higher grades on their lesson assignment. However, this was not the case for participants enrolled in the fall semester—lesson assignment grades were mostly equivalent. Closer examination of lesson assignment grade data also revealed that the mean assignment grade was 90% or above for all participants. Although causation may not be interpreted from this finding, the data does confirm that all participants demonstrated a high level of competence with the lesson assignment after participating in asynchronous discussion small groups. It is recommended that follow-up studies explore this phenomenon more closely.

References

Acolatse, T. W. (2016). Enhancing the online classroom: Transitioning from discussion to engagement. *Online Journal of Distance Learning Administration, 19*(3), 1-8. Retrieved from http://www.westga.edu/~distance/ojdla/

Ahern, T. C., & Repman, J. (1994). The effects of technology on online education. *Journal of Research on Computing in Education, 26*(4), 537-546. doi:10.1080/08886504.1994.10782109

Akcaoglu, M., & Lee, E. (2016). Increasing social presence in online learning through small group discussions. *International Review of Research in Open and Distributed Learning, 17*(3), 1-17. Retrieved from http://www.irrodl.org

Allen, I. E., Seaman, J., Poulin, R., & Straut, T. T. (2016). *Online report card: Tracking online education in the United States*. Retrieved from the Online Learning Consortium website: http://onlinelearningsurvey.com/reports/onlinereportcard.pdf

Bain, S., Fedynich, L., & Knight, M. (2010). The successful graduate student: A review of the factors for success. *Journal of Academic and Business Ethics, 3*(7), 1-9. Retrieved from http://www.aabri.com/jabe.html

Black, A. (2005). The use of asynchronous discussion: Creating a text of talk. *Contemporary Issues in Technology and Teacher Education, 5*(1), 5-24. Retrieved from http://www.citejournal.org/

Boyer, E. L. (1990). *Scholarship reconsidered: Priorities of the professoriate*. New York, N.Y.: The Carnegie Foundation for the Advancement of Teaching.

Bryce, N. (2014). Teacher candidates' collaboration and identity in online discussions. *Journal of University Teaching and Learning Practice, 11*(1), 1-18. Retrieved from http://ro.uow.edu.au/jutlp/

Cahill, J. (2014). How distance education has improved adult education. *Educational Forum, 78*(3), 316-322. doi:10.1080/00131725.2014.912366

Corno, L., & Mandinach, E. B. (1983). The role of cognitive engagement in classroom learning and motivation. *Educational Psychologist, 18*(2), 88-108. doi:10.1080/00461528309529266

Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). Thousand Oaks, CA: SAGE.

Cronley, C., & Kilgore, C. D. (2016). Social work students and faculty: Testing the convergence of perspectives on student writing abilities. *Journal of Social Work Education, 52*(2), 214-233. doi:10.1080/10437797.2016.1151275

Duchardt, B., Furr, P., & Horton, S. G. (2016). A comparison of a progression of writing competencies in online undergraduate and graduate courses: Results and implication. *College Student Journal, 50*(4), 467-476. Retrieved from http://www.projectinnovation.com/college-student-journal.html

Eccarius, M. (2012). Rubric development to assess student learning through asynchronous discussion board. *Quarterly Review of Distance Education, 12*(4), 265-268. Retrieved from http://www.infoagepub.com/quarterly-review-of-distance-education.html

Fenton-Smith, B., & Humphreys, P. (2017). Language specialists' views on the academic language and learning abilities of English as an additional language postgraduate coursework students: Towards an adjunct tutorial model. *Higher Education Research & Development, 36*(2), 280-296. doi:10.1080/07294360.2016.1185397

Gao, F. (2014). Exploring the use of discussion strategies and labels in asynchronous online discussion. *Online Learning, 18*(3), 1-19. Retrieved from https://olj.onlinelearningconsortium.org/index.php/olj/index

Giacumo, L. A., Savenye, W., & Smith, N. (2013). Facilitation prompts and rubrics on higher-order thinking skill performance found in undergraduate asynchronous discussion boards. *British Journal of Educational Technology, 44*(5), 774-794. doi:10.1111/j.14678535.2012.01355.x

Hutchings, P., Huber, M. T., & Ciccone, A. (2011). *The scholarship of teaching and learning reconsidered: Institutional integration and impact.* San Francisco, CA: Jossey-Bass.

Koh, J. H. L., Herring, S. C., & Hew, K. F. (2010). Project-based learning and student knowledge construction during asynchronous online discussion. *The Internet and Higher Education, 13*(4), 284-291. doi:10.1016/j.iheduc.2010.09.003

Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge, UK: University Press.

Lee, S. W., & Tsai, C. (2011). Identifying patterns of collaborative knowledge exploration in online asynchronous discussions. *Instructional Science: An International Journal of the Learning Sciences, 39*(3), 321-347. doi:10.1007/s11251-010-9131-8

Linder-VanBerschot, J. A., & Summers, L. L. (2015). Designing instruction in the face of technology transience. *Quarterly Review of Distance Education, 16*(2), 107-118. Retrieved from http://www.infoagepub.com/quarterly-review-of-distance-education

Marchand, G. C., & Gutierrez, A. P. (2017). Processes involving perceived instructional support, task value, and engagement in graduate education. *Journal of Experimental Education, 85*(1), 87-106. doi:10.1080/00220973.2015.1107522

Mazzolini, M. (2002). The use of online discussion forums as a learning and teaching tool in astronomy. *Publications of the Astronomical Society of Australia, 19*(4), 448-454. doi:10.1071/AS02022

Meece, J. L., Blumenfeld, P. C., & Hoyle, R. H. (1988). Students' goal orientations and cognitive engagement in classroom activities. *Journal of Educational Psychology, 80*(4), 514-523. doi:10.1037/0022-0663.80.4.514

Mello, L. V. (2016). Fostering postgraduate student engagement: Online resources supporting self-directed learning in a diverse cohort. *Research in Learning Technology, 24*(1), 1-16. doi:0.3402/rlt.v24.29366

Pavlenko, V. (2016). The cultural-historical development of mental processes and the theory of stepwise formation of mental actions and concepts. *Journal of Russian & East European Psychology, 53*(4), 15-27. doi:10.1080/10610405.2016.1251120

Penny, L., & Murphy, E. (2009). Rubrics for designing and evaluating online asynchronous discussions. *British Journal of Educational Technology, 40*(5), 804-820. doi:10.1111/j.1467-8535.2008.00895.x

Pintrich, P. R., & De Groot, E. V. (1990). Motivational and self-regulated learning components of classroom academic performance. *Journal of Educational Psychology, 82*(1), 33-40. doi:10.1037/0022-0663.82.1.33

Pintrich, P. R., & Schrauben, B. (1992). Students' motivational beliefs and their cognitive engagement in classroom academic tasks. In D. H. Schunk & J. L. Meece (Eds.), Student perceptions in the classroom (pp. 149–183). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.

Popham, W. J. (1997). What's wrong- and what's right – with rubrics. *Educational Leadership, 55*(2), 72-75. Retrieved from http://www.ascd.org/publications/educational-leadership.aspx

Price, R. H. (2017). The four-part literature review process: Breaking it down for students. *College Teaching, 65*(2), 88-91. doi:10.1080/87567555.2016.1276042

Roulston, K., Teitelbaum, D., Chang, B., & Butchart, R. (2016). Strategies for developing a writing community for doctoral students. *International Journal for Researcher Development, 7*(2), 198-210. doi:10.1108/IJRD-02-2016-0003

Salani, D., Albuja, L. D., & Azaiza, K. (2016). The keys to success in doctoral studies: A preimmersion course. *Journal of Professional Nursing, 32*(5), 358-363. doi:10.1016/j.profnurs.2016.01.005

Schultz, J. L., Agrimonti, L. M., & Higbee, J. L. (2016). Integrating academic journal review assignments into a graduate business leadership course. *American Journal of Business Education, 9*(2), 57-66. Retrieved from https://www.cluteinstitute.com/journals/american-journal-of-business-education-ajbe/

Sharp, L. A., & Sharp, J. H. (2016). Enhancing student success in online learning experiences through the use of self-regulation strategies. *Journal on Excellence in College Teaching, 27*(2), 57-75. Retrieved from http://celt.muohio.edu/ject/

Shepherd, C. E., & Bolliger, D. U. (2014). Managing communication and professional development in online graduate programs with electronic portfolios. *Online Journal of Distance Learning Administration, 17*(2), 1-9. Retrieved from http://www.westga.edu/~distance/ojdla/

Sidman-Taveau, R., & Karathanos-Aguilar, K. (2015). Academic writing for graduate-level English as a second language students: Experiences in education. *The CATESOL Journal, 27*(1), 27-52. Retrieved from http://www.catesoljournal.org/

Sun, J. C., & Rueda, R. (2012). Situational interest, computer self-efficacy and self-regulation: Their impact on student engagement in distance education. *British Journal of Educational Technology, 43*(2), 191-204. doi:10.1111/j.1467-8535.2010.01157.x

Swaggerty, E. A., & Broemmel, A. D. (2017). Authenticity, relevance, and connectedness: Graduate students' learning preferences and experiences in an online reading education course. *The Internet and Higher Education, 32*, 80-86. doi:10.1016/j.iheduc.2016.10.002

Trespalacios, J., & Perkins, R. (2016). Sense of community, perceived learning, and achievement relationships in an online graduate course. *Turkish Online Journal of Distance Education, 17*(3), 31-49. Retrieved from http://tojde.anadolu.edu.tr/

Truluck, J. (2007). Establishing a mentoring plan for improving retention in online graduate degree programs. *Online Journal of Distance Learning Administration, 10*(1), 1-8. Retrieved from http://www.westga.edu/~distance/ojdla/

U.S. Department of Education, National Center for Education Statistics. (2016). *Digest of education statistics, 2015* (NCES 2016-014). Retrieved from https://nces.ed.gov/programs/digest/d15/

Vonderwell, S., Liang, X., & Alderman, K. (2007). Asynchronous discussions and assessment in online learning. *Journal of Research on Technology in Education, 39*(3), 309-328. doi:10.1080/15391523.2007.10782485

Vygotsky, L.S. (1978). *Mind in Society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.

Waugh, M. L., & Su, J. (2016). Student perceptions of a successful online collaborative learning community. *Journal of Interactive Online Learning, 14*(1), 1-16. Retrieved from http://www.ncolr.org/

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Editor's Note: Formative assessment is helpful to inform students where they are going and provide a baseline for determining success after the learning experience. Formative and summative assessment questions and answers are easily added to digital media using hyperlinks.

Assessing the role of formative assessments in higher education online learning

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Abstract

Multimedia and hypermedia resources are powerful tools to help students master learning objectives. Students find them to be meaningful, useful, and necessary components of their learning needs of today. Instructors find them to be innovative venues to impart instruction and engage students in this digital era. Multimedia and hypermedia need to be incorporated into the classroom in tandem with formative assessment, however, to ensure robust learning occurs. Such formative assessment opportunities ensure students have more control over what they learn and how they progress. Ultimately, through the partnership of media-rich resources and formative assessment, students become better at self-regulating learning and become more motivated to learn through such empowerment. Likewise, instructors benefit from the inclusion of such technologically advanced media sources that encourage active learning, emphasize critical learning concepts, and support student success by encouraging low-risk student self-regulation of learning.

Keywords: multimedia; hypermedia; formative assessment; online learning

Introduction

The online classroom is the ideal venue to use dynamic multimedia and hypermedia resources. While basic classroom skeletons supplied by online institutions are excellent starting points for distance learners, personalization in the classroom is necessary to gain students' trust and their attention (Swan, 20). Additionally, the use of multimedia and hypermedia help to motivate students, improve skills, and increase instructor efficiency (Gilakjani, 2012; Li, 2016). Furthermore, multimedia efforts result in improved short-term retention among students (Issa et al., 2011), and if used correctly, multimedia and hypermedia improve the speed of learning and how the information is stored, enabling better recall while also enhancing technological skills (Gunawardhana & Palaniappan, 2016). Given the powerful impact of technology in our own online classrooms at a large university, we have created various multimedia and hypermedia lessons to aid in our students' journeys to find success. With YouTube personal screencasts and animations, infographics, Prezis, podcasts, Thinglinks, and digital quizzes, we've tried to spark each student's love for learning while more readily engaging each student. Throughout all of our endeavors, however, we discovered something was missing. While our students greatly enjoy our tech-savvy efforts and frequently remarked that such uses of multimedia and hypermedia were their favorite parts of the class, it was all too often too hard to tell if measurable learning was present. One strategy we found to address this shortcoming was the convergence of multimedia and hypermedia with formative assessments.

Multimedia, hypermedia, and formative assessments

Converging our multimedia and hypermedia resources with formative assessments ensures that students are more actively engaged and that measured learning is taking place. Additionally, such a collaboration aligns with Mayer's Cognitive Theory of Multimedia Learning. Per Mayer, learning should involve processes such as selecting, organizing, and integrating material with

particular attention given to the types of processes selected for generative learning (Mayer, 2014). Formative assessments within multimedia and hypermedia create active, robust learning opportunities reflective of such processes posited by Mayer.

Instructors' reliance of varied media resources has gained popularity as more educationally beneficial resources have been introduced to those in academia. Research indicates that students value instructional YouTube videos and view them as effective illustrations and tools of engagement (Buzzetto-More, 2014; Park, 2015; Roodt, 2013). Indeed, in working for ten years with entry-level online college students, many of whom are at-risk, we have come to believe in the power of multimedia in the classroom. For instance, when we create a tutorial screencast using a program such as Screencast-O-Matic (screencast-o-matic.com) that walks students through how to complete an upcoming assignment, we can almost hear a virtual sigh of relief from students who are so appreciative of having access to the audio-visual tutorial to better conceptualize success. Likewise, when we create animations through programs such as GoAnimate (goanimate4schools.com), we witness the effectiveness of the programs simply by checking on the increases in the number of views via YouTube account stats. The statistics are insightful and help us to recognize that learners value and use the classroom resources we create, and such programs, when paired with YouTube, are easily incorporated into the online classroom. However, the element of assessment within these recordings is absent, as the recordings are relatively passive in nature. The medium is deemed to be effective, and the benefits are robust (Gilakjani, 2012; Li, 2016; Mayer, 2014), yet more can be done to increase learner retention.

To ensure that multimedia resources become an active component to student learning, we sought to create formative assessments within resources such as Thinglink and YouTube videos. Beebe, Vonderwell, and Boboc (2010) argue that to more readily meet the needs specific to online learners, online educators need to rethink the role of assessment and reform it to include more regular summative and formative assessment systems to improve student performance and support enhanced learning. They note, "There is a need to construct an appropriate pedagogy of online learning and assessment within the environment of the virtual/online classroom" (Beebe et al., 2010, p. 10). This information, emphasized by Mayer's theory that multimedia lessons should include an activity-based component (Mayer, 2014), reveals that a framework of learning should address both the process *and* the product of learning. Multimedia lessons that convey learning content address the *process* of learning, but to more readily measure the *product* of such tools, we determined that formative assessment could help us to reform learning to encompass both the process and the product of multimedia endeavors.

