Phoenix Scholar™

COLLEGE OF DOCTORAL STUDIES | PERIODICAL FOR RESEARCH & SCHOLARSHIP

Volume 6 Issue 1, Spring 2023

Special Edition

Phoenix Scholar™

PERIODICAL FOR RESEARCH & SCHOLARSHIP

Volume 6 Issue 1, Spring 2023

Contact Information

Email: LeadershipStudies@Phoenix.edu

Address: 4035 S Riverpoint
Phoenix AZ 85040

To find submission requirements, contact information, and back issues, please visit the Phoenix Scholar page on the Reserch Hub (http://bit.ly/3STeCBm).

ISSN 2771-6503

Table of Contents

Table of Contents, Cont.

Editorial

Online education provides more flexible opportunities for adult learners to continue their education, however, there are still factors challenging them to engage in the educational process and succeed. The demand for online education significantly increased during the COVID-19 pandemic. Online education is now part of almost all higher education institutions. About 40 percent of students enrolled in U.S. higher education, during 2020-2028, are adults over the age of 25 according to National Center for Education Statistics. Such a high percentage of adult learners and demand for online education call for further investigating adult learners' issues in online education.

In response to this crucial call, the Center for Educational and Instructional Technology (CEITR) at the College of Doctoral Studies hosted this current special edition of the Phoenix Scholar that focuses on exploring adult learners' teaching and learning challenges and approaches. We included a collection of interesting manuscripts from the University of Phoenix leaders, faculty members, students, and graduates. The authors explored various approaches to improve online education and better serve adult learners.

In this edition, you will enjoy learning about a group of leaders' study at the College of General Studies on creating a philosophical framework aligned with tools such as zyBooks to improve student attrition. The University of Phoenix assessment and evaluation manager reported details on evaluating a new curriculum design that is career-relevant and skill aligned for undergraduate general education courses. Faculty members described Hyperflex, effective feedback approaches, teaching strategies, and challenges of teaching online courses for adult learners.

Furthermore, some of our faculty and graduates explored strategies to enhance retention for nontraditional students, fostering a growth mindset and enhancing belonging. Other authors focused on discussing how to incorporate technology to enhance learning particularly by integrating Artificial Intelligence and Metaverse. A couple of our doctoral graduates shared the synopses of their dissertations related to intercultural sensitivities in higher education and the role of distance education in enhancing the accessibility of higher education for adult learners. Finally, the authors discussed the importance of enhancing career-relevant skills for adult learners, the type of soft skills on demand for remote workers, and reskilling and upskilling students.

This edition sheds light on some of the current issues and approaches related to adult learners' teaching, learning, curricula, and skill development in online higher education. I encourage you to review the insightful articles and apply their suggestions to your teaching and learning.

Sincerely,

Mansureh Kebritchi, Ph.D.
Center for Educational and Instructional Technology (CEITR)
College of Doctoral Studies
University of Phoenix

Using a Custom Authoring Online Product to Create (Education) Theory-Informed Online Asynchronous Learning Environments

Jacquelyn Kelly, Ph.D.
Associate Dean
College of General Studies, UOPX

Susan Hadley, Ph.D.
Associate Dean
College of General Studies, UOPX

Jim Bruno, MBA
Curriculum Manager
College of General Studies, UOPX

Abstract

Selecting tools for the delivery of online asynchronous undergraduate instruction can be a challenge. To address this challenge, first, a philosophical framework for instruction should be developed to make explicit what an institution assumes to be true about student knowledge and learning. Education research offers many theoretical constructs that can be used to construct such a philosophical framework. Second, an online learning product consistent with the philosophical framework must be selected. If an online learning product conflicts with the philosophical framework, the course design will fall short of alignment with the philosophical framework. In this action research project, seven undergraduate general education courses were designed using a philosophical framework within a custom-authoring online learning product. Use of the Instructor Created Content feature from zyBooks allowed enhanced levels of implementation of our philosophical framework as compared with prior learning platforms (implementation gains ranging from 14.8% to 42.4%). The enhanced implementation resulted in reduced student attrition in all seven courses (attrition reductions of 1.8% to 17.6%).

Problem

In order for students to be prepared to enter the workforce, students must be supported throughout their educational experience. Seminal education theory can guide instructional choices to support this preparation. Grounding instructional choices in educational theory and research help ensure students develop working models of knowledge that will serve them as employees and allow them to fill the skill gaps that employers have identified.

Creating scalable online asynchronous learning environments grounded in educational theory can be challenging. Many online learning products and tools are in conflict with or create barriers to, implementing learning strategies consistent with educational theory (Osler & Wright, 2015). As a result, the theory-to-practice gap in online education remains considerable. The impacts of this gap are highlighted by the often-reported misalignment between industry employers' needs and the outcomes at institutions of higher education (Kumas, 2022; MIT Open Learning, 2021).

Those responsible for selecting online learning products are often confused because many products highlight the multiple ways they are grounded in

research. In many cases, those claims are accurate. Some online learning products align to theories and research related to information processing (Pearson Inc., 2022; McGrawHill, 2022), while others do not specify the theories in which their research is grounded (John Wiley & Sons, Inc., 2022). Information processing research and frameworks support the idea that information is processed by being broken down into a series of complex steps. While understanding this algorithmic approach to learning can be helpful, it does not support the application and transfer of knowledge. As a result, instructional strategies grounded solely in information processing research may not prepare students with skills needed to enter the ever-changing, socially situated, and complex workforce where a deep, conceptual understanding of multiple constructs is required.

Education research addresses those complexities in the context of educational systems and environments. Education research relies on interdisciplinary works from fields like psychology, neuroscience, sociology, and linguistics. The American Educational Research Association defines education research as follows:

> Education research is the scientific field of study that examines education and learning processes and the human attributes, interactions, organizations, and institutions that shape educational outcomes. Scholarship in the field seeks to describe, understand, and explain how learning takes place throughout a person's life and how formal and informal contexts of education affect all forms of learning. Education research embraces the full spectrum of rigorous methods appropriate to the questions being asked and also drives the development of new tools and methods. (American Educational Research Association, 2022)

This action research project sought to explore whether creating and adhering to an education-research-based framework for learning is supportive of student success in higher education.

The goal of this action research was to answer the following research questions:

1. Can an online learning product be used to enhance, and not conflict with, our (educational research-based) philosophical framework?
2. If we can create online asynchronous classroom environments aligned with our philosophical framework, can student attrition be reduced?

Background

A gap has consistently been identified between employer needs and higher education outcomes (Hillman & Zipper, 2019). While graduates are often able to demonstrate evidence of knowledge in a specific industry, they frequently lack other skills employers expect. When businesses struggle to recruit and retain employees, the impact of this skills gap is magnified. A 2020 report identified the common skills most frequently listed on job postings for candidates with undergraduate degrees. These skills included management, operations, communications, customer service, leadership, sales, planning, scheduling, and problem-solving (Lightcast, 2022). Many of these skills involve complex human interactions and require knowledge synthesis and transfer. These skills and abilities might not be addressed through instructional frameworks grounded in information processing research, as discussed above.

Our goal, as institutions of higher education, must be to help students develop functioning mental models so they can transition to a career and successfully apply their knowledge. A mental model framework, based in education research, highlights one way to prepare students for the workforce. In this framework, students create models to explain and predict phenomena. Models can vary greatly in simplicity; however, students must be able to provide 5 different types of explanations: (1) intentional explanations, which provide justification of relevance and importance; (2) descriptive explanations, which answer how the phenomenon behaves; (3) interpretive explanations, which enable classification and comparison to like cases; (4) causative explanations, which answer what causes the specific phenomenon; and (5) predictive explanations, which allow predictions to be made about like situations or similar phenomena (Gilbert, Boulter, & Rutherford, 1998). Though even strong models have limitations, if a model cannot offer each type of explanation, it is deemed faulty. If we focus on student learning through this framework of model construction, it becomes apparent how the five resulting explanations of a functioning mental model support students as they apply what they have learned in the classroom to workforce environments.

A philosophical framework for an instruction serves as a representation of agreed-upon assumptions about learning. It can bring multiple stakeholders to consistency by explicitly defining what is believed to be true about how students learn and are successful. To explore how best to support student' ability to create functioning mental models, we developed a philosophical framework.

This framework was initially implemented in two undergraduate general education quantitative reasoning courses leveraged the course learning tool, zyBooks. Implementation proved favorable, and in both courses student attrition reduced, student performance on summative assessments improved, and positive student sentiment increased (Kelly, Bruno, Edgecomb, Vahid, & Gordon, 2022). This implementation demonstrated the zyBooks platform was consistent with our philosophical framework (Kelly, Bruno, Edgecomb, Vahid, & Gordon, 2022). Following this successful initial implementation, our philosophical framework was revisited for iteration.

Table 1 represents the adopted philosophical framework following revision. This revised framework

Theoretical Construct	Theoretical Claim	Thought Leaders and References
Conceptual Change	Students learn through conceptual development and conceptual change.	(Strike & Posner, 1992) (Carey, 1999) (Carey, 2000) (Chinn & Brewer, 1993) (Chi, 2008)
Social Constructivism	Learning occurs and knowledge exists between social entities and is developed through social interaction.	(Vygotsky, 1986)
Metacognition & Affect	Learning is influenced by metacognitive process and affective state.	(Dole & Sinatra, 1998) (Mayer, 1998) (Moons & Mackie, 2007) (Sinatra, 2005)
Systemic Functional Linguistics	Language is contextual; teaching students to navigate those contexts is essential for learning and communicating knowledge.	(Halliday & Matthiessen, 2004) (Holliday, Yore, & Alvermann, 1994) (Achugar, Schleppegrell, & Oteiza, 2007) (Fang, 2005) (Lemke, 1998) (Markman, 1991)
Academic Self-Concept	Academic self-concept is the strongest quantitative predictor of student persistence.	(Marsh & Shavelson, 1985) (Bong & Skaalvik, 2003) (Davis, Hanzek-Brill, Petzold, & Robinson, 2019)
Hidden Curriculum	Unintentional messages about learning and knowledge are delivered to students from the	(Giroux & Penna, 1979) (Dewey, 1986)

Table 1 | Theoretical claims of the adopted philosophical framework.

is used to help consistently define what we view as knowledge, teaching, learning, and assessment. The framework helps inform our instructional choices across course features. By implementing this framework, we can attempt to maximize education theory and research-informed experiences, which support students from college through their careers.

With this revised framework, we planned implementation in additional courses. For additional implementation, we needed a robust online learning product. A review of online learning products revealed many available options would conflict with our philosophical framework. We realized tremendous flexibility would be needed in an online learning product so the learning environment could be customized to align with our philosophical framework.

We approached zyBooks and requested the ability to custom-author content within the zyBooks platform. They suggested we explore the Instructor Created Content (ICC) feature of zyBooks. In this product, institutions can author custom content within the zyBooks platform and leverage learning features like participation activities, automatic grade pass-back, and data reporting as they exist in the standard zyBooks learning platform. By using ICC, the institution maintains intellectual ownership of the authored content and can quickly update content as needed.

Initially, we assessed ICC for consistency with our philosophical framework. These findings are summarized in Table 2. The zyBooks platform is structured in a way that encourages information chunking by first explaining a concept with short text and then eliciting active learning from students by following the text with interactive questions designed to evoke thoughtful engagement with the concepts. Next, students are provided an opportunity to reflect on potential misconceptions by reading the feedback to their responses, which both address misconceptions and further explain the content. The back-and-forth nature of these interactive questions and feedback is a more conversational experience than traditional text. Instructor notes can also be embedded in the content, furthering the social nature of the learning environment and providing customization of advisory language.

The zyBooks tool respects students' time and cognitive load by providing access to content, assignments, and other embedded resources (i.e., videos) in one

location. Students are also able to track their own progress on content completion, which gives them a sense of ownership over their learning. When students revisit content, their prior answers to questions are not shown, which promotes more successful studying since students must engage more deeply to re-answer the questions rather than just looking at a short reminder of what the answer was.

Theoretical Construct	ICC Feature Consistent with Framework
Conceptual Change	• Authoring in scaffolded pieces • Ability to probe and elicit misconceptions throughout presentation of content (embedded)
Social Constructivism	• Mimic conversational convention by use of embedded content, questioning, and coaching tools
Metacognition & Affect	• Ability to embed reflective questioning • Students can track their progress and feedback
Systemic Functional Linguistics	• Customization allows adding content consistent with this framework
Academic Self-Concept	• Customization allows controlling tone and underlying messaging associated with course content
Hidden Curriculum	• Iterations are encouraged and promoted through coaching comments • Automatic grade feedback sent to the gradebook • Student friendly technological experience free from multiple technology reported issues

Table 2 | zyBooks instructor created content feature alignment to philosophical framework.

In the ICC model, all components of the zyBooks content structure are customizable. This allows custom authoring of content, formative questioning, coaching, and advisory language.

We determined the flexibility of ICC was aligned to our philosophical framework, and course design could commence.

Method and Process

Seven undergraduate general education courses were identified for course design and revision with the use of ICC: GEN/201, SCI/163T, SCI/220T, ENV/100T, PSY/110, MTH/213, and MTH/214. In each case, course design was unique and based on the needs of students in the courses. In all cases, our philosophical framework was used to guide course design. Since use of ICC requires substantial content authoring, and due to the diverse nature of the courses, implementation of our philosophical framework was different in each course.

Course	Description of Course and Student Population	Notes from Course Design Process
GEN/201	Entry point course for all undergraduate students; introduction to university	• The College, in collaboration with a team of faculty, worked on the revision • Entire classroom resource used authored content and leveraged embedded/real time formative assignments • Intentional focus on the needs of new students
SCI/163T	Introductory undergraduate general education health and wellness course	• The College, in collaboration with Instructional Designers, worked on the revision • Used authored content to create characters representative of student population, link to supplemental library resources, leverage embedded/real time formative assignments • Used characters to destigmatize the receipt of accommodations and embed resources for contacting the Office of Accessibility and Disability Services
SCI/220T	Introductory undergraduate general education nutrition course	• The College, in collaboration with Instructional Designers, worked on the revision • Used authored content to create characters representative of student population, link to supplemental library resources, leverage embedded/real time formative assignments
ENV/100T	Introductory undergraduate general education environmental science course	• Environmental Science Faculty Council, in collaboration with Associate Dean, worked on the revision • Authored content in the form of a children's book; scientific concepts were anthropomorphized • ICC used to complete custom authoring, link to supplemental library resources, leverage embedded/real time formative assignments

Table 3 | Course design processes using ICC.

Table 3 outlines some of the strategies and key features associated with course design. The use of ICC allowed the implementation of diverse design processes, course intentions, instructional strategies, and outcomes. While all cases were consistent with our framework, ICC allowed us to implement the framework in ways that were varied.

Use of the ICC tool ranged from fully authoring all custom course content to creating a consistent space for students to access curated content and complete formative assignments. All design choices were guided by our philosophical framework. However, for pragmatic reasons, it was not realistic to expect complete alignment. Some factors that impeded the implementation of various components of our framework included system constraints within the University's learning management system, course scheduling, opportunities to deploy assessments, and policies guiding student/faculty attendance and required engagement. As a result, opportunities for framework implementation were determined by those

involved in each distinct course revision. Following implementation, we needed a way to assess the extent of implementation of the framework in each course. After courses were designed, they were scored for their level of implementation of our philosophical framework by using our Philosophical Framework Inventory.

Philosophical Framework Inventory

Our Philosophical Framework Inventory guided course development and assessed the degree of philosophical framework implementation in a particular course. The inventory identified course features that can be changed in online undergraduate general education courses. The course features identified, listed in Table 4, were advisory language, discussion questions, content resources, formative assignments, and summative assessments.

Course Feature	Course Feature Description
Advisory Language	Advisory language includes all instructions and informational text to the student throughout the course. Advisory language is used to tell students what to do and guide how they think about the course, content, and layout.
Discussion Questions	Discussion questions are the weekly course component required in all courses. Students are presented with a question prompt and must create a response. They must then respond to at least two other posts by classmates or faculty each week.
Content Resources	Content resources include all assets that support students with acquiring the knowledge needed in the course. These might include reading assignments, videos, reference material, external websites, and library content.
Formative Assignments	This includes all work students might be asked to complete to practice or demonstrate knowledge of learning outcomes. Often these are lower stakes but tied to earned points within the gradebook.
Summative Assessment	Assessments include summative depictions of student demonstration of course student learning outcomes. They are high stakes.

Table 4 | Course features for course design.

For each course feature, we created criteria to assess the level of philosophical framework implementation that existed, shown in Table 5. Each course feature was assessed for each construct in our philosophical framework and received a rating from 0-2 (0=Evidence from Framework Not Present, 1=Some Evidence from Framework Present, 2=Strong Evidence from Framework Present). A possible score range of 0-60 was possible for each assessed course, with a score of 0 indicating no evidence of philosophical framework implementation within the course and a score of 60 indicating strong evidence of philosophical framework implementation.

Course Feature	Theoretical Construct					
	Conceptual Change	*Social Constructivism*	*Metacognition & Affect*	*Systemic Functional Linguistics*	*Academic Self-Concept*	*Hidden Curriculum*
Advisory Language	Provides rationale for the process of eliciting prior knowledge and building concepts.	Provides rationale for the importance of social interaction for processing information and constructing knowledge.	Promotes reflective thinking and self-regulating behavior. Explanation of the role of emotions in thinking and learning.	Addresses the differences between technical and colloquialism. Encourages students to identify and discuss them.	Nontechnical and addresses students at an accessible level. It is neither threatening nor exclusive.	Empathetic to the learners' responsibilities over and above being a student. It creates spaces safe to share these.
Discussion Questions	Acknowledge and elicits prior experience that will impact integration of new information.	Promote students building knowledge between each other and the instructor. Acknowledge social interaction is how knowledge can be built and extended.	Promote reflective thinking rather than information recall. Acknowledge and elicit the role of emotions in processing.	Compare technical and colloquial language. Help students navigate, formalize, and make sense of these distinctions.	Rooted in student lived experience. Do not make students feel like imposters.	Tone is supportive, welcoming, and open; not dichotomous. Value student perceptions.
Content Resources	Acknowledge preconceptions. Support	Engage with the student. Not	Identify cognitive and affective	Use operational definitions. Distinguish	Promote sense of belonging. Content is	Promote learning as a complicate

Table 5 | Philosophical framework inventory.

A team of college leaders familiar with our philosophical framework and course design scored each course according to the inventory. Each criterion was discussed, evidence from the course was presented, and the discussion continued until consensus was achieved.

Student Attrition Rate

The student attrition rate was defined as the percentage of students earning an F grade or withdrawing from the course. Attrition rates were collected for the first 2 months after launching the revised course with the implemented philosophical framework. These attrition rates were named

Post-Implementation. For historical comparison, we collected the same 2 months attrition rate the previous year for each course and called this Pre-Implementation. Pre- and Post-Implementation rates were compared to provide insights into the potential effect of the implementation of our philosophical framework on student attrition. To better understand and make comparisons, a normalized gain was calculated for each set of attrition rates (Hake, 1998).

Philosophical Framework Inventory scores and student attrition rates were examined to understand the changes that occurred as a result of the course design that implemented our philosophical framework.

Results and Discussion

Philosophical Framework Inventory scores for the 7 revised courses were collected and are shown in Table 6. For each of the 7 courses, there was at least some evidence of each theoretical construct from the framework present. Scores ranged from 31-51.

Course	Philosophical Framework Inventory Score by Theoretical Construct						
	Conceptual Change	*Social Constructivism*	*Metacognition& Affect*	*Systemic Functional Linguistics*	*Academic Self-Concept*	*Hidden Curriculum*	*To*
GEN/201	6	4	6	3	10	8	3
SCI/163T	8	5	5	3	8	8	3
SCI/220T	6	4	4	4	5	8	3
ENV/100T	9	6	6	4	7	7	3
PSY/110	6	7	7	6	10	9	4
MTH/213	10	9	10	5	9	8	5
MTH/214	10	9	10	5	9	8	5

Table 6 | Philosophical framework inventory score by theoretical construct.

Scoring made apparent certain aspects of our philosophical framework were more prominent in some courses. For example, in the entry-point courses (GEN/201 and PSY/110), there was a greater emphasis on academic self-concept than in other courses. Those involved in course design confirmed this intention. The focus of the revision was to support new students as they were onboarded to the college environment. Emphasis was placed on supporting students to feel a sense of belonging and identify as successful members of the academic community. The mathematics courses for elementary educators (MTH/213 and MTH/214) focused on supporting elementary math teachers with understanding conceptual processes for early learners of mathematics. As a result, conceptual understanding and attention to metacognitive approaches were emphasized. The varied scoring results reflect the flexibility and ability of ICC to emphasize theoretical constructs in diverse ways to maximize the likelihood of success for students in each course.

To explore trends in the level of implementation of our Philosophical Framework among course features, implementation scores were examined for each course feature and are shown in Table 7. It became apparent that discussion questions were most often in strong alignment with our philosophical framework, while much lower levels of implementation existed in advisory language within the courses.

Course	Philosophical Framework Inventory Score by Course Feature					
	Advisory Language	Discussion Questions	Content Recourses	Formative Assignments	Summative Assessments	Total
GEN/201	5	9	8	7	8	37
SCI/163T	3	10	10	8	6	37
SCI/220T	0	10	8	7	6	31
ENV/100T	9	10	9	7	4	39
PSY/110	7	10	11	9	8	45
MTH/213	6	11	12	11	11	51
MTH/214	6	11	12	11	11	51

Table 7 | Philosophical framework inventory score by course feature.

Upon initial review, it seemed ICC was a learning tool that supported implementation of our Philosophical Framework. It did not have features or constraints that were in conflict with the framework. Additionally, it allowed use of diverse instructional strategies and the flexibility to emphasize different components of the framework.

Prior to answering the first research question, a historical review of Pre-Implementation courses was conducted. Table 8 shows the online learning

product used in the Pre-Implementation version of the course, Pre- and Post-Implementation scores from our Philosophical Framework Inventory, and the normalized gains from revision. These normalized gains represent the difference between evidence of our philosophical framework in the old and revised versions of each course. Names of online learning products were replaced with placeholder names for the purpose of disseminating the results of this work.

Course	Pre-Implementation Online Learning Product	Pre-Implementation Score without ICC	Post-Implementation Score Using ICC	Normalized Gain
GEN/201	Product A	21	37	20.3%
SCI/163T	Product A	20	37	21.3%
SCI/220T	Product B	19	31	14.8%
ENV/100T	Product B	21	39	22.8%
PSY/110	Product A	33	45	17.9%
MTH/213	Product C	15	51	42.4%
MTH/214	Product C	15	51	42.4%

Table 8 | Pre and post-implementation scores on philosophical framework inventory.

Levels of implementation of our philosophical framework increased in every course using ICC and custom-authored content. Increases in implementation ranged from 14.8%-42.4%. Our Philosophical Framework Inventory scores serve as data that the ICC tool allowed greater levels of our philosophical framework implementation than any of the 3 pre-implementation online learning products.

The first research question was 1) Can an online learning product be used to enhance, and not conflict with, our (educational research-based) philosophical framework? Descriptive data allows us to conclude that the answer to the first research question is "yes." The online learning product, ICC, can be used to enhance, and not conflict with, our philosophical framework.

To answer the second research question, we examined student attrition related to philosophical framework implementation. Attrition rates Pre- and Post-Implementation are shown in Table 9. In every course, attrition rates were reduced post-Implementation.

The second research question was 2) If we can create online asynchronous classroom environments aligned to our philosophical framework, can student attrition be reduced? Descriptive data allows us to conclude

	Pre-Implementation			Post Implementation			
Course	Dates	Sample Size	Attrition	Dates	Sample Size	Attrition	Normalized Gain
GEN/201	Jan-Feb 2020	5718	22.0%	Jan-Feb 2021	5257	20.8%	-1.5%
SCI/163T	Feb-Mar 2020	375	7.2%	Feb-Mar 2021	336	5.7%	-1.6%
SCI/220T	Feb-Mar 2020	2561	6.8%	Feb-Mar 2021	1785	5.1%	-1.8%
ENV/100T	Oct-Nov 2020	508	10.6%	Oct-Nov 2021	512	7.8%	-3.1%
PSY/110	Dec-Feb 2021	3335	22.6%	Dec-Feb 2022	3853	18.9%	-4.8%
MTH/213	Feb-Mar 2021	223	17.0%	Feb-Mar 2022	236	10.6%	-7.7%
MTH/214	Feb-Mar 2021	224	23.7%	Feb-Mar 2022	261	10.3%	-17.6%

Table 9 | Pre and post-student attrition metrics.

that the answer to the second research question is "yes." As a result of the increased implementation of our philosophical framework in seven undergraduate general education courses, student attrition was reduced. The ability to achieve these results was dependent on finding an online vendor product, in this case, ICC, that allowed increased implementation of a philosophical framework aligned to education research.

Conclusions

To prepare students for the ever-changing workforce, the adoption of a philosophical framework aligned to education research is required. Frameworks like this will align instructional strategies to the ability to help students develop deep conceptual understandings of content, which can be used to create coherent and functioning mental models. These mental models are what support students with transferring and applying complex learning from the classroom to the workforce environment.

Finding an online learning product that allows alignment to education theory is ideal for maximizing the ability to implement strategies consistent with a philosophical framework. If the online learning product is in conflict with the underlying theories from a framework, it may prevent the implementation of instructional strategies the framework suggests are best practices.

In order to determine whether an online vendor product aligns with a philosophical framework, first a philosophical framework must be adopted. Institutions and units responsible for creating

learning environments must explicitly define their frameworks so all stakeholders are operating from the same assumptions and claims about knowledge and learning. There is no single framework that will serve all students. Instead, a thorough examination of research in education must be conducted to reflect the diverse and unique needs of each student population served by an institution.

Once a philosophical framework is developed and adopted, online learning products can be examined for continuity with that framework. Learning management systems can be selected to ensure their limitations are not in conflict with the framework. Finally, courses can be designed, and instructional strategies can be developed. An institutional philosophical framework does not mean all courses and learning strategies are identical within the institution. Instead, it ensures the same language of education is being spoken and used to guide decision-making about instructional environments.

With an adopted framework, decisions can become more strategic, and progress towards positive student outcomes will seem more intentional. As theory and research continue to evolve in the education space, philosophical frameworks can be updated. Adopting a philosophical framework grounded in educational theory serves as the first step in closing the theory-to-practice gap and creating sustainable, scalable learning environments consistent with the best practices of education research.

About the Authors

Jacquelyn Kelly, PhD is an Associate Dean at University of Phoenix with more than 15 years of experience in science and math education. Her expertise is translating STEM education research into practice at institutions of higher education. Kelly earned her doctorate in Curriculum and Instruction with a specialization in Science Education and her master's degree is in Materials Science and Engineering from Arizona State University. Her undergraduate degree is in Physics and Chemistry from California State University, San Marcos. She has been principal and co-principal investigators of multiple federal grant projects to develop science education support in K-12 education.

Susan Hadley, PhD, is an Associate Dean at University of Phoenix. She oversees the Bachelor of Arts in English and non-STEM general education catalog, including 'first year experience' courses. Hadley has spent 20+ years in higher education as a dean and faculty member. She also advised higher education institutions throughout the country regarding program design, policies and procedures, and accreditation. Dr. Hadley earned her doctorate in psychology from Saybrook University, a Master of Arts in English from Emporia State University, a Bachelor of Arts in English from Hastings College, and a Bachelor of Science in Business Management from Bellevue University.

Jim Bruno, MBA is the College Curriculum Manager for the College of General Studies. He has over 20 years of experience in course design, process management, and the scholarship of teaching. He operationalizes transformative practices in higher education to best meet the needs of nontraditional learners. In 2017, Jim was recognized with the Sperling Award for Innovation for his work developing technology enhanced course designs. Jim earned his Bachelor of Science in Business Management and a Master of Business Administration from University of Phoenix.

References

Achugar, M., Schleppegrell, M., & Oteiza, T. (2007). Engaging teachers in language analysis: A functional linguistics approach to reflective literacy. English Teaching: Practice and Critique, 6(2), 8-24.

American Educational Research Association. (2022). What is Education Research?

Bong, M., & Skaalvik, E. M. (2003). Academic Self-Concept and Self-Efficacy: How Different Are They Really? Educational Psychology Review, 15(1), 1-40.

Carey, S. (1999). Sources of conceptual change. In various, Conceptual Development: Piaget's Legacy (pp. 293-326). Mahwah, NJ: Lawrence Erlbaum Associates.

Carey, S. (2000). Science education as conceptual change. Journal of Applied Developmental Psychology, 21(1), 13-19.

Chi, M. T. (2008). Three types of conceptual change: Belief revision, mental model transformation, and categorical shift. In various, & S. Vosniadou (Ed.), Handbook of research on conceptual change (pp. 61-82). Hillsdale, NJ: Erlbaum.

Chinn, C. A., & Brewer, W. F. (1993). The role of anomalous data in knowledge acquisition: A theoretical framework and implications for science instruction. Review of Educational Research, 63, 1-49.

Cotton, D., Winter, J., & Bailey, I. (2012). Researching the hidden curriculum: intentional and unintended messages. Journal of Geography in Higher Education, 37(2), 192-203.

Davis, G. M., Hanzek-Brill, M. B., Petzold, M. C., & Robinson, D. H. (2019). Students' Sense of Belonging: The Development of a Predictive Retention Model. Journal of the Scholarship of Teaching and Learning, 19(1), 117-127.

Dewey, J. (1986). Experience and Education. The Educational Forum, 50(3), 241-252.

Dole, J. A., & Sinatra, G. M. (1998). Reconceptualizing change in the cognitive construction of knowledge. Educational Psychologist, 33(2-3), 109-128.

Fang, Z. (2005). Scientific Literacy: A Systemic Functional Linguistics Perspective. Science Education, 89, 335-347.

Gilbert, J. K., Boulter, C. B., & Rutherford, M. (1998). Models in explanations, Part I: Horses for courses? International Journal of Science Education, 20(1), 83-97.

Giroux, H. A., & Penna, A. N. (1979). Social Education in the Classroom: The Dynamics of the Hidden Curriculum. Theory and Research in Social Education, 7(1), 19.

Halliday, M. K., & Matthiessen, C. M. (2004). An introduction to functional grammar (3rd ed.). London: Arnorld.

Hillman, M., & Zipper, T. (2019, 5 31). Addressing the Skills Gap and New Opportunities in Higher Ed. (L. R. Downs, Interviewer) wcet. Retrieved from https://wcet.wiche.edu/frontiers/2019/05/31/wes-poised-skills-gap-with-partner-schools/

Holliday, W. G., Yore, L. D., & Alvermann, D. E. (1994). The reading-science learning-writing connection: breakthroughs, barriers, and promises. Journal of Research in Science Teaching, 31, 877-893.

Kelly, J., Bruno, J., Edgecomb, A., Vahid, F., & Gordon, C. (2022). Theory to Practice: Reducing Student Attrition in Online undergraduate Math. International Journal of Research in Education and Science (IJRES), 8(2), 187-206.

Lemke, J. L. (1990). Talking science: Language, Learning and Values. Noorwood, NJ: Ablex.

Lemke, J. L. (1998). Multiplying meaning: visual and verbal semiotics in scientific text. In various, Reading science: critical and functional perspectives of discourses of science (pp. 87-111). New York: Routledge.

Markman, E. (1991). The whole object, the taxonomic, and the mutual exclusivity assumptions as initial constraints on word meaning. In various, & G. Bynes (Ed.), Perspectives on language and thought: Interrelations in development. Cambridge: Cambridge University Press.

Marsh, H. W., & Shavelson, R. J. (1985). Self-concept: Its multifaceted, hierarchical structure. Educational Psychology, 20, 107-123.

Mayer, R. E. (1998). Cognitive, metacognitive, and motivational aspects of problem solving. Instructional Science, 26(1-2), 49-63.

Melville, W., & Bartley, A. (2013). Constituting Identifies That Challenge the Contemporary Discourse: Power, Discourse, Experience, and Emotion. Science Education, 97(2), 171-190.

Moons, W. G., & Mackie, D. M. (2007). Thinking straight while seeing red: The influence of anger on information processing. Personality and Social Psychology Bulletin, 33(5), 706-720.

Sinatra, G. M. (2005). The "Warming Trend" in Conceptual Change Research: The Legacy of Paul R. Pintrich. Educational Psychologist, 40(2), 107-115.

Strike, K. A., & Posner, G. J. (1992). A revisionist theory of conceptual change. In Various, R. Duschl, & R. Hamilton (Eds.), Philosophy of Science, Cognitive Psychology and Educational Theory and Practice (pp. 147-176). Albany, NY: State University of New York Press.

Vygotsky, L. S. (1986). Thought and language- Revised edition. Cambridge, MA: Massachusetts Institute of Technology.

Design 2.0 Innovative Curriculum Initiative, Part 1: Evaluating Implementation Using the Developmental Evaluation Approach

Nancy L. Stackhouse, Ed.D.
Assessment Manager
Academic Assessment and Evaluation, UOPX

Abstract

The Design 2.0 curriculum initiative project at the University of Phoenix aims to implement best practices and innovative teaching and learning strategies that are career-relevant and skills-aligned. The Center for Teaching and Learning (CTL) and the Academic Assessment and Evaluation (AAE) teams conducted surveys, interviews, and focus groups of students, faculty, and college stakeholders to answer the following research questions: how did stakeholders perceive the application, usefulness, and effectiveness of Design 2.0; what was the effect of Design 2.0 on student performance; and what opportunities exist to improve the effectiveness of Design 2.0? Patton's Developmental Evaluation (DE) approach was used to capture system dynamics, interdependencies, and emergent interconnections. The need emerged to support colleges in comprehensively presenting their vision planning for converting current programs to Design 2.0 resulting in the development of a Design 2.0 Program Kick-Off Template. Additional programs converting to Design 2.0 are using the template in their vision planning.

Introduction

At the University of Phoenix (UOPX), a major curriculum initiative project is underway. Design 2.0 is aimed at improving teaching and learning in online higher education by using best practices and innovative teaching and learning strategies to better prepare adult learners for the current workplace. A culmination of previous research-based initiatives at UOPX, this skills-aligned curriculum initiative establishes skills-aligned curriculum maps ensuring programs are aligned to in-demand marketplace skills based on employment data along with accreditation expectations, faculty, and advisory council input.

The primary purposes for implementing Design 2.0 are to enhance a skills-aligned curriculum and to support each student's career connections (Center for Teaching and Learning, Learning Innovation Update: Design 2.0, 2023). The best practice strategies undergirding Design 2.0 include the following elements detailed in Table 1.

Making Skills and Outcomes Evident	Igniting Students' Professional Identity	Representing the Voice of the Customer/Industry	Providing Interactive Experiences
Evidenced through:	Evidenced through:	Evidenced through:	Evidenced through:
*Syllabus	*Career-Relevant Discussions	*Narrative Elements	*Career-Relevant Resources and Support
*Module Titles	*Job Titles	*Course Guide	*Career-Relevant Videos
*Naming Conventions	*Summative Assessments	*Weekly Module	*Subject Matter Expert (SME)
*Course Guide	*Course Content	*Titles/Descriptions	
*Faculty Guide		*Assessments	

Note. Learning Innovation Update: Design 2.0 (Center for Teaching and Learning, 2023)

Table 1 | Reinforcing a skills-aligned curriculum.

To meaningfully evaluate the implementation of four pilot programs selected for conversion to Design 2.0 in July 2022 (Bachelor of Science in Education – Elementary [BSED/E], Master of Management [MM], Bachelor of Science in Criminal Justice Administration [BSCJA], and Bachelor of Science in Health Administration [BSHA]), an innovative educational evaluation approach was applied. Developmental Evaluation (DE) was created by evaluation expert and author, Michael Quinn Patton, who states, "Developmental Evaluation supports innovation development to guide adaptation to emergent and dynamic realities in complex environments. Innovations can take the form of new projects, programs, products, organizational change, policy reforms, and system interventions" (2011, p. 1).

The differences between traditional evaluations and complexity-based developmental evaluations are portrayed in Table 2.

Traditional Evaluations	Complexity-Based Developmental Evaluations
Render definitive judgments of success or failure.	Provide feedback, generate learnings, support direction, or affirm changes in direction.
Measure success against pre-determined goals.	Develop new measures and monitoring mechanisms as goals emerge and evolve.
Position the evaluator outside to assure independence and objectivity.	Position evaluation as an internal, team function integrated into action and ongoing interpretive processes.
Design the evaluation based on linear cause-effect logic models.	Design the evaluation to capture system dynamics, interdependencies, and emergent interconnections.
Aim to produce generalizable findings across time and space.	Aim to produce context-specific understandings that inform ongoing innovation.
Accountability focused on and directed to external authorities and funders.	Accountability centered on the innovators' deep sense of fundamental values and commitments.
Accountability to control and locate blame for failures.	Learning to respond to lack of control and stay in touch with what's unfolding and thereby respond strategically.
Evaluator controls the evaluation and determines the design based on the evaluator's perspective on what is important.	Evaluator collaborates in the change effort to design a process that matches philosophically and organizationally.
Evaluation engenders fear of failure.	Evaluator supports hunger for learning.

Note. Evaluation for the way we work (Patton, 2006)

Table 2 | Traditional evaluations vs. complexity-based developmental evaluations.

In 2014 at the American Evaluation Association's national conference in Denver, CO, Patton further advanced his theory that DE makes complexity manageable for the purpose of improved student learning. With DE, sometimes parts of the assessment plan are left behind while new innovative assessments emerge (Patton, 2014). A fuller description of Patton's DE approach is presented here: What is Developmental Evaluation? (3 min videoclip).

To evaluate the implementation of the Design 2.0 innovative curriculum initiative, the Center for Teaching and Learning (CTL) team (Mary Elizabeth Smith, Director of Learning Innovation Strategies and Instructional Design, Jason Covert, Senior Learning Experiences Designer and Lead Researcher on Design 2.0 Curriculum Initiative Project, and Donna Smith, Senior Learning Experiences Designer) and the Academic Assessment and Evaluation (AAE) team (Dr. Nancy Stackhouse, Assessment Manager, and Dr. Eve Krahe-Billings, Dean of Academic Innovation and Evaluation) collaborated to determine the following research questions and methodology depicted in Table 3.

Research Questions	Topic(s)	Method(s)
How did students, instructional designers (IDs), curriculum production editors (CPEs), curriculum quality analysts (CQAs), college curriculum managers (CCMs), associate deans (ADs), and faculty perceive the application, usefulness, and effectiveness of Design 2.0?	Skills and Careers Assessments Resources Student Performance Design	Surveys Interviews Focus Groups
What was the effect of Design 2.0 on student performance?	Student Performance	Grades Faculty Survey
What opportunities exist to improve the effectiveness of Design 2.0?	Skills and Careers Assessments Resources Student Performance Design	Survey Interviews Focus Groups Grades

Note. Learning Innovation Update: Design 2.0 (Center for Teaching and Learning, 2023)

Table 3 | Research questions and methodology.

Overall data collection procedures for the Design 2.0 curriculum initiative project are displayed in Table 4.

In January 2023, the Learning Innovation Update: Design 2.0 was presented at the Colleges Expanded Leadership Meeting by Mary Elizabeth Smith. While a final evaluation research report is expected in spring 2023, timely insights and actionable recommendations based on ongoing data collection and data analysis were presented. A preliminary

Project	Stakeholders	Faculty
Understand the impact of the application of Design 2.0 strategies and where pivots or additional support may be needed: Survey faculty in 1st course start date (CSD) Survey students in 1st three CSDs Interview two students per course Withdraw/fail and assessment data for three CSDs compared to previous three CSDs Separate high-level analysis of summative assessment and rubric due to focus and changes	Understand perspectives and experiences in the translation and application of Design 2.0 strategies: Focus groups (early) – IDs, CCMs, ADs, CPEs, and CQAs Program and course feedback AD/ID retrospective	As all Design 2.0 courses roll out, supporting faculty in multiple ways, in addition to surveying faculty in targeted 1st two courses of the program: Pre-course email from faculty training including faculty resource center (FRC) content about how to strengthen connections to skills and careers In-course content via the faculty guide

Note. Learning Innovation Update: Design 2.0 (Center for Teaching and Learning, 2023)

Table 4 | Initiative details.

emerging insight was the need to further support the colleges and the Center for Teaching and Learning in effectively implementing the Design 2.0 curriculum initiative. Using the Developmental Evaluation (DE) approach, system dynamics, interdependencies, and emergent interconnections were captured throughout the pilot implementations. The CTL team and the AAE team were able to provide feedback to colleges resulting in an emergent need to develop a Design 2.0 Program Kick-Off template (with data points and points of contact) to support colleges in effectively and comprehensively presenting their vision planning for converting current programs to Design 2.0. Dr. Nancy Stackhouse crafted a Design 2.0 Program Kick-Off Template (rubric) based on criteria found in previously presented Design 2.0 training materials (Design 2.0 Roles and Responsibilities deck and Design 2.0 Kick-Off deck, 2022). Hypothetical scoring and feedback are included for reader understanding in Table 5.

Design 2.0 Vision Planning PPT Elements	Score*	Evaluation Feedback
1-2.0 Program Vision/Mission	N	No vision or mission statement included. Please develop/include.
2-Student Demographics	E	Gender, race, age, learning modality included.
3-Gaps – Incoming and at Graduation: Technical	E	Students struggle navigating the My Time Log system, Excel, etc.
4-Gaps – Incoming and at Graduation: Non-cognitive/soft skills	P	Mention on slide X of "program bridging the gap between theory and practical application through applied assignments." Need to include specific non-cognitive/soft skills.
5-Career Services Feedback-Ask "What are students lacking when they graduate from this program?"	N	Career services feedback not included. Please communicate with Career Services and develop/include.
6-Student and Enrollment Services Feedback (ERs/ACs)	E	Student enrollment NDE and TDE trends, transfer credits included.
7-Feedback from Tech Support-Ask "Where are students having issues and in what classes?"	N	Please determine and include. Communicate with tech support.
8-Data Analysis: PBI (Power Business Intelligence platform) SEOCs (Student End-of Course evaluations)	E	Student course sentiment included.
9-Data Analysis: PBI FEOCs (Faculty End-of Course evaluations)	P	Mentioned on slide X, but no FEOCS data or faculty sentiment provided. Please include summary.
10-Data Analysis: Progression Data	E	Average program completion rate, data stability, and comparison to UoPX completion average are included.
11-Data Analysis: W/F Rates	E	Standout courses with higher W/F rates included.
12-Data Analysis: Summative Assessments	P	Summative assessments mentioned. Please include summary of student success data.
13-Data Analysis: RAPs (Course-Rapid Assessment Process)	P	Specific courses with RAPs indicated. Please include high-level summary of planned course changes.
14-Data Analysis: CAPs (Program-Comprehensive Assessment Process)	N/A	Not available. No CAP completed to date.
15-Program Gaps/Challenges	P	TDE numbers have declined, program has remained relatively stable. Need to better align skills to each course during curriculum revision. Please include specifics.
16-High-Risk/Challenging Courses	N	Not included. Please summarize and include.
17-Specific Tools Student Should Know About	P	Connect, MyEducator, SmartBook. Please include other tools experienced in the workplace.
18-Relevant Professional Organizations Student Should Know About	P	Courses mapped to industry skills/course level skills. Please Include relevant professional organizations.
19-Relevant Career Tools Program Should Consider	P	Indication in PPT of need to be discussed and determined. Please develop/determine.
20-Video Strategy (where applicable/types of videos depending on course and student)	E	Video strategy included. Indication on slide X to "incorporate video content to make the material more engaging for students."
TOTAL: *E=Evident, P=Partially Evident, N=Not Evident, N/A=Data Not Available	7 8 4 1	
"No data available" element(s) subtracted.	37% 42% 21%	Design 2.0 Vision Planning PPT is about **79%** complete or partially complete.

Note. Design 2.0 Program Kick-Off Template (Stackhouse, 2022)

Table 5 (Cont.) | Design 2.0 program kick-off template.

As additional programs at UOPX are planned for conversion to Design 2.0, colleges are using the Design 2.0 Program Kick-Off Template in their vision planning and consulting with CTL for guidance. At the conclusion of the Design 2.0 curriculum initiative project, recommendations based on student data points and a detailed report out with recommendations to each college will occur and may be published in a future edition of Phoenix Scholar.

About the Author

Dr. Nancy Stackhouse is an Assessment Manager on the Academic Assessment and Evaluation team at University of Phoenix. Her research interests are assorted and comprise outcomes assessment, evaluation research, developmental evaluation, instructional design, and curriculum auditing. Dr. Stackhouse reviewed two editions of the graduate level textbook entitled *Of Learning and Assessment*. Her expertise in evaluation and assessment includes national licensure as a curriculum auditor and educational consultant work providing in-services and interpreting test data for public school teachers and administrators in underperforming and failing K-12 school districts nationwide. Dr. Stackhouse resides in Scottsdale, AZ, with her husband, Scott.

References

Patton, M. Q. (2006, March 6). Evaluation for the way we work. Nonprofit Quarterly. https://nonprofitquarterly.org/evaluation-for-the-way-we-work/

Patton, M. Q. (2011). Developmental evaluation: Applying complexity concepts to enhance innovation and use. The Guilford Press.

Patton, M. Q. (2014, October 15-18). Developmental evaluation [Conference presentation]. 28th Annual Conference of the American Evaluation Association: Visionary Evaluation for a Sustainable, Equitable Future, Denver, CO, United States.

Social Impact Advisors. (2018). "What is Developmental Evaluation by Michael Quinn Patton." YouTube video: https://www.youtube.com/watch?v=jB6cdoR16v0

Stackhouse, N. L. (2022). 2.0 program kick-off template. Center for Teaching and Learning. Stackhouse 2.0 Program Kick-Off Template

University of Phoenix. (2022). Design 2.0 kick-off presentation. Center for Teaching and Learning. Design 2.0 Kick-Off Presentation

University of Phoenix. (2022). Design 2.0 roles and responsibilities. Center for Teaching and Learning. Design 2.0 Roles and Responsibilities

University of Phoenix. (2023). Learning innovation update: Design 2.0. Center for Teaching and Learning. Learning Innovation Update: Design 2.0

Feedback Strategies and Modalities in Online Higher Education

Angela Larson, Ph.D.
Staff Faculty
College of Doctoral Studies, UOPX

Mansureh Kebritchi, Ph.D.
University Research Chair
Center for Educational and Instructional Technology Research
College of Doctoral Studies, UOPX

Margaret Vianna, Ed.D.
English Faculty
Grupo Ubique
Alumn
College of Doctoral Studies, UOPX

Elizabeth Young, Ed.D.
Staff Faculty
College of Doctoral Studies, UOPX

Abstract

Online education has become an integral part of higher education with increasing demand for online programs. Many studies suggest various strategies for promoting feedback and enhancing student learning; however, there is a dearth of systematical review of all feedback strategies and learners' preferred modalities. This study aimed to explore those issues to enhance student performance. A systematic literature review was conducted using the PRISMA framework. Thirty studies conducted between 2000 and 2022 were included in this study. Identified feedback approaches included online student response systems, epistemic and suggestive feedback, peer discussion, self-reflection, direct feedback within the assignment content, and feed-forward personalized to promote future assignment modifications. Desired characteristics of feedback included clear, concise wording with a humanistic approach, timely return of feedback, the balance between positive and negative grade justification, and emotionally moderated feedback.

Introduction

Online education has become integral to higher education in the United States (Allen & Seaman, 2018). There is a higher demand for online programs (Byrd, 2016; Fuller et al., 2014). However, the attrition rate and the extended length of degree completion are major challenges in online programs (Johnson-Motoyama et al., 2014). Ali and Leeds (2009) reported that the retention rate for online students was 20% lower than face-to-face course. This remained

the same in 2015 and 2022 (Haynie, 2015, 2022). Feedback has been suggested to reduce the attrition rate and improve students' learning. Feedback plays a significant role in the student learning process and success (Ghilay & Ghilay, 2015). However, students report that feedback is generally suboptimal (Office for Students, 2018).

Success in the online classroom environment requires students to be independent learners who are goal-oriented, self-motivated, and have a level of maturity necessary for time management and self-regulation (Brindley, 2014). The student's adaptability to the teaching-learning process is an essential skill that must be acquired in the online environment and includes the student's ability to incorporate feedback into their learning (Ianos, 2017). While there is a plethora of literature on how faculty provide feedback, there are minimal studies on how students receive and use the feedback they are given to improve their future work (Ianos, 2017; Rotar, 2022). Many studies suggest various strategies for promoting feedback; however, there is a dearth of research focusing on learning gains based on feedback. This study aimed to identify strategies for cultivating effective feedback based on the literature. To fulfill the purpose of the study, the following questions were developed.

Research Questions

1. What are strategies for promoting feedback effectiveness in online courses in higher education?
2. What are the preferred modalities for receiving feedback based on students' perceptions?

Method and Design

A systematic literature review was conducted to answer the research questions. The review was conducted based on the Preferred Reporting Items for Systematic Review and Meta-Analyses (PRISMA) guidelines (Moher et al., 2015). The inclusion criteria were studies conducted between 2000 and 2022 regarding feedback strategies and modalities in online higher education. As a result of applying the criteria and search strategy, a total of 46 articles were found, and the 30 most relevant articles were included in this study. The identified feedback strategies and modalities were summarized, and the most effective ones based on the studies' suggestions are shared in the result section. The literature search for the articles was extensive and systematic, using the aforementioned strategy to find as many relevant studies as possible; however, the review was not exhaustive.

Results

The literature review indicated various strategies to enhance the quality of feedback. The use of software technology tools may help instructors improve the effectiveness of their feedback if used properly. In particular, online polling technologies or student response systems allow instructors to conduct instant formative assessments and gauge their learner status. Both instructors and learners can adapt their teaching and learning using polling technologies such as Socrative, Kahoot!, and TurningPoint (Mollin, 2021). A few studies found that the use of these technologies promoted more student engagement, motivation, enjoyment, and positive attitudes toward the classroom material (Balta & Tzafilkou, 2019; Molin, 2021; Mork, 2014). However, it is critical to discuss the feedback after using polling technologies (Mollin, 2021). Instructors and peer discussion can significantly improve learners' understanding of the feedback and help them incorporate them into their learning.

Students in online higher education value real-time clear, concise, and legible feedback (Hepplestone & Chikwa, 2014). Generic and vague feedback is viewed as ineffective. The lack of individual applicability prevents students from successfully integrating the feedback into their academic success and making connections to assessment criteria or grades received (Hepplestone & Chikwa, 2014; Weaver, 2006). As students develop self-regulatory skills in online learning, considerations related to the timing and appropriateness of feedback are fundamental to providing insight into the student's receptivity toward the professor's comments (Lefevre & Cox, 2017). In a study by Weaver (2006), students acknowledged a lack of guidance on reading and using feedback, resulting in misinterpretation affecting the students' overall integration and response to the feedback received. Specific assignment or assessment feedback was valuable to students in higher education, leading to the integration of feedback into their learning experience (Weaver, 2006).

Students showed the most significant learning gain when they engaged in peer discussion and received their instructor's feedback in an experimental study conducted by Molin et al. (2021). Students thrive on self and peer feedback when working in a team to better evaluate themselves and others (Hoo et al., 2020; McCarty, 2017). Hoo et al. (2020) found that prescribed reflective journaling helps students assess their performance and skills while teaching students to negotiate the proper way to integrate feedback as a self-reflective process. Students value interactive online collaborative learning platforms where they directly interact with their instructors while receiving feedback. Online student expectation for online feedback includes using social networks, personal and organizational emails, mobile phone text messages, and virtual face-to-face venues within the online environment (Ianos, 2017).

Suggestive (why) feedback and epistemic (how) feedback affected students' metacognitive and affective activities. This is crucial in successful teaching and learning in online environments, especially since the teaching process is asynchronous. Students who learn to self-regulate learning with the teachers' support prove more successful. Suggestive feedback allows students to use the comment received and reflect on their understanding or knowledge effectively (Guasch et al., 2018). Using open-ended conversational feedback elicits an environment for students to express themselves, seek clarification, and receive emotional and relational support to use the feedback effectively to enhance their knowledge and learning. However, like other types of feedback provided to students, if students fail to incorporate feedback into their learning practices, misinterpret the intention behind the purpose of the feedback, or do not reflect on feedback constructively, hindering their overall academic performance and success (Torres, 2022).

Students desire feedback and instruction efficiently delivered with a personal touch (Crook et al., 2012). Online students preferred a humanistic approach to learning as opposed to the mechanical written comment approach used for the past two decades (Brown & Wilson, 2016; Stone, 2019). The value students place on incorporating feedback was related to the student's trust in the faculty's benevolence in providing feedback (Snijders et al., 2021). The content of the feedback, the mode of delivery, the context, the timing, and the students themselves all influence the extent to which the student uses the feedback for their growth and development (Jonsson, 2012). The expectation students have about the feedback received is directly related to the quality and quantity of feedback and reflects their academic level (Boone et al., 2020).

Students in higher academic levels desire more significant direct interaction and instructor feedback to validate their overall performance. Students noted delays in receiving verbal or written feedback influence their academic confidence and performance (Jonsson, 2012). Students interpret feedback in various ways through purposeful recognition and the technology used to elicit the feedback. Recognizing the purpose of feedback can greatly help students incorporate the feedback. Although previous studies have indicated students lack the ability to understand how to recognize the purpose of feedback, Hepplestone and Chikwa (2014) found that through qualitative feedback interviews students understood the purpose of feedback to improve their academic experiences better.

Effective feedback enables students to feed-forwarded information to align with course goals, values, and beliefs and to become active agents in their learning (Guasch, Espasa, & Martinez-Melo, 2018; McCarthy, 2015; Thibodeaux & Harapnuik, 2020). Students acknowledge written and oral feedback as forms of verbal feedback (Hepplestone & Chikwa, 2014; McCarty, 2017). The effectiveness of feedback modalities depends on multiple factors, such as the online environment, students' ages, the learning task, feedback timeliness, the student's learning abilities, and performance level with digital tools (Hattie & Timperley, 2007; McCarthy, 2015), and the professors' delivery style and level of guidance on students' improvement in the task or assignment (Howard, 2021; Watkins et al., 2014).

Study results of students' preferred modalities for feedback in online learning in higher-level education indicated that students' receptivity toward feedback was linked to feeling connected to the professor and peers in the online environment (Boone et al., 2020; Lunt & Curran, 2010; Thibodeaux & Harapnuik, 2020). Although students valued a mixed modality of audio, electronic, written, and video recordings for receiving feedback (Gould & Day, 2013; Howard, 2021; McCarthy, 2015; Wang & Lehman, 2021; Watkins et al., 2014), students preferred to receive one mode of

feedback rather than two types of feedback on the same assignment to avoid redundancy (Li et al., 2020; McCarthy, 2015).