YouTube and formative assessments

To reform previous learning components and to add formative assessments to YouTube videos, we turned to TED-Ed. By importing a YouTube video into TED-Ed, instructors can build a digital formative assessment opportunity that YouTube cannot provide on its own. Chandler (2014) hails TED-Ed (ed.ted.com) as an untapped resource for all educators. TED-Ed is a free online resource that allows users to upload any TED Talk or educational video and easily develop a TED-Ed lesson around that video. The TED-Ed lesson provides instructors with opportunities to develop lessons based on videos complete with introductory messages, multiple choice questions, discussions, supplementary resources, and concluding messages. The instructor-created multiple choice quiz component allows students to engage in formative assessment and check for understanding. When students submit their answers to any quiz question, they receive immediate feedback on their response. They are notified if the answer submitted was correct, and if the wrong answer was submitted, the quiz displays hints to ensure accurate learning. Such quizzes help to guide student learning and prompt increased mastery of the topic (Persky & McLaughlin, 2017; Tainter, Cudemus-Deseda, Wong, & Bittner, 2017; Zainuddin & Halili, 2016). By

uploading a YouTube to TED-Ed, instructors create a formative assessment opportunity. Plus, many teachers use TED Talks to motivate or otherwise engage students in learning principles and personalize their classrooms, which is appreciated by students (Greenberg & Zanetis, 2012; Mandernach, 2009). Therefore, when instructors create their own TED-Ed productions, they use the resource's power to add more meaningful learning opportunities to their own online classrooms. Tapping into TED-Ed as a classroom resource is an ideal and innovative way to include that formative assessment piece in any online or face-to-face classroom.

Thinglink and formative assessments

Students acclimate to an online learning environment in varying degrees, and multimedia resources that provide formative assessments can be of value, as recognized through the use of TED-Ed. Such is also the case with hypermedia resources, where multimedia resources are combined for utmost effect. In fact, including multimedia tools in the classroom works to motivate students, enhance skills, and improve instructor efficiency (Gilakjani, 2012; Li, 2016). Thinglink (thinglink.com) is a tool used to harness such potential. This web tool allows instructors to house a variety of links, videos, notes, graphics, and other resources in one link. In essence, this tool is a hypermedia storehouse for digital resources. With a resource such as Thinglink, instructors hand-pick the rich web-based resources for students to access at will or by necessity. Then, after exploring the differentiated instructional links to meet their individualized learning needs, formative assessments can be embedded in the form of web-based quizzes to provide accountability in learning. Partnering the learning resources with online formative assessment quizzes enhances student learning and allows students to self-regulate learning and improve comprehension (Galway et al., 2014; Li, 2016; Maher, Latulipe, Lipford, & Rorrer, 2015; McLaughlin & Rhoney, 2015). This is a seamless implementation of an instructor-created resource that fosters the use of formative assessments. Additionally, as suggested by Sorensen and Takle (2005), effective integration of formative assessment in online learning environments has the potential to offer an appropriate structure for sustained interactions among learners and the teacher while also supporting the development of effective learning communities to facilitate meaningful learning and its assessment. It is clear that instructors and research recognize the value of formative assessments and the use of multimedia and hypermedia resources. Such a multidimensional approach to education is necessary in the 21st century. Gikandi, Morrow, and Davis (2011) emphasized that "validity of online formative assessment requires multidimensional approaches especially through incorporation of alternative activities" (p. 2338). When hypermedia formative assessments are used, such a multidimensional approach allows students to experience resources both inside and outside of the classroom to further enhance their learning.

Formative assessment learning benefits

Given the TED-Ed and Thinglink examples and the varied uses of formative assessments, there are many benefits. First, such assessments are low-stakes learning opportunities for students. With immediate feedback given in informal multiple choice quiz questions at the end of a TED-Ed lesson, learners more readily gauge content meant to be mastered as the accompanying formative assessment focuses the student on such concepts. With the addition of formative assessments within Thinglink, students have instant access to quizzes and results. Such immediate feedback serves to clarify various conceptual issues and raises awareness of material that is especially critical to the learning process and allows for additional independent improvement in student performance (Collett, Gyles, & Hrasky, 2007). In fact, the immediate feedback is two-fold. It allows students to recognize what they understand and what they need to work on, and it allows students to focus intently on specific concepts. In relation to the latter, Afitska (2014) notes that if students focus on key concepts emphasized in, for example, formative assessment quizzes, students' abilities to self-direct and self-teach increases. With such tools guiding them,

students more readily understand what is most important in their learning while improving their ability to learn overall. Additionally, through online formative assessments, student anxiety can be reduced (Zakrzewski & Bull, 1998). Furthermore, Zakrzewksi and Bull (1998) suggest that online formative assessments foster "greater independence and autonomy for students" (p. 143). When students recognize their progress in and outside of the class, they become more committed and more empowered. Low-stakes formative assessments via hypermedia resources aid in such commitment and empowerment.

Inclusion of multimedia and hypermedia formative assessments, as well, give students control over their learning outside of the scope of graded activities because of the resources and immediate results given. To emphasize, instant feedback is another valuable characteristic of formative assessments (Collett et al., 2007; Sancho-Vinuesa & Viladoms, 2012; Tsai, Tsai, & Lin, 2015). Hypermedia environments with formative assessments also prompt student control, initiating further commitment to the educational process (Baleni, 2015). Since students have varying comfort levels, when they can control what they are learning and can self-check their understanding, confidence and comfort levels also grow (Ismaile, Alhosban, & Hawamdeh, 2017). Green, Moos, and Azevedo (2011) illustrate the positive impact that increased confidence and comfort have on learner growth levels by suggesting that, "Students who are able to self-regulate their learning effectively…are likely to acquire a conceptual understanding of complex topics, whereas those who are not effectively self-regulating are not likely to learn" (p. 110). With multi- and hyper- media formative assessments, students review concepts, practice assessments, and immediately see their results. With various resources embedded into one place in the classroom, students can be prompted to take further action as needed. Learning becomes continuous.

Not only are they meaningful and provide students with control over their learning, formative assessments via multimedia and hypermedia resources appeal to students. According to Darling-Hammond (2000), teachers who use various instructional strategies are more effective than those who use single teaching strategies, especially given the diverse backgrounds, knowledge bases, and abilities students bring to the classroom. Likewise, "the more diverse the Web-based formative assessment strategies, the greater the learning effect obtained by the students" (Wang, Wang, Wang, & Huang, 2006, p. 218). Finally, students see rich technology present in the world and are coming to expect the inclusion of such technology that taps powerful digital resources to be present in modern classrooms (Anderson & Rainie, 2012). Such appeal is important, especially when, at times, online classrooms may appear as rigid and synthetic environments. Such use of technology provides appeal and, ultimately, creates connections to a more diverse student population.

Use of hypermedia resources and formative assessments may also impact student motivation. As aforementioned, when students' confidence levels increase, so might their learning. However, when students can control and understand parts of their learning environment, they are more apt to remain motivated. "The amount of learner control seems to be a central variable when integrating adaptive methods in educational settings….On the one hand, learners' motivation is increased when they control the navigation of a hypermedia environment" (Triantafillou, Pomportsis & Demetriadis, 2003, p. 90). This emphasizes a need, not only for formative assessments in a hypermedia environment, but also implementation of hypermedia resources that fit into the classroom, make sense, and activate learning. When instructors provide lessons that include interactivity and provide feedback, students are more likely to engage with and complete assignments (O'Flaherty & Phillips, 2015). Ease of use will correspond with student motivation. If students practice using hypermedia resources each week, their focus will be on the content, as opposed to figuring out how to manipulate the resources and then understand the content. The fewer barriers students face in relation to any multimedia/hypermedia resource in the classroom,

the more motivated they will be to learn, to practice formative assessments, and to master learning concepts.

Implementation considerations

Implementation, though, must be thoughtful. Some considerations must be made of the student population. Do they acclimate well to change? Are they comfortable with other online resources? Are they apt to ask questions? Do they follow directions? In order for formative assessments to work in any media format, instructors must ensure that students understand how to use such resources. "Therefore, educators must diagnose specific aspects of students' motivation, such as their self-efficacy and extrinsic/intrinsic motivation, and be prepared to support students who lack one or both of these qualities" (Greene, Moos, & Azevedo, 2011, p. 111). In these robust learning environments, though, such support is likely already ingrained in the classroom. Instructors, however, must remain open to student actions and reactions with such resources and know when to make adjustments and improvements based on the learners in the classroom. Just as student populations vary, so should instructor approaches with learning and use of resources.

Conclusion

As technology advances, so will online classrooms. Formative assessment and instructional media resources can become formidable allies in the online classroom as they supply many varied benefits. With the inclusion of multimedia and hypermedia resources and formative assessment, instructors empower student learning. As recognized by research, online formative assessment provides students with opportunities to learn through enhanced interactivity and formative feedback, which serves to "engage them with valuable learning experiences including active, contextual, interactive, collaborative, multidimensional, reflective and self-regulated aspects of meaningful learning. In these ways, online formative assessment can support higher education to meet the needs of the 21st century learners" (Gikandi et al., 2012, p. 2346). Formative assessments provide opportunities for measureable growth in learning. Whether incorporated with multimedia or hypermedia resources, there are many benefits to both instructors and students. For students, they can be immersed in learning through videos and guiding questions, they have control over their learning, they can measure their own progress, and they are motivated to learn because they know where their learning stands. For instructors, formative assessments embedded within multimedia and hypermedia resources help them to sculpt engaging classrooms, encourage active learning, emphasize important concepts, and support student success. These are low-risk, motivating, encouraging means by which students and instructors can gauge student learning. Once partnered with formative assessment, multimedia and hypermedia resources become innovational and foundational ways for the 21st century student to learn.

ThingLink Example: https://www.thinglink.com/scene/741338066819481601

TED-Ed Example: https://ed.ted.com/on/IyM3QLms

References

Afitska, O. (2014). Use of formative assessment, self- and peer-assessment in the classrooms: Some insights from recent language testing and assessment (LTA) research. *Journal on English Language Teaching, 4*(1), 29-39.

Anderson, J., & Rainie, L. (2012, February 29). Main findings: Teens, technology, and human potential in 2020. *Pew Research Center.* Retrieved from: http://www.pewinternet.org/2012/02/29/main-findingsteens-technology-and-human-potential-in-2020/

Beebe, R., Vonderwell, S., & Boboc, M. (2010). Emerging patterns in transferring assessment practices from F2f to online environments. *Electronic Journal of E-Learning, 8*(1), 1-52.

Baleni, Z. G. (2015). Online formative assessment in higher education: Its pros and cons. *Electronic Journal of E-Learning, 13*(4), 228.

Buzzetto-More, N. A. (2014). An examination of undergraduate student's perceptions and predilections of the use of YouTube in the teaching and learning process. *Interdisciplinary Journal of E-Learning and Learning Objects, 10*, 17-32.

Chandler, A. (2014). TED-ed: Tapping an untapped resource. *AMLE Magazine, 2*(4), 21-22.

Collett, P., Gyles, N., & Hrasky, S. (2007). Optional formative assessment and class attendance: Their impact on student performance. *Global Perspectives on Accounting Education, 4,* 41-59.

Darling-Hammond, L. (2000). Teacher quality and student achievement: A review of state policy evidence. *Education Policy Analysis Archives, 8*(1) 1-44.

Galway, L. P., Corbett, K. K., Takaro, T. K., Tairyan, K., & Frank, E. (2014). A novel integration of online and flipped classroom instructional models in public health higher education. *BMC Medical Education, 14*(1), 181. doi:10.1186/1472-6920-14-181

Gikandi, J. W., Morrow, D., & Davis, N. E. (2011). Online formative assessment in higher education: A review of the literature. *Computers & Education, 57*(4), 2333-2351.

Gilakjani, A. P. (2012). The significant role of multimedia in motivating EFL learners' interest in English language learning. *International Journal of Modern Education and Computer Science, 4*(4), 57-66.

Greenberg, A., & Zanetis, J. (2012). The impact of broadcast and streaming video in education. Report Commissioned by Cisco Systems Inc. to Wainhouse Research L.L.C. Retrieved from: http://www.cisco.com/web/strategy/docs/education/ciscovideowp.pdf

Greene, J. A., Moos, D. C., & Azevedo, R. (2011). Self-regulation of learning with computer-based learning environments. *New Directions for Teaching and Learning, 2011*(126), 107-115.

Gunawardhana, L. K. P., & Palaniappan, S. (2016). Possibility of using multimedia application for learning." *GSTF Journal on Computing (JoC), 5*(1), 77-83.

Ismaile, S., Alhosban, F., & Hawamdeh, S. (2017). Making learning fun to increase nursing students' success: Formative feedback in communication learning. *Australasian Medical Journal (Online), 10*(12), 1014-1021.

Issa, N., Schuller, M., Santacaterina, S., Shapiro, M., Wang, E., Mayer, R. E., & DaRosa, D. A. (2011). Applying multimedia design principles enhances learning in medical education. *Medical Education, 45*(8), 818-826.

Lancioni, G. E., Singh, N., O′Reilly, M., Sigafoos, J., Alberti, G., Boccasini, A.; Lang, R. (2015). A computer-aided program regulating the presentation of visual instructions to support activity performance in persons with multiple disabilities. *Journal of Developmental and Physical Disabilities, 27*(1), 79-91.

Li, Y. W. (2016). Transforming conventional teaching classroom to learner-centred teaching classroom using multimedia-mediated learning module. *International Journal of Information and Education Technology, 6*(2), 105-112.

Maher, M. L., Latulipe, C., Lipford, H., & Rorrer, A. (2015). Flipped classroom strategies for CS education. Paper presented at the Proceedings of the 46th ACM Technical Symposium on Computer Science Education, 218-223. Mandernach, B. J. (2009, June). Effect of instructor-personalized multimedia in the online classroom. *International Review of Research in Open and Distance Learning, 10*(3).

Mayer, R. E. (2014). Incorporating motivation into multimedia learning. *Learning and Instruction, 29*, 171-173.

McLaughlin, J. E., & Rhoney, D. H. (2015). Comparison of an interactive e-learning preparatory tool and a conventional downloadable handout used within a flipped neurologic pharmacotherapy lecture. *Currents in Pharmacy Teaching and Learning, 7*(1), 12-19.

O'Flaherty, J., & Phillips, C. (2015). The use of flipped classrooms in higher education: A scoping review. *The Internet and Higher Education, 25*, 85-95. doi:10.1016/j.iheduc.2015.02.002

Park, S. (2015). The effects of social cue principles on cognitive load, situational interest, motivation, and achievement in pedagogical agent multimedia learning. *Journal of Educational Technology & Society, 18*(4), 211-229.

Persky, A. M., & McLaughlin, J. E. (2017). The flipped classroom - from theory to practice in health professional education. *American Journal of Pharmaceutical Education, 81*(6), 1-12.

Roodt, S. (2013). Using YouTube to support student engagement for the Net Generation in higher education. *International Conference on Information Management and Evaluation*, 223-232.

Sancho-Vinuesa, T., & Viladoms, N. E. (2012). A proposal for formative assessment with automatic feedback on an online mathematics subject. *Rusc, 9*(2), 240-259.

Sorenson, E. K. &Takle, E. S. (2005). Investigating knowledge building dialogues in networked communities of practice. A collaborative learning endeavor across cultures. *Interactive Educational Multimedia*, *10,* 50-60.

Swan, K. (2003). Learning effectiveness: what the research tells us. *Elements of Quality Online Education, Practice and Direction,* 13-45.

Tainter, C. R. Cudemus-Deseda, G. A., Wong, N. L., & Bittner, E. A. (2017). The "flipped classroom" model for teaching in the intensive care unit: Rationale, practical considerations, and an example of successful implementation. *Journal of Intensive Care Medicine, 32*(3), 187-196.

Triantafillou, E., Pomportsis, A., & Demetriadis, S. (2003). The design and the formative evaluation of an adaptive educational system based on cognitive styles." *Computers & Education, 41*(1), 87-103.

Tsai, F., Tsai, C., & Lin, K. (2015). The evaluation of different gaming modes and feedback types on game-based formative assessment in an online learning environment. *Computers & Education, 81*, 259-269. doi:10.1016/j.compedu.2014.10.013

Wang, K. H., Wang, T. H., Wang, W. L., & Huang, S. C. (2006). Learning styles and formative assessment strategy: Enhancing student achievement in Web-based learning." *Journal of Computer Assisted Learning, 22*(3), 207-217.

Zainuddin, Z., & Halili, S. H. (2016). Flipped classroom research and trends from different fields of study. *International Review of Research in Open and Distance Learning, 17*(3) 313-340.

Zakrzewski, S., & Bull, J. (1998). The mass implementation and evaluation of computer-based assessments. *Assessment and Evaluation in Higher Education*, *23*(2), 141-152.

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Editor's Note: We know there are many kinds of benefits from course improvement, but does it improve academic performances base on our grading systems? This paper gets the ball rolling with alternative elements to study and their definitions. It also makes useful recommendations for future studies.

Impact of course quality on student academic performance

Cassandra S. Shaw, Kathleen C. Irwin, Thomas J. Schaefer, and L.A. Chad Patrizi
USA

Abtract

Quality was thought to be an important factor in the delivery of online courses. Quality is defined as "a high level of value or excellence" by Merriam Webster (Quality, 2016). Through this research, a quality pre-assessment in the business, economics, entrepreneurship, and marketing courses was conducted, course corrections initiated through an intervention, and a post-assessment of the quality in the same courses was conducted. Data was compared to student grade point average (GPA) data to see if improvement has been made in the average grade level. Quality was measured using a Course Quality Rubric which scored quality in various categories including announcements, syllabus, lessons, assignments, and tests/quizzes. This study was an attempt to document the effects of quality within online learning environment on the performance of the student.

Keywords: Student engagement, forum quality, student performance, distance learning, forums, discussion boards, discussions, online learning.

Introduction

Quality is a difficult concept to define and in the online environment educators have been trying to define it for years. One popular definition extends the dictionary definition given by the Quality Matters (QM) initiative which explores quality in eight different categories:

1. Course overview and introduction

2. Learning objectives

3. Assessment and measurement

4. Instructional materials

5. Course activities and learner interaction

6. Course technology

7. Learner support

8. Accessibility and usability
   (Quality Matters, 2017)

Based on this definition, the researchers developed their own rubric to measure the overall quality of courses within four academic disciplines: Business Administration, Economics, Entrepreneurship, and Marketing. Courses were pre-assessed, updated, and then post-assessed. The student performance was then evaluated to note any differences. Findings and recommendations are provided as well as suggestions for future research opportunities.

Literature review

Most research found to date is focused on online learning and student outcomes, student satisfaction, faculty knowledge, or course design. A gap exists with specific focus on the quality of the course and student academic performance. While course design has been linked to course quality, a paucity of research exists with student academic performance.

Freemana, et al (2014) found significance with exam scores improving (approximately 6%) in Science, Technology, Engineering & Math (STEM) courses which have included active learning, versus traditional lecturing in face-to-face courses. In addition, those students with traditional lectures were 1.5 times more likely to fail than students in active learning classes. Their study brings to question the use of traditional lectures for today's students. While the study is not focused with online students, the same concept can be applied; lectures which are not "traditional" text or PowerPoint based, but instead are engaging and interactive, delivered in the online medium and serve to increase the quality of the course.

Gallien and Omen-Early (2008) noted that students who received personalized feedback were more satisfied and performed academically better than students who received collective feedback. In particular, online learning and teaching involves a shift from oral to written communication (Picciano, 2002). This shift away from oral dialogue and nonverbal cues toward a dependence on written communication poses several interesting challenges for instructors who have spent a majority of their teaching careers in the traditional face-to-face classroom (Picciano). The concern is if instructors have the skill set to communicate and articulate their points in a concise manner through words and not in an oral manner. In simplest terms, educational feedback is "any message generated in response to a learner's action" (Mason & Bruning, 1999, p.1).

Learning how students recognize a successful online course experience can provide suggestions for instructors and students to promote successful characteristics and improve learning outcomes (Rodriguez, Ooms, & Montanez, 2008) and ultimately increase student retention. A student's idea (whether novice or experienced online learners) may be influenced by several factors including course characteristics, instructor characteristics, and student characteristics.

Course characteristics contribute significantly to a successful online course. The study did not define the term successful and it is implied that the researchers only looked at student's perceptions of their own success.(Song, Singleton, Hill, and Koh,2004) The instructional design of a course was shown to impact student's perceptions of a successful online course. A course containing clearly stated objectives and expectations contributed to the success of a course. Song et al. also noted that providing students a communication medium such as office hours, discussion groups, or messaging to interact with the instructor for guidance and clarification is also a contributing factor.

Course flexibility and the opportunity to allow students to learn in different ways are also important when considering the needs of students. Classrooms which offer different modes of learning such as labs, multimedia, compressed video, and group projects accommodate varied student learning needs. Fike (2008) found that the degree of flexibility built into a course impacted student success and their retention in a course. Student support must also be considered when viewing student success and retention. Kucuk, Genc-Kumtepe, & Tasci, 2010 and Patel & Rudd, 2012 noted that students who felt supported was a major factor impacting student success and retention with their online learning experience.

Instructor characteristics influence the delivery of a course and impact student satisfaction. Faculty who teach online must change from a traditional teaching pedagogy to an online teaching pedagogy. They must implement pedagogically sound online means of instruction and have the ability to motivate students who they will not see face-to-face (Palloff & Pratt, 1999, 2003).

According to Herber (2006), faculty responsiveness to student requests and questions impacted student satisfaction and their perception of a successful online course.

Student characteristics, including their level of experience with utilizing technology, the Learning Management System, multimedia, multimodal learning techniques, and the Internet contribute significantly to the successful learning experience (e.g., Alenezi, Karim, &Veloo, 2010; Chu & Chu, 2010; Kuo, Walker, Belland & Schroder,2013; Ling & Wu, 2010). Palmer and Holt (2009) found that students' ability to communicate and learn online contributed to their satisfaction as an online learner ultimately contributing to retention.

Many institutions which have taken the initiative to offer online courses have realized student success and course quality remain at the forefront. Initially, online courses were designed in an isolated manner impacting a faculty member's time. Faculty with minimal experience and/or training may find it difficult and time consuming to design and develop online courses with multimodal facets. Daniel (2009) notes that courses are currently being designed in a shared process, which is referred to as an industrial model of labor division. Departments throughout the university, including Instructional Design, Technical Personnel, Instructors, and Subject Matter Experts all take part in course development. The Institute for Higher Education Policy has identified seven categories including institutional support, course development, teaching and learning, course structure, student support, faculty support, and evaluation and assessment. The Sloan Consortium's framework also proposes five pillars of quality: learning effectiveness, cost effectiveness, access, faculty satisfaction, and student satisfaction. These guidelines defined quality outcomes and having a student centered curriculum and customer oriented services. Academic performance has been related to course outcomes and course outcomes has been related to course quality. This research proposes to make the direct link with performance and quality.

Bowen, Chingos, Lack, and Nygren (2014) have identified that an interactive online learning environment should support learning outcomes, can improve educational productivity, and can reduce resources by integrating technology and systems into the active learning environment; but it lacks a link to academic performance. Their research, however, is not a supporter of the online environment and proposes a bias towards it. This study would also bring to light the fact that course quality is an important factor in online learning and may have a positive impact on student performance. Conflict still exists, as cited by Bowen, Chingos, Lack, and Nygren (2014), about the quality of online education. The nature of their writing seems to fit with the perception online education still has in the academic community. This study attempts to mitigate that conflict as well as demonstrate that quality, which is defined by the components of the course in online education, is linked to academic performance.

Research question and hypotheses

In this study, the main research question was: Does the level of course quality have a statistically significant impact on course level student grades? The following hypothesis was developed from the main research question.

H10: A statistically significant difference does not exist between mean course level grades before and after the implementation of a course quality improvement initiative.

H1a: A statistically significant difference exists between mean course level grades before and after the implementation of a course quality improvement initiative.

Course Quality Rubric

WEIGHT/ POSSIBLE POINTS	DESCRIPTION/ AWARDED POINTS	Needs Planned Improvement — Needs to be addressed by programmatic goals — 40%	Status>>> Standard — Situation meets the current standard set by the University, but improvement will benefit the students. — 80%	Outstanding — Course contains elements that all courses need to move toward. — 100%
8%	ANNOUNCEMENTS	Announcements are not provided for faculty for at least one weekly or content is not meaningful.	Announcements are provided (1) weekly AND content is beneficial.	Multiple announcements weekly are provided to build community within the coursesite and/or incorporate various types of media.
8.0%	100%			X
15%	FORUMS	Forums are not used on a weekly basis (<7), or forums are not used as a means of assessing student's understanding of the learning objectives.	The learning objectives are being assessed in the forums and each week contains a forum discussion	The forums are utilized weekly and assess learning objectives but are also designed to stimulate critical thinking and engage student interaction through the use of multimedia or other creative methods.
15.0%	100%			X
5%	SYLLABUS	Two of the following are missing: •Learning Objectives are written clearly •Faculty section is provided and complete •Late Policy is provided and is correct	One of the following is missing: •Learning Objectives are written clearly •Faculty section is provided and complete •Late Policy is provided and is correct	None of the following are missing: •Learning Objectives are written clearly •Faculty section is provided and complete •Late Policy is provided and is correct
5.0%	100%			X
25%	LESSONS	Two of the following are missing: •Lesson is structured and meets the minimum requirements for quality lesson content •Course evaluation/expections are provided •Learning description/objectives are provided or aligned	One of the following is missing: •Lesson is structured and meets the minimum requirements for quality lesson content •Course evaluation/expections are provided •Learning description/objectives are provided or aligned	All of the following are provided: •Lesson is structured and meets the minimum requirements for quality lesson content •Course evaluation/expections are provided •Learning description/objectives are provided and aligned
25.0%	100%			X
20%	ASSIGNMENTS	Two of the following are indicated: •Assignments are missing •Assignments do not map to objectives •No variety of assignments is present	One of the following is indicated: •Assignments are missing •Assignments do not map to objectives •No variety of assignments is present	None of the following are indicated: •Assignments are missing •Assignments do not map to objectives •No variety of assignments is present
20.0%	100%			X
5%	TESTS & QUIZZES	Course contains assessments that are inappropriate (objective at the graduate level; essay in quantitative course, etc.)	Course contains appropriate assessments and they map to objectives OR course does not contain assessments	Course contains appropriate assessments, they map to objectives, but also uses this tool as a learning avenue for students with practice assessments, or other creative uses.
5.0%	100%			X
4%	RESOURCES/COMMON FOLDER (Static)	Course does not contain any outside materials in the Resource folder or Lessons area or only materials that are not useful learning tools (i.e. Powerpoints, templates, etc)	Course contains appropriate resources in the Resource folder or the Lessons area that support the learning objectives or weekly content. (i.e. Powerpoints, templates, etc)	Course contains a wealth of learning resources organized by lesson or by learning objective and the resources are integrated into the lesson content (i.e. Powerpoints, templates, etc)
4.0%	100%			X
5%	TEXTBOOK	Textbook edition is older than 2012	■	Textbook is 2012 or more recent edition
5.0%	100%			X
10%	USE OF TECHNOLOGY/MEDIA (Interactive)	Course does not contain any media elements such as images, videos, animations, sound clips, or other elements that would add dimension to the lesson content	Course is a standard course with very little media present throughout the course	Course uses media strategically to enhance learning throughout the course
10.0%	100%			X
3%	COPYRIGHT/COMPLIANCE	Course includes material that appears to be a copyright violation or is not 508 compliant	Course appears to be copyright and 508 compliant	Course includes elements that demonstrate that it has been reviewed for copyright and/or is adapted for 508 compliance (i.e. scripts, captions, etc)
3.0%	100%			X
100.00%	100.00%			

Course Score:

Figure 1: Course Quality Rubric

Sample

Course level student performance data and course quality ratings were obtained using a Course Quality Rubric shown in Figure 1 from the host institution's databases and through Program Director assessment; the data collection period was for three months in the Winter of 2017 and three months in the Spring of 2017. Data was collected for thirty-four courses in four subject areas within the School of Business (Business Administration, Economics, Entrepreneurship, and Marketing). A nonrandom purposeful sampling process was used to isolate courses which scored with a beginning course quality level of < .80, which were then targeted for course quality improvement activities.

Presentation of findings

The main research question was: Does the level of course quality have a statistically significant impact on course level student grades? Table 1 provides the descriptive statistics for the difference in student course level performance. A paired t-test was performed to determine if the actions taken to improve overall course quality impacted student course grades. The outcomes are shown in Table 2.

Table 1
Descriptive Statistics for Difference in Course Level Student Grades

Mean	-0.160862712
Standard Error	0.263841435
Median	-0.012117086
Mode	#N/A
Standard Deviation	1.538446714
Sample Variance	2.366818291
Kurtosis	2.908955694
Skewness	-1.419345546
Range	7.336904762
Minimum	-5.128571429
Maximum	2.208333333
Sum	-5.469332199
Count	34
Confidence Level (95.0%)	0.536789435

The outcome of the paired *t*-test indicated the mean difference in student grade

(M = -.161, SD = .264, N = 34) was not significantly different than zero, $t(33) = -.61$, two-tail

p = 0.546, providing evidence that the course quality improvement actions were not effective in changing student course level grades. A 95% C.I. about mean course grade is (-.698, .376). This provided evidence to accept the null hypothesis $H1_0$ that a statistically significant difference does not exist between mean course level grades before and after the implementation of a course quality improvement initiative.

Table 2:
t-Test: Paired Two Sample for Means

	Winter Term	Spring Term
Mean	8.935413804	9.096276516
Variance	1.805990299	1.592569738
Observations	34	34
Pearson Correlation	0.304182393	
Hypothesized Mean Difference	0	
Df	33	
t Stat	-0.609694652	
P(T<=t) one-tail	0.273119802	
t Critical one-tail	1.692360309	
P(T<=t) two-tail	0.546239603	
t Critical two-tail	2.034515297	

Discussion

It is imperative that we impart some specific points regarding the results of the findings. A review of the purpose for pursuing the investment of quality in online education is foremost, followed by a reevaluation of key literary ideas brought forth earlier in the paper. We started by stating that quality was thought to be an important factor in student performance. Based on the data from this study, the researchers have demonstrated that this is not the case. In light of this, what basis do educators have then for pursuing investment in the quality initiative? Other elements may be affected by course quality—retention, persistence, and student satisfaction, for example. These elements were not considered in this study. In addition, other factors were not considered within the study such as student demographics, course level, student level, or faculty characteristics.