Students' perceptions of preferred feedback modalities evidenced no model is a perfect fit, yet feedback should be timely, specific, detailed, and aligned with learning goals, criteria, and standards' expectations (Lunt & Curran, 2010; McCarthy, 2015). Students who received one modality of feedback, written or a video recording, reported a deepened sense of community and motivation to incorporate the professor's suggested feedback. Video feedback from the professor yielded student connectedness to the online environment and professor, thus motivating feed-forward and enhanced learning (Howard, 2021; Li et al., 2020; Thibodeaux & Harapnuik, 2020; Wang & Lehman, 2021). Further, students optimized the use of the feedback when they received a video recording.

Students' feedback preferences aligned with the classroom content, type of course, and the students' developing connection to the learning environment (Gould & Day, 2013). Audio feedback was less favored when compared to video and written modalities for the digital media course due to a preference for visualizing the feedback simultaneously with the artwork (McCarthy, 2015). Thus, students' preferences in digital media were connected to and affected by the course content and goals. The goal of feedback is to enable students to assess their abilities critically and reflect on improving their skill set, and to self-regulate their ownership of learning (Gould & Day, 2013; Thibodeaux & Harapnuik, 2020). As students develop self-regulatory skills in online learning, students consider timing and appropriateness of feedback as fundamental in a technology course. Lefevre and Cox (2017) found that the feedback timing, delayed or immediate, provided insight into the students' receptivity toward the professor's comments.

Conclusion

Feedback plays a significant role in student learning. Although many studies focus on feedback in general, there is a dearth of studies clarifying effective feedback approaches and preferred learners' modalities in online higher education. The purpose of the current study was to close that literature gap and identify effective feedback strategies and modalities. The literature review indicated several feedback strategies and modalities for enhancing feedback effectiveness. Online student response systems such as Socrative are recommended as an effective approach for formative assessment feedback enabling real-time, instant feedback and stimulating student engagement, motivation, and positive attitude toward the content and feedback. Feedback should be unambiguous, concise, and focused. Timing of feedback is essential in incorporating feedback and gaining knowledge. Suggestive and epistemic feedback are impactful feedback approaches. Epistemic feedback provides the student with a clarifying question to evoke thoughtful analysis of the students' truth or validation of what they have learned or comprehended. Suggestive (why) feedback and epistemic (how) feedback affect students' metacognitive and affective activities, which is crucial in successful online teaching and learning.

Students crave feedback and instruction delivered in a more humanistic yet efficient manner. Positive and constructive critics provided in an emotionally moderated tone should be integrated to be impactful. Students' chosen feedback modality should enable them to project forward with appropriate feedback to deepen their learning and connection to the material. Essentially how students interpret the feedback should be contextualized to complement the virtual higher education learning space. The findings from this study may inform online program administrators, instructional designers, and faculty members about the strategies and their impact on enhancing online students' course success.

About the Authors

Angela Larson, PhD, APRN, CNS, ACCNS-AG, CCNS, CCRN, is an Advanced Practice Clinical Nurse Specialist with ~ 20 years of professional clinical, systems, and unit leadership experience in critical and emergency care nursing and ~15 years of academic teaching experience in undergraduate and graduate nursing and doctoral programs. She works full-time as a Lead Program Development Owner and serves part-time as a Doctoral Staff Faculty and College of Doctoral Studies Panel Validator in the College of Doctoral Studies- ACCESS program and serves as an active member of the academic research community.

Mansureh Kebritchi, Ph.D., is the founder and chair of the Center for Educational and Instructional Technology Research, College of Doctoral Studies,

University of Phoenix. She is a passionate educational research leader with a wealth of experience working as a research methodologist and instructional designer. She has been mentoring doctoral students and supporting faculty members conducting and publishing research in the field of education. She is interested in studying innovative ways to improve the quality of teaching and learning in K-12, higher education, and corporate settings in online and face-to-face formats.

Margaret Vianna, EdD, is an online English faculty member at Grupo Ubique in Brasilia, Brazil, and a former instructor of the Rio Branco Institute. Her focus is academic writing and translations from Portuguese to English to prepare students to pass the national exams for the CACD (Course for a Diplomatic Career).

Elizabeth Young, EdD, is a graduate of Rutgers, the State University of New Jersey, with a degree in Learning, Cognition, and Development and additional certification as an Early Childhood Specialist. She is a part-time College of Doctoral Studies staff faculty as a Panel Validator and is teaching ACCESS classes for Phase 1 of the Doctoral Journey.

References

Allen, E. I., & Seaman, J. (2018). Grade increase: Tracking Distance Education in the United States. https://www.bayviewanalytics.com/reports/gradeincrease.pdf

Ali, R., & Leeds, E. M. (2009). The impact of face-to-face orientation on online retention: A pilot study. Online Journal of Distance Learning Administration,12(4).

Balta, N., Tzafilkou, K. (2019) Using Socrative software for instant formative feedback in physics courses. Education and Information Technology, 24 (1), 307–323. https://doi.org/10.1007/s10639-018-9773-8

Bawa, P. (2016). Retention in Online Courses: Exploring Issues and Solutions—A Literature Review. doi: 10.1177/2158244015621777

Benson, N. F. (2014). Review of the NEO Personality Inventory-3. Mental Measurements Yearbook. University of Nebraska.

Boone, S.C., De Charon, L., Hill, M.(M)., Preiss, A., Ritter-Williams, D. and Young, E. (2020), "Doctoral student persistence and progression: a program assessment," Journal of Applied Research in Higher Education,12(4), 753-765. https://doi.org/10.1108/JARHE-07-2019-0192

Brindley, J. E. (2014). Learner support in online distance education: Essential and evolving. In O. Zawacki-Richter & A. Terry (Eds.), Online distance education. Towards a research agenda (pp. 287–310). AU Press.

Brown, C. J., & Wilson, C. B. (2016). One university making a difference in graduate education: Caring in the online learning environment. Journal of Holistic Nursing, 34(4), 402–407

Byrd, J.C. (2016). Understanding the online doctoral learning experience: factors that contribute to students' sense of community. The Journal of Educators Online, 13(2)

Cohen, J. (1992). A power primer. Psychological Bulletin, 112(1), 155–159.

Crook, A., Mauchline, A., Maw, S., Lawson, C., Drinkwater, R., Lundqvist, K., Park, J. (2012). The use of video technology for providing feedback to students: Can it enhance the feedback experience for staff and students? Computers & Education, 58(1), 386-396. doi: 10.1016/j.compedu.2011.08.025

Ellis, H., & Barnes, E. (2020). Handwritten or typewritten: Does it really matter? Instructor feedback and students' perceptions of connectedness, Education, 141(1), 1-10.

Fuller, J. S., Risner, M. E., Lowder, L., Hart, M., & Bachenheimer, B. (2014). Graduates' reflections on an online doctorate in educational technology. Techtrends: Linking Research & Practice to Improve Learning, 58(4), 73-80.

Gould, J., & Day, P. (2013). Hearing you loud and clear: Student perspectives of audio feedback in higher education. Assessment & Evaluation in Higher Education, 38(5), 554-566. http://dx.doi.org/10.1080/02602938.2012.660131

Guasch, T., Espasa, A., Martinez-Melo, M. (2018). The art of questioning in online learning environments: the potentialities of feedback in writing. Assessment & Evaluation in Higher Education, 44(1), 111-123. https://doi.org/10.1080/02602938.2018.1479373

Hanham, J., Lee, B.C., & Teo, T. (2021). The influence of technology acceptance, academic self-efficacy, and gender on academic achievement through online tutoring. Computers and Education, 172. https://doi.org/10.1016/j.compedu.2021.104252

Hardy, K., & Meyer-Griffith, K. (2012). Meeting accreditation requirements: Are you serving distance learners? Journal of Asynchronous Networks, 16(5), 7–18. https://secure.onlinelearningconsortium.org/publications/olj_main

Harkin, T. (2010). The return on the federal investment in for-profit education: Debit without a diploma. Washington, DC: US Senate, Health, Education, Labor and Pensions Committee

Haynie, D. (2015, 2022). Study shows sluggish online learning growth for second year. US.

Hepplestone, S. & Chikwa, G. (2014) Understanding how students process and use feedback to support their learning. Practitioner Research in Higher Education, 8 (1), 41-53. https://insight.cumbria.ac.uk/id/eprint/1490/

Hoo, H. T., Tan, K., & Deneen, C. (2020). Negotiating self-and peer-feedback with the use of reflective journals: an analysis of undergraduates' engagement with feedback. Assessment & Evaluation in Higher Education, 45(3), 431-446. https://doi.org/10.1080/02602938.2019.1665166

Howard, N.R. (2021). How did I do?: Giving learners effective and affective feedback. Educational Technology, Research and Development, 69, 123-126. https://doi.org/10.1007/s11423-020-09874-2

Hui-Teng, H., Kelvin, T., Deneen, C. (2020). Negotiating self- and peer-feedback with the use of reflective journals: an analysis of undergraduates-engagement with feedback. Assessment& Evaluation in Higher Education, 45(3), 431-446. https://doi.org/10.1080/02602938.2019.1665166

Ianos, G. M., (April 27-28, 2017). Online Feedback in Learning: Students' Perceptions. The 13th International Scientific Conference eLearning and Software for Education Bucharest. doi:10.12753/2066-026X-17-138

Johnson-Motoyama, M., Petr, C.G., & Mitchell, F.M. (2014). Factors Associated with Success in Doctoral Social Work Education. Journal of Social Work Education, 50: 548-558, 2014. doi:10.1080/10437797.2014.916955

Jonsson, A. (2013). Facilitating productive use of feedback in higher education. Active Learning in Higher Education, 14(1), 63–76. https://doi.org/10.1177/1469787412467125

Lefevre, D., & Cox, B. (2017). Delayed instructional feedback may be more effective, but is this contrary to learners' preferences? British Journal of Educational Technology, 48(6), 1 357-1367. doi:10.1111/bjet.12495

Li, J., Wong, S.C., Yang, X., & Bell, A. (2020). Using feedback to promote student participation in online learning programs: Evidence from a quasi-experimental study. Educational Technology Research & Development, 68, 485-510. https://doi.org/10.1007/s11423-019-09709-9

Lunt, T., & Curran, J. (2010, December). 'Are you listening please?' The advantages of electronic audio feedback compared to written feedback. Assessment & Evaluation in Higher Education, 35(7), 759-769. doi: 10.1080/02602930902977772

McCarthy, J. (2017). Enhancing feedback in higher education: Students' attitudes towards online and in-class formative assessment feedback models. Active Learning in Higher Education, 18(2), 127–141. https://doi.org/10.1177/1469787417707615

McCarthy, J. (2015). Evaluating written, audio and video feedback in higher education summative assessment tasks. Issues in Educational Research, 25(2), 153-166. http://www.iier.org.au/iier25/mccarthy.html

Moffitta, R., Padgettc, C. & Grieve, R. (2020). Accessibility and emotionality of online assessment feedback: Using emoticons to enhance student perceptions of marker competence and warmth. Computers and Education 143.

Stone, C., & O'Shea, S. (2019). Older, online and first: Recommendations for retention and success. Australasian Journal of Educational Technology,35(1), 57–69.

Moher, D., Shamseer, L., Clarke, M. et al. Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P)2015 statement. Syst Rev 4, 1 (2015). https://doi.org/10.1186/2046-4053-4-1

Molin. F., Haelermans, C., Cabus, C., & Groot, W. (2021) Do feedback strategies improve students' learning gain? -Results of a randomized experiment using polling technology in physics classrooms, Computers & Education, V.175,104339, ISSN 0360-1315, https://doi.org/10.1016/j.compedu.2021.104339

Mork, C.M. (2014). Benefits of using online student response systems in Japanese EFL classrooms. JALT CALL Journal, 10(2), 127-137. https://doi.org/10.29140/jaltcall.v10n2.171

News & World Report. Retrieved from www.onlinelearningsurvey.com/reports/2015Surveyinfo.pdf

Office for Students. (2018). National Student Survey [Online]. Retrieved from https://www.officeforstudents.org.uk/advice-and-guidance/student-information-and-data/ national-student-survey-nss/get-the-nss-data/

Rotar O, (2022). Online student support: a framework for embedding support interventions. into the online learning cycle. Research and Practice in Technology Enhanced Learning https://doi.org/10.1186/s41039-021-00178-4

Snijders, R. Rikers, L. Wijnia, Sofie M. M.(2018), Relationship quality time: the validation of a relationship quality scale in higher education. Higher Education Research andDevelopment, 37(2), 404-417.

Snijders, R. Rikers, L. Wijnia, Sofie M. M.(2020). Building bridges in higher education: Student-Faculty relationship quality, student engagement, and student loyalty, International Journal of Educational Research, 100.

Thibodeaux, T., & Harapnuik, D. (2020). Exploring students' use of feedback to take ownership and deepen learning in an online program. International Journal on E-Learning. 19(1), 65-88.

Torres, J. T. (2022). Feedback as Open-Ended Conversation: Inviting Students to Co-Regulate and Metacognitively Reflect During Assessment. Journal of the Scholarship of Teaching and Learning, 22(1), 81-94. doi: 10.14434/josotl.v22i1.31232

Turner W. & West J. (2013). Assessment for "Digital First Language" Speakers: Online Video Assessment and Feedback in Higher Education. International Journal of Teaching and Learning in Higher Education 25(3), http://www.isetl.org/ijtlhe/ ISSN 1812-9129

Vygotsky, L. S., & Cole, M. (1978). Mind in society: Development of higher psychological processes. Harvard university press.

Wang, H., & Lehman, J. D. (2021). Using achievement goal-based personalized motivational feedback to enhance online learning. Educational Technology Research and Development, 69, 553-581. https://doi.org/10.1007/s11423-021-09940-3

Watkins, D., Dummer, P., Hawthorne, K., Cousins, J., Emmett, C., & Johnson, M. (2014). Healthcare students' perceptions of electronic feedback through GradeMark. Journal of Information Technology Education: Research, 13, 27-47. http://www.jite.org/documents/Vol13/JITEv13ResearchP027-047Watkins0592.pdf

Weaver, M. R. (2006). Do students value feedback? Student perceptions of tutors' written responses. Assessment & Evaluation in Higher Education, 31(3), 379-394. https://doi.org/10.1080/02602930500353061

Wood, D., Bruner, J.S., Ross, G., (1976) The role of tutoring in problem-solving. J. Child Psychol. Psychiatry 17, 89–100

Zhang, L. & Zheng, Y. (2018). Feedback as an assessment for learning tool: How useful can it be? Assessment & Evaluation in Higher Education, 43(7),1120-1132. https://doi.org/10.1080/02602938.2018.1434481

Student Choice and Self-Directed Learning for the College Student

Nicole Baker, Ed.D.
Dissertation Chair
College of Doctoral Studies, UOPX

Abstract

For adult learners, teaching needs to be relevant and applicable to use in daily life or in the workforce (Knowles, 1984). When teachings and assignments are positioned in real or authentic contexts, students have the opportunity to bring the knowledge and expertise they already have to a subject. This allows students to refine their understanding of the subject to apply and bring about a deeper level of learning (Morris et al., 2019). One way for college professors to cater to the needs and interests of their adult learners is to practice self-directed learning and offer student choice. Self-directed learning is a process in which individuals take the initiative in diagnosing their own learning needs.

Introduction

The landscape of higher education is changing. A number of unfavorable changes have impacted higher education leading to drops in enrollment and reduced retention rates across many colleges. A decline in high school graduations, an unstable economy, loss of federal and state funding, and the COVID-19 pandemic have impacted today's college students (Chan & Lewis, 2021). The adult learner seeks reasoning and explanations. Teaching needs to be relevant and applicable to use in daily life or in the workforce (Knowles, 1984). When teachings and assignments are positioned in real or authentic contexts students have the opportunity to bring the knowledge and expertise they already have to a subject, which allows students to refine their understanding to apply and bring about a deeper level of learning (Morris et al., 2019). "It is incumbent on educators to meet students where they are – academically, socially, and psychologically" (Stevenson et al., 2006, p. 146). In order to meet the needs of tomorrow's college students, college professors should look for ways to improve the college experience (Pham et al., 2022).

One way for college professors to cater to the needs and interests of their adult learners is to practice self-directed learning and offer student choice. Self-directed learning is a process in which individuals take the initiative in diagnosing their own learning needs. Students set goals, identify resources for learning, choose and implement appropriate learning strategies, and evaluate learning outcomes (Knowles, 1984). Knowles (1984) believed that instructors should be conscious about the way in which content is delivered in order to meet the needs of the wide range of different backgrounds and experiences of learners in the classroom. The activities chosen should allow for different levels of understanding as well as different types of learners in the classroom. Clack and Dommett (2021) conducted a study where participants were able to choose how they would like to be assessed on a concept. The researchers gave the choice of students taking a multiple-choice test and receiving a grade or writing a short essay and receiving written feedback. Both groups were taught the same material. The results indicated that when participants have a choice, students exhibited deeper learning of the content. In addition, Morris et al. (2019) suggested that having a choice in assessment enables students to deepen their understanding when they are learning

in a format that suits their needs. Allowing students to select how they show proficiency and mastery is a way to engage and boost student learning (Anderson, 2016). Differentiating instruction is common practice in kindergarten through 12th-grade education. It has proven to be effective and worth implementing in the college classroom (Mintz, 2016).

Practicing self-directed learning techniques and offering student choice supports an inclusive learning environment (Morris et al., 2019). Students enter college from a variety of different experiences and backgrounds. HEA (2012) suggests that in order for higher education institutions to comply with The Equality Act 2010, they should design assessments and course assignments that are both anticipatory and inclusive for all learners. Hockings (2010) stated that when considering pedagogy, rather than making individual adjustments for students with specific learning needs, college professors should design a curriculum that the learners can customize to their own needs. Therefore, minimizing the need for last-minute adjustments and saving students the need to disclose their hidden differences.

There are many ways to differentiate assignments in a course. Faculty may differentiate by content, process, or by-product.

Differentiating by Content

Differentiating by content refers to what is being taught as well as how the student's access information (Tomlinson & McTighe, 2006). The faculty uses pre-assessments to determine the skills that need to be learned and then differentiate instruction based on those results. Students spend their time in the areas where knowledge is lacking. An example of this in the college classroom is providing different reading materials to different groups of students and using supplemental materials such as visual aids or learning centers. Differentiating by content might involve a faculty member reteaching content to struggling students in a different way, while those who understood work on deepening their understanding of the concept.

Differentiating by Process

Differentiating by process refers to how learners understand key ideas, facts, and concepts (Tomlinson & Allan, 2000). Differentiating by process connects the students' interest levels or preferred styles of learning to the lessons. An example of this in the college classroom is providing students with activities to complete to meet the varied needs in the classroom. Differentiating by the process includes providing students with a high level of interaction and discussion with the faculty member to engage in dialogue about the content being taught. Graphic organizers and guided notes are often a part of differentiating by process, as is using a jigsaw format in the classroom. The jigsaw format promotes students working together to become experts on one area of your content. Then students break out into groups to teach each other about their areas of expertise.

Differentiating by Product

Differentiating by-product refers to the culminating assessment and the way in which a student demonstrates proficiency in a concept after instruction (Tomlinson, 2005). The faculty provides activities that include various modes of learning styles (auditory, kinesthetic, and visual) along with options that are analytic, creative, and practical (IRIS Center, 2019). In the college classroom, this would look like assigning a portfolio of work to demonstrate learning and offering choice boards (also referred to as tic-tac-toe boards or learning menus). Faculty provide the parameters of how students complete the activities.

A truly self-directed classroom takes a lot of work and revisions to the course. One needs to start small. Not sure where to start? Danley (2020) states that differentiating instruction in the college classroom, particularly differentiating by product type, is an effective approach to deepening understanding of learning. Faculty seeking to differentiate by the product should look at the assignments that are given in the course that is tied to the course objectives. Faculty should do a deep dive into the relevance and applicability of those assignments. Start with a small goal of changing just one or two assignments to a choice assignment. Using choice boards to differentiate instruction allows the learner to actively engage in learning by selecting activities to display an understanding of a concept. Allowing learners to select how they demonstrate understanding helps to increase participation and motivate students to actively engage in the learning process (Danley, 2020). Making changes to the course's assignments may increase the viability

of the course. Faculty who regularly cater to students' needs are well informed of who their students are; specifically, their learning needs, styles, individual talents, and student weaknesses (Stevenson et al., 2006). Faculty who make these accommodations "never underestimate the power of the process to determine the outcome" (Weimer, n. d., p. 2).

To give an example of a way to differentiate an assignment by product, listed below are the original assignment directions:

> *Write a 350-700-word executive summary where you analyze an organization's vision and mission.*

Instead offer a choice board of the following:

> Choice 1: Analyze your own organization's vision and mission statement.
>
> Choice 2: Interview the leader from an organization where you may be interested in working about their vision and mission statement.
>
> Choice 3: Reflect upon a past organization where you worked and analyze the vision and mission statement.
>
> Choice 4: Research an award-winning organization. Look for specifics about ways the organization lives up to its vision and mission.
>
> Choice 5: Write your own vision and mission for your life. Include the principles and key ideas from our class readings. Include justifications for why you chose each part.
>
> Choice 6: Select your own idea. Discuss with your instructor.

The way students submit their work can also be a choice. Students may submit an executive summary, a PowerPoint presentation, a Prezi presentation, a 90-second commercial, among other possibilities.

Assessing students fairly when all students select a different choice can be difficult. To keep fairness, the faculty should use a rubric. A rubric that may work for the above example would be:

- Content – 5 points (listed vision and mission, met length requirements, analysis from course readings were evident)
- Organization – 3 points (visually appealing)
- Grammar/APA – 2 points

In conclusion, the diversity of our students' backgrounds needs to be recognized, valued, and supported in the college classroom in a way that will allow students the opportunity to develop a range of key skills that are related to the content we are teaching (Morris et al., 2019). Differentiating instruction places students at the core of the instructional planning process (Tulbure, 2011). Offering students, a choice in how they are assessed may lead to more engaged students and students who develop a deeper understanding of their content.

About the Author

Dr. Nicole Baker has been in the education field for 24 years, starting with teaching preschoolers, then middle schoolers, and now college students. Nicole has been with the University of Phoenix since 2007. Nicole has held many roles within the university from a faculty member, to lead faculty, to Dissertation Chair. Nicole resides in Indiana with her husband and four children.

References

Anderson, M. (2016). Learning to choose, choosing to learn: The key to student motivation and achievement. Association for Supervision and Curriculum Development. ASCD.

Chan, C. & Lewis, R. (2021). Applying chaos theory to the changing landscape of higher education. Michigan Academician, 48(1), 13.

Danley, A. & Williams, C. (2020). Choice in learning: Differentiating instruction in the college classroom. InSight: A Journal of Scholarly Teaching, 15, 83-104.

HEA (2017b). Assessment and feedback in higher education: A literature review for the higher

education academy. https://www.heacademy.ac.uk/knowledge-hub /assessment-and-feedback-higher-education-1

Hockings, C. (2010). Inclusive learning and teaching in higher education: A synthesis of research. EvidenceNet. https://www.heacademy.ac.uk/system/files/inclusive_teaching_and_learning_in_he_synthesis_200410_0.pdf

IRIS Center (2019). Differentiating instruction: Maximizing the learning of all students [MOOC]. Iris Center. https://iris.peabody.vanderbilt.edu/module/di/

Mintz, S. (2016, May 4). Differentiating instruction in the college classroom.

https://www.insidehighered.com/blogs/higher-ed-gamma/differentiated-instruction-college-classroom

Morris, C., Milton, E., & Goldstone. R. (2019). Case study: Suggesting choice: Inclusive assessment processes, Higher Education Pedagogies, 4(1), 435-447. https://doi.org/10.1080/23752696.2019.1669479

Pham, T. T. K., Vu, D. T. & Dinh, V. H. (2002). The impact of academic aspect quality on student disengagements in higher education. Education Sciences, 12(8), 507-530. http://doi.org/10.3390/educsci12080507

Stevenson, J. M., Buchanan, D. A., & Sharpe, A. (2006). Commentary: The pivotal role of the faculty in propelling student persistence and progress toward degree completion. College Student Retention, 8(2), 141—-148.

Tomlinson, C. A. (2005). How to differentiate instruction in mixed ability classrooms (2nd ed.). Pearson Education, Inc.

Tomlinson, C. A.,& Allan, S. D. (2000). Leadership for differentiating schools and classrooms. Association for Supervision and Curriculum Development.

Tomlinson, C. A.,& McTighe, J. (2006). Integrating differentiated instruction and understanding by design: Connecting content and kids. Association for Supervision and Curriculum Development.

Tulbure, C. (2011). Differentiating instruction upon learning styles in higher education: A controversial issue. Bulletin of the Transylvania University, 53(1), 79-84.

Weimer, M., (n.d.). Content knowledge: A barrier to teacher development. The Teaching Professor, 5-6.

Challenges and Strategies for Teaching Online Courses

Patricia L. Munson, DM
Faculty
University of Phoenix

Jan Cardwell, Ph.D.
Faculty
University of Phoenix

Abstract

Two faculty colleagues with a combined teaching experience of 40+ years met together for a reunion. During this luncheon, they shared their individual experiences and challenges with teaching online students as well as their strategies for student engagement. Instructor A shared how supplemental information found on YouTube, Kahn Academy, or other resources has increased engagement with her online students. Instructor B shared how applying a motivational strategy with a doctoral student increased engagement and how she uses motivational messages in her online courses. Both instructors agreed that investing their time and energy to find additional resources and motivational strategies can be used across any level of learning and any institution for learning. Most importantly they discussed how important it is for instructors to find diverse ways to engage with students when teaching online.

How Moments of Discovery Support Student Engagement

It was a beautiful sunny afternoon in California in 2019. While attending a leadership conference two instructors met for lunch. After catching up on family and other faculty news the conversation changed to the many experiences instructing online students. While sharing teaching stories, as faculty often do, a common theme emerged from their discussion. The theme was student engagement and the challenges of engaging online students. One of the instructors teaches bachelor's and master's level students. The other instructor teaches doctoral students. As they shared their personal stories, they confirmed that student engagement was not specific to the level of learning or the institution for learning. They reflected on how engagement was applicable to students at all levels of learning from undergraduate, to master's programs, to doctoral students. Most important was that student engagement required motivating and inspiring the student's volition (choice) for learning.

Instructor Challenges

As the two instructors shared their individual experiences, they acknowledged that teaching is also a journey of discovery. Instructors are always looking for better ways to engage students. They concurred that active and meaningful student engagement can only be confirmed by the student(s) during or at the end of the teaching journey (course). They also agreed that student engagement requires the teacher or instructor to go beyond the course content. Engagement requires trying different methods (strategies) to capture the student's interest or to clarify the student's understanding. Following are summations of two of the many challenges the two instructors had experienced, their responses to those challenges, and their self-defined "moments of discovery". These engagement strategies were incorporated into their teaching toolboxes. We will call them Instructor A and

Instructor B, and this is what they shared with each other.

Instructor A's Moment of Discovery

Instructor A recalled teaching an online management course for undergraduate students. The assignment was to apply a specific management strategy from an updated version of the course textbook. The textbook lacked clarity for the application of the concept, creating confusion for students to use in the business environment. Inspired by her desire to resolve the frustration and misunderstanding of the students, she believed supplemental sources could help. After conducting extensive research for possible supplemental sources, she located a YouTube video. The video included information, examples, and applications of the concept that would prove beneficial in resolving the students misunderstanding. She posted a link in the course room and included a message explaining to students how viewing the video would not only enhance their understanding, but also how to apply the management concept in a business situation.

Instructor A shared that her "moment of discovery" occurred when students began posting messages in the course room thanking her for the video and sharing how the video enhanced their understanding. They also encouraged other students to use the video. This particular concept was threaded throughout other course assignments and the video helped to increase students' engagement with discussions in the course. The YouTube video provided visual learning and enhanced the student's understanding of the management concept and how it should be used. Instructor A learned that when she invested the time to find alternative learning resources for the students, not only did they appreciate the supplemental resource, it also significantly enhanced their engagement and learning outcomes.

Instructor B's Moment of Discovery

Instructor B's challenge was engaging an online doctoral student in the dissertation course of his program. Instructor B shared that when she first started mentoring doctoral candidates, her expectation was that students pursuing doctorate degrees would have scholarly writing skills. Unfortunately, her first doctorate student dispelled that notion. The initial drafts of his dissertation were a painful reading experience. Each submission had repeated and redundant statements with no synthesis or interpretation using his writing voice. This critique was provided to the student. Instructor B's challenge was how to motivate her student to accept the writing feedback.

After failing to see changes in his writing over several submissions, the student admitted that he was struggling to become a scholarly writer. Instructor B then took another approach. She sent him a link to a resource for scholarly writing and included this motivational message, "Congratulations, you are transitioning from student, to researcher, to subject matter expert. Your writing should reflect this growth and transition and here is a resource that can help." The next draft of his paper confirmed he had used the academic writing resource that was provided to him. From that point on, every time the student submitted a draft, Instructor B would (a) send him an encouraging message, (b) provide him with an additional resource, (c) and include a motivational comment explaining why the research was important to his field of study, job, and future.

The "moment of discovery" for Instructor B was how the student responded to motivational messages. The student thanked Instructor B and commented on the actions he would take to further improve his writing skills. For Instructor B this was a positive sign that the student was engaged, and this continued until he was degree complete. Based on their success with him she began using this motivational strategy with all her doctoral students and it works.

Commentary

As the two instructors reflected on their individual engagement solutions and moments of discovery, they acknowledged the importance of finding alternative ways to engage online students. There are always additional resources and strategies that can be used to increase student engagement. The faculty are responsible for promoting student success in online learning. They should be open to using alternative approaches that increase student engagement. Both agreed that every course or student can inspire new moments of discovery.

Instructor A now prepares, in advance, by finding

additional resources beyond the course content. This is because sometimes course textbooks or materials may lack the clarity necessary for student understanding. According to a survey conducted by Dahlstrom and Brooks (2014), 62% of faculty surveyed reported that using YouTube or Khan Academy videos, interactive learning tools, simulations, educational games, and synchronous video conferencing can increase online student's engagement and enhance teaching effectiveness.

Instructor B's engagement strategy was the use of a motivational design framework. She explored the effects of motivational messages on student outcomes using ARCS-V (Attention, Relevance, Confidence, Satisfaction and Volition) tenets (Keller, 1987, 2010, 2016). Engagement starts by finding a way to get the student's attention or finding something to spark the student's curiosity. Instructor B uses motivational messaging to encourage confidence, satisfaction, and relevance. She recognizes that are different and motivating them is not a one size fits all approach. Instructor B has learned the value of motivational messaging to engage students. As online learning expands, Ally (2019) encourages online instructors to develop and sharpen their instructional competencies so they can proficiently offer multiple options for student learning and engagement. Online learning requires online instructors to continuously learn and continuously practice new strategies for engagement. It is not a passive job. As the two instructors ended their lunch discussion, they committed to continue to seek moments of discovery and share ways to engage online students.

About the Authors

Dr. Patricia L. Munson is an adjunct professor at Northwood University and the University of Phoenix. She holds a Doctor of Management degree in Organizational Leadership from the University of Phoenix. Dr. Munson has 30+ years of leadership in business and education. Dr. Munson is an active member in the International Leadership Association, Delta Sigma Theta Sorority, Inc., University of Michigan Alumni Association, University of Phoenix Alumni Association, Michigan Diversity Council, and Southfield Public Schools. Dr. Munson has received many awards as an educator and was recognized in 2021 as one of the outstanding faculty by the University of Phoenix.

Dr. Jan Cardwell is an adjunct professor at Walden University and the University of Phoenix. Dr. Cardwell holds a Doctor of Philosophy in Education, specializing in online learning. She has 35+ years of leadership experience. Dr. Cardwell served on the Board of the Association of Leadership Educators and is on the board of directors for several Michigan organizations. She is Past Chair (2019) of the International Leadership Association (ILA) Leadership Development Member Community. In 2019, she received an award for Outstanding Scholarship and Practice with Local Impact (2019) by the ILA Women in Leadership Affinity Group.

References

Ally, M. (2019). Competency Profile of the Digital and Online Teacher in Future Education. International Review of Research in Open and Distributed Learning, 20 (2), 302-318. https://doi.org/10.19173/irrodl.v20i2.4206

Dahlstrom, E., & Brooks, D. C., (2014, September 29-October 2). Study of faculty and information technology. [Conference session]. EDUCAUSE. Orlando, FL, United States. https://library.educause.edu/~/media/files/library/2014/8/ers1407-pdf.pdf

Keller, J.M. (1987). The systematic process of motivational design. Performance and Instruction, 26 (8), 1-8. http://terrikrause.com/Content/documents/Keller1987Systematic.pdf

Keller, J.M. (2010). Motivational Design for Learning and Performance: The ARCS Model Approach. Springer.

Keller, J.M. (2016). Motivation, learning, and technology: Applying the ARCS-V motivation model. Participatory Educational Research 3 (2) 1-13. http://dx.doi.org/10.17275/per.16.06.3.2

The Case for Virtual HyFlex in Adult Online Education: A Case Study

Andrew C. Lawlor, Ph.D.
Associate Faculty
University of Phoenix

Abstract

Online education has transformed the educational landscape. With the COVID-19 pandemic, online education became more essential than ever before, leading to more widespread use of a mode of online education known as HyFlex. The research posits that the HyFlex mode of instruction can be rethought as Virtual HyFlex, a model that is well suited for adult online education. An example of Virtual HyFlex is described in its use as a workshop for those interested in converting their dissertation research to a manuscript suitable for publication in an academic journal. The theoretical model of complex systems offers a way to examine adult online education in a Virtual HyFlex modality.

Introduction

Online education has been a means of obtaining an education at the higher education level for many years (Tamim, 2020). Even before learning management systems were launched and made available as commercial products, innovative institutions developed their own systems for delivering education using computer mediation. The term "online" suggests electronic communication, though that could be interpreted in several ways (e.g. email or teleconference). For example, in 2004 when this researcher began serving as an associate faculty member for the University of Phoenix doctoral courses, the means of interaction was through email groups set up in Microsoft Outlook Express. A group was created for each week's discussion questions functioning as an interactive forum, while others were for the posting of syllabi and other materials. Conceptually, those features are now found in learning management systems (LMS). Currently, the University of Phoenix has transitioned to an LMS for online education, first a custom-developed LMS and later adopting Blackboard. Today, online education suggests that students and instructors interact either synchronously or asynchronously. Much or all the virtual classroom activity takes place in some computer system, typically a dedicated learning management system (Heilporn & Lakhal, 2021).

Online Education as a Complex System

Online education is considered a complex system with several parts as well as the interplay among those parts. One way to view online education in a systemic way is by layer – macro, meso, and micro (Tamim, 2020). The macro level is built on the theoretical perspectives that guide the pedagogy within the online education system and the transformational nature of online education versus face-to-face instruction. Online education should not simply mimic a face-to-face interaction, but instead, replace its form and function while maintaining the essence (learning) in a format and delivery system that meets previously unmet needs. The meso level represents the infrastructure and management necessary to operate the system that connects to the micro level. The micro level is the user interface that both instructors and

students interact within to provide the educational experience (Tamim, 2020).

HyFlex Instructional Format

Many higher education institutions provide online instruction for the benefit of their students to provide flexibility in meeting their educational goals. Examples of flexible instructional methods include hybrids of in-person instruction and online instruction in the same course such that some class meetings are held in-person (in the classroom) and the remaining instructional time is provided for in equivalent asynchronous online activities. However, another option known as HyFlex emerged in the mid-2000s and gained popularity during the COVID-19 pandemic (Eduljee, Chakravarty, Croteau, & Murphy, 2022). HyFlex refers to a course format whereby the student has the choice of attending a face-to-face class meeting, synchronous lecture (typically by video), or equivalent instruction provided asynchronously. During the pandemic, the need for social distancing led to a heightened interest in this mode as students would have the option to stay apart physically from classmates and instructor as well as the added flexibility of choosing which class meetings to attend in which of the modalities (face-to-face, synchronously, or asynchronously). This necessitates the instructor to use technology for conducting the synchronous mode as well as provide sufficient resources for the asynchronous mode while keeping them aligned with the in-classroom mode (Heilporn & Lakhal, 2021). In Hyflex, the macro, meso, and micro layers are utilized for offering multiple modes of education to provide analogous experiences for the learner.

This researcher has contemplated another way to consider HyFlex, which is an instruction that has no in-person component. Some instructional programs by design are not geographically defined, and therefore face-to-face interaction is not an option. The coursework offered this way provides flexibility for students with diverse backgrounds and needs. Termed by this researcher as virtual HyFlex, at the meso level the direct interaction takes place via time-based video sessions (otherwise known as a virtual class meeting) on a scheduled basis throughout the course, with asynchronous activities and interactions scheduled for the periods between the video sessions. For those choosing or unable to attend the virtual class meeting, the sessions are recorded so they can be viewed at a time convenient for the student. An asynchronous equivalent is the third option available to the student, and like HyFlex, the student is in control of which mode to select based on their needs at any given time during the course.

Virtual HyFlex Example

Virtual HyFlex is the method used for the Dissertation to Publication (DTP) workshop conducted by the University of Phoenix Center for Educational and Instructional Technology Research. The workshop is open to all alumni and others who are interested in converting their dissertation to a manuscript suitable for publication in an academic journal. Led by Dr. Mansureh Kebritchi, University Research Chair, DTP has been offered every spring and fall since January 2017 (Kebritchi, 2023). Dr. Kebritchi is joined by a team of reviewers with academic publication experience whose role is to guide and support a subset of the participants (known as “authors”). This researcher has been involved in the delivery of this workshop since 2019 as one of the reviewers and more recently, as the workshop’s database administrator.

Authors learn both the process for developing a manuscript as an outcome of a research project as well as develop a manuscript from their dissertation research which is submitted to an academic journal of their choosing by the end of the workshop (Kebritchi, 2023). Based on the target audience for this workshop, specifically, alumni living and working throughout the world, it would be infeasible to expect face-to-face participation. Thus DTP has always been offered as a virtual workshop. Since its inception, it has been offered through a series of virtual meetings coupled with email correspondence from the workshop leader to all authors, sharing the meeting slides and a link to the video recording of the meetings, and email interaction between authors and reviewers to follow up on the assignments submitted by the authors.

More recently, the use of Microsoft Teams in its classroom configuration has provided a more robust environment for Virtual HyFlex to be conducted. If an author chooses to participate in a Teams virtual meeting as offered (typically 7 PM Eastern on a weekday), they can benefit from the opportunity to ask questions during the session, either verbally or via the chat function. The session is recorded, and the chat thread also persists in the General channel following

the session. Channels are the equivalent to an open forum for postings by any member of the Teams site, and responses can also be posted, in the manner of a threaded discussion board. Those who choose to instead view the recording also have access to the chat captured during the session and can add to that chat session or start a new thread within the channel. The Teams site is also arranged with channels for each reviewer group so that questions or comments can be posted to the reviewer group rather than to the entire Teams site. Starting with the Spring 2023 session, reviewers are posting weekly discussion questions in their channels, and while optional to answer, are provided with the goal of generating interaction among the authors in their group to further build a sense of community.

In addition to the meeting session video recording, the slides from the presentation are also supplied by posting them to the Teams site as a resource and are also emailed out to each author as a follow-up to the meeting. As a Virtual HyFlex option, authors can choose to forgo the virtual meeting as well as the recording of the virtual meeting and instead read through the slides to gain an understanding of the concepts and examples provided by the workshop leader. They also have as a resource their assigned reviewer, and through the dedicated channel, access to other participants. Since the syllabus and the assignments are posted on the Teams site, authors have what they need to initiate an assignment submission, and with the feedback from their reviewer, can progress and complete the workshop.

Virtual HyFlex for Online Adult Education

It is the researcher's contention that Virtual HyFlex is an attractive option for educational offerings targeting adults due to it enabling participants to choose the format which best meets their lifestyle and obligations without being bound by geography or time zone. If the participant has set aside time in their schedule to complete the required educational activities and has the technology available to access the provided system, the participant is able to reach their educational goals through Virtual HyFlex. For the educational provider, Virtual HyFlex can be used for educational delivery by having a complex system that allows for:

- conducting virtual video meetings
- recording those meetings
- posting presentation material and accompanying resources
- having convenient means to interact with participants (and participants to interact with each other)
- submitting and providing feedback on assignments

If a transcript of the recording can be made available, that would also benefit the individual for whom reading the transcript is desired and beneficial. The environment should provide choices for the participant whereby the equivalent educational experience is available in all three modes: attending the virtual meetings; viewing the recordings and reading the accompanying chat; or reading the presentation material, which perhaps includes the recording transcript. Such options are provided to accommodate the adult's life reality and align with how they choose to learn. By considering the macro, meso, and micro-layers of Virtual HyFlex, education providers are able to design and deliver an experience that can transform the educational endeavor for adult learners.

About the Author

Dr. Andrew Lawlor earned bachelor's and master's degrees in education from the University of Pittsburgh and Gannon University respectively, and a Ph.D. in Educational Administration from Kent State University. A practitioner and researcher, Dr. Lawlor's career has centered on education, whether as a classroom teacher, designing, managing, and delivering distance education programs, or leading departments of information technology for higher education institutions. He has published in the areas of culture and education, virtual reality, and educational theory.

References

Black, S., & Elazier, K. (2022). Considering a Competency-Based, HyFlex, e-Learning Strategy? International Forum of Teaching & Studies, 18(2), 5–13.

Eduljee, N. B., Chakravarty, R., Croteau, K., & Murphy, L. (2022). Understanding Research Trends in HyFlex (hybrid flexible) Instruction Model: A Scientometric Approach. International Journal of Instruction, 15(4), 935–954. https://doi.org/10.29333/iji.2022.15450a

Heilporn, G., & Lakhal, S. (2021). Converting a graduate-level course into a HyFlex modality: What are effective engagement strategies? The International Journal of Management Education, 19(1). https://doi.org/10.1016/j.ijme.2021.100454

Kebritchi, M. (2023). Dissertation to Publication. University of Phoenix Center for Instructional and Educational Technology Research. https://research.phoenix.edu/content/center-educational-and-instructional-technology-research/dissertation-publication

Tamim, S. R. (2020). Analyzing the Complexities of Online Education Systems: A Systems Thinking Perspective. TechTrends: Linking Research & Practice to Improve Learning, 64(5), 740–750. https://doi.org/10.1007/s11528-020-00538-9

Recommendations to Increase Nontraditional Student Online Retention

Danielle R. Kish, Ed.D.
Alumn
University of Phoenix

Abstract

Nontraditional students choose online courses for flexibility and convenience, yet this student population continues to experience low retention and graduation rates. Online education allows nontraditional students the ability to engage in higher education while balancing work and home life, yet success is elusive. Research is lacking regarding predictors and strategies to assist the nontraditional student population. The purpose of this modified Delphi study was to build a level of consensus from a national panel of educational experts reflecting successful best practices, which were used to identify recommendations to leaders in higher education institutions offering online courses. Forty-six best practices were identified within four themes: 1) student and faculty, 2) faculty engagement, 3) technology and course design, and 4) higher education institutions overall. The study concluded with five recommendations for leaders at higher education institutions to increase nontraditional online student retention.

Higher education institutions (HEI), continue to see an increase in online courses as they gain in attendance and the National Center for Education Statistics (NCES, 2022) reported that by the fall of 2020, almost 75% of students were taking at least one course online. Dropout rates continue to be a severe problem for HEI leaders as low retention rates continue (Muljana & Tian, 2019; Radovan, 2019). Nontraditional online students have higher dropout rates in their first academic year than nontraditional students within the campus classroom (Ellis, 2019; Muir & Trimble, 2020). Nontraditional students make up over one-third of the undergraduate students in the U. S., and nontraditional online students have higher dropout rates in the first academic year than nontraditional students attending a ground-campus course/program (Ellis, 2019).

The U.S. Department of Education (2022) published a study in 2009 that indicated students in an online environment performed better than students in a

ground campus course, yet to date, online retention remains low. Technology continually evolves to increase collaboration among the online student population bringing students together in an environment that encourages students to support each other (Iyer & Chapman, 2021). Applying face-to-face technology, such as Zoom, provides positive effects in the classroom and preparation for online expectations (Argüello & Méndez, 2019; Kordrostami & Seitz, 2022; Radovan, 2019). The connection that students form with online instructors can assist instructors in identifying students who may be struggling and assist with resources and recommendations to increase success (Ellis, 2019).

The transitional phase through socialization encompasses a nontraditional student's journey from the first thought of returning to higher education to graduation and overlaps to form the conceptual framework for the study. Understanding the transitional phase that nontraditional students are moving through when returning to higher education can increase a student's ability to adjust behaviors and relationships and be successful in the online classroom (Schlossberg, 1981). Increasing socialization on campus has the potential to increase online student retention through a transition phase, and the interconnectedness and commitment that students feel to the HEI staff, faculty, and students (Tinto, 1975; Bean & Metzner, 1985). Schlossberg (1981) explained that psychosocial competence revolves around a student's psychological and social aspects of mental health and can be used to assist HEI's staff and faculty in identifying when a student is struggling within the online environment.

The ability of the staff and faculty at an HEI to increase the human element through rapport building in the online environment may provide the social linkage that students need to succeed in the online course as already seen on the ground campus (Glazier & Harris, 2020; Mays, 2022; Robertson, 2020). As a nontraditional student transitions to the online classroom family support in addition to building rapport with the HEI faculty and staff may improve student success through socialization (Glazier & Harris, 2020; Kamer & Ishitani, 2021; Mays, 2022; Robertson, 2020). As a faculty member interacts with an online student by setting clear expectations (Iyer & Chapman, 2021) a student's motivation and success may increase. The engagement between instructors and students online through class discussions, videos, and learning materials increases instructor-student socialization (Linden et al., 2022; Robertson, 2020; Tamir & Taylor, 2019). Students who are motivated may increase performance and retention while creating a higher quality of support (Ellis, 2019; Glenn, 2018; Marstellar & Bodzin, 2019; Nguyen, 2022; Radovan, 2019; Zhou & Wang, 2019).

The practices and expectations explained reflect the results and expectations for increasing student retention but do not provide specific guidelines and examples to assist leaders in HEIs. The purpose of the modified Delphi study was to gain a consensus from a group of educational experts who can identify best practices that have assisted in increasing retention among nontraditional online students. The 27 expert panelists were leaders, administrators, and faculty members (66%) with over five years of experience (57% had over 15 years of experience) working with nontraditional online students from 15 different HEIs that offered online programs or courses. Round 1 asked the participants to identify all the best practices used to increase nontraditional online student retention.

Round 1 identified 46 best practices that were all used in Round 2. The Round 1 results were also thematically analyzed, and four themes developed were Student & Administration, Faculty Engagement, Course Design & Technology, and HEI Overall. Panelists were asked to rate all 46 best practices using the Likert scale options of strongly agree, agree, disagree, and strongly disagree. The results of Round 2 were analyzed to identify the top eight best practices supported by the panel of educational experts. The top eight best practices were used in Round 3 and asked panelists to rank the eight best practices in the order it was believed the best practice would address the situational question. For example, best practices that the panelists believe increase student retention, the leaders at the HEI would enact and are the most expensive. The results of Round 3 allowed for the best practices to be ranked and led to the recommendations offered.

The top eight best practices identified were (a) onboarding to ensure students have the knowledge needed to be successful in the classroom (standard deviation, SD,=.383), (b) verifying students have a computer and internet, not just a cell phone (SD=.383), (c) strong faculty members who have a good understanding of adult learners (SD=.428), (d) faculty

empathy in understanding nontraditional student challenges (SD=.461), (e) proactive communication (SD=.461), (f) 24-hour technical support (SD=.461), (g) dedicated person(s) that students can reach out to for assistance outside traditional office hours of 8 am to 5 pm (SD=.461), (h) practice active listening (SD=.461).

The eight best practices in conjunction with the four themes identified were used to form the recommendations to leaders and practitioners. Theme one reflects the relationships between students and the administration. Theme one encompasses the transition to higher education for a nontraditional student and provides a student's first step to socialization and building rapport with the staff at the HEI directly linked to the conceptual framework (Tinto, 1974; Schlossberg, 1981; Bean & Metzner, 1985). The administration staff (admissions and enrollment) should have a checklist of expectations that must be reviewed, verified, and signed by the student. The checklist should include onboarding items including does the student has a computer and internet access, can the student navigate the classroom or have the tools to understand the online environment, and the resources the student may need to be successful. If the student is struggling with any topics on the checklist further guidance and/or orientation courses should be assigned to the student prior to starting class.

Theme two, faculty engagement, is the focus of the second recommendation. Building rapport, positive communication, and engaging with students increases the student's commitment to the course and may increase success through socialization efforts (Tinto, 1975; Bean & Mentzer, 1981, Glazier & Harris, 2020). To assist faculty with these expectations HEI leaders may institute a training course for faculty, specifically incoming faculty, inexperienced faculty, and faculty members who are experiencing low retention rates. This course should revolve around the actions that will assist with increasing online retention, for example reviewing the challenges of adult learners and identifying actions faculty may instill to provide support to this student population.

Twenty-four-hour technical support encompasses theme three, course design, and technology. As HEI leaders increase the online course presence the ground campus day-to-day operational expenses may be lowered, and the budget shifted to the technical support for online environments (Kordrastami & Seitz, 2022). Twenty-four-hour technical support offers nontraditional online students support outside the traditional 8 am – 5 pm office hours and allows students to complete the coursework on the student's schedule.

The final two recommendations revolve around them four, HEI overall. First is active listening. Active listening should be coached to all HEI staff. Leaders can create active listening scenarios for role play dependent upon the division. The role play should be practiced within teams allowing team members to apply active listening strategies to an individual's interaction with the student. The active listening strategies will further allow HEI staff to build socialization factors with the student and provide the HEI staff an opportunity to understand the student's needs and provide the resources or guidance needed to overcome the student's specific situation.

The final recommendation is for HEI leaders to bring in a dedicated person(s) to support students outside traditional office hours. Building and maintaining communication with the study may be done virtually allowing for nontraditional students to feel connected to the HEI staff. The flexibility of HEI leaders to support students through student services, availability, and technical support has been shown to increase student retention (Muljana & Tian, 2019). All the recommendations revolve around the best practices and identified themes that were identified in the modified Delphi study.

As the attendance of nontraditional online students continues to grow, the need to identify best practices and recommendations to improve retention will increase. The recommendations identified by this study to leaders and practitioners include a checklist of student expectations during admissions, training courses for faculty and staff, and support for students outside traditional office hours. These best practices and recommendations should serve as a starting point in the effort to bridge the gap in research and practices related to increasing nontraditional online student retention.

About the Author

Danielle Kish, EdD, is the founder of College Questions an organization dedicated to assisting students and their families transition into higher education and providing student support to increase student success. Danielle spent 13 years as an alumni representative

at the University of Phoenix (UOPX) assisting students on the transition to higher education and retention. She was the Fall 2021 Fellow at the Council for Higher Education Accreditation (CHEA) in Washington, D.C. Danielle completed her doctorate in education at UOPX in February 2023, her dissertation is entitled *Understanding Online Retention in Nontraditional Higher Education Students: A Delphi Study*.

References

Argüello, G., & Méndez, M. G. (2019, April 1). Virtual Advising: A Tool for Retention, Engagement, and Success for the Graduate Distance Learner. Distance Learning, 16(2), 51.

Bean, J. P., & Metzner, B. S. (1985). A conceptual model of nontraditional undergraduate student attrition. Review of Educational Research, 55, 485-540.

Ellis, H. (2019). A nontraditional Conundrum: The dilemma of nontraditional student attrition in higher education. College Student Journal, 53(1), 24.

Glazier, R. A., & Harris, H. S. (2020). How teaching with rapport may improve online student success and retention: Data from two empirical studies. Quarterly Review of Distance Education, 21(4), 1-17.

Glenn, C. W. (2018). Adding the human touch to asynchronous online learning. Journal of College Student Retention: Research, Theory & Practice, 19(4), 381-393. https://doi.org/10.1177/1521025116634104

Iyer, D. G., & Chapman, T. A. (2021). Overcoming technical inequity in synchronous online learning. Communications of the Association for Information Systems, 48, 205-212. https://doi.org/10.17705/1CAIS.04826

Kamer, J. A., & Ishitani, T. T. (2021). First-year, nontraditional student retention at four-year institutions: How predictors of attrition vary across time. Journal of College, Student Retention: Research, Theory & Practice 23(3), 560-579. doi:10.1177/1521025119858732

Kordrostami, M., & Seitz, V. (2022). Faculty online competence and student affective engagement in online learning. Marketing Education Review, 32(3), 240-254. https://doi.org/10.1080/10528008.2021.1965891

Linden, K., Teakel, S., & der Pleog, N. V. (2022). Improving student success with online embedded tutor support in first-year subjects. A practice report. Student Success, 13(2), 42-50. https://doi.org/10.5204/ssj.2338

Marsteller, R., & Bodzin, A. (2019) Examining the implementation of an online curriculum designed with the person theoretical framework on student's evidentiary reasoning and self-regulated learning. Electronic Journal of Science Education, 23(3), 73-95.

Mays, T., & Ross, S. (2022). Sense of community in synchronous and asynchronous online courses: Perceptions and experiences of nontraditional students. Online Journal of Distance Learning Administration, 25(1), 1-16.

Muljana, P. S., & Tian, L. (2019). Factors contributing to student retention in online learning and recommended strategies for improvement: A systematic literature review. Journal of Information Technology Education, 18, 19-43. https://doi.org/10.28945/4182

National Center for Education Statistics (2022). Fast facts: Distance learning. Retrieved from: https://nces.gov/fastfacts/display.asp?id=80

Nguyen, N. B. C. (2022). Improving online learning design for employed adult learners. Proceedings of European Conference on E-Learning, 302-309. https://doi.org/10.34190/ecel.21.1.554

Radovan, M. (2019). Should I stay, or should I go? Revisiting student retention models in distance education. Turkish Online Journal of Distance Education (TOJDE), 20(3), 29-40.

Robertson, S. G. (2020) Factors that influence students' decision to drop out of an online business course (Order No. 27739497). Available from ProQuest Dissertations & Thesis Global. (2379726960). https://www.proquest.com/dissertations-theses/factors-that-influence-students-decision-drop-out/docview/2379726960/se-2

Schlossberg, N. K. (1981). A model for analyzing human adaption to transition. The Counseling Psychologist, 9(2), 2-18. https://doi.org/10.1177/001100008100900202

Tamir, O., & Taylor, N. (2019). Nontraditional students: Understanding and meeting their needs in the anthropology classroom. Teaching and Learning Anthropology, 2(2), 25-40.

Tinto, V. (1975). Dropout from higher education: A theoretical synthesis of recent research. Review of Educational Research, 45, 89-125.