In the literature review, it was brought forth that course characteristics have been found to influence student perceptions of the successful online course. Course characteristics include such items as clearly stated objectives and expectations, office hours, means of communication, clearly written discussions, and other factors (Song, Singleton, Hill, and Koh, 2004). In this study, characteristics were examined such as forum viability, syllabus completeness, lesson usefulness and so on (refer to Figure 1). The quality of these characteristics in combination were not found to be components affecting student performance, however, the study did not measure student perception or satisfaction.

Conclusion and future research

Through this study, it was determined the improvement of course quality did not statistically impact student academic performance. Improving course quality to 80% and higher had a statically significant change in the course quality scores. It just did not have a statistically significant impact on student course grade. While this study focused on the short-term gain of a course quality intervention, it did not study long-term effects, such as retention in an academic program. It is assumed that students do not drop a course due to poor quality because they most likely need the course for program requirements. Subpar quality of a course would need to be egregious to effect student performance.

Future research should include determining at what point course quality intervention does make an impact, statistically, for short-term performance in a course. For instance, would the pre-course quality score need to be 60% or less for the intervention to have a statistically significant impact on student academic performance? Part of the quality aspects for this study included incorporating rubrics and grading criteria. This would ensure consistency in grading and would likely place downward pressure on grading overall. Additionally, future research would include a qualitative study about students' perception of the University as impacted by course quality. In the long-term, would course quality impact student retention?

A longer period of time for measuring pre-and post-quality scores would enable more data to be measured for significance. This study measured data three months prior to and three months after the intervention; 12 months prior to and 12 months after the intervention would provide more time and data. Additionally, this study was an aggregate of courses from the business, economics, entrepreneurship, and marketing areas and included all course levels, from 100 to 600. A future study is needed to study each academic discipline separately and to study by course level to determine if quality intervention is statistically significant at the undergraduate lower level (100, 200), undergraduate upper level (300,400), and graduate level (500,600).

References

Alenezi, A. R., Karim, A. M., & Veloo, A. (2010). An empirical investigation into the role of enjoyment, computer anxiety, computer self-efficacy and Internet experience in influencing the student' intention to use e-learning: a case study from Saudi Arabian government universities. The Turkish Online Journal of Educational Technology, 9(4), 22-34.

Chu, R. J., & Chu, A. Z. (2010). Multi-level analysis of peer support, Internet self-efficacy and e-learning outcomes: the contextual effects of collectivism and group potency. Computer and Education, 55, 145-154.

Daniel, S. J. (2009). Is e-learning true to the principles of technology? Presented at the World Conference on E-Learning in Corporate, Government, healthcare, and Higher Education. Retrieved from http://www.editlib.org/p/33043

Fike, D. S., & Fike, R. (2008). Predictors of first-year student retention in the community college. Community College Review, 36(2), 68-69. doi:1569189141

Chao, I. T., Saj, T., Hamilton, D. (2010) Using Collaborative Course Development to Achieve Online Course Quality Standards. International Review of Research in Open and Distance Learning, ISSN; 1492-3831, Volume 11, Number3.

Kucuk, M., Genc-Kumtepe, E., & Tasci, D. (2010). Support services and learning styles influencing interaction in asynchronous online discussions. Educational Media International, 47(1), 39-56.

Kuo, Y. C., Walker, A., Belland, B. R., & Schroder, K. E. E. (2013). A predictive study of student Satisfaction in online education programs The International Review of Research in Open and Distance Learning, 14(1), 16-39.

Liang, J. C., & Wu, S. H. (2010). Nurses' motivations for web-based learning and the role of Internet self-efficacy. Innovations in Education and Teaching International, 47(1), 25-37.

Mason, B. J., & Bruning, R. (1999). Providing feedback in computer-based instruction: What the research tells us. Retrieved March 5, 2005, from University of Nebraska-Lincoln, Center for Instructional Innovation Web Site: http://dwb.unl.edu/Edit/MB/MasonBruning.html

Palloff, R. M., & Pratt, K. (2003). The virtual student: A profile and guide to working with online learners. San Francisco: Jossey-Bass

Picciano, A. (2002). Beyond student perceptions: Issues of interaction, presence, and performance in an online course [Electronic version]. Journal of Asynchronous Learning Net-works, 6(1), 21-40.

Patel, R., & Rudd, T. (2012). Can scholarships alone help students succeed? Lessons from two New York City community colleges. New York: MDRC. Retrieved from: http://www.mdrc.org/sites/default/files/Can%20Scholarships%20Alone%20Help%20%20Students%20Succeed%20Full%20Report_1_0.pdf

Song, L., Singelton, E. S., Hill, J. R., & Koh, M. H. (2004). Improving online learning: student perceptions of useful and challenging characteristics. Internet and Higher Education, 7, 59-70.

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Leadership skills of undergraduate students enrolled in Classroom Teacher & Child Education Programs of the Faculty of Educational Sciences at University of Jordan

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Abstract

This study aimed to identify the Leadership Skills of Undergraduate Students enrolled in the Classroom Teacher & Child Education Program with the Faculty of Educational Sciences at University of Jordan. The study used a purposive striated sample to reach the objective of the study and answer its questions. A questionnaire was developed consisting of 33 paragraphs that measured the reality of leadership skills of undergraduate students enrolled in the program. It dealt with the following areas: time management, human communication, problem solving, cooperative work, self-control. The validity and stability of the tool was verified. The study sample consisted of 315 students (7 males, and 408 females) in the Faculty of Educational Sciences at University of Jordan for the first semester of the university year 2016-2017. The study was conducted as follows:

- Identify the leadership skills of undergraduate students enrolled in Classroom Teacher & Child Education Program with the Faculty of Educational Sciences at University of Jordan. Leadership skills were classified according to the study's sample responses.

- Results showed no significant differences in leadership skills of undergraduate students enrolled in the classroom teacher and child education program with the faculty of educational sciences at university of Jordan due to specialization, university year, and gender variables.

The study recommended including educational leadership programs as a university requirement at the undergraduate level for training programs for classroom teacher and child education students based on practical simulation of leadership, as well as making similar studies to postgraduate students in other universities.

Keywords: skill, leadership, leadership skills

Introduction

Universities are mirrors of modern societies and bases of progress and development. University education provides the community with skills and expertise. University education is a combination of theoretical and practical applications.

In recent years, universities in Jordan have expanded as private universities have grown alongside public universities. All of them are under the supervision of Jordan Ministry of Higher Education. For example, The University of Jordan was established by a Royal Decree passed in 1996 in northern Amman, which was the first university to be established in Jordan.

University of Jordan has many Faculties such as Scientific and Humanitarian, including the Faculty of Educational Sciences, which aims to develop the leadership skills of students, and find outcomes that can contribute to scientific progress in all aspects of life. This can be clearly found in the vision of the Faculty of Educational Sciences,

> "*Build up educational leaders that can effectively practice their roles under global standards*", and its mission, "*Prepare manpower that is capable of competing in local, regional and global labor markets, and provide research, training and advisory services to help meet the challenges and cope with global changes.*"

The Faculty of Educational Sciences integrates various departments, such as guidance, special education, library and information science, curriculum and teaching, that comprise the Classroom Teacher & Child Education Program.

The role of the universities is not limited to education alone, but preparing young leaders belonging to their country that are promoted and interested by the university with respect to their potentials. These young leaders are undergraduate students in the university representing the group between (18-25) years old. They are, at this stage, physically dynamic, and have intellectual and spiritual abilities. They are the renewable energy that has the ability to learn. At this stage they are self-reliant, enjoy the ability of giving, activity, and vitality.

Consequently, the university is obliged to take care of undergraduate students to be able to make decisions, positive learning, exercise their leadership roles in the future, pay attention to their mental health, develop their skills that can focus on positive community values, and establish good relations between them and members of the faculty within the university borders. As well as providing courses and university requirements to gain the ability to lead outside the university, and finding student activities that make them able to interact with others by controlling their emotions, and use the scientific method to solve problems and develop cooperative work for them. These skills must be applied to influence others. Leadership is the art of influencing others, especially as identity and way of thinking of undergraduate students are being formed. They are also religiously committed. They can take any responsibility, and provide with their knowledge and leadership services to their country.

Leadership is the art of influencing others, especially that the identity and way of thinking of undergraduate students are being formed. They are also religiously committed, can take any responsibility, and provide with their knowledge and leadership services to their country.

Developed countries have emphasized the importance of providing leadership skills to each member of the community, especially undergraduate students, by linking teaching courses and university requirements with their leadership skills. This is because time management, human communication, self-control, collaborative work and problem solving are important for undergraduate young students at this stage, especially with the prevalence of globalization. This can create leading students through training and development to be the nucleus of change towards a future leadership society.

Notwithstanding the efforts exerted by The University of Jordan to find leadership outcomes, and by reviewing the study plan of the Department of Classroom Teacher and Child Education with Faculty of Educational Sciences at University of Jordan, the researcher found that the plan does not contain any courses for leadership skills; either university, department, or specialization requirements. The courses offered are contrary to the vision of the Faculty of Educational Sciences. Through the study of the researcher in the Faculty of Educational Sciences at BA, MA, and PhD degrees, there was a shortage of programs based on leadership skills, which was an obstacle for the university for development towards leadership programs.

As mentioned earlier, the rationale of the study shows the status quo of leadership skills of undergraduate students enrolled in classroom teacher and child education program with the Faculty of Educational Sciences at University of Jordan.

Statement of the problem

The problem of the study is to answer the following question:

> What are the leadership skills of undergraduate students enrolled in the classroom teacher and child education program with the Faculty of Educational Sciences at The University of Jordan?

Study goal and questions

The study aimed at identifying the leadership skills of undergraduate students enrolled in classroom teacher and child education program with the Faculty of Educational Sciences at University of Jordan. To achieve this goal, the following study questions will be answered:

Question 1: What are the leadership skills of the undergraduate students enrolled in Classroom Teacher & Child Education Program with the Faculty of Educational Sciences at University of Jordan?

Question 2: Are there significant differences in the status quo of leadership skills of undergraduate students enrolled in Classroom Teacher & Child Education program with the Faculty of Educational Sciences at University of Jordan due to specialization, university year, and sex variables?

Study importance

The following entities are hoped to benefit from the results of this study:

- The Ministry of Higher Education: By taking care of students as an outcome of higher education.

- Jordanian universities: by entering university programs and requirements for leadership skills of Jordanian universities' students in BA degree.

Definitions

The study defines the following terms:

Skill: The skill of anything that is wise and skillful, such as proficiency in Arabic language. (Bostani, 1988)

In idiom: "The ability to deal with others in a socially defined framework with socially acceptable methods, whether intellectual or mental, with the least time, effort and cost" (Gharaybeh, 2009). The skill also requires time for education, training, experience and practice to perform well.

Leadership Skills: A set of sensory qualities that is difficult to define and generalize (Allaq, 2010), that is a "set of constant abilities in the personality of the student, represented by an ordinary pattern of behavior, through which the behavior of others is influenced by multiple roles to achieve the desired goals." (Abu Kush, 2012)

As defined by (Skarneh, 2010), leadership skills are influenced by actions of others such as skill of human communication, and motivate others to cooperate and commit.

Leadership: means the ability to influence others in order to set goals by communicating with others to share knowledge and attitudes and accomplish business (Harbi, 2008).

The study defines **leadership skills** as the ability of students in undergraduate level of classroom teacher & child education to solve problems, self-control, communicate with others, develop time management and cooperative work to achieve leadership skills in order to master the art of leadership in the future.

Study Delimitations

Limitations of the study are as follows:

Human: Students enrolled in classroom teacher and child education program with the Faculty of Educational Sciences at University of Jordan.

Venue: Faculty of Educational Sciences at University of Jordan.

Time: The study was limited to undergraduate students enrolled in classroom teacher and child Education with the Faculty of Educational Sciences at University of Jordan for the university year 2016-2017

Theoretical literature and previous studies

The importance of leadership skills stems from the fact that every individual is a leader in his job. The father is a leader in his family, and the teacher is a leader in the classroom. The human sciences are a fertile ground for the development of leadership skills that allow for a degree of freedom and critical thinking, and enable students to discuss, dialogue, and communicate.

The vision of the Faculty of Educational Sciences is a vital example as prudent to prepare human leaders and develop their leadership skills. Undergraduate students in the classroom teacher & child education department have a lot of potential leadership capabilities if necessary attention and good preparation is paid for.

The Faculty of Educational Sciences at University of Jordan aims to develop leadership skills of undergraduate students, find outcomes that contribute to scientific progress in all aspects of life, develop teaching research environment, prepare internal leadership competencies, and create effective academic programs that serve students and society. It also strengthens links with the local community, provides it with contemporary educational leaders, and develops abilities of learners to link theory to practice.

Undergraduate students at this stage have the ability to acquire a lot of leadership skills if they have the opportunity to do so. These skills will put them face to face to cope with and control their emotions, and enable them to manage their time and solve the problems they face to be active leaders in the community.

Undergraduate level is considered a transition stage to youth world, independence and decision-making. At this stage, there is a need for educational leadership and guidance for these students in light of negative youth patterns that they are prepared to learn leadership skills, especially that that current common general trend is to assign positions in various social sectors to youth and benefiting from their abilities and development. (Jaafreh, 2010)

There have been numerous Arab and foreign studies indicated that leadership skills can be generated in students by learning. These studies include (Al-Nazer, 2011) and (Foley, 2005).

Foundations on which leadership skills are based

There is a need to take into account a set of things that help the undergraduate students to reach the goals set out from these foundations, including what is stated in (Allaq, 2010).

Social foundations: Leadership skills based on social foundations help students adapt to their society and university. These bases are evident in the ability to assume responsibility, social and humanitarian communication, establish social relations, solve problems, and directing their activities at this stage to take advantage of knowledge and behavior, which leads to the progress of society by its mindfully young people.

Scientific foundations: The leadership skills, on which the undergraduate students rely, depend on scientific clearly defined concepts by linking scientific skills to practical reality.

Psychological foundations: By adapting these leadership skills with aspiration of young people in the Faculty of Educational Sciences and their wishes and aspirations of the future that can release them from pressure and psychological tension to be happy and relax after acquiring these leadership skills.

Cultural foundations: acquiring leadership skills by undergraduate students will allow them to be culturally developed, and their interaction with these skills will develop and discover their creativities and lift up their cultural level.

Economic fundamentals: Having such leadership skills by undergraduate students enrolled in classroom teacher and child education with the Faculty of Educational Sciences at University of Jordan will allow them finding new ways to optimize the use of time and resources, and take advantage of their physical abilities so that they can accomplish tasks entrusted to them in the future. Thus, they will have desire to do any job they want by gaining leadership skills.

Training in leadership skills

In order to move the undergraduate students, enrolled in classroom teacher & child education with the Faculty of Educational Sciences at University of Jordan, to leadership stage, they have to be trained on leadership skills, which include three elements contained in (Mohammed and Qatanani, 2010):

- Students to know types of leaders and its traits.

- Practical application of leadership by giving students leadership roles to practice.

- Training undergraduate students in leadership skills.

Importance of training undergraduate students on leadership skills

The importance of training undergraduate students on leadership skills is as follows (Qandeel, 2010):

- University courses interested in training undergraduate students on leadership skills are excluded.

- The current trend towards youth leaders.

- Leadership is not only innate, but it is easy to learn and practice according to scientific methods.

- Increasing scientific and technological development in various areas of life.

- There are multiple names for the leader, such as libertarian, creative, and global.

Characteristics of leadership skills

Leadership skills have an important role to play in enhancing cooperation and knowledge exchange among undergraduate students, which contributing to a genuine partnership based on cooperation, as confirmed by (Durcker, 2003). These leadership skills can be developed by learning, and can be measured by quality. It also linked to previous knowledge and mental, religious and intellectual abilities as well as personal preparedness and sensory integrity, and can be developed by linking reality and hope.

Importance of leadership skills for undergraduate students

The leadership skills offered by the university are among the most important components of the educational process among BA students. It can develop their future aspirations to become leaders by translating these skills into practice in the future, expanding their perceptions, adjusting their behavior and knowing their desires and tendencies.

Time management

The skill of time management is a criterion of successful leaders by good investment of time and carry out works in due time without delay or neglect. This skill is not born with anyone, but acquired by training and learning.

(Faisal, 2012) defines time management as "the ability to deal with realistic conscious with time to achieve the objectives and carry out, plan, and organize required work, as well as dealing positively with waste of time and leisure".

In addition, the time management skill allows students to modify negative behaviors to manage their time.

There are number of waste of time, including: ambiguity of responsibilities, postponement of work, and ineffective communication. Besides, there are many time management requirements such as time planning, time investment, good communication to achieve the goals, business completion, minimizing errors as well as achieving better results.

Human communication

Communication is the basis of societies' development, because the success of anyone at his work depends on his ability to communicate. Communication means "the ability to form mutual relations with others and exchange ideas, information and convictions through verbal or nonverbal means that are understood by the participating parties."

Communication process is only done with main elements: sender, receiver, message, channel, meaning and feedback (Darweesh, 2012), in order to communicate with others in all directions, respond to targeted messages, strengthen relationships with others, and listen carefully to what they say.

Communication between undergraduate students enrolled in classroom teacher & child education program with the Faculty of Educational Sciences at University of Jordan will lead to start work and build thinking skills of such students, which results in keeping pace with social changes. This will done by using various types of communication such as self communication (mental communication), Face-to-face communication (with recipient), and group communication (in meetings or parties). (Sakarneh, 2010)

Human communication provides many advantages for the undergraduate students and community. By communication they will gain new experiences, new developed renewable and changing concepts. It introduces joy among recipients, social interaction among them, active joint action and reduces problems.

Problem solving

People and individuals are exposed to many problems that require confrontation and solutions. Problem solving skill is one of the leadership skills that must be existed in undergraduate students enrolled in classroom teacher & child education with the Faculty of Educational Sciences at University of Jordan. According to (Abawi, 2010), the problem is defined as "The difficulties faced by an individual when moving from one stage to another. It may prevent or delay him to reach the new stage, and can affect the quality." The problem has multiple characteristics including individual problems that belong to a particular person. Someone considers it as a problem, while others deem it as a normal matter. Cognitive and emotional side is another characteristic of the problem that accompanied with tension, anxiety and emotion. It has different dimensions and many forms.

Undergraduate students enrolled in classroom teacher & child education are having problem-solving skills. They can begin to identify and divide the problem, avoid panic, guess, and deal with it adequately and masterfully to reach different alternatives that ultimately lead to problems

solving by perfect employing of experiences to reach a solution. They also have the ability to invent innovative solutions and develop practical plans to address them.

Cooperative work

It is one of the leadership skills of undergraduate students. The study defines it as: "A group of students working together to achieve common goals. They need to focus, work in the spirit of the community and stay away from individuality, and need human communication and self-control."

This skill is linked to the activities and functions performed by BA students level through optimal utilization of available possibilities, whether human, physical or financial, in addition to the ability to attract others to this collaborative work. This will allow the opportunity to BA students to share cooperatively in decision-making, and distribution of responsibilities to others. It is necessary for them to cooperate to assist and provide services to others provided that it has a positive meaning suiting their abilities, desires and tendencies.

This skill is manifested in the ability of dealing with others, respecting their personalities, and motivating them to work enthusiastically, which increases their productive capacity, lifting up their morale, and satisfying them. This creates confidence between them and achieves psychological stability and modifies certain behaviors among some students. Cooperative work of undergraduate students will make them active in carrying out the tasks entrusted to them, and make them focus on the common interest.

Self-control

Self-control is one of the leadership skills of undergraduate students. It means emotional stability. It is a kind of mood stability for undergraduate students, which creates a kind of satisfaction and positive attitude toward the students themselves by being able to tolerate others by allowing them to express their views freely. The students can also control their behavior, anger, and management, especially those negative emotions.

As a result, it is clear that undergraduate students are a changing outcome in society. Therefore, their leadership skills should be taken care of and prepared through the interest of universities and the leadership skills within the university so that they can be able to participate positively in the society after finishing their BA degree. They will also respect laws, regulations and instructions, reconcile their personal interests and collective interests, and allow them to express themselves.

These skills are the link between undergraduate students and how they perceive the future of their work especially that they will join the education system. These skills will make them accustomed to cooperative work in order to catch up with change and accelerated progress, and to be familiar with the above leadership skills.

Previous studies

Reference has been made to a number of previous Arab and foreign studies on leadership skills.

Arabic studies

Al-Amri and Al-Alfi (2014) conducted a study entitled "The role of student activities in developing leadership skills among the students of Baha University". The study aimed at finding out the contribution of student activities to the development of leadership skills among Baha University students. The sample consisted of 349 students from five faculties. The results showed that the degree of contribution of the student activities was very high, and found statistically significant differences according to specialization variable (literature and scientific) in favor of literature.

Al Saif and Al-Dawood (2013) made a study entitled "A Proposed Concept for Leadership Development Program for Saudi University Students in the Light of International Experiences

and Experiences." The study aimed to demonstrate the current efforts of Saudi universities in developing leadership skills. The sample consisted 138 of faculty members specialized in student affairs for both questionnaires. The researcher used documentary descriptive method. The results of the study showed that the most important skills that should be provided to the students were training on time management skill, and make students accustom to respect laws and regulations.

Al-Sa'oub and Al-Rashayda (2013) made a study entitled "The role of programs and activities of Higher Council for Youth in developing the leadership skills of members of the youth centers in Jordan". The study aimed to identify the role of the Higher Council for Youth in developing leadership skills among members of the youth centers in Jordan, The sample of the study was 346 respondents. The researcher used a questionnaire. The study concluded that the role of programs and activities was high, and there were statistically significant differences attributed to the benefit of males, and specialization.

Abu Nimah and Al-Nazeer (2011) conducted a study entitled "The Role of Students in Jordanian Universities in Developing the Leadership Skills of Undergraduate Students from Their Point of View." The study aimed at defining the role of students' affairs in Jordanian universities in developing the leadership skills of undergraduate students. The sample of the study consisted of 772 male and female students of Jordanian universities. The researcher used a questionnaire. The study concluded that the role of the students' commutations was medium and there were statistically significant differences in the development of leadership skills for females, and statistically significant differences for the students of fourth year.

A study entitled "The Role of the School in Promoting and Developing Leadership Skills" was conducted by (Shaikah & Omar, 2009). The study aimed at identifying the role of the school in the promotion and development of leadership skills. The study sample consisted of 8 male students and 9 female students from the Council of Students' Union in UAE. The researchers used an interview. The results showed that teachers and students play an active role in the development of leadership skills and that the school has an active role in developing these skills through their activities and human communication within them.

Al-Omari & Khasawne (2008) conducted a study entitled "Leadership Skills among First Year Students in Jordanian Universities". The study aimed at revealing the leadership skills of the first year students in Jordanian universities. The sample consisted of 296 students. The results of their study showed that degree of members of the study sample who possess leadership skills was medium. The ability to solve problems and deal with others scored the highest arithmetical average.

Foley (2005Foly) conducted a study entitled "Leadership Skills for First Year Students". The study aimed at defining the leadership skills of first year students before entering the faculty. The study sample consisted of 550 participants from different nationalities of first year students in the USA. The results showed that the degree of leadership skills was high, and that there were differences attributed to gender variable.

Position of current study among previous studies

The previous studies shed light on some topics related to the subject matter of this study such as leadership skills, as indicated in (Al-Omari & Khasawneh 2008). While others stressed the need to provide university students with leadership skills as mentioned in (Al-Saif, 2013). This study was distinguished by highlighting the leadership skills of Undergraduate Students Enrolled in Classroom Teacher & Child Education with the Faculty of Educational Sciences at University of Jordan in the first year, and their leadership skills that were acquired during their university years up to the fourth year. This is not discussed by any other study.

Method and procedures

The study has adopted the stratified random approach within the following procedures:

Population and sample

The study population consisted of all undergraduate male and female students enrolled in classroom teacher & child education program in the first and fourth years for the university year 2017-2018. They are 135 students as shown in the following table:

Table 1
Distribution of students by specialization

Specialization	No.	%
Classroom teacher	175	55.6
Child Education	140	44.4
Total	**315**	**100.0**

Table 2
Distribution of students by year

Year	No.	%
First	84	26.7
Fourth	231	73.3
Total	**315**	**100.0**

Table 3
Distribution of students by sex

Gender	No.	%
Male	11	3.5
female	304	96.5
Total	**315**	**100.0**

Study instrument

Having reviewed the educational literature in relation to this study, as well as the tools of previous studies such as Abu Nimah & Al-Nazeer (2012), which discussed the leadership skills, and by reference to multiple references, a questionnaire was used to collect information, which measured the leadership skills of undergraduate students enrolled in classroom teacher & child education program with the Faculty of Educational Sciences at University of Jordan that dealt with the following areas: time management, human communication, problem solving, cooperative work, and self-control according to SPSS degrees: very high, high, medium, weak, very weak.

Tool Stability

To verify the stability of the tool, Cronbach's Apha stability coefficient was found for the fields of resolution and domains as a whole. The results were as shown in the following table:

Table 4
Coefficients Reliability of Cronbach's Alpha for questionnaire areas
& areas as a whole

Area	Cronbach's Alpha coefficient
Time management	0.934
Human communication	0.900
Problem Solving	410.9
Cooperative Work	0.935
Self-Control	0.916

Validity

The questionnaire was presented to ten arbitrators within their jurisdiction, to extract the validity of the content in terms of construction, language integrity and clarity, and whether paragraphs are appropriate or not.

Variables of Tool

This study includes the following variables:

Independent: Status quo of leadership skills.

Dependent: Response degree of the undergraduate students enrolled in classroom teacher & child Education with the Faculty of Educational Sciences at University of Jordan.

Intermediate: Gender (male and female)

University year: (first and fourth years).

Specialization: (Classroom Teacher, and Child Education)

Statistical processing methods

To realize the goals of study, the Statistical Package for Social Sciences (SPSS) was used to analyze the data and obtain the results as follows:

- Frequencies and percentages to describe characteristics of the study sample.

- Arithmetical averages and standard deviations to identify responses of the sample members on each of section of questionnaire.

- Cronbach's Alpha coefficient to verify the stability of the questionnaire.

- t-test for independent samples to define the significance of differences between two independent groups.

- Three-way ANOVA analysis to define significance of differences due to independent variables and interactions.

Study results

The results related to question (1): What are the leadership skills of undergraduate students enrolled in Classroom Teacher & Child Education Program with the Faculty of Educational Sciences at University of Jordan?

Time management:

This question was answered by calculating the averages, standard deviations and acquisition level of leadership skills by undergraduate students enrolled in Classroom Teacher & Child Education Program with the Faculty of Educational Sciences at University of Jordan related to time management as shown in the following table:

Table 5

Arithmetical averages, standard deviations and acquisition degree of leadership skills by undergraduate students enrolled in Classroom Teacher & Child Education Program with Faculty of Educational Sciences at University of Jordan with respect to time management

No.	Paragraph	Average	Deviation Standard	Acquisition Degree	Order
4	Adherence to lectures time	3.21	0.839	Medium	1
3	Postponing business he feels not useful	3.20	0.911	Medium	2
6	Use time to accomplish important work.	3.18	0.896	Medium	3
1	Good time investment.	3.16	1.048	Medium	4
5	Wasting of time.	3.12	0.875	Medium	5
2	Carrying out works on due time	3.02	1.011	Medium	6
	General average	**3.15**	**0.554**	**Medium**	

The results showed that the acquisition level of leadership skills by undergraduate students enrolled in Classroom Teacher & Child Education Program with the Faculty of Educational Sciences at University of Jordan related to time management ranged between (3.02- 3.21), with medium grade, while paragraph (4) "Adherence to lectures time" scored the highest arithmetical average by (3.21), while paragraph (2) "Carrying out works on due time" obtained the lowest average with (3.02).

All paragraphs scored (3.15) with medium of acquisition grade. This means that the acquisition level of leadership skills by undergraduate students enrolled in Classroom Teacher & Child Education Program with the Faculty of Educational Sciences at University of Jordan was medium in relevant to time management.

The following staging was used to indicate the average responses of students to the acquisition level as shown in Table 6

Table 6
Average responses of students to the acquisition level

Arithmetical Average	Acquisition Level
4.2 and above	*Very High*
From 3.4 to less than 4.2	*High*
From 2.6 to less than 3.4	*Medium*
From 1.8 to less than 2.6	*Weak*
Less than 1.8	*Very Weak*

Human communication:

This question was answered by calculating the arithmetical averages, standard deviations and the order of acquisition level of leadership skills by undergraduate students enrolled in Classroom Teacher & Child Education Program with the Faculty of Educational Sciences at University of Jordan in connection with human communication. The results were as shown in the following table:

Table 7
Averages, standard deviations and acquisition degree of leadership skills by undergraduate students enrolled in Classroom Teacher & Child Education Program with Faculty of Educational Sciences at University of Jordan with respect to human communication

No.	Paragraph	Average	Deviation Standard	Acquisition Degree	Order
12	Listen to others	3.36	0.928	Medium	1
10	Praising others	3.28	0.917	Medium	2
9	Responding to questions	3.23	0.961	Medium	3
7	Ability to attract the attention of others	3.16	1.013	Medium	4
8	Communicate with others in all directions	3.12	0.918	Medium	5
11	Strong relationships with others	3.04	1.005	Medium	6
	General average	**3.20**	**0.486**	**Medium**	

The results showed that the acquisition level of leadership skills by undergraduate students enrolled in Classroom Teacher & Child Education Program with the Faculty of Educational Sciences at University of Jordan related to human communication ranged between (3.04- 3.36), with medium grade, while paragraph (12) "Listen to others" scored the highest arithmetical average by (3.36), while paragraph (11) "Strong relationship with others" obtained the lowest average with (3.04).

All paragraphs scored (3.20) with medium of acquisition grade. This means that the acquisition level of leadership skills by undergraduate students enrolled in Classroom Teacher & Child Education Program with the Faculty of Educational Sciences at University of Jordan was medium in relevant to human communication.