U.S. Department of Education (2022). Retrieved from https://search.usa.gov/search?utf8=%E2%9C%93affiliate=ed.gov&query=first+year+retention

Zhou, Y., & Wang, J. (2019). Goal orientation, learning strategies, and academic performance in adult distance learning. Social Behavior & Personality: An International Journal, 47(7), 1-20. https://doi.org/10.2224/sbp.8195

Fostering a Growth Mindset Among Doctoral Students through Motivation and Learning Theories

Juana M. Lang, Ed.D.
Alumn
University of Phoenix

Abstract

Retention of doctoral learners is problematic for higher education institutions. Designing and planning an online learning environment conducive to growth and satisfactory cognitive development takes different pedagogical ingredients. A critical aspect of learning is the learner's belief that intelligence is not fixed but can be developed; therefore, goals can be achieved. The purpose of the article is to examine human motivation and two of the most notorious learning theories (behaviorism and constructivism) to provide practical guidance in creating the conditions to nurture learners' growth mindset.

Introduction

Growth mindset theorists believe that individuals' intellectual abilities and intelligence can be developed through hard work and effort (Yeager & Dweck, 2021). On the other hand, Yeager and Dweck (2021) also posited that individuals with a fixed mindset ascribe to the belief that intelligence is fixed and, thus, unalterable. Dweck (2016) asserted that people with a growth mindset worry less about appearances of intelligence while putting all the effort into learning. In contrast, individuals with a fixed mindset avoid challenges, attempting to conceal difficulties in understanding tasks in fear of being judged by others as "less intelligent" (Campbell et al., 2020). Hochanadel and Finamore (2015) explained that the theory might benefit those who struggle and lack grit, especially in an online environment.

Higher education institutions need empirically and theoretically-based solutions to the problem of online doctoral student attrition. As doctoral students reach the dissertation-writing phase, grit and effort become necessary tools. Irvine (2018) explained that motivation encompasses engagement, persistence, and interest, involving many theoretical constructs. In this article, the social cognitive theory, the expectancy-value, the attribution theory, and the achievement goal postulates will be examined to shed light on the mindset theories. In addition, the tenets of constructivism and behaviorism, two of the most

notorious learning theories, will also be examined to explain how pedagogies may promote motivation, a growth mindset, and, thus, persistence among doctoral students.

Motivational Theories and the Mindset Theory

Gopalan et al. (2017) defined human motivation as a construct guiding human-goal-oriented behavior. Gopalan et al. (2017) also added that motivation and the learning process are intertwined, producing achievement. Motivation can be intrinsic or extrinsic. Intrinsic motivation is engaging in an activity without external reward or for its own sake (Valerio, 2012). In contrast, extrinsic motivation requires external rewards (Valerio, 2012). Attaining intrinsic motivation should be the ultimate goal of instructors for students; thus, it is necessary to understand the theories of motivation to develop purposeful pedagogical venues to instill an intrinsic desire to learn.

According to Bandura (1986), the Social Cognitive Theory (SCT) emphasizes the dual relationship and interactive nature of individuals' characteristics, behaviors, and environment. Similarly, Bandura (2001) posited that individuals possess agentic roles. According to Bandura (2001), agency involves people's belief systems, self-regulation skills, and endowments. Bandura (2001) also contended that these principles enable people to play a part in their self-growth, adaptation, and renewal in a changing environment. The tenets of SCT are intertwined with the growth mindset theory as people with a growth mindset self-regulate (set goals, put in the effort), adapt to the environment, persist, and are more self-efficacious in overcoming barriers (Burnette et al., 2020).

Self-efficacy is a subset of Bandura's (1986) SCT. The agentic aspect of the self-efficacy constructs emphasizes the importance of individuals' perceptions of their success capabilities (Bandura, 1986). Perceived self-efficacy is altered based on mastery experiences, vicarious influence, and social perception through bogus feedback, attributional evaluations, and incentives (Bandura, 1986). Self-confidence in one's ability (self-efficacy) is a powerful motivator (Burnette et al., 2020). In addition, Bandura (1982) also asserted that self-efficacy judgment (flawed or precise) might directly influence people's decisions to select what activities to complete. Individuals with a growth mindset tend to self-perceive as more capable, thus, more persistent. Dweck (1999) contended that mindset might influence the development of self-efficacy.

As self-efficacy plays a central role in cognition and performance, Zhou and Brown (2015) proposed that self-efficacy can be developed by providing the learner with experiences leading to mastery, which is translated into moving the learner from achieving simple tasks to attaining complex ones. Furthermore, the instructor should design instructional models showing specific processes for conquering knowledge. Similarly, Zhou and Brown (2015) also asserted that individuals should apply self-care as emotional and physical states may impact outcomes. In addition, verbal encouragement should be provided.

In a nutshell, Social Cognitive Theory reveals that learning takes place by observing others. Social psychologists agree that while the environment contributes to individual behaviors, the individual and cognition are just as important (Zhou & Brown, 2015). Hence, to produce desired learning outcomes, instructors should provide environmental conditions for successful learning (Zhou & Brown, 2015). Successful learning outcomes may lead to mindset changes.

The expectancy-value theory was developed to understand student motivation. The theory has two main components in promoting successful motivation: The expectancy to succeed and the value of engaging and completing a task (Barron & Hulleman, 2015). According to Irvine (2018), students' task choices are based on the degree of difficulty and the cost associated with the task. While expectancy beliefs are related to academic performance, motivation based on value may predict future career goals (Degol et al., 2018). Based on the expectancy-value theory tenets, Irvine (2018) highlighted the interrelationship between the theory and self-efficacy. In addition, a relationship between a student's mindset (growth or fixed perceptions about intelligence) has potential implications for performance expectations and values (Degol et al., 2018).

Attribution theory (Weiner, 1972) revealed the importance of studying how people made sense of their successes and failures. According to Weiner (1972), the aptitude for learning and succeeding at a task is a significant cornerstone of the attribution theory. For example, a student may persist after failing a class because of a lack of effort. On the other hand,

if the student fails the class because of a lack of skills (attributes), the student may become unmotivated, resulting in attrition (Dweck & Yeager, 2020). Dweck and Yeager (2020) also explained that the perception of abilities (attributions) as a fixed attribute vs. the perception that attributes can be developed is the foundation of the mindset theory.

Central to the achievement goal theory is how competence is perceived. According to Cho et al. (2019), achievement goals are divided into mastery, performance approach, and performance-avoidance. Students whose performance strives for mastery focus on developing skills through practice to master tasks (Cho et al., 2019). On the other hand, students in the performance-avoiding group focus on avoiding judgment of their competence. The theoretical association between the achievement goal theory and the mindset theory is precisely the achievement goal adopted by the learner. As mentioned before, the mindset theory postulates that a learner with a growth mindset will focus on developing the ability to master a task. On the other hand, a learner with a fixed mindset will set a goal to either avoid the task or demonstrate competence through the task.

Keeping Constructivism and Behaviorism in Mind to Foster Learners' Growth Mindset

Educational and psychologist researchers developed multiple learning theories based on how individuals learn, retain, and recall knowledge (Clark, 2018). Some of the most influential learning theories are behaviorism and constructivism. Learning theories are the compass that drives the design of academic learning activities, creating specific conditions for cognitive development. Although learning theories provide insight into learning, instructors and curriculum designers should carefully examine pedagogical venues to strategically use the power of the learning theories to promote a growth mindset among doctoral students.

Starting with the tenets of behaviorism, a learner may respond to a stimulus by association (Clark, 2018). An aspect of behaviorism is the absence of emphasis on thinking, as behaviorists believe learning results from conditioning and observable behaviors, and the learner is a blank canvas (Clark, 2018). Hence, an instructor may create a teacher-centered environment where pedagogies consist of repetition and memory associations to reinforce a skill, use incentives, and even penalize learners for their lack of accomplishments (Stewart, 2012). While behaviorism has a place in higher education, it is essential to understand some of its damaging effects on motivation. For example, an instructor may provide feedback to a student that sounds demeaning or harsh to motivate the learner to acquire the cognitive skills needed to complete the task (Campbell et al., 2020). However, the instructor's actions may produce the opposite effect as the learner's sense of self-efficacy and competence declines.

In addition, an instructor-centered learning environment where adult learners are deprived of opportunities to interact with the instructor and content in meaningful thought-provoking conversations may also cause students to perceive they are not provided with sufficient opportunities to access learning. According to Ricci (2013), engaging learners in critical thinking rather than memorizing tasks develops persistence and a growth mindset. A positive outcome may also occur by using positive interactions, such as commending students for their efforts rather than for their ability, smiling, and praising them. Hence, the learner must build a rapport with the instructor.

The constructivist classroom reveals learning as a result of mental processes emphasizing modern technologies (Stewart, 2012). Constructivist theorists and instructors believe that learners create new knowledge through interaction with instructors, peers, and the environment based on prior knowledge (Campbell et al., 2020). According to Vygotsky (1978), social interaction plays a vital role in acquiring knowledge. Furthermore, Vygotsky (1978) also stated that the learner experiences cognitive conflict through peer interaction. As a result, the learner engages in problem-solving.

Vygotsky's contribution to zones of proximal development also reveals that a student's current zone of development may be increased through peer and instructor guidance. Scaffolding learning tasks should be based on individual students' needs (Zhou & Brown, 2015). The latter may assist the student in overcoming learning barriers, thus attaining skill mastery and increasing self-efficacy, positively impacting beliefs on intelligence. Higher institutions may benefit from Vygotsky's social constructivism theory by carefully

assessing all students' zones of proximal development to move the student forward through the learning continuum. Finding students' zones of proximal development may also positively impact beliefs about intelligence as malleable, not as a fixed human attribute.

Furthermore, Vygotsky's views intertwine with self-belief theories as students experience success in moving up in the learning continuum. A danger of constructivism-teaching approaches is designing courses without structure (Stewart, 2012), as sometimes, constructivists assume that students will learn the content on their own. Considering Vygotsky's views about the importance of peer/instructor/learner interactions may pose a challenge for online doctoral learners. However, a lack of interactions may be solved by purposefully planning for them.

Conclusion

Theories are functional in research as they illuminate fields of study explaining phenomena (Schunk, 2012). Learning and behavior, for example, are supported by a variety of theories; therefore, it becomes critical not just to examine concepts and theoretical frameworks but also to seek practical applications that are supported by theories. Current problems in higher education, including retaining online doctoral students, may be solved through reflection on how a growth mindset can be intertwined in the online environment, purposefully bridging the gap between motivation, learning theories, and practice.

About the Author

Dr. Juana M. Lang recently graduated from the University of Phoenix with a Doctor of Education degree. Dr. Lang has taught for over 25 years in different elementary and secondary settings. Dr. Lang is passionate about educational research and believes that the world of education can improve through curious and rigorous studies.

References

Bandura, A. (1982). Self-efficacy mechanism in human agency. American Psychologist, 37(2), 122. https://doi.org/10.1037/0003-066x.37.2.122

Bandura, A. (1986). The explanatory and predictive scope of self-efficacy theory. Journal of Social and Clinical Psychology, 4(3), 359-373. https://doi.org/10.1521/jscp.1986.4.3.359

Bandura, A. (2001). Social cognitive theory: An agentic perspective. Annual Review of Psychology, 52(1), 1-26. https://doi.org/10.1146/annurev.psych.52.1.1

Barron, K. E., & Hulleman, C. S. (2015). Expectancy-value-cost model of motivation. International Encyclopedia of the Social & Behavioral Sciences, 503-509. https://doi.org/10.1016/b978-0-08-097086-8.26099-6

Burnette, J. L., Pollack, J. M., Forsyth, R. B., Hoyt, C. L., Babij, A. D., Thomas, F. N., & Coy, A. E. (2020). A growth mindset intervention: Enhancing students' entrepreneurial self-efficacy and career development. Entrepreneurship Theory and Practice, 44(5), 878-908. https://doi.org/10.1177/1042258719864293

Campbell, A., Craig, T., & Collier-Reed, B. (2020). A framework for using learning theories to inform 'growth mindset' activities. International Journal of Mathematical Education in Science and Technology, 51(1), 26-43. https://doi.org/10.1080/0020739X.2018.1562118

Cho, E., Toste, J. R., Lee, M., & Ju, U. (2019). Motivational predictors of struggling readers' reading comprehension: The effects of mindset, achievement goals, and engagement. Reading & Writing, 32(5), 1219–1242. https://doi.org/10.1007/s11145-018-9908-8

Clark, K. R. (2018). Learning theories: Behaviorism. Radiologic Technology, 90(2), 172–175. http://www.radiologictechnology.org/content/90/2/172.extract

Degol, J. L., Wang, M. -T., Zhang, Y., & Allerton, J. (2018). Do growth mindsets in math benefit females? Identifying pathways between gender, mindset, and motivation. Journal of Youth & Adolescence, 47(5), 976–990. https://doi.org/10.1007/s10964-017-0739-8

Dweck, C. S. (1999). Self-theories: Their role in motivation, personality, and development. The Psychology Press.

Dweck, C. S. (2016). What having a "growth mindset" actually means? Harvard Business Review, 13(2), 2-5. https://hbr.org/2016/01/what-having-a-growth-mindset-actually-means

Dweck, C. S., & Yeager, D. S. (2021). A growth mindset about intelligence. In G. M. Walton & A. J. Crum (Eds.), Handbook of wise interventions: How social psychology can help people change (pp. 9–35). The Guilford Press.

Gopalan, V., Bakar, J. A. A., Zulkifli, A. N., Alwi, A., & Mat, R. C. (2017, October). A review of the motivation theories in learning. [Conference session]. AIP Conference. AIP Publishing LLC. https://doi.org/10.1063/1.5005376

Hochanadel, A., & Finamore, D. (2015). Fixed and growth mindset in education and how grit helps students persist in the face of adversity. Journal of International Education Research (JIER), 11(1), 47-50. https://doi.org/10.19030/jier.v11i1.9099

Irvine, J. (2018). A framework for comparing theories related to motivation in education. Research in Higher Education Journal, 35. https://files.eric.ed.gov/fulltext/EJ1194268.pdf

Ricci, M. C. (2013). Mindset in the classroom: Building a culture of success and student achievement in schools. Prufrock Press Inc.

Schunk, D. H. (2012). Learning theories an educational perspective sixth edition. Pearson.

Stewart, M. (2012). Understanding learning: Theories and critique. In L. Hunt & D. Chalmers, (Eds.), University teaching in focus (pp. 3-28). Routledge.

Valerio, K. (2012). Intrinsic motivation in the classroom. Journal of Student Engagement: Education Matters, 2(1), 30-35. https://ro.uow.edu.au/jseem/vol2/iss1/6

Vygotsky, L. (1978). Mind in society: The development of higher education psychological processes. Harvard University Press.

Weiner, B. (1972). Attribution theory, achievement motivation, and the educational process. Review of Educational Research, 42(2), 203-215. https://doi.org/10.3102/00346543042002203

Yeager, D. S., & Dweck, C. S. (2020). What can be learned from growth mindset controversies? American Psychologist, 75(9), 1269–1284. https://doi.org/10.1037/amp0000794

Zhou, M., & Brown, D. (2015). Educational learning theories (2nd ed.). Education Open Text Books. https://oer.galileo.usg.edu/education-textbooks/1?utm_source=oer.galileo.usg.edu%2Feducation-textbooks%2F1&utm_medium=PDF&utm_campaign=PDFCoverPages

Belonging: More Than a New Buzzword

Jamie Buchanan, RN, MSN-Ed., DNP
Faculty
College of Nursing, UOPX

Abstract

A student's sense of belonging in higher education has been linked to higher student retention. Students who have a stronger sense of belonging tend to have higher academic self-confidence, motivation, and levels of academic engagement and achievement. Faculty engagement in intentional practices to support a sense of belonging plays an important role in supporting students' engagement and involvement in academic and social activities. An in-depth exploration of belonging in higher education is reviewed, along with a few recommended intentional practices faculty can utilize to develop a sense of belonging in online learners.

Belonging: An Exploration

Faculty in higher education are charged with ensuring student success and retention, building interpersonal relationships while simultaneously dispensing required course content, and espousing practitioner knowledge in a safe, and non-judgmental environment. Facilitating online courses requires faculty to have an active social presence and build a sense of community. At the fundamental level of these teaching and learning practices, many universities are embracing the idea of integrating a sense of belonging into their interactions with students to boost these essential outcomes in students' educational journeys. Belonging is not new and is more than a new buzzword. The idea of belonging has long been a core focus of psychology and sociology research. A sense of belonging is defined as "a feeling of connectedness, that one is important or matters to others" (Strayhorn, 2018, p. 2). Carol Goodenow (1993) defined a sense of belonging as "students' sense of being accepted, valued, included, and encouraged by others (teachers and peers) in the academic classroom and of feeling oneself to be an important part of the life and activity of the class" (p. 25). Students' sense of belonging has been recognized as a vital force to foster success, engagement, and well-being (National Academies of Sciences, Engineering, and Medicine, 2017; Goodenow, 1993; Pedler et al., 2022). The absence of a sense of belonging can lead to low self-esteem, depression, and anxiety which can undermine academic performance and retention (Haggerty et al., 2002; Walton & Cohen, 2007).

Unsurprisingly, a sense of belonging in higher education students has been linked to student retention and students who have a stronger sense of belonging tend to have developed academic self-confidence and advanced motivation with higher levels of academic engagement and achievement (Gillen-O'Neel, 2019; Maunder, 2018; Murphy & Zirkel, 2015; Osterman, 2000; Slaten et al., 2016). For faculty to support intentional interactions and achieve a sense of belonging in the online environment when working with adult learners, it is imperative to address the multi-dimensional components of belonging and its linkages to health, well-being, and cognitive, emotional, and behavioral processes (Baumeister & Leary, 1995; Maunder, 2018; Pedler et al., 2022; Gillen-O'Neel, 2019; Strayhorn, 2018).

The need-to-belong theory suggests that people have a fundamental need to form and maintain interpersonal relationships (Baumeister & Leary, 1995; Strayhorn,

2018). Based on Abraham Maslow's (1987) hierarchy of needs, belongingness is positioned at the midpoint of the hierarchy of needs and is referred to as the need for interpersonal relationships, developing social connections, and being part of a group. While the need for belonging isn't as urgent as physiological and safety needs on Maslow's hierarchy, the need to belong still significantly influences achieving feelings of esteem and a desire for self-actualization (Baumeister & Leary, 1995; Maslow, 1987). In addition, social connection and being part of a group shapes emotion, cognition, motivation, and behavior (Baumeister & Leary, 1995; Hurtado & Carter, 1997; Pedler, Willis, & Nieuwoudt, 2022). Thus, students who feel a strong sense of belonging establish strong relationships with others including their peers and faculty, preserving academic motivation, and promoting success and retention in higher education (Pardede et al., 2020; Maunder, 2018; Pedler et al., 2022; Gillen-O'Neel, 2019; Strayhorn, 2018).

A student's sense of belonging is dynamic and fluctuates between classes and experiences with faculty. There is a strong correlation between engaging in concrete relationships based on regular social interactions in the educational context and a student's sense of belonging. Faculty play an important role in supporting students' engagement and involvement in academic and social activities to support belonging, self-esteem, academic motivation, and achievement (Ahn & Howard, 2020; Baumeister & Leary, 1995; Osterman, 2000). Belonging and academic engagement is influenced not only by the students' social interactions and perceptions of personal experiences but also by a stable and enduring educational environment (Ahn & Howard, 2020; Gillen-O'Neel, 2019; Pedler, Willis, & Nieuwoudt, 2022). Because online students have reduced human contact in the online setting, it is important that intentional online interactions between faculty and students are specifically aimed at improving a sense of belonging to enhance the student experience and performance (Kim et al., 2022). The learning environment including people, such as peers and faculty, in the online setting, has been identified as a major determinant in students' development of a sense of belonging in higher education (Bates, Kaye, & McCann, 2017; Martin, Jansen, & Beckmann, 2016).

Building Community and Social Presence in the Online Classroom

Students with a strong sense of trusting connections with faculty and peers and who experience a nurturing virtual environment are more likely to have an increased sense of belonging. Faculty must dedicate themselves to being intentional with every interaction when building community and social presence in the online classroom (Soria & Stubblefield, 2015). The quality of interactions in the educational context is essential and promoted by creating a circle of support with peers and faculty through intentional social connections (Ahn & Howard, 2020; Pedler, Willis, & Nieuwoudt, 2022). Engaging in meaningful opportunities to authenticate emergent knowledge, instill confidence, and validate students' accomplishments in a supportive and welcoming environment reduces barriers of social isolation, low self-esteem, and feelings of disconnectedness. Learning and using a student's preferred name and/or pronoun during communications is linked to personal acceptance and students reported feeling respected and supported (Thomas, 2012; Baters, Kaye, & McCann, 2017). Using greetings and praise in written dialogue and encouraging students to express their viewpoints in online discussions are behaviors that faculty can model. By sharing stories and knowledge through written expression in online discussions using creative strategies to personalize communication, faculty can increase students' sense of belonging. Simple approaches can include utilizing text-based techniques such as common abbreviations like LOL, meaning "laugh out loud" or punctuation, such as exclamation points. Simple phrases such as "hello' and "take care" can improve students' perceptions of caring by faculty and enhance a sense of belonging (Bates et al., 2017; Martin, Jansen, & Beckmann, 2016; Plante & Asselin, 2014). Online community building can create a significant sense of social presence that is reciprocal and mutually respective (Ahn & Howard, 2020; Chen & Bogachenko, 2022; Rockinson-Szapkiw et al., 2010; Slaten et al., 2016).

Emojis: A Valuable Communication Tool

The use of emojis in the online classroom can be a valuable communication tool. An emoji is a small

digital image or icon used to express an idea or emotion. Digital communication containing emojis has exhibited a meaningfully positive influence on students' cognitive responses to faculty (Zhang et al., 2021). In addition, utilizing emojis in communication resulted in higher motivation and sustained attention in class due to increased student perceptions of authenticity and intimacy in building relationships with faculty (Kim et al, 2020; Olmas-Raya et al., 2018; Wei, Wang, & Klausner, 2012). Emojis help individuals modify communication tone and convey nuanced emotional states to reduce message ambiguity by replacing words with icons. Simply using a smiley-face emoji has demonstrated the enhanced persuasion of a message, created joy in the receiver of the message, and expressed agreeability and positive social intention from the sender (Kim et al., 2020). Utilizing this technology-based language in a culturally sensitive way is one simple approach to increase interactions and build a sense of belonging through online messaging (Zhang et al, 2021).

Encouraging Multimodality

Students in online classrooms often feel isolated and seek opportunities to bridge the virtual distance (Slaten et al., 2016). Multimodality by way of augmenting weekly asynchronous discussions with synchronous face-to-face sessions lends itself to beneficial conditions for online collaboration and an increased sense of social presence (Chen & Bogachenko, 2022; Rockinson-Szapkiw et al., 2010). Faculty are encouraged to facilitate periodic live sessions on platforms such as Blackboard, Zoom, and Microsoft Teams. By hosting real-time communication students can engage in interactive and inclusive conversation which can bolster engagement with peers and faculty leading to an enhanced sense of belonging (Chen & Bogachenko, 2022; Sharoff, 2014; Zumbrunn, 2014). By incorporating learning materials with conversations in the live virtual session, faculty can encourage peer-to-peer engagement and positive interactions to foster social connections, nurture the learning process, and cultivate a sense of belonging (Ahn & Howard, 2020; Baumeister & Leary, 1995; Freeman et al., 2014; Peisachovich et al., 2016)

Conclusion

Students' sense of belonging is a vital force to foster success, engagement, and well-being as when students develop strong social and academic connections, they have higher motivation and higher levels of academic achievement (Ahn & Howard, 2020; Gillen-O'Neel, 2019; Pedler, Willis, & Nieuwoudt, 2022). There is a positive correlation between student success and belonging that echoes well-established theories on belonging (Baumeister & Leary, 1995; Maslow, 1987). It is crucial for faculty in higher education to seek ways to create a sense of belonging in the online educational environment. Indeed, intentional online interactions, building a stable and enduring educational environment, and capitalizing on opportunities that foster a sense of belonging can have far-reaching implications for students and universities alike (Chen & Bogachenko, 2022; Kim et al, 2020; Olmas-Raya et al., 2018; Sharoff, 2014; Wei et al., 2012; Zhang et al., 2021; Zumbrunn, 2014).

About the Author

Dr. Jamie Buchanan lives in Tucson, Arizona with her husband and son. She is a full-time faculty member and project chair for the Doctor of Nursing Practice program in the College of Nursing.

References

Ahn, M. Y., & Davis, H. (2020). Four domains of students' sense of belonging to university. Studies in Higher Education, 45(3), 622-634. https://doi.org/10.1080/03075079.2018.1564902

Bates, E., Kaye, L., & McCann, J. (2017) A snapshot of the student experience: exploring student satisfaction through the use of photographic elicitation. Journal of Further and Higher Education. https://www.tandfonline.com/doi/abs/10.1080/0309877X.2017.1359507

Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. Psychological Bulletin, 117(3), 497-529.

Chen, J., & Bogachenko, T. (2022). Online community building in distance education: The Case of social presence in the blackboard discussion board versus multimodal VoiceThread interaction. Educational Technology & Society, 25(2), 62-75.

Gillen-O'Neel, C. (2019). Sense of belonging and student engagement: A daily study of first- and continuing-generation college students. Research in Higher Education.

Goodenow, C. (1993). Classroom belonging among early adolescent students: Relationships to motivation and achievement. The Journal of Early Adolescence, 13(1), 21-43, https://doi.org/10.1177/0272431693013001002

Haggerty, B. M. K., Williams, R. A., & Oe, H. (2002). Childhood antecedents of adult sense of belonging. Journal of Clinical Psychology 58, 793–801.

Hausmann, L. R. M., Schofield, J. W., & Woods, R. L. (2007). Sense of belonging as a predictor of intentions to persist among African American and White first-year college students. Research in Higher Education, 48, 803-839.

Hurtado, S., & Carter, D. F. (1997). Effects of college transition and perceptions of the campus racial climate on Latino college students' sense of belonging. Sociology of Education, 70(4), 324-345.

Kim, M. Knotts, T. L. Albers, N. D., & James, K. E. (2022). Emoji use as a catalyst for relationship building and sustaining attention in online classes: An empirical study. Education Sciences, 12(12), 874. https://doi.org/10.3390/educsci12120874

National Academies of Sciences, Engineering, and Medicine. (2017). Supporting students' college success: The role of assessment of intrapersonal and interpersonal competencies. National Academies Press.

Maslow, A. H. (1987). Motivation and personality (3rd ed.). Pearson Education.

Martin, M., Jansen, L. & Beckmann, E. (2016) The doubters' dilemma: Exploring student attrition and retention in university language and culture programs. Canberra: Australian National University.

Maunder, R. E. (2018). Students' peer relationships and their contribution to university adjustment: The need to belong in the university community. Journal of Further and Higher Education, 42, 756-768. doi:10.1080/0309877X.2017.1311996.

Murphy, M. C., & Zirkel, S. (201. Race and belonging in school: How anticipated and experienced belonging affect choice, persistence, and performance. Teachers College Record, 117, 1-40.

Olmos-Raya, E., Ferreira-Cavalcanti, J., Contero, M., Castellanos, M. C., Giglioli, I. A. C., & Alcañiz, M. (2018). Mobile virtual reality as an educational platform: A pilot study on the impact of immersion and positive emotion induction in the learning process. Eurasia Journal of Mathematics, Science, and Technology Education, 14, 2045-2057. https://doi.org/10.29333/ejmste/85874.

Osterman, K. F. (2000). Students' need for belonging in the school community. Review of Educational Research, 70, 323–367. doi:10.3102/00346543070003323.