Problem Solving:

This question was answered by calculating the arithmetical averages, standard deviations and the order of acquisition level of leadership skills by undergraduate students enrolled in Classroom Teacher & Child Education Program with the Faculty of Educational Sciences at University of Jordan in connection with problem solving. The results were as shown in the following table:

Table 8

Averages, standard deviations and acquisition degree of Leadership Skills by undergraduate students enrolled in Classroom Teacher & Child Education Program with Faculty of Educational Sciences at University of Jordan with respect to problem solving

No.	Paragraph	Average	Deviation Standard	Acquisition Degree	Order
18	Contact officials when facing any problem.	3.42	0.831	High	1
15	Take advantage of previous experiences in solving the problem.	3.35	0.870	Medium	2
17	Link between reality and hope to solve the problem	3.33	0.863	Medium	3
14	Be able to collect information about the problem.	3.30	0.87 9	Medium	4
20	Be able to solve the problem.	3.28	0.847	Medium	5
13	Find different alternatives to solve the problem.	3.27	0.894	Medium	6
16	Creating ways to solve the problem.	3.27	0.765	Medium	7
19	Panic from facing the problem.	3.26	0.924	Medium	8
	General average	**3.31**	**0.485**	**Medium**	

The results showed that the acquisition level of leadership skills by undergraduate students enrolled in Classroom Teacher & Child Education Program with the Faculty of Educational Sciences at University of Jordan related to problem solving ranged between (3.26-3.42), while paragraph (18) "Contact officials when facing any problem" scored the highest arithmetical average by (3.42), while paragraph (19) "Panic from facing the problem" obtained the lowest average with (3.26).

All paragraphs scored (3.31) with medium of acquisition grade. This means that the acquisition level of leadership skills by undergraduate students enrolled in Classroom Teacher & Child Education Program with the Faculty of Educational Sciences at University of Jordan was medium in relevant to problem solving.

Cooperative work

This question was answered by calculating the arithmetical averages, standard deviations and the order of acquisition level of leadership skills by undergraduate students enrolled in Classroom Teacher & Child Education Program with the Faculty of Educational Sciences at University of Jordan in connection with cooperative work. The results were as shown in Table9.

Table 9
Averages, standard deviations and acquisition degree of Leadership Skills by undergraduate students enrolled in Classroom Teacher & Child Education Program with Faculty of Educational Sciences at University of Jordan with cooperative work

No.	Paragraph	Average	Deviation Standard	Acquisition Degree	Order
23	Distribution of responsibilities to others.	3.34	0.830	Medium	1
25	Participation in university clubs.	3.32	0.826	Medium	2
24	Team work.	3.30	0.860	Medium	3
22	Sharing with others in decision-making.	3.28	0.851	Medium	4
21	Encouraging cooperative work.	3.24	0.843	Medium	5
26	Take care to help others.	3.24	0.860	Medium	6
27	Provide services to others.	3.23	0.866	Medium	7
	General average	**3.28**	**0.389**	**Medium**	

The results showed that the acquisition level of leadership skills by undergraduate students enrolled in Classroom Teacher & Child Education Program with the Faculty of Educational Sciences at University of Jordan related to cooperative work ranged between (3.23-3.34), while paragraph (23) "Distribution of responsibilities to others" scored the highest arithmetical average by (3.34), while paragraph (27) "Provide services to others" obtained the lowest average with (3.23).

All paragraphs scored (3.28) with medium of acquisition grade. This means that the acquisition level of leadership skills by undergraduate students enrolled in Classroom Teacher & Child Education Program with the Faculty of Educational Sciences at University of Jordan was medium in relevant to cooperative work.

Self-control:

This question was answered by calculating the arithmetical averages, standard deviations and the order of acquisition level of leadership skills by undergraduate students enrolled in Classroom Teacher & Child Education Program with the Faculty of Educational Sciences at University of Jordan in connection with self-control. The results were as shown in Table 10.

The results showed that the acquisition level of leadership skills by undergraduate students enrolled in Classroom Teacher & Child Education Program with the Faculty of Educational Sciences at University of Jordan related to self-control ranged between (3.17-3.33), while paragraph (31) "Allow others to express their opinions" scored the highest arithmetical average by (3.33), while paragraph (33) "Ability to control behaviors" obtained the lowest average with (3.17).

All paragraphs scored (3.27) with medium of acquisition grade. This means that the acquisition level of leadership skills by undergraduate students enrolled in Classroom Teacher & Child Education Program with the Faculty of Educational Sciences at University of Jordan was medium in relevant to self-control.

Table 10
Averages, standard deviations and acquisition degree of Leadership Skills by undergraduate students enrolled in Classroom Teacher & Child Education Program with Faculty of Educational Sciences at University of Jordan with respect to self-control

No.	Paragraph	Average	Deviation Standard	Acquisition Degree	Order
31	Allow others to express their opinions.	3.33	0.743	Medium	1
29	Having tolerance.	3.31	0.691	Medium	2
30	Strong willing to achieve goals.	3.30	0.717	Medium	3
28	Ability to control anger.	3.27	0.714	Medium	4
32	Pay attention to reaction with others.	3.27	0.778	Medium	5
33	Ability to control behaviors.	3:17	0.811	Medium	6
	General average	**3.27**	**0.331**	**Medium**	

The arithmetical averages, standard deviations and acquisition degree of Leadership Skills by undergraduate students enrolled in Classroom Teacher & Child Education Program with the Faculty of Educational Sciences at University of Jordan for Leadership, as shown in Table 11.

The results showed that the acquisition degree of all leadership skills by undergraduate students enrolled in Classroom Teacher & Child Education Program with the Faculty of Educational Sciences at University of Jordan was medium, where time management scored the first order with arithmetical average of (3.15); human communication (3.20); problem solving (3.31); cooperative work (3.28); and self-control scored the last order by (3.27).

Results related to question (2): Are there any significant differences in the status quo of leadership skills of undergraduate students enrolled in Classroom Teacher & Child Education Program with the Faculty of Educational Sciences at University of Jordan due to specialization, university year and gender variables?

Table 11
Averages, standard deviations and acquisition degree of leadership skills by undergraduate students enrolled in Classroom Teacher & Child Education Program with the Faculty of Educational Sciences at University of Jordan

Area	Average	Deviation Standard	Acquisition Degree	Order
Time management	3.15	0.554	Medium	1
Human communication	3.20	0.486	Medium	2
Problem Solving	3.31	0.485	Medium	3
Cooperative Work	3.28	0.389	Medium	4
Self-Control	3.27	0.331	Medium	5
Leadership skills as a whole	**3:25**	**0.295**	**Medium**	

All leadership skills scored (3.25) with medium grade. This indicates that the acquisition of leadership skills by undergraduate students enrolled in Classroom Teacher & Child Education Program with the Faculty of Educational Sciences at University of Jordan was medium.

This question was answered by calculating the arithmetical averages, standard deviations and acquisition level of leadership skills by undergraduate students enrolled in Classroom Teacher & Child Education Program with the Faculty of Educational Sciences at University of Jordan due to specialization, university year, and gender variable as shown in Table 12.

Table 12
Averages, standard deviations and acquisition degree of Leadership Skills by undergraduate students enrolled in Classroom Teacher & Child Education Program with the Faculty of Educational Sciences at University of Jordan, according to specialization, university year, and gender variables

Area	Specialization	University Year	Gender	Arithmetical Average	Standard Deviation
Time management	Classroom Teacher	First	Male	3.33	0.000
			female	3.27	0.393
		Fourth	Male	3.27	0.384
			female	3.22	0.523
	Child Education	First	Male	3.17	0.236
			female	3.21	0.575
		Fourth	Male	3.61	0.192
			female	2.91	0.603
Human communication	Classroom Teacher	First	Male	3.33	
			female	3.36	0.234
		Fourth	Male	3.23	0.365
			female	3.24	0.501
	Child Education	First	Male	2.92	0.118
			female	3.13	0.594
		Fourth	Male	3.50	0.289
			female	3.12	0.444
Problem Solving	Classroom Teacher	First	Male	3.25	
			female	3.44	0.241
		Fourth	Male	3.43	0.597
			female	3.34	0.490
	Child Education	First	Male	3.00	0.177
			female	3.32	0.647
		Fourth	Male	3.50	0.250
			female	3.21	0.401

Area	Specialization	University Year	Gender	Arithmetical Average	Standard Deviation
Cooperative Work	Classroom Teacher	First	Male	3.29	
			female	3.23	0.283
		Fourth	Male	3.06	0.078
			female	3.28	0.387
	Child Education	First	Male	3.36	0.909
			female	3.28	0.431
		Fourth	Male	3.52	0.218
			female	3.29	0.402
Self-Control	Classroom Teacher	First	Male	3.50	
			female	3.31	0.357
		Fourth	Male	3.30	0.274
			female	3.18	0.325
	Child Education	First	Male	3.25	0.118
			female	3.36	0.281
		Fourth	Male	3.39	0.255
			female	3.36	0.338
Leadership skills as a whole	Classroom Teacher	First	Male	3.33	
			female	3.32	0.154
		Fourth	Male	3.26	0.282
			female	3.26	0.295
	Child Education	First	Male	3.14	0.236
			female	3.26	0.389
		Fourth	Male	3.51	0.097
			female	3.18	0.288

The results showed that there were clear differences between averages of the acquisition degree of Leadership Skills by undergraduate students enrolled in Classroom Teacher & Child Education Program with the Faculty of Educational Sciences at University of Jordan, according to specialization, university year, and gender variables. To find out the significance of these differences, 3-WAY ANOVA test was used as shown in Table 13

Table 13

Test results of (3-WAY ANOVA) to find significance of differences between arithmetical averages of acquisition degree of leadership skills by undergraduate students enrolled in Classroom Teacher & Child Education Program with the Faculty of Educational Sciences at University of Jordan, according to specialization, university year, and gender variables

Source	Area	Total squares	Freedom Degrees	Squares average	"P" Value	Significance level
Specialization	Time management	0.017	1	0.017	0.058	0.809
	Human communication	0.086	1	0.086	0.365	0.546
	Problem Solving	0.172	1	0.172	1.126	0.289
	Cooperative work	0.117	1	0.117	0.499	0.480
	Self-control	0.003	1	0.003	0.029	0.864
	Leadership skills as a whole	0.003	1	0.003	0.040	0.842
Year	Time management	0.001	1	0.001	0.002	0.962
	Human communication	0.104	1	0.104	0.443	0.506
	Problem Solving	0.000	1	0.000	0.000	0.996
	Cooperative work	0.058	1	0.058	0.246	0.620
	Self-control	0.017	1	0.017	0.167	0.683
	Leadership skills as a whole	0.010	1	0.010	0.120	0.729
Gender	Time management	0.284	1	0.284	0.968	0.326
	Human communication	0.008	1	0.008	0.033	0.857
	Problem Solving	0.009	1	0.009	0.059	0.808
	Cooperative work	0.010	1	0.010	0.041	0.840
	Self-control	0.024	1	0.024	0.228	0.634
	Leadership skills as a whole	0.020	1	0.020	0.231	0.631
Specialization * Year	Time management	0.032	1	0.032	0.110	0.740
	Human communication	0.045	1	0.045	0.191	0.663
	Problem Solving	0.063	1	0.063	0.412	0.521
	Cooperative work	0.298	1	0.298	1.271	0.260
	Self-control	0.104	1	0.104	1.004	0.317
	Leadership skills as a whole	0.087	1	0.087	1.005	0.317
Specialization * Gender	Time management	0.141	1	0.141	.482	0.488
	Human communication	0.003	1	0.003	0.011	0.916
	Problem Solving	0.106	1	0.106	0.696	0.405
	Cooperative work	0.018	1	0.018	0.078	0.780
	Self-control	0.077	1	0.077	0.739	0.391
	Leadership skills as a whole	0.015	1	0.015	0.178	0.673
Year * Gender	Time management	0.244	1	0.244	0.834	0.362
	Human communication	0.369	1	0.369	1.575	0.210
	Problem Solving	0.007	1	0.007	0.045	0.832
	Cooperative work	0.181	1	0.181	0.771	0.380
	Self-control	0.002	1	0.002	0.022	0.883
	Leadership skills as a whole	0.093	1	0.093	1.077	0.300
Specialization * Year * Gender	Time management	0.275	1	0.275	0.939	0.333
	Human communication	0.056	1	0.056	0.238	0.626
	Problem Solving	0.086	1	0.086	0.563	0.454
	Cooperative work	0.156	1	0.156	0.665	0.415
	Self-control	0.021	1	0.021	0.199	0.656
	Leadership skills as a whole	0.098	1	0.098	1.129	0.289
Error	Time management	89.931	307	0.293		
	Human communication	71.936	307	0.234		
	Problem Solving	46.956	307	0.153		
	Cooperative work	72.050	307	0.235		
	Self-control	31.918	307	0.104		
	Leadership skills as a whole	26.613	307	0.087		
Total	Time management	3216.333	315			
	Human communication	3527.219	315			
	Problem Solving	3432.245	315			
	Cooperative work	3296.583	315			
	Self-control	3412.194	315			
	Leadership skills as a whole	3348.689	315			

It is clear, as set forth in the table above, that all the values of significance levels according to specialization, university year, and gender variables and their interactions were greater than (0.05) in all areas. This means that there are no statistically significant differences at a level below (0.05) in the acquisition degree of Leadership Skills by undergraduate students enrolled in Classroom Teacher & Child Education Program with the Faculty of Educational Sciences at University of Jordan attributed to specialization, university year, and gender variables, or interactions among them.

This means that the acquisition degree of Leadership Skills by undergraduate students enrolled in Classroom Teacher & Child Education Program with the Faculty of Educational Sciences at University of Jordan are similar regardless of their specialization, year of study or gender.

Discussion of the results related to the first question: What are the leadership skills of the undergraduate students enrolled in the Classroom Teacher & Child Education with the Faculty of Educational Sciences at University of Jordan?

Time Management: The arithmetical averages and standard deviations have been calculated with respect to the acquisition level of leadership skills by undergraduate students enrolled in Classroom Teacher & Child Education Program with the Faculty of Educational Sciences at University of Jordan related to time management, which ranged between (3.02- 3.21), with medium grade, while paragraph (4) "Adherence to lectures time" scored the highest arithmetical average by (3.21), while paragraph (2) "Carrying out works on due time" obtained the lowest average with (3.02).

The result of the paragraph that scored the highest arithmetical average is attributed to that the university students are feeling responsible, strong human ties, and collaborative with faculty members. Adherence to lectures time will increase their ability to master the course, improve their level of study, follow up their studies, and can grow their ambition towards excellence. This finding was agreed with the study of Al Saif & Al-Daoud (2013) in terms of time importance.

As for the paragraph that scored the lowest arithmetical average, the result may be attributed to that the undergraduate students don't realize the importance of time, and its impact on reaching the goal of university education, and knowledge lack of management time and work performance, bad planning of work, and not paying attentions to self-control, practicing after only making a mistake. This conclusion was agreed with the study of Al Saif & Dawood (2013) in relation to respect for laws and regulations.

Human communication: the arithmetical averages and standard deviations have been calculated with respect to the acquisition level of leadership skills by undergraduate students enrolled in Classroom Teacher & Child Education Program with the Faculty of Educational Sciences at University of Jordan in relation to human communication. All paragraphs scored (3.20) with medium of acquisition grade. Paragraph (12) "Listen to others" scored the highest arithmetical average by (3.36), while paragraph (11) "Strong relationship with others" obtained the lowest average with (3.04).

The result is attributed to that the influence of peers is evident among undergraduate students. Human instinct also tends to be heard by others, which strengthens love and emotional proximity with others, increasing interaction and containment, and giving the other a sense of interest.

The paragraph that received the lowest arithmetical average may be attributed to the fact that some undergraduate students tend to focus on the weaknesses rather than the strengths of their colleagues, the lack of using motivation, as well as the relationship between such students are temporary at this stage and ends at the end of the study. This result was agreed with the study of Sheikha & Omar (2009) in terms of the effective role of the school in the development of leadership skills through activities and human communication in them.

Problem solving: The arithmetical averages and standard deviations have been calculated with respect to the acquisition level of leadership skills by undergraduate students enrolled in Classroom Teacher & Child Education Program with the Faculty of Educational Sciences at University of Jordan in relation to problem solving. All paragraphs scored (3.31) with medium of acquisition grade. This means that the acquisition level of leadership skills by undergraduate students enrolled in Classroom Teacher & Child Education Program with the Faculty of Educational Sciences at University of Jordan was medium in relevant to problem solving. The results showed that the acquisition level of leadership skills by undergraduate students enrolled in Classroom Teacher & Child Education Program with the Faculty of Educational Sciences at University of Jordan related to time management ranged between (3.26-3.42), while paragraph (18) "Contact officials when facing any problem" scored the highest arithmetical average by (3.42), while paragraph (19) "Panic from facing the problem" obtained the lowest average with (3.26).

This result is due to the fact that undergraduate students trust in faculty members and benefit from them in solving the problems facing them. At this stage, they need intervention from the faculty members in scientific and practical ways to help them cope with their problems and develop them to have an effective leadership personality with these skills. This result was agreed with the study of Omari & Khasawneh (2008) in the ability to solve problems at the highest arithmetical average.

As for paragraph that received the lowest arithmetical average it is attributed to the fact that the undergraduate students used to face problems without fear as they used thinking skills that help them to solve these problems, as well as using of scientific method in solving problems, along with faculty members who have the experience to resolve problems.

Cooperative work: The arithmetical averages and standard deviations have been calculated with respect to the acquisition level of leadership skills by undergraduate students enrolled in Classroom Teacher & Child Education Program with the Faculty of Educational Sciences at University of Jordan in relation to cooperative work. The results showed that the acquisition level of leadership skills by undergraduate students enrolled in Classroom Teacher & Child Education Program with the Faculty of Educational Sciences at University of Jordan related to time management ranged between (3.23-3.34), with medium grade, while paragraph (23) "Distribution of responsibilities to others" scored the highest arithmetical average by (3.34), and paragraph (27) "Provide services to others" obtained the lowest average with (3.23).

Undergraduate students realize that cooperation and distribution of responsibilities are necessary to be responsible, able to accomplish the work, and achieve strength and effectiveness. They understand that meetings, effective communication with all and containment of conflict are important.

The paragraph that received the lowest arithmetical average may be due to the different environments of students and that they don't know the psychological needs of each others, especially if these services depend in particular on covering their absence in lectures, encouraging, motivating, or helping to do homework.

Self-control: The arithmetical averages and standard deviations have been calculated with respect to the acquisition level of leadership skills by undergraduate students enrolled in Classroom Teacher & Child Education Program with the Faculty of Educational Sciences at University of Jordan in relation to self-control, which ranged between (3.17-3.33), with medium degree for all, while paragraph (31) "Allow others to express their opinions" scored the highest arithmetical average by (3.33), while paragraph (33) "Ability to control behaviors" obtained the lowest average with (3.17).

Undergraduate students who have been entrusted with a task of teaching or research assistant to faculty members are permitted to express their opinion verbally, in writing or art works, provided they do not breach the law and within limits and restrictions that must not be exceeded.

The paragraph that received the lowest average arithmetic may be attributed to that the undergraduate students tend to anger and couldn't sometimes control their behaviors, and that their study at university had low principles and skills, which increased their openness to society. This result was greed with the study of Omari & Khasawneh (2008) that the skill of self-management scored the lowest arithmetical average.

Discussion of the results related to question (2): Are there any statistically significant differences in the status quo of leadership skills among undergraduate students enrolled in classroom teacher & child education with the Faculty of Educational Sciences at University of Jordan due to specialization, university year, and gender variables?

This question was answered by using multiple variance analysis to determine the significance of differences in the status quo of leadership skills among undergraduate students enrolled in classroom teacher & child education with the Faculty of Educational Sciences at University of Jordan according to interaction between specialization, university year, and gender variable and that there were no differences.

This result is attributed that undergraduate students of different specializations, university year, or gender need these leadership skills and training, highlighting their leadership personality, building and refining an integrated personality in all respects, and teaching them meaningful work through time management so they can achieve the goals, which developed by the university. These skills will help them to accomplish the tasks entrusted to them with strong relationships with others, learn planning skills, and increase their human communication and experience, because they will be future leaders. This result is contrary to Foley study (2005), which showed differences due to gender variable, and also differed with the study of Abu Nimah & Al-Nazer (2011) with respect to that there were differences in favor of females and fourth year students, and also differed with the study of Al-Sa'oub & Al-Rashaida (2013) with respect to that there were differences in favor of males and specialization.

Recommendations

Based on the findings of study, which scored medium degree, the study recommends the following:

- Including educational leadership programs within university requirements at undergraduate level.

- Including field training programs for undergraduate students in classroom teacher and child education programs based on practical simulation of leadership.

- Making studies similar to this study to postgraduate students in other universities.

Referencies

Abawi, Zaid (2010). "The Role of Educational Leadership in Making Administrative Decisions". Amman: Dar Al Shorouk.

Abu Ne'ma, Basim, & Al- Nazir, Malak (2011). "The Role of Students in Jordanian Universities in Developing Leadership Skills among Undergraduate Students from their Point of View", Master Thesis, Amman, Middle East University.

Al-Athran, Wagih (2007). "Developing the Concept of Self and Center of Control among Young People." Amman: Al-Tawfiq Press.

Al Saif, Mubarak, & Al Dawood, Abdulrahman (2013). "A proposed Conception for Developing Leadership Skills for Saudi University Students in Light of International Experience and Expertise", PhD thesis, Riyadh, Imam Muhammad bin Saud Islamic University.

Al-Omaari, A. & Khaswneh‹S. (2008). "Leadership Skills for First Year Student at Public University in Jordan". Research in Pst Compulsory Education. 1, (3), 251-266.

Al-Sakarna, Bilal (2010). "Effective Administrative Leadership". Amman: Dar Al-Masirah.

Al-Sa'ab, Khaldoun, & Rashaida, Nael (2013). "The role of Programs and Activities of High Council for Youth in Developing Leadership Skills among Members of Youth Centers in Jordan, unpublished master thesis, Mutah University.

Allaq, Bashir (2010). "Administrative Leadership". Amman: Scientific Yazouri Dar.

Burhan, Karim (2013). "Young Generation is the Hope for All Peoples", available through www.gerasanews.com

Darweesh, Abdul Rahim (2012). "Introduction to Communication Science". Egypt: World of Books.

Faisal, Duaa (2012). "Time Management for Academically Talents and Relation to the Level of Ambition", Journal of Reading and Knowledge, Egypt (137), 55-87.

Foly, A. (2005). "Leadership Skills of First year Student". Master of Art in Education Department of Educational and Policy Studies. Virginia.

Gharaybeh, Faisal (2009). "Social Work Skills". Amman: Dar Wael.

Harbi, Qassim (2008). "Modern Educational Leadership". Amman: Al-Janadiyah.

Jaafreh, Mohammad (2010). "Effectiveness of a Guidance Program Based on Cognitive Behavioral Orientation in Improving the Skills of Social Communication and Decision-Making among Members of Youth Centers", unpublished master thesis, Mutah University, Jordan.

Kandil, Alaa (2010). "Administrative Leadership and Innovation Management". Amman: Dar Al-Fiker.

Kharabsheh, Omar (2002). "Youth and Art of Decision Making". Amman: Addoustour Printing Press.

Mohammed, Aida, and Qutani, Mohammed (2010). "Affiliation, Leadership and Personality of Talented & Normal Children". Amman: Dar Jarir.

Omri, Musharraf, & Alfi, Ashraf (2014). "The Role of Student Activities in Developing Leadership Skills among Students of Baha University". Master Thesis, Saudi Arabia, Baha University.

Shaikah, A. & Khasawneh‹O. (2009). "The Role of School in Foresting Leadership Skills" Dirasat, Educational Science, 36(1), 333-367.

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Editor's Note: Starting in 1836, McGuffy Readers "affected the first mass educated and mass-literate generation in the modern world" (Wikipedia-McGuffy). It also had a profound influence on leaders such as Henry Ford. McGuffy left his stamp on many universities and school systems in the Midwest, Eastern and Southern United States and across the world. The University of Wisconsin was one such university, and what follows is as little bit of history where the McGuffy's influence became a seed for new and innovative approaches to education.

Watchdog and Cheerleader:
Home Study in Wisconsin in the 1930s

Robert L. Hampel
USA

Introduction

What is now called *distance education* began long before computers linked students and teachers. From the 1890s on, hundreds of private companies, public universities, and enterprising individuals sold instruction by mail. Until the mid-1920s, more students in the United States enrolled annually in correspondence courses than entered colleges and universities.

Acquiring a better job was the reason why most people took a course. They wanted to learn the specific skills necessary for a promotion or for self-employment. The early 20th century labor market changed more rapidly than the curriculum of the public high school, where vocational training in evening classes was sparse. For blue collar laborers, home study promised a faster and cheaper path to expanding sectors of the workforce than other ways to retrain. For white collar workers, the field of business abounded with mail order courses, especially in accounting and sales. For several professions where traditional educational credentials were not yet a prerequisite for taking state licensing examinations, coursework in law, engineering, and architecture could be purchased.

Not everyone sought vocational goals. Self-improvement was pursued through courses in music, art, foreign languages, social skills, physical fitness, and hobbies such as radio repair. Gene Sarazen offered golf lessons, Charles Atlas taught body building, and the popular Arthur Murray dance studios began as correspondence courses. Nearly any academic subject could be studied, often yielding college credits if the student took the same final examinations required on campus. The schools supplied whatever the marketplace would buy—the largest firms had hundreds of courses—although vocational fare outsold all else.[i]

No American university did more than Wisconsin in the field of home study. Since the 1890s, its Extension Division oversaw instruction through the mail in dozens of subjects, split evenly between credit and noncredit courses. Business, engineering, English, and mathematics were the most popular subjects, with enrollments in all courses rising from several thousand early in the century to a peak of nearly 17,000 in 1945.[ii] Although Chicago before World War I and Columbia in the 1920s rivaled Wisconsin in the scale of course offerings and student recruitment, Columbia closed its home study division in 1937 and Chicago sold its courses to Wisconsin in 1963.

Even with its longstanding and energetic commitment to home study, Wisconsin home study enrollments declined in the Great Depression, falling 20% from 1929 to 1934. The declines were much steeper at the for-profit correspondence schools, where the peak-to-trough drop was 60%.[iii] Revenues in the proprietary schools rose in the late 1930s and 1940s, but not to the heights reached in the 1920s. The boom years for the industry were over, whereas Wisconsin recovered more robustly in the 1940s. What explains Wisconsin's relative success? How did it endure hard times so well? A New Strategy: "Expose the Rackets in Education"

That was the title of a one page flyer on fraudulent correspondence schools, and it expressed a major initiative within the Extension Division in the 1930s: alert Wisconsin residents to the perils of enrolling in disreputable for-profit schools. The Division undertook an unprecedented effort to catalog and publicize the unsavory practices of dozens of their rivals. Many prospective students and their families were unaware of the deceptive practices often used to lure the unsuspecting.

Most of the larger firms had sales representatives, and they were the source of much of the mischief. Unscrupulous salesman frequently lied in order to earn sizable commissions, usually one quarter or more of the tuition. Most prevalent was the guarantee that completion of the course would result in a job offer, with the monthly salary and sometimes even the employer specified. Also common was the claim that a local teacher or principal had recommended the student. Just as devious was placement of a want ad for a job in order to attract dozens of applicants to whom a $150 course of study, not a job interview, was then pitched.[iv] Not all scams originated with salesmen, to be sure. The founders sometimes knew exactly what was what. The Federal Meat Institute played on the desire to work— $30 of the $67.50 tuition was payable only when the graduate found a job—but nearly the entire course of study consisted of free government bulletins which the students themselves had to order. The Perfect Voice Institute charged more ($89.50) for lessons on strengthening a neck muscle unrelated to speech or song through noiseless exercises in front of a mirror, with, as one writer quipped, "extreme consideration for innocent bystanders…neighbors and friends."[v]

Exaggeration that stretched the truth was rife, and much of it was conveyed by the brazen advertisements run by correspondence schools. Stressing vocational opportunity, ads claimed that well-paying jobs abounded and were easy to secure upon graduation. Testimonials from former students featured dramatic salary increases and promotions. Those optimistic pledges had always been a hallmark of the schools' publicity, but in the economic despair of the *Great Depression*, they focused on several workforce niches that were expanding rather than contracting. Civil Service schools proliferated, boasting of the thousands of federal jobs open to candidates who passed the appropriate examinations. "U.S. GOVERNMENT JOBS. Starts $1260--$2100 a Year. Men— Women. Experience Usually Unnecessary. Many City Mail Carrier—Post Office Clerk Examination Expected. New 40 Hour Week Means Many Appointments." No coaching school had inside information about the timing and content of the tests, and competition was keen—as a flyer from the national Civil Service Commission warned, "applicants are usually hundreds of times in excess of the need" and therefore "money paid for civil service coaching courses at this time might almost as well be thrown to the four winds." The invention of air conditioning, television, diesel engines, and refrigeration spawned dozens of schools selling preparation for those fields on the basis of breathtaking predictions of rapid growth. A flyer from the state superintendent of education warned high school graduates of the inflated claims for the future of those fields, and cautioned that the best jobs there required extensive training at accredited universities or lengthy apprenticeships in related fields, such as heating and ventilation for air conditioner repair. With hopes aroused by eager salesmen and exuberant ads, the prospective students could get started easily by paying part of the tuition each month—but they usually had to sign a legally binding contract for the entire amount. Installment sales was a common practice by reputable firms, and had also become widespread in other industries by the 1930s.[vi] The home study contracts were clear and short, and some clauses were even generous, especially the flexibility on when assignments could be submitted.