Pardede, S., Gausel, N., & Hoie, M. M. (2020). Revisiting "The Breakfast Club": Testing different theoretical models of belongingness and acceptance (and social seld-representation). Frontiers in Psychology, 11. https://doi.org/10.3389/fpsyg.2020.604090

Pedler, M. L., Willis, R., & Nieuwoudt, J. E. (2022). A sense of belonging at university: student retention, motivation, and enjoyment. Journal of Further and Higher Education, 46(3), 397-408. http://dx.doi.org/10.1080/0309877X.2021.1955844

Plante, K., & Asselin, M. E. (2014). Best practices for creating social presence and caring behaviors online. Nursing Education Perspectives, 35(4), 219 – 223.

Sharoff, L. (2019). Creative and innovative online teaching strategies: Facilitation for active participation. Journal of Educators Online, 16.

Slaten, C. D., Ferguson, J. K., Allen, K., Brodrick, D., & Waters, L. (2016). School belonging: A review of the history, current trends, and future directions. Australian Psychological Society. doi:10.1017/edp.2016.6.

Soria, K. & Stubblefield, R. (2015). Knowing me, knowing you: Building strengths awareness, belonging and persistence in higher education. Journal of College, Student Retention: Research, Theory and Practice, 1-22. DOI: 10.1177/1521025115575914

Strayhorn, T. L. (2018). College students' sense of belonging: A key to educational success for all students (2nd ed.). Routledge.

Thomas, L. (2012) Building student engagement and belonging in Higher Education at a time of change: Final report from the What Works? Student Retention and Success Programme. London: HEFCE.

Trujillo, G., & Tanne, K. D. (2014). Considering the role of affect in learning: Monitoring students' self-efficacy, sense of belonging, and science identity. CBE – Life Sciences Education, 13, 6-15.

Vaccaro, A., Daly-Cano, M., & Newman, B. M. (2015). A sense of belonging among college students with disabilities: An emergent theoretical model. Journal of College Student Development, 56(7), 670-686. doi:10.1353/csd.2015.0072

Walton, G. M., & Cohen, G. L. (2007). A question of belonging: Race, social fit, and achievement. Journal of Personality and Social Psychology, 92(1), 82-96

Wei, F. Y. F., Wang, Y. K., & Klausner, M. (2012). Rethinking college students' self-regulation and sustained attention: Does text messaging during class influence cognitive learning? Communication Education, 61, 185–204.

Zhang, M., Ding, S., Liu, Y., Li, H., Zhu, Y., & Qin, C. (2021). Influence of emojis on online trust among college students. Frontiers in Psychology, 12, 747925. https://doi.org/10.3389/fpsyg.2021.747925

Zumbrunn, S., McKim, C., Buhs, E., & Hawley, L. R. (2014). Support, belonging, motivation, and engagement in the college classroom: A mixed-method study. Instructional Science, 42, 661-684

Online Doctoral Students' Attrition through the Lens of Retention Models: A Path for New Models

Juana M. Lang, Ed.D.
Alumn
University of Phoenix

Abstract

Entering the world of Academia offers learners career and personal rewards. However, many doctoral students do not complete their studies despite these benefits. The empirical literature revealed that attrition in online doctoral programs is 10 to 20% higher (Ames et al., 2018). Consequently, researchers' efforts to assist higher education institutions in ameliorating attrition have focused on developing models to explain possible variables. While these models offer insights into the problem, researchers today should consider adding new variables explaining online doctoral student attrition based on the current condition of higher education. The purpose of this article was twofold: a) to examine various theoretical frameworks developed to aid higher education institutions in retaining online learners and b) to shed light on recommendations of new variables to consider in new models of retention and persistence.

Introduction

A doctoral degree is a positive investment in an individual's career (Fraenza & Rye, 2021). A doctorate opens the door to less unemployment and higher income (Ames et al., 2018; Bureau of Labor Statistics, 2019). Kaur et al. (2022) explained that the process of acquiring a doctoral degree stimulates problem-solving skills, research, and writing abilities, thus producing a profound intellectual transformation. The journey prepares the individual to become better employable, impacting a person's life on all fronts. However, despite all the advantages of a doctoral degree and the popularity of studying online, the literature on doctoral student attrition has established that 40% to 70% of students do not persevere to program culmination (Ames et al., 2018). According to Ames et al. (2018), attrition from online doctoral programs is 10% to 20% higher than in other programs, with some margin of variation among institutions.

While online doctoral courses flourish in the United States and worldwide, allowing the learner to experience a self-paced schedule, fewer geographic constraints, and accessibility of content (Studebaker & Curtis, 2021), higher education institutions continue

to be concerned about the retention of online doctoral students (Brown, 2017; Studebaker & Curtis, 2021). Hence, it is vital to delve deeper into the literature addressing previous models of retention and persistence of the online doctoral journey to engage, motivate, and retain learners. The purpose of this article was twofold: a) to examine various theoretical frameworks developed to aid higher education institutions in retaining online learners and b) to shed light on recommendations and new variables to consider in these models of retention and persistence.

A Doctoral Journey's Challenges

A doctoral degree involves a more rigorous process than a Master's degree (Kaur et al., 2022). Enrolling in a doctoral program comes with the notion that the student will experience academic growth (Gray & Crosta, 2019). In addition, completing a doctoral program is not free of personal, professional, and financial challenges (Fraenza & Rye, 2021). Other tribulations overwhelming doctoral students throughout their journey are stress, anxiety, and exhaustion, including a lack of preparedness to face the tasks associated with developing their research identity and skills (Fraenza & Rye, 2021). Furthermore, online doctoral students experience a lack of collaboration, isolation, and family problems that may lead to dissatisfaction and attrition (Elmore, 2021).

According to Ames et al. (2018), doctoral attrition can occur at any stage of the online program; however, the highest attrition occurs during dissertation writing as the student transitions from being a consumer of information to designing and conducting research independently. Writing a dissertation is unlike any other task the student has ever experienced; hence, problems such as communication with faculty, unclear expectations, and struggling with the dissertation process may cause poor motivation, disengagement, and attrition (Ames et al., 2018; Gray & Costa, 2019).

Higher Education Attrition and Persistence Frameworks: A Review of the Literature

Several theories and frameworks have been developed to explain and diminish dropout (Choi & Park, 2018). The historical literature revealed models addressing attrition among traditional college students, nontraditional, and models for online learners. Some of these frameworks are Tintos' traditional student integration model, Bean and Metzner's, Rovai's model of student persistence for adult dropouts in online learning, and Park's model of online student retention (Park, 2007). While some of these frameworks were developed before the internet and online learning, the models have been the foundation for developing new models for online learning.

Tinto's Model of Traditional Student Attrition

Tinto (2006) explained that when student retention issues became noticeable in higher education institutions, the problem was attributed to students' skills and attributes. According to Tinto (2006), students who left were viewed as failing, but the institution's role in attrition was not considered. However, the view of higher education retention shifted in later years to consider the link between the environment and the institution in the student's decision to leave.

Tinto's model intertwines academic and social integration to increase student persistence and retention (Burke, 2019). Tinto (2012) stated that the interaction between the student and the educational environment determines whether attrition occurs. According to Burke (2019), Tinto posited that certain elements contributed to students' persistence and attrition: Experiences prior to college and experiences at college. Tinto (2006) argued that certain conditions after student admission, such as student integration, are affected by school practices and policies. Tinto also highlighted the importance of integrating students' Grade Point Average (GPA) and positive interactions with peers and faculty to produce student commitment to remain in the program (Burke, 2019).

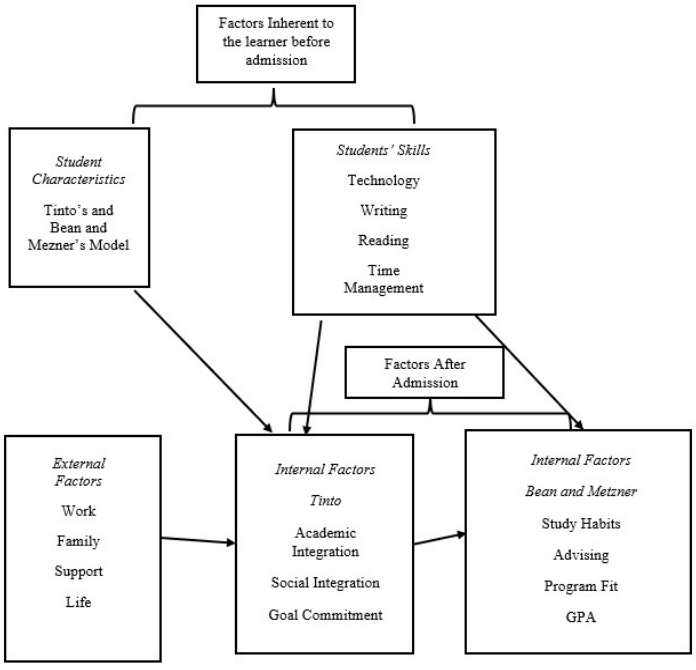
Bean and Metzner's Model of Nontraditional Students Drop Out

Bean and Metzner developed another framework model for nontraditional student dropouts in 1985 (Choi & Park, 2018). According to Bean and Metzner (1985), a need to understand why older nontraditional college students drop out propelled the development

of the model. Bean and Metzner (1985) contended that nontraditional students' characteristics differ from traditional students; therefore, a new set of variables must be considered to understand this group's attrition. Bean and Metzner (1985) added that while socialization in college was not significant, other aspects of previous frameworks should not be ignored. In a nutshell, Bean and Metzner (1985) indicated that students will drop out when the following variables are present: a) poor academic performance, b) Intent to leave resulting from psychological factors and academic outcomes, c) background-defining variables (high school performance and educational goals), and d) environmental variables.

Rovai's Model of Persistence of Online Learners

According to Choi and Park (2018), Rovai's model combines Bean and Metzner's and Tintos'models. However, elements contemplating the characteristics of online learners were added as previous models were created before distance learning gained popularity. According to Rovai (2003), the following factors influence online student persistence and attrition: a) students' characteristics before admission to the program, b) external factors after the student has been admitted into the program, and c) internal factors after admission (see Figure 1).



Note: Synthesis of Tinto's and Bean and Metzner's Shown in the model by Rovai (2003).

Table 1 | Rovai's model.

Park's Model of Retention of Online Learners

Park (2007) revised the structure of Rovai's model and made modifications (see Figure 2). According to Park (2007), external factors should be moved between prior admission and during the course because students' decisions to quit are not only affected prior to admission but also during the courses. Park (2007) contended that workload and job responsibilities determine adult distance learners' attrition outcomes. Some students quit even before they start a course as external factors set in. Furthermore, Park (2007) also explained that internal and external factors interact, consequently affecting retention and persistence.

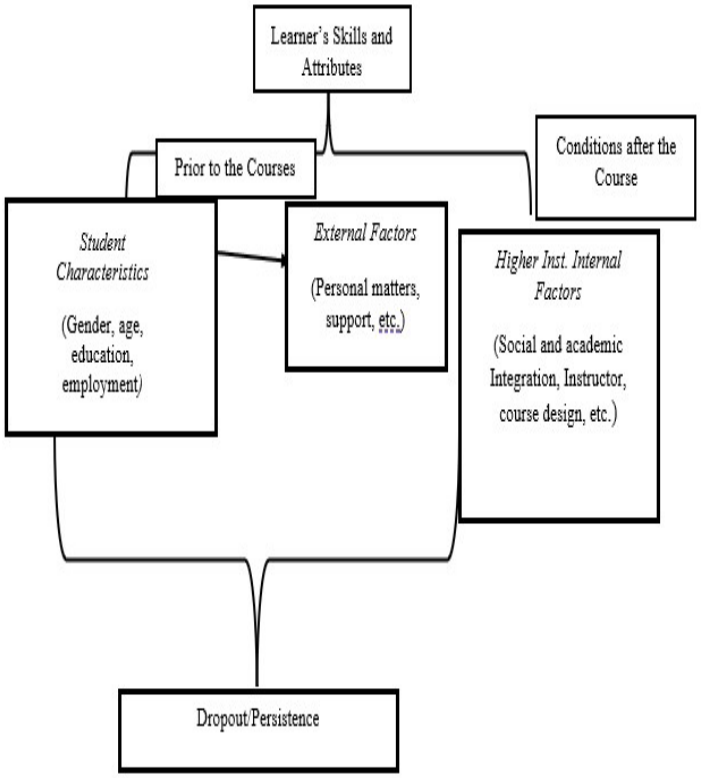


Table 2 | Park's model.

Previous Models' Limitations and Aspects to Incorporate in Other Models

Student Individual variables considered in these models of attrition and persistence (goals, background, learner characteristics, and skills) could represent a challenge for retention as many of these conditions

are inherent to the student and not the institution; nonetheless, they are essential for motivation and, thus, persistence. A limitation found in previous models that may impact students' characteristics is based on Bandura's self-efficacy construct.

According to Bandura (1994), self-efficacy is defined as an individual's belief in his/her ability to succeed. Furthermore, Bandura (1997) contended that individuals' self-efficacy perceptions might change as they encounter new and more challenging tasks. Self-efficacy levels will vary depending on the success and failure of such tasks (Bandura, 1997). Hence, based on Bandura's assertions, Usher and Pajares (2008) concluded that instructors should encourage students to consider small gains rather than perfect task completion. According to Bandura, focusing on small gains rather than failures may positively impact self-efficacy. In addition, Bandura (1994) contended that self-efficacy is learned.

Consequently, if self-efficacy can be learned, then it can be taught. Teaching or guiding students toward increasing self-efficacy should be added to online doctoral student retention and persistence models. Higher institutions may improve students' sense of self-efficacy by understanding each student's struggles, thus tailoring specific strategies to build the student's sense of self-efficacy. After all, one size of instruction does not fit all.

Another salient aspect to consider in a model is adding a component of self-care. Self-care is a significant component of today's education after the global pandemic (Aaslund, 2021). According to Bandura (1997), self-efficacy can be affected by physical and psychological components such as anxiety, stress, and fatigue. Bandura (1997) also added that people's self-efficacy levels increase based on psychological factors. Hence, higher levels of students' physical and psychological well-being may positively impact online doctoral students' retention and persistence. Higher education institutions may be able to help students enhance their sense of self-efficacy and increase persistence and retention by designing a well-rounded student wellness program.

Empirical models examining adult learner retention and persistence are pivotal. As noted, each model builds on another, and as new models emerge, other variables are added to reflect discoveries omitted in previous models. While more research needs to be done as higher education transforms with societal changes, a few essential points are relevant and universal and should be considered by all higher education institutions.

1. Avoid student isolation by designing a system where students communicate with one another, as this may improve academic goals and institutional commitment.
2. Instructors should engage with learners at least once a week in a setting where students can ask questions and establish relationships.
3. Conduct case study research in the organization to determine specific environmental and internal academic variables affecting student persistence.
4. Construct a novel model of student retention based on the specific institution's variables and needs.
5. Higher education internal factors should purposefully incorporate teaching students' self-efficacy.
6. Create a sound student wellness program.

Conclusion

Online doctoral learning programs necessitate special attention to avoid attrition. Past models offer valuable insights into the problem. However, the condition of higher education is constantly changing, so it is crucial to develop new theories and conceptual frameworks that better explain and shed light on the retention of online doctoral learners mirroring the institution's characteristics and the learner. Future research questions may focus on how the pandemic transformed the variables considered in previous retention models to adapt and develop new theoretical frameworks for online doctoral learner attrition.

About the Author

Dr. Juana M. Lang recently graduated from the University of Phoenix with a Doctor of Education degree. Dr. Lang has taught for over 25 years in different elementary and secondary settings. Dr. Lang is passionate about educational research and believes that the world of education can improve through curious and rigorous studies.

References

Ames, C., Berman, R., & Casteel, A. (2018). A preliminary examination of doctoral student retention factors in private online workspaces. International Journal of Doctoral Studies, 13, 79-107. https://doi.org/10.28945/3958

Aaslund, H. (2021). Global experiences of social work practice during the pandemic: Digital mediums, mutual aid, and professional self-care. Qualitative Social Work, 20(1–2), 375–377. https://doi.org/10.1177/1473325020986017

Bandura, A. (1994). Self-Efficacy. In V. S. Ramachaudran (Ed.), Encyclopedia of human behavior (pp. 71-81). Academic Press.

Bandura, A. (1997). Self-efficacy: The exercise of control. Freeman.

Bean, J. P., & Metzner, B. S. (1985). A conceptual model of nontraditional undergraduate student attrition. Review of Educational Research, 55(4), 485-540. https://doi.org/10.3102/00346543055004485

Brown, C. G. (2017). The persistence and attrition of online learners. School Leadership Review, 12(1), 47-58. https://scholarworks.sfasu.edu/slr/vol12/iss1/7?utm_source=scholarworks.sfasu.edu%2Fslr%2Fvol12%2Fiss1%2F7&utm_medium=PDF&utm_campaign=PDFCoverPages

Bureau of Labor Statistics. (2019). Employment projections. http://www.bls.gov/emp/ep_chart_001.htm

Burke, A. (2019). Student retention models in higher education: A literature review. College & University, 94(2), 12–21. https://www.aacrao.org/research-publications/quarterly-journals/college-university-journal/article/c-u-vol.-94-no.-2-spring/student-retention-models-in-higher-education-a-literature-review

Choi, H. J., & Park, J. H. (2018). Testing a path-analytic model of adult dropout in online degree programs. Computers & Education, 116, 130-138. https://doi.org/10.1016/j.compedu.2017.09.005

Elmore, R. L. (2021). Reflections on mentoring online doctoral learners through the dissertation. Christian Higher Education, 20(1-2), 57-68. https://doi.org/10.1080/15363759.2020.1852132

Fraenza, C., & Rye, T. (2021). Supporting the social integration of online doctoral students through peer mentoring. Learning Assistance Review (TLAR), 26(1), 133–161. https://doi.org/10.4018/978-1-7998-8047-9.ch050

Gray, M. A., & Crosta, L. (2019). New perspectives in online doctoral supervision: A systematic literature review. Studies in Continuing Education, 41(2), 173-190. https://doi.org/10.1080/0158037X.2018.1532405

Kaur, A., Kumar, V., & Noman, M. (2022). Partnering with doctoral students in research supervision: opportunities and challenges. Higher Education Research & Development, 41(3), 789-803. https://doi.org/10.1080/07294360.2020.1871326

Park, J. (2007). Factors related to learner dropout in online learning. In Nafukho, F. M., Chermack, T. H., & Graham, C. M. (Eds.) Proceedings of the 2007 academy of human resource development annual conference (pp. 25-1-25-8). AHRD

Park, J. H., & Choi, H. J. (2009). Factors influencing adult learners' decision to drop out or persist in online learning. Journal of Educational Technology & Society, 12(4), 207-217. https://www.learntechlib.org/p/74987/

Rockinson-Szapkiw, A. J., Spaulding, L. S., & Spaulding, M. T. (2016). Identifying significant integration and institutional factors that predict online doctoral persistence. The Internet and Higher Education, 31, 101-112. https://doi.org/10.1016/j.iheduc.2016.07.003

Rovai, A. P. (2003). In search of higher persistence rates in distance education online programs. The Internet and Higher Education, 6(1), 1-16. https://doi.org/10.1016/S1096-7516(02)00158-6

Studebaker, B., & Curtis, H. (2021). Building community in an online doctoral program. Christian Higher Education, 20(1-2), 15-27. https://doi.org/10.1080/15363759.2020.1852133

Tinto, V. (2006). Research and practice of student retention: What next? Journal of College Student Retention: Research, Theory & Practice, 8(1), 1-19. https://doi.org/10.2190/4ynu-4tmb-22dj-an4w

Tinto, V. (2012). Leaving college: Rethinking the causes and cures of student attrition. University of Chicago Press.

Usher, E. L., & Pajares, F. (2008). Sources of self-efficacy in school: Critical review of the literature and future directions. Review of Educational Research, 78(4), 751-796. https://doi.org/10.31.02/0034654308321456

Integrating Technology in the College and Organizational Classroom: Impact on Adult Learners

Julie A. Overbey, Ph.D. *Faculty*
University of Phoenix

Pamela Ann Gordon, Ph.D.
Faculty
University of Phoenix

Abstract

The integration of technology for adult learners in college and workplace settings creates a new way for students to learn and access lessons. Technology within the classroom also creates new avenues for instructors to teach. Technology implementation is not always fully embraced by teachers; resistance sometimes occurs. As technology became intertwined in learning delivery and outcomes, school and organizational leaders grappled with faculty training, ensuring equitable access to technology, technical support, and integration into course curricula. Simply integrating technology into the classroom is no guarantee of improved outcomes as technology in one school or organization may prove successful while the same technology in another setting will not produce the same positive results.

Background

Technology use in the classroom and the use of technology to deliver remote learning is an ever-evolving concept. The predecessor of distance education was physical mail correspondence. Technology changed the very means by which learning and knowledge are delivered and made possible by the inclusion of pre-recorded media, instantaneous one- and two-way audio and video, shared graphics, and one-on-one and group audio-video meetings (Özüdogru, 2021). Hastings and Bauman (2020) noted the Association for Educational Communications & Technology defined educational technology as "... the study and ethical application of theory, research, and best practices to advance knowledge as well as mediate and improve learning and performance through the strategic design, management, and implementation of learning and instructional processes and resources" (p 188). Technology in classrooms includes many forms, from simple integration of internet searches as part of assignments to the introduction of student-led gamification of curricula (Lin, 2022). Learners born during the internet era are familiar with computer interfaces and the advent of learning interfaces is a crucial element in inspiring and enhancing the participation and educational settings of the cyber-era learner (Lin, 2022).

When considering the integration of technology in the classroom it is necessary to consider how the integration and use of various technologies impact learning as well as important emotional implications. Gaining an understanding of the emotional aspects of learning and finding methods of supporting the emotional processes surrounding technology-based learning (TBl) is fast becoming a vital goal in a variety of research communities including online content management platforms which manage the creation and modification of digital content, a virtual reality which is the use of computer technology to create simulated environments, intelligent tutoring systems

which are computer systems utilized to provide instantaneous and tailored instruction and feedback to the learner without human intervention, and hypermedia systems, which is a framework allowing hyperlinking activity in a structured manner (Loderer et al., 2020).

Technology Integration in College

The plethora of information available from the internet is not consistently reliable or accurate; however, the advantage of having wealth of information provides college students with an opportunity to develop higher-level critical thinking and research skills to procure valid information (Delgado et al., 2015). Integrating technology by using a hybrid learning method provides advantages at the college level. Combining face-to-face learning with online learning offers students opportunities to explore a richer learning environment and eliminate the potential isolation found in fully online courses (Delgado et al., 2015). The blended platform allows students to utilize technology resources to discover, share, and create information on a much larger scale than in the traditional classroom setting alone (Yan, 2022). Research study results from a survey sent to 270 community colleges showed that the responding faculty and students consistently used tablet devices to streamline access for reading ebooks, using educational apps, accessing the class, documenting lecture notes, and recording audio and videos (Kaur & Slimp, 2013). In addition, new forms of wearable technology such as smart gloves and smart glasses offer sophisticated virtual reality technology to college students (Wang & Gao, 2021). A recommendation for promoting positive technology is to encourage college students to "use technology as a partner in learning instead of technology as a teacher" (Pape & Prosser, 2018, p. 633).

Selwyn's (2016) study summarized the realities of technology downsides at the college level to four Ds: distraction, disruption, difficulty, and detriment. Students become sidetracked by social media websites. Study results indicated that students find social media sites both beneficial and a detriment. As a short break from studying to relieve stress and tension, these sites served a mental health and socialization function; however, when social media replaced needed coursework or study time, the sites became a distraction (Shane-Simpson & Bakken, 2022). The use of social media sites may also lead to less productive multitasking behaviors as students try to alleviate the fear of missing out (FOMO) (Shane-Simpson & Bakken, 2022) Technology glitches cause disruptions in learning at the college level. In an Australian study "difficulties with the technology far outweighed the celebrations of the technology, however, with lecturers describing endless situations where the technology had let them down" (Chen et al., 2020, p. 230). Differences in online learning platforms may cause difficulty and interfere with learning and outdated or poorly used technology becomes a detriment to learning (Selwyn, 2016).

The wealth of available information from online sources may lead to increased instances of plagiarism and cheating (Çelik & Odaci, 2013). Additional opportunities for academic dishonesty include (a) finding students for hire or ghost students when taking online classes; (b) sharing text answers using emails or screenshots; faking technology glitches to gain extra time to complete coursework; and the increased emergence of online pay-for-paper websites masked as helpful tutoring websites (Adzima, 2020). Academic dishonesty in college may be a precursor to professional instances of misconduct in the workplace (Harper, 2006). While the trend is to utilize as much technology as possible, Hechter and Vermette (2013) warned not to view technology as a panacea for educational deficiencies.

Technology Integration in Workplace Training

The integration of technology in classrooms does not stop in the schoolroom. The workplace is a key location for enhanced and ongoing learning. Technology integration into the learning environment is prevalent in the workplace learning environment as well. Much of what is learned in a lifetime occurs during work coupled with daily tasks and practices (Ley, 2020). While systems designed for workplace learning frequently draw on structural knowledge about the working domain, learning systems do not frequently incorporate matured workplace practices.

Workplace learning is frequently targeted at helping employees develop the skills, knowledge, and behaviors needed in the workplace. There are three types of learning: formal, learning from peers or leaders, and self-initiated learning (Wickramasinghe

& Ramanathan, 2022). There are three types of drivers behind workplace learning: organizational-related, individual-related, and team-related. Organizational-related drivers may include developed processes to establish gaps in actual and expected performance, maintaining skills, access to trainers, infrastructure development, ease of delivery, and aligned work design. Individual-related drivers include the context of the job, passion, employee attentiveness to new developments related to a specific job, and drive toward learning. Team-related drivers include communication within the team, resolution of conflict within the team, team support for learning activities, and the team's concurrence with the organizational mission and objectives (Wickramasinghe & Ramanathan, 2022).

One form of technology learning in the workplace showing great promise is Virtual Human Resource Development (VHRD). An important element of VHRD is the reach beyond the tool-based perspective. Instead, VHRD provides "the addition of an environmental view in which these tools form a virtual space that interacts with people in a socio-cultural context" (Bennett & McWhorter, 2022, p. 101). Combining technologies forms an aggregated environment where short-term and long-term learning and development from individual learning to group levels aid in promoting healthy systems for trainers when developing the various learning delivery systems. VHRD use forces discussion surrounding the implications of online learning, the staggering amount of work and learning occurring in corporate virtual systems, and the mediating impact of culture in influencing learners and their learning environment (Bennett & McWhorter, 2022).

Technology in the classroom poses challenges as does technology in the workplace learning and training. E-learning is a far-reaching and growing part of online activities. Servage (2005) cautioned that as technology as a learning tool continues to grow and integrate into the workplace, there is a weakening of the boundaries between people and technology. An approach that is excessively instrumental in e-learning fails to meet stated learning outcomes for workers and thus fails to provide the desired organizational learning outcomes for employees. Fundamental issues with the integration of technology in the workplace learning environment include a lack of consistent terminology, confusing and fragmented understanding of just what e-learning is, overgeneralizations, a lack of standardized frameworks or taxonomies related to e-learning strategies, and the inconsistent use of tools (Servage, 2005).

Solutions and Recommendations

There are several solutions and recommendations to ensure the responsible and effective use of technology in schools and the workplace.

- Continuous training to ensure all technology users, such as students, teachers, organizational trainers, and employees, possess the skills and abilities to effectively utilize the provided technology.
- The availability of sufficient technical support is important to ensure the overcoming of obstacles and maintenance of current hardware and software.
- Benchmarking to see current trends in technology integration and implementation in schools and industry may provide further insight into innovative utilization in a shared learning community.
- In schools and the workplace, it may be beneficial to introduce the integration of technology by transforming already familiar curricula and workplace resources into digital formats.
- Utilize additional technology tools and techniques, such as plagiarism checkers and randomized assignments and test questions, to uphold academic honesty and increase learning outcomes.

Future Research Directions

Exploring future research directions for implementing positive innovative technology within all educational and workplace settings requires the need to further delve into potentially detrimental topics related to evidence-based health and wellness issues caused by extended device usage. Further research needs to determine perceptions, competency levels, and training needs for teachers and employees to ensure that incorporated technology achieves maximum benefit in schools and the workplace.

Conclusion

Education in the 21st century is in a paradigm shift. There is a need to replace older teaching methods with innovative techniques incorporating technology. Students are comfortable using a variety of technology in personal settings, from recreational use to sophisticated devices, so it is important to implement new advances in classroom teaching to sustain learning in the age of digital systems. As students navigate from an educational setting to the professional workplace, learned skills from the educational setting transition and become refined to the specific industry. Finding the correct balance between innovative implementation and overreliance on technology in educational and workplace settings continues to be a challenge, presenting both advantages and risks.

About the Authors

Dr. Julie A. Overbey earned her Ph.D. in Business Management with a specialization in organizational leadership. Dr. Overbey has 30 years of professional leadership experience in the U. S. Air Force and commercial industry delivering strategic guidance and management oversight as a contracts director. Dr. Overbey has 15 years of teaching experience at the University of Phoenix, has served as the Lead Faculty Area Chair for the DM program, and primarily serves as a dissertation chair in the DM and DBA programs as a doctoral staff faculty member.

Dr. Pamela Ann Gordon earned her doctorate in Business Administration with a specialization in Management from Northcentral University. Her three master's degrees are in Human Resource Management; Organization and Leadership; and an MBA with a specialization in Marketing. She has 22 years of experience in the pharmaceutical industry, with 17 of those years in corporate management/ leadership positions. She has more than 19 years of teaching experience at the University of Phoenix and is currently a doctoral staff faculty member. Her research interests are in the areas of management, organizational behavior, marketing, and human resource management.

References

Adzima, K. (2020). Examining online cheating in higher education using traditional classroom cheating as a guide. The Electronic Journal of e-learning, 18(6), 476-493. https://doi.org/10.34190/jel.18.6.002

Bennett, E. E., & McWhorter, R. R. (2022). Dancing in the paradox: Virtual human resource development, online teaching, and learning. Advances in Developing Human Resources, 24(2), 99-116. DOI: 10.1177/15234223221079440

Çelik, Ç., & Odaci, H. (2013). The relationship between problematic internet use and interpersonal cognitive distortions and life satisfaction in university students. Children and Youth Services Review 35(3), 505–508. https://doi.org/10.1016/j.childyouth.2013.01.001

Chen, J. C., Dobinson, T., & Kent, S. (2020). Lecturers' perceptions and experiences of Blackboard Collaborate as a distance learning and teaching tool via Open Universities Australia (OUA). Open Learning: The Journal of Open, Distance and e-Learning, 35(3), 222-235. https://doi.org/10.1080/02680513.2019.1688654

Delgado, A. J., Wardlow, L., McKnight, K., & O'Malley, K. (2015). Educational technology: A review of the integration, resources, and effectiveness of technology in K-12 classrooms. Journal of Information Technology Education: Research, 14, 397-416. https://doi.org/10.28945/2298

Harper, M. (2006, December). High tech cheating. Nurse Education Today, 26(8), 672-679. https://doi.org/10.1016/j.nedt.2006.07.012

Hastings, N. B., & Bauman, J. A. (2020). Trends, issues, best practices and current research in organizational training and performance: An AECT division of organizational training and performance special issue of Tech Trends. TechTrends: Linking Research & Practice to Improve Learning, 64(2), 188-189. https://doi.org/10.1007/s11528-019-00468-1https://doi.org/10.1007/s11528-019-00468-1

Hechter, R. P., & Vermette, L. A. (2013). Technology integration in K-12 science classrooms: An analysis of barriers and implications. Themes in Science and Technology Education, 6(2), 73-90.

Kaur, A., &. Slimp, M. (2013, Fall). Technology review: Tablet usage in the college setting – A survey. Community College Enterprise, 19(2), 79-82.

Ley, T. (2020). Knowledge structures for integrating working and learning: A reflection on a decade of learning technology research for workplace learning. British Journal of Educational Technology, 51(2), 331–346. https://doi.org/10.1111/bjet.12835

Lin, J. (2022). The effects of gamification instruction on the roles of perceived ease of learning, enjoyment, and useful knowledge toward learning attitude. TOJET: The Turkish Online Journal of Educational Technology, 21(2). 81-91.

Loderer, K., Pekrun, R., & Lester, J. C. (2020). Beyond cold technology: A systematic review and meta-analysis on emotions in technology-based learning environments. Learning and Instruction, 70. https://doi.org/10.1016/j.learninstruc.2018.08.002

Özüdogru, G. (2021). Problems faced in distance education during COVID-19 pandemic. Participatory Educational Research, 8(4), 321–333. https://doi.org/10.17275/per.21.92.8.4

Pape, S. J., & Prosser, S. K. (2018). Barriers to technology implementation in community college mathematics classrooms. Journal of Computing in Higher Education, 30, 620-636. https://doi.org/10.1007/s12528-018-9195-z

Selwyn, N. (2016). Digital downsides: Exploring university students' negative engagements with digital. Teaching in Higher Education, 21(8), 1006-1021. https://doi.org/10.1080/13562517.2016.1213229

Servage, L. (2005). Strategizing for workplace e-learning: Some critical considerations. Journal of Workplace Learning, 17(5–6), 304–317.

Shane-Simpson, C., & Bakken, T. (2022, March). Students' fear of missing out predicts in-class social media use. Teaching of Psychology, 1-10. DOI: 10.1177/00986283211060752

Wang, J., & Gao, B. (2021). The new trend in wearable technology in college foreign language classroom and its impact on college English teaching. International Journal of Electrical Engineering and Education, 1-16. DOI: 10.1177/00207209211003210

Wickramasinghe, V., & Ramanathan, U. (2022). Workplace learning experienced by employees in information technology-enabled work environments – A developing country experiences. Journal of Workplace Learning, 34(4), 352–372. https://doi.org/10.1108/JWL-05-2021-0056

Yan, W. (2022). Effect of blended teaching mode in colleges and universities based on automation technology on college students' English performance. Mobile Information Systems, 2022(8565718), 1-10. https://doi.org/10.1155/2022/8565718

The Disequilibrium of Work-Life Balance and Moderating Work Self-Efficacy

Erik Bean, Ed.D.
Associate University Research Chair
Center for Leadership Studies and Organizational Research
College of Doctoral Studies, UOPX

It's the challenge each of us has faced since the day we began our very first job. How to balance work and our personal lives so each can be equally fulfilling and rewarding? On one end of the spectrum, we yearn for a job where we could have so much fun, it would not even appear like we are working. The perfect blend of making a living and experiencing minute-by-minute enjoyment like that of spending each moment immersed in our favorite hobbies and pastimes - the ultimate height of brainwave stimulation and high serotonin output. However, that just is neither possible nor even *feasible*, if you will, in all career choices and workday roles. It may take several jobs before this utopian-like scenario could possibly come to fruition if ever.

That said, what can you do now if your current employment situation does not leave you with a natural high 24/7? Take some of those hours and immerse yourself in activities that balance your equilibrium. What you may sow aside from work now may help bear passionate fruit in another future job. Either way, it's now up to you to engage in activities that help you balance your intellectual, physical, and spiritual life, to avoid burnout. It's time for self-advocacy.

Intellectual Health

Intellectually our minds are hungry. Our brains are designed to be stimulated. This process is typically tied to our passions. It appears we learn better when we are interested in the topic with our unique sense of immediacy (Mehrabian, 1971, 2007). However, it is no surprise that each of us is built differently. Our incentive and reward systems are also built differently (Sun et al., 2018). Some are incentivized when their passion or expertise helps lead their profession or when they volunteer to give back to their community (National Volunteer Week, 2020). Consider starting or joining a professional association in your field and working with local chapters to contribute and network. Others may feel a sense of accomplishment and ongoing passion by developing a grassroots effort that solves a long-standing local, state, or national problem, even if it takes baby steps. Still, others are at their intellectual best when passive income grows beyond their expectations (Business World, 2019).

Time Management

For any outside work activity that can strengthen our equilibrium, we must first take stock of how we manage our time. Is too much wasted on perusing through social networks or in the amount of time we spend gossiping or in other activities we know may not be too healthy? Maybe it's worth investing in a program like the 7 Healthy Habits of Highly Effective People or Families (BusinessWire, 2020). See if your HR may be willing to send you through such a program. If not consider the investment yourself, at a minimum you may find either book useful by itself. By changing how you spend your time inside and outside work, you can spend the time needed to maintain your intellect

through passion and your unique personal reward system based on passion.

Physical Balance

This requirement is a bit more simplistic than our ability to keep our intellect going, it really is about staying in motion. Indeed, it is no surprise that part of being balanced is incorporating daily activities and avoiding a sedentary lifestyle. I keep track of my commitment to achieving a minimum of 5,000 to 10,000 steps and beyond every day. A smartwatch is a great way to track your due diligence to doing just that to the point where the watch will remind you to get up and move and with a smartphone app you can see your weekly, monthly, and yearly progress. The benefits of physical activity help with maintaining stress. Whether you play pickleball, practice yoga, swim, run, or walk, we all need to keep moving (American Institute of Stress, 2016). This requirement leads to the last step in our workplace, home life balance, our spirituality. Spirituality, like our intellect and choice of physical activities, differs among everyone.

Spirituality

Whether your religion or ability to practice mindfulness are separate or one and the same, our beliefs and our ability to be spiritual in some way is an important piece of the equilibrium balance we all need. So, we must devote a certain amount of time that allows us to connect with this side of our soul. For example, "When we meditate, we make the mind calm, quiet, and still—without thoughts. At that time, we have to be fully aware of the arrival of thoughts and allow no idle thoughts to enter the mind. The mind is vacant and tranquil, with neither good nor bad thoughts; nothing at all. Our whole existence becomes an empty vessel. When this vessel is absolutely empty, with our whole inner being we invoke infinite Peace, Light, and Bliss so it will enter into the vessel and fill it. This is meditation" (SriChinmoyCenter.org, 2018).

Self-advocacy begins when we take stock of our intellectual, physical, and spiritual health. To avoid disequilibrium, we must manage our time wisely, and pick activities outside of our work we gravitate towards with a sense of immediacy. In this fashion, even with baby steps, we can balance our everyday perspective outside of work and lessen the chance of work leading to burnout, let alone the newer phenomenon of quiet quitting. No one ever said balance was a metaphor for staying upright all the time. We are bound to fall here and there. But how we get back up and the time we stay up should be time well spent on allowing us to believe we can move forward with conviction and passion!

About the Author

In addition to serving as the Leadership Perspectives section editor of the Journal of Leadership Studies, Erik Bean, Ed.D. is an Associate University Research Chair, Center for Leadership Studies & Organizational Research, University of Phoenix. He is the author of Bias Is All Around You: A Handbook for Social Media & News Stories and is the Michigan representative for Media Literacy Now, providing leadership on information literacy legislation and education. A high school English teacher at St. Catherine of Siena Academy in suburban Detroit in 2022 Dr. Bean earned a Henry Ford Innovation Nation First Place Teacher award for media literacy studies used in the classroom, the theme of his most recent presentations at the 2022 JEA/NSPA Fall National High School Journalism Convention, the 2022 National Council of Teachers of English ELATE Home Coming, and the 2022 Qualitative Report Conference.

References

American Institute of Stress. (2016). Workplace stress. https://www.stress.org/workplace-stress/

BusinessWire. (2020, May 20). FranklinCovey and Simon & Schuster release new edition of Stephen Covey's the 7 habits of highly effective people, with personal insights from son, Sean Covey [Press release]. https://www.businesswire.com/news/home/20200519005425/en/FranklinCovey-and-Simon-Schuster-Release-New-Edition-of-Stephen-Covey%E2%80%99s-The-7-Habits-of-Highly-Effective-People-With-Personal-Insights-from-Son-Sean-Covey

Business World. (2019, December 11). passive income strategies to erase your financial worries forever as an entrepreneur [Press release]. https://www.businessworld.in/article/Passive-Income-Strategies-To-Erase-Your-Financial-Worries-Forever-As-An-Entrepreneur/11-12-2019-180176/

Healthy mind, healthy body: Av & wellbeing. (2022, June 1). Installation, 248, 14.

Mehrabian, A. (1971). Silent messages. Wadsworth Publishing Company.

Mehrabian, A. (2007). Nonverbal communication. Aldine Transaction.National Volunteer Week: Discovering your passion. (2020, April 24). Plus Company Updates.

SriChinmoyCenter.org. (2018). What happens during meditation? Meditation, para 3. https://www.srichinmoycentre.org/meditation

Sun, C.-T., Chen, L.-X., & Chu, H.-M. (2018). Associations among scaffold presentation, reward mechanisms and problem-solving behaviors in game play. Computers & Education, 119, 95–111. https://doi.org/10.1016/j.compedu.2018.01.001

Intercultural Sensitivity and Organizational Leadership in Higher Education

Leo-May Shoatz, Ph.D.
Alumn
University of Phoenix

Abstract

In higher education organizations, the presence or absence of intercultural sensitivity training can impact organizational culture. Higher education faculty may struggle with managing their differences challenging administrators to identify inclusive solutions.
The purpose of this study was to determine if a relationship exists between intercultural sensitivity and organizational culture in higher education. One hundred and eight university faculty members from three professional associations participated. The Intercultural Sensitivity Scale (ISS) measured five concepts: interaction engagement, enjoyment, respect for cultural differences, interaction confidence, and interaction attentiveness. The Denison Organizational Culture and Performance Survey (DOCS) measured organizational culture, including involvement, consistency, adaptability, and mission. The ISS was modified to focus on faculty intercultural sensitivity, and questions from the DOCS survey were added to create the Intercultural Sensitivity and Organizational Culture Survey (ISOCS). The results from this research indicated statistically significant relationships between intercultural sensitivity and organizational culture. The findings provided empirical evidence for university leaders to justify incorporating intercultural sensitivity programs, professional development, and events into their organizational culture.

Introduction

Abdul-Raheem (2016) reported implementing multicultural events for students and faculty of diverse backgrounds; however, they continue to experience cultural inequities. Intercultural sensitivity initiatives allow for shared experiences and communication between various cultural groups to increase motivation, enhance scholarship, and improve ways of thinking (Allerman et al., 2017; Chen & Starosta, 2000). Previous studies indicate that higher education faculty and staff struggle with managing their differences, challenging higher education administrators to identify diverse, inclusive solutions to address the issue (Freeman Jr. et al., 2019; Rupp & Zeager, 2018; Williamson et al., 2018). This study focused on the

relationship between intercultural sensitivity and organizational culture in higher education institutions in the United States.

Theoretical Framework

The Cultural Model Theory (CMT) purports that culture lies in individuals' minds (Bennardo, 2018). The first assumption of the CMT proposes that individuals maintain mental representations in their experiences. If they do not receive enough input to form a new periphery value, then the default value remains. The second assumption is that cultural models are developed out of awareness. Bennardo (2018) reported that a lack of understanding of diverse cultural groups might cause an institution to avoid using a cultural model as the organization's framework. The third assumption focuses on the distinction between foundational and molar models. Foundational is based on ontological domains (e.g., space, time, relationship). Molar models may include some concepts from other disciplines. The fourth assumption is that the cultural model results from the person's nature and how they interact with the context. The fifth assumption is the investigation of cultural units. Bennardo (2018) suggests that the CMT is a tripartite acquisition of data, including ethnographic, linguistic, and cognitive perspectives.

Involvement and consistency in planning faculty development

Faculty development can play an essential role in enhancing interprofessional collaboration and intercultural sensitivity. Faculty and administration should be involved in the faculty development planning committee. Strategic planning needs to include a consistent application of a systems approach to planning development programs, including a needs assessment, the integration of principles of effective learning, appropriate teaching methods, and the incorporation of an outcomes-based evaluation (Silver & Leslie, 2017). The planning committee must comprise faculty members and administrators grounded in a collaborative perspective to meet the institution's needs. The planning committee should collaborate on completing the needs assessment, identifying relevant faculty development topics, implementing the program, and evaluating the outcome (Coats et al., 2010). Programmatic assessments can optimize the effectiveness of faculty intercultural sensitivity initiatives by identifying what strategies work are successful and unsuccessful (Hyder et al., 2015). A study by Singh (2016) revealed faculty retention was positively impacted by various intercultural sensitivity initiatives that influenced learning and supported a diverse work environment.

Adaptability in the workplace

Several intercultural concerns can impact workplace adaptability. An example is women's negative historical experiences wearing cultural paraphernalia while attending higher education institutions (Alikhani & Gharedaghu, 2017; Hyder et al., 2015). Quinton (2018) found that violence and hate crimes against minority cultures demonstrate an issue with stakeholders' intercultural sensitivity in higher education (Quinton, 2018). Exploratory case studies provided themes related to the mistreatment of minority cultures in public higher education environments (Krenawi, 2016; Seginer & Mahajna, 2016). Several qualitative studies noted two perspectives related to the outward expression of culture in higher education institutions. The first perspective suggests that expressing cultural norms may negatively impact individuals in public environments. The second perspective proposes that cultural paraphernalia provides autonomy and self-esteem while attending public institutions (Alikhani & Gharedaghu, 2017). A lack of intercultural sensitivity in higher education may affect the success of minority faculty who outwardly practice their cultural traditions in their role and responsibilities.

Mission: Meeting intercultural sensitivity needs of faculty

Shefali et al. (2018) reported that intercultural development strategies could enhance organizational culture and faculty retention. This study revealed that job satisfaction positively affected the organizational culture (Shefali et al., 2018). However, addressing the diverse faculty's intercultural sensitivity needs remains an issue (Imran et al., 2017). Freeman et al. (2019) conducted a qualitative study that identified a lack of job satisfaction in U.S. higher education institutions related to a lack of diversity that harmed organizational culture. The findings indicated disparities in working conditions within higher education institutions that created poor organizational culture.

Current Study

In this correlational study, university faculty opinions were analyzed to determine if there is a relationship between intercultural sensitivity and organizational culture. Measurements of intercultural sensitivity include addressing diverse faculty needs (Allerman et al., 2017; Ashraf, 2019; Curran & Prottas, 2017; Imran et al., 2017). Research indicates that higher education institutions have not effectively provided intercultural sensitivity initiatives that support the organizational culture (Abdul-Raheem, 2016; Figueroa, 2016; Kim & Rehg, 2018).

The research questions and hypotheses for this study are as follows:

RQ1: Is there a statistically significant relationship between involvement and perceived intercultural sensitivity in higher education institutions?

RQ2: Is there a statistically significant relationship between consistency and perceived intercultural sensitivity in higher education institutions?

RQ3: Is there a statistically significant relationship between adaptability and perceived intercultural sensitivity in higher education institutions?

RQ4: Is there a statistically significant relationship between mission and perceived intercultural sensitivity in higher education institutions?

H10: There is no statistically significant relationship between involvement and perceived intercultural sensitivity in higher education institutions.

H1A: There is a statistically significant relationship between involvement and perceived intercultural sensitivity in higher education institutions.

H20: There is no statistically significant relationship between consistency and perceived intercultural sensitivity in higher education institutions.

H2A: There is a statistically significant relationship between consistency and perceived intercultural sensitivity in higher education institutions.

H30: There is no statistically significant relationship between adaptability and perceived intercultural sensitivity in higher education institutions.

H3A: There is a statistically significant relationship between adaptability and perceived intercultural sensitivity in higher education institutions.

H40: There is no statistically significant relationship between mission and perceived intercultural sensitivity in higher education institutions.

H4A: There is a statistically significant relationship between mission and perceived intercultural sensitivity in higher education institutions.

Methods

Participants

The research was conducted in the United States and recruited university faculty who are members of the American College Personnel Association (ACPA), Association of College Unions International (ACUI), and Association for the Study of Higher Education (ASHE). One hundred and eight faculty accessed the survey. Three participants accessed the survey but did not agree to consent. Eleven faculty failed to complete the survey. The final sample size was 94 university faculty members of these professional organizations and their colleagues with a 95% confidence level. Achieving the recommended sample size involved using both convenience and snowball sampling.

Surveys

Two existing survey instruments were modified to collect data for this study. Daniel Denison and William Neal developed the Denison Organizational Culture and Performance Survey (DOCS) to measure organizational culture (Denison Overview, 2005). The Intercultural Sensitivity Scale (ISS) was developed by Chen and Starosta (2000) to measure intercultural sensitivity. Permission to use the survey instruments was obtained from the authors.

The DOCS survey uses a Likert-type scale ranging from 1 (strongly agree) to 5 (strongly disagree) to measure performance. Four traits measured by the DOCS tool are involvement, consistency, adaptability, and mission. Each scale has 15 items for 60 survey questions. The tool measures empowerment, team orientation, capability development, and adaptability trait indexes for creating change, customer focus, and organizational learning. The reliability and validity of the DOCS were previously determined using Cronbach's alpha analysis and confirmatory factor analysis. Coefficient alphas ranged from 0.87 to 0.92 for the four traits, indicating acceptable levels of consistency within. Factor analytic results support the content validity of the DOCS, including the 60 items

that make up 12 indexes comprised in the four culture traits (Denison, 2005).

The ISS measures the impact of cultural competence on instruction and learning in higher education. The ISS is a 24-item survey measuring intercultural sensitivity. The 24-items are divided into five sections: interaction engagement, respect for cultural differences, interaction confidence, interaction enjoyment, and interaction attentiveness. The survey measures self-perceived cultural sensitivity and faculty members' experiences with teaching diversity and perceptions of the impact of cultural competence and engagement in higher education. Cronbach's alpha reliability coefficient of the overall scale is 0.86 in the original form. An assessment of concurrent validity indicated that the ISS significantly correlated with other related scales (Chen & Starosta, 2000).

The ISS demonstrated strong reliability and appropriate concurrent validity as a measure of intercultural sensitivity. The ISS was modified to focus on faculty intercultural sensitivity, and questions from the DOCS survey were added to form the Intercultural Sensitivity and Organizational Culture Survey (ISOCS) for this study. The ISOCS instrument collected faculty members' perceptions of diversity, cultural competence, and organizational culture.

Results

The IBM (International Business Machines) SPSS (Statistical Package for the Social Sciences) Statistics software package was used for data analysis. This section includes a sub-section for each research question and associated hypotheses. Pearson product-moment correlation (Pearson's correlation) determined the strength and direction of a linear relationship between the continuous variables. Pearson r was calculated for each variable, and the results are presented in the analysis tables. The confidence level for the study was 95%, $p < 0.05$. The significance of the results for each hypothesis is discussed. Included in this section is a subsection for each research question and associated hypotheses. The analysis tables are presented for descriptive statistics of each criterion. variable, predictor variable, and Pearson coefficient. The meaning of the results was discussed in terms of supporting or not supporting the null hypotheses.

Demographics

One hundred-eight participants accessed the survey. Of the final sample size of 94, only 86 specified age or gender. The valid N=86 was 79.6%. The N=22 cases missing was 20.4%. The results reflected 28 males, 56 females, and 2 participants who selected others as their gender.

Involvement and ISS

Table 1 displays the descriptive statistics for the ISS and Involvement. The N=89 for both ISS and Involvement. The mean score for ISS is 69.74, and 38.57 is the mean for Involvement. The standard deviation is 5.184 ISS and 9.613 Involvement.

	N	Minimum	Maximum	Mean	Std. Deviation
Total_ISS	89	53	79	69.74	5.184
Total_Involvement	89	15	61	38.57	9.613
Valid N (listwise)	89				

Note. Out of N=89, Mean=69.74 for ISS, and Mean=38.57 for Trait1 Involvement.

Table 1 | Descriptive statistics for ISS and Involvement.

Table 2 represents the Pearson correlation for ISS and Involvement displaying the Pearson correlation for ISS as 1.0 and for Involvement as 0.420, consisting of 89 participants and significant at the 0.01 level. The correlation between ISS and Involvement is 0.420 and is significant at the 0.01 level.

		Total_ISS	Total_Involvement
Total_ISS	Pearson Correlation	1	.420**
	Sig. (2-tailed)		.000
	N	89	89
Total_Involvement	Pearson Correlation	.420**	1
	Sig. (2-tailed)	.000	
	N	89	89

**. Correlation is significant at the 0.01 level (2-tailed).

Table 2 | Pearson correlation for ISS and Involvement.

RQ1: Is there a statistically significant relationship between involvement and perceived intercultural sensitivity in higher education institutions?

The associated hypotheses for RQ1 are:

H10: There is no statistically significant relationship between involvement and perceived

intercultural sensitivity in higher education institutions. (REJECTED)

H1A: There is a statistically significant relationship between involvement and perceived intercultural sensitivity in higher education institutions. (ACCEPTED)

The data from Table 1 suggests a -4.429 standard deviation between the two categories (ISS and Involvement). The data from Appendix U represents a correlation between ISS and Involvement (r=0.420, p >0.05) and is significant at the 0.01 level. The findings may imply that the relationship between the two groups is significant and the null hypothesis is rejected.

Consistency and ISS

Table 3 displays the descriptive statistics for the ISS and Consistency. The N=89 for ISS, N=97 for Consistency, and N=89 are valid. The mean for ISS and Consistency is 69.74, and 46.62 respectively. The standard deviation is 5.184 for ISS and 3.972 for Consistency.

	N	Minimum	Maximum	Mean	Std. Deviation
Total_ISS	89	53	79	69.74	5.184
Total_Consistency	97	36	57	46.62	3.972
Valid N (listwise)	89				

Note. N=89 for ISS, N=97 for Trait2 Consistency and N=89 valid.

Table 3 | Descriptive statistics for ISS and Consistency.

Table 4 represents the Pearson correlation for ISS and Consistency. The Pearson correlation for ISS is 1.0 and for Consistency is 0.441 and is significant at the 0.01 level. ISS consisted of N= 89 participants and Consistency has N=97 participants.

		Total_ISS	Total_Consistency
Total_ISS	Pearson Correlation	1	.441**
	Sig. (2-tailed)		.000
	N	89	89
Total_Consistency	Pearson Correlation	.441**	1
	Sig. (2-tailed)	.000	
	N	89	97

**. Correlation is significant at the 0.01 level (2-tailed).

Table 4 | Correlation for ISS and Consistency.

RQ2: Is there a statistically significant relationship between consistency and perceived intercultural sensitivity in higher education institutions?

The associated hypotheses for RQ2 are:

H20: There is no statistically significant relationship between consistency and perceived intercultural sensitivity in higher education institutions. (REJECTED)

H2A: There is a statistically significant relationship between consistency and perceived intercultural sensitivity in higher education institutions. (ACCEPTED)

The data from Table 3 suggests a 1.212 standard deviation between the two categories (ISS and Consistency). The data from Table 4 represents a correlation for ISS and Consistency (r=.441, p > .05) and is significant at the 0.01 level. The findings may imply that the relationship between the two groups is significant and the null hypotheses are rejected.