The problems arose when a student wanted to quit. Most companies tried to enforce the contract. If the students returned the instructional texts, the company often sent them back. A series of letters ensued, coaxing the student to resume. Later letters became sterner, with threats to refer the account to a collection agency or lawyer, which many firms did. Taking the delinquent to court in order to collect also occurred, although most firms admitted that the ill will generated by

a suit against an impoverished student offset the pittance collected after expenses. It was the threat of a suit, alongside the fact that it had happened successfully in the past, that convinced many harassed former students to settle. Because a majority of the students of the for-profit firms never finished their courses, a relentless collection department was a vital part of a firm's profitability.[vii]

The Extension Division staff used several methods to counteract the shameless practices of the third rate correspondence schools. Anyone with a question about a particular school could write the Division to request additional information before enrolling or seek advice about breaking a contract. Extension administrators kept track of dozens of schools, relying heavily on their field agents' reports as well as the bulletins and files obtained from urban Better Business Bureaus across the country. The Extension Division also sought formal regulations of the proprietary schools. They felt that the National Home Study Council, a trade association formed in 1926, fell short. It included only $1/7^{th}$ of the schools in the country, and by 1938 ten of its 50 members had been sanctioned by cease-and-desist orders from the Federal Trade Commission, which in the mid-1920s had developed a code of fair trade practices for this industry.[viii] Flagrant abuses of that code could be prosecuted as mail fraud, but for prevention the Division sought state legislation to regulate the local activity of home study firms based in Wisconsin (only a few) as well as those based elsewhere (New York City and Chicago were the most popular sites). The National Home Study Council felt that the FTC code was sufficient, but several dozen states disagreed and enacted laws in the 1930s. Wisconsin did so in 1937. The statute did not outlaw contracts or require salesmen to be licensed—two provisions characteristic of the sternest state laws—but it did require firms to post a bond, file lessons and contracts with the state superintendent, disavow any promises of employment upon completion, and never charge Wisconsin residents more than students elsewhere paid.[ix] In various ways throughout the 1930s, the Extension Division tried to protect the naïve from the blandishments of unethical correspondence schools. Extension's outreach to the state offered free and forceful advice and caution—they wanted to teach potential students to become better consumers in the educational marketplace. They realized that many recruits did not know enough to distinguish a legitimate from a fly-by-night school. That was the education they needed first and foremost.

An Old Strategy: "Ability, ingenuity, push and go"

As it heightened consumer awareness, the Extension Division also made the case for its own wares. The staff felt they had to be energetic promoters in order to create, not just fill, the desire for home study. As one administrator acknowledged in 1930, "Ideally, the demand for service should come from the people, but actually it does not."[x]

That view of extension activity had been in place at Wisconsin for many years. The early 20th century champions of extension—Governor Robert LaFollette, legislative reference librarian Charles McCarthy, and University of Wisconsin President Charles Van Hise—were eager to proselytize throughout the state. The University should generate requests for what it could offer, which was boundless—"betterment along all lines," as Van Hise put it—and much less expensive than the proprietary courses.[xi] McCarthy was so sure that marketing was crucial that he urged Van Hise to hire "a shrewd, sharp leader" rather than a scholar as the first Dean of Extension. McCarthy pointed out that the founders of the largest private correspondence schools were business men. To hire a scholar would play into the hands of the enemy, he felt; many faculty at Wisconsin opposed extension work, so much so that several had advised the Governor to oppose its funding. Van Hise sought a candidate who combined administrative ability and academic talent. "I cannot agree at all that a business man alone is wanted." McCarthy remained skeptical, preferring an "enterprising young man" with "ability, ingenuity, push and go."[xii] Van Hise prevailed with the appointment of Louis Reber, an engineering professor from Pennsylvania State University, but Reber also had the skills McCarthy prized. The new Dean studied the operations

of the private correspondence schools, and early on he vowed to "steal their men, their ideas, and their methods."[xiii] To do so, Reber made job offers to several regional managers of the largest firm, the International Correspondence School. He knew that vocational courses sold well, more so than the liberal arts work favored by William Lighty, his director of home study. Reber also knew that the private firms invested heavily in the creation of good texts, and he convinced several prominent publishers to produce comparable books. Another example of his imitation of the competition was the appeal to manufacturers and other employers to buy home study courses for their workers.

William Lighty liked to give eloquent speeches and dictate long letters about the spiritual value of home study, but he shared Reber's entrepreneurial style. He knew how to identify promising markets and cultivate them. For instance, he told the National University Extension Association how he recruited 200 students for a new course in the kiln drying of lumber--a special "news" article sent to trade publications throughout Wisconsin did the job.[xiv] Sometimes Lighty capitalized on political changes—he oversaw new courses on income taxes and female suffrage after Wisconsin adopted both—and sometimes he found markets beyond the marketplace—the inmates at the Waupan state prison, for instance.

The foot soldiers in the campaign for larger enrollments were the eight field agents in various sections of the state. They publicized all aspects of Extension work, not just home study— evening courses, traveling libraries, lectures, debates, and other forums for the dissemination of information. Sometimes they taught a course or two, but most of their time was devoted to promotion. As one agent said, "the district organization must create a demand for instruction or lecture courses or community institutes, when it appears none exists, and where it is evident there is urgent need for such services."[xv] Published notices were useful, but nothing took the place of personal contact, agent Marshall Graf claimed in 1924. His predecessor had relied on speeches, but when Graf spoke to individuals, his enrollments were six times higher.[xvi]

Yet the marketing of home study at Wisconsin was never unconstrained. Three considerations limited the fervency and scope of the appeals on its behalf. Within the Extension Division, everyone knew that instruction in classrooms always enrolled more students than home study. The field agents' annual review hinged on the enrollments and revenue they garnered, so they naturally emphasized Extension classrooms when they met prospects. Second, there were other nonprofit vendors in this marketplace. As a state agency, the University sought good relations with public schools that wooed the same students. The Wisconsin vocational and evening schools, above all, had on site courses available in some fields covered by home study, and periodically the Division ceded instruction in basic and remedial courses rather than fight for those enrollments.

Furthermore, the Madison campus faculty and administrators checked the expansion of home study. Each department decided whether or not home study courses could be taken for college credits, and each instructor decided whether or not to participate. Not everyone wanted to join Reber and Lighty in their crusade, and those who did were often the least eminent scholars. In the administration, home study advocates were scolded if they praised it as an alternative rather than a path to fulltime attendance on campus. Lighty occasionally called home study more rigorous than traditional instruction, and so it is not surprising that he was told to remove from his office window a sign promoting correspondence work.[xvii]

After a new Dean was appointed in 1935, the field agents sent him detailed recommendations on how to increase home study enrollments. Those long and candid memoranda in 1936 and again in 1938 spelled out the strategy and tactics considered appropriate for the largest home study division of an American university. They reveal that Wisconsin avoided the "peddling" and "high pressure sales" that Lighty deplored in for profit schools, but at the same time the Extension

Division was eager to heighten demand where it was low and tailor offerings to meet demand where it was high.[xviii] The restraints on its expansion still left much room for growth. Several proposals paralleled what the proprietary schools did. The agents often heard requests for instruction where the university had nothing to offer but the private schools did. Real estate, game management, parent education, audiovisual equipment, conservation of natural resources, and other subjects were in demand. Several agents reported that students interested in commercial art enrolled with the Federal Schools in Minneapolis (the school where cartoonist Charles Schulz studied in the late 1930s and then taught in the late 1940s). One agent even proposed a course for the Civil Service examinations. "The commercial schools are doing a large business in this field at the present time. We could just as well be getting some of this business if we had the courses and gave it publicity."[xix] Although that suggestion was not adopted, Extension did introduce home study work in the popular new fields of air conditioner and diesel engine repair.

The agents wanted to capitalize on a major advantage unavailable to the proprietary schools--alliances with public school administrators. High school principals welcomed speeches each spring from the agents describing the opportunities available in the Extension Division. Close relationships with the principals were prized, and several agents described how they already built on those ties to contact recent high school graduates through invitations to visit the principal's office. There the agent and principal would help the prospect select Wisconsin home study courses, and if the student later took and passed the same number of courses on the Madison campus, the home study courses would then count toward the bachelor's degree. The same cooperation was envisioned for work beneath *university grade,* as home study activists called the college curriculum. In vocational schools, perhaps the local boards would pay for courses not currently available to evening school students. In sparsely populated districts, perhaps the school boards there would underwrite home study for 8th grade graduates who would not or could not travel to another town in order to enroll in high school. In small villages that did have a high school, perhaps the staff would welcome correspondence courses to enlarge their lean curriculum. As long as its allies in the public schools and Madison campus did not balk, Extension was free to create and sell courses below university grade. In other words, the University was not restricting itself to the equivalent of today's rigorous Advanced Placement courses; it was ready to serve high schools with secondary school curricula. As a result, the state's high schools, which had not been ignored before the 1930s, became even an more important market for Wisconsin's home study courses in that decade and beyond. At the same time, Extension had the largest enrollment of any American university in noncredit courses, a sign of Wisconsin's eagerness to satisfy the consumer. In a typical year, between 40 and 45 percent of the home study enrollments were in noncredit courses. Many of the agents wanted to expand those offerings. The staff envisioned an array of courses wider than vocational training for unskilled and semiskilled workers. The new offerings could take on basic tasks in everyday life: how to operate film projectors—public speaking for the dinner club member—dress making for the young housewife. "The service possibilities in this direction are tremendous," one agent forecast.[xx] The director of the field agents contributed his suggestion for boosting enrollments there—avoid the phrase non-credit because "off the campus, it is so often misunderstood…it belittles the course in their estimation…substitute another name for this classification such as technical or certificate course."[xxi]

Rarely did the agents refer to the caliber of the home study instructors or the worth of the textbooks. Apart from relaying a few students' complaints that their courses seemed outdated, the emphasis was on recruitment. What is our jurisdiction? Who are our rivals and our allies? In late 20th century America, community colleges expanded rapidly because they took those questions seriously. Long before then, home study was just as responsive to the marketplace, eager to serve the public with useful and affordable courses.

In a widely read book on higher education, philanthropist Abraham Flexner in 1930 mocked the home study courses offered by Columbia, Chicago, and Wisconsin.[xxii] In his opinion, the vast array of options trivialized the proper work of a university, which could best serve the state through serious research and good classroom teaching. Flexner focused his wrath on Columbia, which of the three universities had come closest to the methods of proprietary schools. It hired salesmen on commission and advertised aggressively, practices that drew criticism as too commercial, a charge that worried Columbia's President Nicholas Butler Murray several years before Flexner wrote his book.[xxiii] Wisconsin never proselytized as unabashedly as Columbia, but the exchanges among the staff in 1936 and 1938 suggest it was not shy when searching for new markets and cultivating old ones. As it criticized the blatant misrepresentations of many proprietary schools, Extension shared their energetic pursuit of potential students. Watchdog and cheerleader: it was an effective strategy for Wisconsin in the 1930s. The staff adroitly criticized their rivals and at the same time carefully adopted some of their tactics. The Wisconsin story is a reminder that American education, then and now, pays close attention to the marketplace—more populist than elitist, we have been remarkably creative in our recruitment of students. Throughout our history, educators have been entrepreneurial, scrappy, and nimble.[xxiv]

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i For overviews of correspondence schools before the 1930s, see Joseph Kett, <u>The Pursuit of Knowledge Under Difficulties: From Self-Improvement to Adult Education in America, 1750-1990</u> (Stanford University Press: Stanford, 1994); John Noffsinger, <u>Correspondence Schools, Lyceums, Chautauquas</u> (The Macmillan Company: New York, 1926); James D. Watkinson, "Education for Success: The International Correspondence Schools of Scranton, Pennsylvania" in <u>The Pennsylvania Magazine of History and Biography</u>, vol. CXX, no. 4, October 1996, 343-369.

ii Chester Allen and Charles A. Wedemeyer, "Extending to the People: The Story of Correspondence Study at the University of Wisconsin" (University of Wisconsin Extension Division: Madison, WI, 1957); Roger W. Axford, "William Henry Lighty: Adult Education Pioneer" (unpublished Ph.D. dissertation, University of Chicago, 1961), 170-171; Frederick M. Rosentreter, <u>The Boundaries of the Campus: A History of the University of Wisconsin Extension Division, 1885-1945</u> (University of Wisconsin Press: Madison, WI, 1957). Ch. 7; enrollments were reported in the annual proceedings of the National University Extension Association in the 1930s.

iii 1935 Annual Convention of the National Home Study Council (Transcript, Distance Education Training Council, Washington D.C.), p. 3; Stuart Chase, "Job Improvement, Inc." in <u>Fortune</u>, vol. 7, no. 6, June 1933, 66-71, 96, 98, 101.

iv All examples in this section are from the four binders of clippings, letters, memoranda, flyers and other materials in Box 6 of the Chester Allen Papers, Steenbock Library, University of Wisconsin Archives.

v "Correspondence Schools and their Contribution to Quackery in Education" in <u>Consumers' Research General Bulletin</u>, vol. 2, October 1932, 21-27.

vi Walter A. Friedman, <u>Birth of a Salesman: The Transformation of Selling in America</u> (Harvard University Press, 2004).

vii The evidence about collections is from the transcripts of the annual meetings of National Home Study Council, and I've discussed this topic in more length in "The National Home Study Council, 1926-1942" in <u>American Journal of Distance Education</u> 2009, 4-19.

viii J.S. Noffsinger, compiler, <u>Orders and Stipulations issued to Home Study Schools by Federal Trade Commission, 1925-1938</u> (National Home Study Council, Washington, D.C., 1938).

ix For the evolution of the law, see the letters between Chester Allen and E.E. Witte (Professor of Economics at the University of Wisconsin), and the exchange between Attorney General Orland Loomis and State Superintendent of Education John Callahan (Binder 3, Box 6, Chester Allen Papers).

x Chester Allen, "Field Services in Wisconsin" in Proceedings of the National University Extension Association (Indiana University Press: Bloomington, 1930), 74.

xi Charles Van Hise, "The University Extension Function in the Modern University" in Proceedings of the First National University Extension Association Conference (n.p., 1915), 8.

xii McCarthy to Van Hise, July 20, July 29, and August 6, 1907; Van Hise to McCarthy, August 1, 1907 (Reel 12, Charles Van Hise Papers, Wisconsin Historical Society).

xiii William Lighty to John L. Gillen, December 31, 1948 (Box 82, William Lighty Papers, Wisconsin Historical Society)

xiv Proceedings of the National University Extension Association, 1924 (Wright and Potter Printing Company: Boston, 1924), 146.

xv Andrew H. Melville, "The Field Work in Extension" in Proceedings….NUEA…. (1915), 64.

xvi Proceedings….NUEA (1924), 46.

xvii Rosentreter, Boundaries of the Campus, 74 and passim; also Axford, "William Henry Lighty", ch. 7.

xviii The 1936 letters are in Box 44 of the Lighty Papers, and the 1938 letters are in the "Correspondence Study Promotion, 1938" folder in Box 2 of the Allen Papers.

xix M.J. Lowe to Dean Frank Holt, January 19, 1936 (Box 44, Lighty Papers).

xx Benno W. Meyer to Dean F.O. Holt, January 10, 1936 (Box 44, Lighty Papers).

xxi Chester Allen to Dean F.O. Holt, January 29, 1936 (Box 44, Lighty Papers).

xxii Abraham Flexner, Universities: American, English, German (Oxford University Press: New York, 1930), 135-151.

xxiii Nicholas Murray Butler to James Egbert, June 1, 1927 (James Egbert Papers, Columbia University Archives). I discuss Columbia in detail in "The Business of Education" in Teachers College Record, September 2010, 2496-2517.

xxiv See the development of that theme in David Labaree, A Perfect Mess: The Unlikely Ascendancy of American Higher Education (University of Chicago Press: Chicago, 2017).

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