Adaptability and ISS

Table 5 displays the descriptive statistics for the ISS and Adaptability. The N=89 for both and is valid. The mean for ISS is 69.74, and 40.27 is the mean for Adaptability. The standard deviation is 5.184 for ISS and 6.394 for Adaptability.

	N	Minimum	Maximum	Mean	Std. Deviation
Total_ISS	89	53	79	69.74	5.184
Total_Adaptability	89	26	59	40.27	6.394
Valid N (listwise)	89				

Note. N=89 for both ISS and Adaptability (Trait3).

Table 5 | Descriptive statistics for ISS and Adaptability.

Table 6 represents the Pearson correlation for Adaptability and ISS displaying the Pearson correlation for ISS as 1.0 and Adaptability as 0.416 significance at the 0.01 level. Both ISS and Adaptability have N=89 participants.

		Total_ISS	Total_Adaptability
Total_ISS	Pearson Correlation	1	.416**
	Sig. (2-tailed)		.000
	N	89	89
Total_Adaptability	Pearson Correlation	.416**	1
	Sig. (2-tailed)	.000	
	N	89	89

**. Correlation is significant at the 0.01 level (2-tailed).

Note. The correlation is significant at the 0.01 level. Adaptability and ISS are 0.416 correlated.

Table 6 | Pearson correlation for ISS and Adaptability.

RQ3: Is there a statistically significant relationship between adaptability and perceived intercultural sensitivity in higher education institutions?

The associated hypotheses for RQ3 are:

H30: There is no statistically significant relationship between adaptability and perceived intercultural sensitivity in higher education institutions. (REJECTED)

H3A: There is a statistically significant relationship between adaptability and perceived intercultural sensitivity in higher education institutions. (ACCEPTED)

The data from Table 5 suggests a -1.21 standard deviation between the two categories (ISS and Adaptability). The data from Table 6 represents a correlation between ISS and Adaptability (r=0.416, p > .05) and is significant at the 0.01 level. The findings may imply that the relationship between the two groups is significant and rejected the null hypotheses.

Mission and ISS

Table 7 displays the descriptive statistics for the Mission and ISS. The N=89 for both is valid. The mean for ISS is 69.74, and 38.74 is the mean for Mission. The standard deviation is 5.184 for ISS and 9.321 for Mission.

	N	Minimum	Maximum	Mean	Std. Deviation
Total_ISS	89	53	79	69.74	5.184
Total_Mission	89	18	63	38.74	9.321
Valid N (listwise)	89				

Note. N=89 for both ISS and Mission.

Table 7 | Descriptive statistics for ISS and Mission.

Table 8 represents the Pearson correlation for Mission and ISS, displaying the Pearson correlation for ISS as 1.0 and for Mission as 0.448, and is significant at the 0.01 level. For both ISS and Mission, consisting of N=89 participants. The correlation between ISS and Mission is 0.448 and is significant at the 0.01 level.

		Total_ISS	Total_Mission
Total_ISS	Pearson Correlation	1	.448**
	Sig. (2-tailed)		.000
	N	89	89
Total_Mission	Pearson Correlation	.448**	1
	Sig. (2-tailed)	.000	
	N	89	89

**. Correlation is significant at the 0.01 level (2-tailed).

Note. For both Mission and ISS N=89.

Table 8 | Pearson Correlation for ISS and Mission.

RQ4: Is there a statistically significant relationship between mission and perceived intercultural sensitivity in higher education institutions?

The associated hypotheses for RQ4 are:

H40: There is no statistically significant relationship between mission and perceived intercultural sensitivity in higher education institutions. (REJECTED)

H4A: There is a statistically significant relationship between mission and perceived intercultural sensitivity in higher education institutions. (ACCEPTED)

The data from Table 8 suggests a -4.137 standard deviation between the two categories (ISS and Mission). The data from Table 8 represents a correlation between ISS and Mission (r=0.448, p > 0.05) and is significant at the 0.01 level. The findings may imply that the relationship between the two groups is significant and rejected the null hypotheses.

Discussion

The research questions tested for any strength of the relationship among the predictor variables of Involvement, Consistency, Adaptability, Mission, and Intercultural Sensitivity. This study's correlational design aligned with previous quantitative studies that indicate positive correlations with faculty intercultural sensitivity events and organizational culture in higher education (Finkelstein et al., 2017; Sensoy & DiAngelo, 2017). Additional concurrence between researchers measures the existence of relational faculty retention and intercultural sensitivity (Webber & Rogers, 2018).

Learning to understand enhanced methods needed to manage diverse higher education environments is the foundation of an intercultural higher education environment, transformed by information enhancement, professional development, and implementing adequate faculty events initiatives (Abdul-Raheem, 2016). Webber & Rogers's (2018) research results indicated that 8% of tenured faculty experienced differences in treatment from the institution and reported strong dissatisfaction. The findings also represented 6% of faculty who reported dissatisfaction with the department in which they work. The study implied a lack of equal treatment in terms of age, race, salary, and gender differences as factors that affected job satisfaction

and the organizational culture. In contrast, the equation containing both intercultural sensitivity and involvement indicated a relationship where r = 0.420 p > 0.05.

The results support Webber and Rogers' (2018) research on faculty dissatisfaction within their higher education department. Webber and Rogers (2018) found 8% of faculty experienced issues adapting to the organizational culture. They expressed treatment differences due to gender differences, age, salary, and race. This study found a positive correlation between ISS (Intercultural Sensitivity Scale) and Adaptability r = 0.416 p > 0.05. The study supports the importance of future investigation into the role of organizational development and intercultural sensitivity frameworks in practice. Institutions can leverage the teaching and learning of intercultural competencies required to manage diverse educational environments for organizational profit growth and faculty development.

Discoveries Within the Data

The researcher's most interesting finding relates to the mission. When asked to measure their strategic direction of intent, goals & objectives, and vision section of the study, questions D46-D60, 21.3% of faculty disagreed that the institution's combined mission excited and motivated them. Another 20.2% disagreed that they could meet short-term demands without compromising their long-term vision. Further, when asked if short-term thinking compromised long-term vision, 33.7% agreed.

This finding is consistent with related research indicating that a lack of awareness of diverse cultural groups within an organization may cause an institution to avoid the use of cultural models when planning (Bennardo, 2018; Spila, 2017). The finding supports the need to enhance diverse social interactions (Forchtner & Schneickert, 2016; Nieves, 2014), and combine cultural theories with organizational culture (Garg, 2017). The study results indicate that 16.9% of faculty disagreed about a widespread agreement about goals, 15.7% of faculty agreed the strategic direction is unclear, 19.1% of faculty agree, and 4.5% of faculty strongly agree that their organization fails to track progress against the stated goal. These results may indicate that higher education institutions can benefit from incorporating cultural models into their organizational culture to impact the entire organization positively.

This study's findings agree with Gerlak and Heikkila's (2011) research suggested intercultural collective efforts to achieve diverse organizational goals. Mirroring the findings of faculty members working within four-year universities, the findings reveal a relationship between ethical organizational culture and the effect of organizational virtuousness on job satisfaction. In this study, the results suggest that enhanced intercultural sensitivity practices may offer useful insights into future faculty organizational virtuousness and job satisfaction.

The research indicated 37.0% do not avoid dealing with culturally distinct colleagues, 46.3% strongly agree, and 39.8% agree they enjoy interacting with colleagues of distinct cultures. Additional findings reveal, 51.9% agree, 20.4% strongly agree they feel enjoyment when interacting with people of diverse cultures, 48.1% strongly agree, 38.0% agree they are open-minded to people of unfamiliar cultures, 52.8% agree, and 16.7% strongly agree they often give positive responses to their culturally different counterpart during interactions. Future research may discover additional findings from the responses collected under Factor 1 of ISS Interaction Engagement and understand this output to target risk mitigation through organizational interventions addressing intercultural differences.

Limitations

The small sample was the first limitation; therefore, the study should be replicated with a larger sample. The second limitation was the age and gender of the sample. Subjects had a wide age range (24-75, M=49) which is consistent with the average age of higher education faculty of 45 years in the United States (Flaherty, 2020). The current sample was 32% female, 66% male, and 2% other. Currently, 46% of the faculty are female, and 49% are male, limiting their generalization of the findings (Flaherty, 2020). The third limitation was the emergence of the COVID-19 global pandemic, which directly impacted the recruitment of the sample. The global pandemic added mental, physical, and emotional stress, limiting the response rate.

Future Directions

In the fall of 2017, about three-quarters of higher education faculty members in the U.S. were white

(76%), Asian (11%), Black (6%), and Hispanic (5%). Ensuring a culturally diverse faculty supports institutional retention, equity, and diversity goals. Higher education administrators must promote initiatives and events that promote inclusiveness and intercultural sensitivity.

This study showed statistically significant relationships between intercultural sensitivity and organizational culture. A lack of equal treatment regarding age and gender may affect organizational culture. The findings provided empirical evidence for university leaders to justify incorporating intercultural sensitivity programs, professional development, and events into their organizational culture. Cultural exposure should be assessed to evaluate the programs and faculty events in the higher education environment. Singh's (2016) study revealed that intercultural sensitivity issues exist without cultural enhancement programs.

Additionally, Bishop's (2010) study found that faculty retention was affected by a lack of inclusion, cultural identification, and the absence of diversity training and intercultural events. Previous research identified that faculty retention methods enhanced organizational culture (Shefali et al., 2018). Lambert et al. (2007) found that a lack of a mission-based focus by university faculty directly impacted the development of the organizational culture.

Conclusion

The study findings provided empirical evidence for university leaders to justify incorporating intercultural sensitivity programs, professional developments, and specific events into their organizational culture. Programs should focus on diversity and organizational interculturality. Prioritizing intercultural sensitivity initiatives may augment organizational culture and improve faculty retention. Improving the four variables (faculty involvement, consistency, adaptability, and mission) may lead to an enhanced organizational culture in higher education.

About the Author

Dr. Leo-May Shoatz received his Ph.D. in Educational Leadership/Higher Education Administration from the University of Phoenix. He is a Researcher at the University of Phoenix, Lecturer in the Department of Religious Comparison, Teaching, and Learning at the Muhammad Institute in Philadelphia. His research interests include intercultural sensitivity, cultural diversity, inclusion in Higher Education, and Organizational Culture.

References

Aba, D. (2016). Addressing intercultural experience and academic mobility in higher education. Journal of Intercultural Communication Research, 45(6), 487-502. http://dx.doi.org/10.1080/17475759.2016.1236032

Abdul-Raheem, J. (2016). Faculty Diversity and Tenure in Higher Education. Journal of Cultural Diversity, 23(2), 53–56. http://search.ebscohost.com/login.aspx?direct=true&AuthType=shib&db=ccm&AN

Alikhani, A. A., & Gharedaghu, A. A. (2017). Muslims in America: Identity dilemma and the Islamic fundamentals of coexistence. Journal of Islamic Studies and Culture, 5(2), 13-27. doi:10.15640/jisc.v5n2a2

Allerman, N. F., Allen, C. C., & Haviland, D. (2017). Collegiality and the colloquium in an era of faculty differentiation. ASHE Higher Education Report, 43(4). wileyonlinelibrary.com/journal/ease=115922527&site=eds-

Ashraf, M. A. (2019). Influences of working condition and faculty retention on quality education in private universities in Bangladesh: An analysis using SEM. International Journal of Education Management, 33(1), 149-165. Doi:10.1108/IJEM-03-2018-0121

Bennardo, G. (2018). Cultural models theory. The Sections Edition: Society for Anthropological Sciences. doi:10.1111/AN.919

Bishop, S. W. (2010). Building programmatic capacity at the grassroots level: The reaction of local nonprofit organizations to public participation geographic information systems. Nonprofit and Voluntary Sector Quarterly, 39(6), 991-1013. doi:10.1177/0899764009334984

Chen G. M., & Starosta, W. J. (2000). The development and validation of the intercultural sensitivity scale. Human Communication, 3, 1-15.

Coates, W. C.; Love, J. N;, Santen, S. A.; Hobgood, C. D.; Mavis, B. E.; Maggio, L. A.; & Farrell, S. E. (2010). Faculty development in medical education research: A cooperative model. Academic Medicine, 85 (5), 829-836. doi:10.1097/ACM.0b013e3181d737bc.

Curran, T. M., & Prottas, D. J. (2017). Role stressors engagement and work behaviours: a study of higher education professional staff. JOURNAL OF HIGHER EDUCATION POLICY AND MANAGEMENT, 39(6), 642-657. https//doi.org/10.1080/136008 0X2017.1377964

Davis, L. & Fry, R. (2019). College faculty have become more racially and ethnically diverse, but remain far less so than students. Pew Research Center. https:// www.pewresearch.org/fact-tank/2019/07/31/us-college-faculty-student-diversity/

Denison, D. (2005). Overview of the Reliability and Validity of the Denison Organizational Culture Survey. Denison Consulting.

Figueroa, O. (2016). The influences impacting staff turnover in higher education. Journal of Management and Sustainability, 5(4), 86-93. doi:10.5539/jms.v5n4p86

Finkelstein, M. J., Conley, V. M., & Schuster, J. H. (2017). Whither the faculty. CHANGE, 43-51. https://www. CHANGEMAG.org

Flaherty, C. (2020). The aging faculty. https://www. insidehighered.com/quicktakes/2020/01/27/aging-faculty

Freeman, Jr. S., Krier, K., Al-Asfour, A., & Thacker, R. (2019). An examination of the barriers to leadership for faculty of color at U.S. universities. Issues in Informing Science + Information Technology, 16, 361-376. https://doi.org/10.28945/4373

Heeneman, S., Pool, A. O., Schuwirth, L. W. T., Vleuten, C. P. M., & Driessen, E. W. (2015). The impact of programmatic assessment on student learning: Theory versus practice. Medical Education 49, 487-498.

Hyder, N., Parrington, C. A., & Hussain, M. (2015). Experiences of Hijabi women: Finding a way through the looking glass for Muslim Americans. Advancing Women in leadership, 35, 172-177.

Imran, R., Allil, K., & Mahmoud, A. B. (2017). Teacher's turnover intentions: examining the impact of motivation and organizational commitment. International Journal of Educational Management, 31(6), 828-842. doi:10.1108/IJEM-05-2016-0131

Kim, H., & Rehg, M. (2018). Faculty Performance and Morale in Higher Education: A Systems Approach. Systems Research & Behavioral Science, 35(3), 308–323. https://doi.org/10.1002/sres.2495

Krenawi, A. A. (2016). Higher education among minorities: The Arab case. International Quinton, W. J. (2018). Unwelcome on campus? Predictors of prejudice against international students. Journal of Diversity in Higher Education. http://dx.doi.org/10.1037/dhe0000091

Lambert, A. D., Terenzini, P. T., & Lattuca, L. R. (2007). More than meets the eye: Curricular and programmatic effects on student learning. Research in Higher Education, 48(2), 141-168.

Park, H. W., & Leydesdorff, L. (2009). Longitudinal trends in network of university-industry-government relations in South Korea: The role of programmatic incentives. Science Direct 39(5), 640-649.

Rupp, N. G., & Zeager, L. A. (2018). Paid parental leave and female faculty retention. Eastern Economic Journal, 44, 475-488. https://www.palgave.com/journals

Seginer, R., & Mahajna, S. (2016). On the meaning of higher education for a transition to modernity Youth: Lessons from the future orientation research of Muslim girls in Israel. International Journal of Educational Research 76, 112-119.

Shefali, N., Daphne H., Paul W. T., Marcos K., Baker A. A., Chris A., Norashfah, H. Y. Y. A., Alfredo, D. M.m Eleanna, G., Norma, J., Eileen, K., Anayo, D. N., & Claire S. (2018). Assessing cross-national invariance of the three-component model of organizational commitment: A cross-country study of university faculty. EuroMed Journal of Business, 13(3), 254–279. https://doi.org/10.1108/EMJB-09-2017-0031

Silver, I. l. & Leslie, K. (2017). Faculty development for continuing interprofessional education and collaborative practice. Journal of Continuing Education in the Health Professions, 37 (4), 262-267. doi: 10.1097/CEH.0000000000000178.

Singh, T. (2016). Student assessment: Moving over to programmatic assessment. International Journal of Applied and Basic Medical Research 6(3)

University of Florida. (2016). Campus climate assessment project. Rankin & Associates Consulting. https://president.ufl.edu/media/presidentufledu/documents/University-of-Florida-Final-Report.pdf

Virtual Technology-Based Distance Learning: A Solution to the Crisis of Nigeria's Admission into Higher Institution

Pauline Ann Baba, Ed.D.
Alumn
University of Phoenix
Faculty
Kogi State University, Nigeria

Abstract

The purpose of this exploratory case study was to investigate the determinants for the lack of space to admit all qualified secondary school graduates into Nigerian Universities as well as to explore the possibility of using virtual technology-based distance learning as a solution.

Primary data were collected using a semi-structured, open-ended interview with 24 participants representing several programs and stakeholders in Nigeria's higher education. The findings showed the willingness of Nigerians to welcome distance learning. However, challenges such as inadequate facilities, inadequate equipment, lack of technical teachers, inadequate funding, and lack of political were some of the determinants of the current crisis.

Introduction

Distance Learning or Online education provides the flexibility adult learners need to continue their education. The opportunity to participate in online learning could lead to the development of the workforce to meet the growing change in the ever-changing job market. Nigeria needs a well-educated labor force and continued human resources development; however, the lack of availability of Nigerian higher institutions to accommodate the growing number of graduates from secondary schools is problematic.

The main purpose of this article is to explore the use of virtual technology-based distance learning as a solution to the lack of space within Nigerian universities to admit all qualified secondary school graduates. Many aspiring secondary school graduates are denied entry into Nigeria's higher institutions. For example, only 30% of the 1.7 million candidates who wrote the Unified Tertiary Matriculation Examination (UTME) in 2017 were admitted. In a similar vein to the 2017 admission exercise of the 199,500 candidates who sat for post-UTME in seven major institutions, only 28,900 were admitted. Nigerians are witnessing a higher number of aspiring secondary school graduates denied admission into higher institutions. The research question guiding this analysis is: what are the determinants for the lack of space to admit all eligible secondary school graduates into Nigeria's higher education?

According to World Bank (2023), Nigeria has the largest population in Africa, currently at 216.7 million, and the fastest-growing population in the world. This is an increase from the World Bank and the United States Census Bureau calculations that the population was 174.7 million in 2013. Nigeria's Gross Domestic Product (GDP) was $404.65 billion in 2016, $375.77 billion in 2017, and $440.83 billion in 2021 (The World Bank, 2021).

Currently, Nigeria has 108 public universities (an increase from 91 in 2017) and 79 private universities (NUC, 2022). Nigerian National Assembly considered 63 bills in 2022 for the creation of universities,

polytechnics, mono-technic, and colleges of education (Abati, 2023). Despite these available universities, there is still a lack of space to accommodate the number of qualified secondary school students graduating yearly. In 2018, JAMB registered 1.8 million applicants, yet the carrying capacity of these universities is less than 1 million students (JAMB, 2017).

While candidates who registered for the Unified Tertiary Matriculation Examination (UTME) rose to 1.9 million in 2019 from 1.7 million in 2017, admission spaces remained static. The only increase in admission spaces was derived from private universities and a few state universities. Due to the high cost of private universities, many students and parents are not willing to patronize these private universities (Adesulu, 2018).

Table 1 shows the number of higher institutions, and applicants seeking admission to Nigerian universities as well as the admission rate based on candidates with 120-160 cutoff points on a 400-point scale, and a minimum of 5 credits in subjects including Mathematics and English yearly.

ACADEMIC YEAR	NUMBER OF UNIVERSITIES	CARRYING CAPACITY	APPLICANTS	%NOT ADMITTED
2022/2023	*187*	*Yet to Be Declared*	*Registration Ongoing*	
2021/2022	171	1,102,500	1,837,011	58%#
2020/2021	170	1,100,000	2,100,000	50%
2019/2020	170	1,100,000*	1,900,000	68%
2018/2019	170	850,000*	1,793,018	65%
2017/2018	150	700,000*	1,722,236	67%**
2016/2017	145	650,000*	1,592,905	65
2015/2016	141	600,000	1,475,477	65%

Note. Source: Retrieved from JAMB website (2023).

*Increase in capacity derived from private universities.

**Admission Cutoff Point reduced from 160 to 120

Kogi State Confluence University (NEW with 2,500 capacity) – Not all programs accredited, 220 admitted

Table 1 | JAMB statistics on admission (2015-2019).

The liberalization policy adopted by the Federal Government on the establishment of private universities ushered in the establishment of more private institutions. This arrangement brought some measure of relief, but these schools' cost and entry requirements are beyond the reach of the common secondary school graduates. This led JAMB to reduce the cutoff points for admission along with increasing the carrying capacity of some universities.

In response to the growing number of candidates seeking admission into tertiary institutions in Nigeria, many foreign universities have been recruiting at secondary schools to convince final-year students into seeking admission outside the shores of Nigeria.

The migration of Nigerians to other countries in search of higher education opportunities has been record-breaking (UN Migration Report 2017). According to Adesulu (2018), there are about "71,000 Nigerian students in Ghana's educational system paying about 1 billion US dollars annually as tuition fees" (p.1). In addition to Ghana, Nigerian students have moved to South Africa, the United Kingdom, Canada, and the United States in search of higher educational opportunities (Olabisi, 2012). Most Nigerians that leave the country in search of higher education rarely return, which causes a brain drain.

Research Method

A qualitative method and exploratory case study design were used for this study. Data collection was conducted using focus groups, a commonly used data collection method in educational research to gain perspectives, enlightenment, and in-depth insights of study participants. The objective of the focus group interviews was to understand the underlying beliefs and opinions about admission determinants. A focus group study is a structured series of group discussions designed to reveal perceptions and opinions on a defined issue involving carefully selected participants who share common characteristics (Leedy & Ormrod, 2010; Yin, 2003).

Focus group and individual interviews are not intended to statistically represent the study population but are an appropriate technique to collect exploratory data. Hence the use of focus groups and open-ended interviews.

To accomplish the research purpose, it was important to interview stakeholders in higher education in Nigeria. Some of these stakeholders were from:

- Federal Ministry of Education (FME): Established in 1988, FME is the government body responsible for formulating educational policies at all levels of education (www.education.gov.ng).
- National Universities Commission (NUC): Nigerian Universities Commission (NUC) established in 1962, is a government body

set up to ensure the "orderly development of a well-coordinated and productive university system that will guarantee quality and relevant education for national development and global competitiveness" (FME, 2004).

- Tertiary Education Trust Fund (TETFUND): Also known as ETF, the TETFUND was established in 2011 as an intervention agency under the Federal Ministry of Education. Established by a TETFUND Act, 2011 (Section 7(1) (a) to (e)) imposing 2% education tax on assessable profit of all registered companies in Nigeria with an aim to fund education.
- Joint Admission Matriculations Board (JAMB): JAMB conducts the entrance examination into tertiary institutions in Nigeria (www.jamb.org.ng)

Twenty-four individual participants were selected from stakeholders in Nigerian higher institutions using purposeful sampling. All participants signed a consent for a Premises, Recruitment, and Name (PRN) Use Permission.

The participants were grouped into three, and assigned an alphanumeric code for confidentiality purposes as follows: Administrator/stakeholders (NUC, FME, JAMB, and TETFUND) coded as ADMIN; Academic staff in the institutions with accredited DE programs coded as ACAD; and National Open University of Nigeria was coded as NOUN. Participants were identified as ADMIN01, ACAD01, and NOUN01. The distribution of informants was as follows: Administrators from TETFUND (2), NUC (2), JAMB (2), and FME (8). From the Academics (full professors) from six institutions in Nigeria were selected representing – the University of Benin (2), the University of Nigeria, Nsukka (2), the University of Illorin (2), the University of Lagos (2), University of Ibadan (2), and National Open University of Nigeria (6).

Findings

It is the consensus among the participants that the major issue with implementing VTBDE in Nigeria is political interest and will to implement, fund and monitor.

A majority of the participants interviewed cited inadequate funding from successive governments and deplorable infrastructure as some of the factors responsible for the current admission crisis. Inadequate facilities, inadequate equipment, ill-informed policy changes, and lack of qualified teachers were shared as well. All participants stated that the use of technology will greatly increase access to higher education and reduce the admission crisis in Nigeria. However, a lack of adequate technology infrastructure would continue to stifle admission issues.

ACAD08 stated, "government should just build larger lecture theatres equipped with technology gadgets like public address (PA) systems so teachers can handle larger classes."

ACAD03, ACAD08, and ADMIN07 believed that online classes would give more access to higher education and reduce over crowdedness in higher institutions.

Some of the administrative participants support recent government efforts in funding technology infrastructure. For example, ADMIN05 stated that "TETFUND is funding more technology infrastructure these days, but there is a need for increased efforts at expanding and equipping the technology centres with latest technology gadgets."

Most administrators opined that if the government is willing to fund online education they would be in support because that would give them the flexibility to admit more students without the challenge of adequate availability of physical infrastructure.

Discussion

According to the Universal Declaration of Human Rights (UDHR), access to education at all levels is one of the fundamental universal human rights that should be guaranteed to everyone. This research provides insight into the complex issue of admission to tertiary institutions in Nigeria. Inadequate facilities, inadequate equipment, lack of technical teachers, and inadequate funding from different governments were cited as determinants of the admission crisis in Nigerian higher institutions. Therefore, concerned stakeholders and government should introduce a major curriculum innovation and support the implementation by providing adequate facilities, equipment, technical teachers, and funds.

All participants interviewed agreed that the use of virtual technology in distance learning could be part of the solution to the admission crisis in Nigeria. These perspectives were supported in the words of

one study participant who said that "online education, in my opinion, is a great way to reduce admission crisis in Nigerian". There was a consensus among the participants that long-distance learning with the use of technology is a viable option for increasing admission to higher education.

The Nigerian government recognizes the role of ICT in the development of critical infrastructure including in support of education. In 2020, the technology sector contributed 12.45% to the GPD of Nigeria. Moreover, Nigeria accounts for 82% of telecom subscribers with 29% internet usage in all of Africa (www.trade.gov)

Recommendations

Baba (2022) recommended that the Federal Government should:

1. Make the National Open University of Nigeria (NOUN) more attractive by admitting younger candidates.
2. Provide adequate funding to train and implement virtual technology use in distance learning in all Nigerian higher institutions. The tertiary institutions can start by implementing blended or dual learning modes to reduce the pressure of admission quota and overcrowded classrooms in tertiary institutions in Nigeria.
3. Formulate and implement a policy trust that will better guide the JAMB process by creating a decentralized admission system to avoid an admission crisis in Nigeria. This is bound to reduce the pressure on infrastructure while increasing the opportunity to generate income.
4. Training and retraining of academic staff to embrace the use of ICT and learning facilities available in some Nigerian higher institutions through TETFUND should be encouraged.
5. Provide an incentive to teachers and management to boost their willingness to change and embrace technology implementation and integration of VTBD

The findings of this research indicate that government should incorporate the use of online technology into the curriculum of all higher educational institutions. Open Online Courses are one way of solving the perennial problem. Online education is an avenue whereby all universities can provide online courses for those who want to acquire higher education.

About the Author

Pauline Ann Baba is a graduate of Educational Leadership (DEL/ET) from the University of Phoenix Class of 2019. While in the doctoral program, she accepted a teaching position at Kogi State University (KSU), Nigeria. This motivated my dissertation topic - *Virtual Technology-Based Distance Education (VTBDE) In Nigerian Higher Institutions – An Exploratory Case Study*. Her passion to find technology-based solutions to the crisis in Nigeria's tertiary institutions led to my "Conversion of Everything" as the Director of ICT at KSU from manual to technology-based (admission, registration, tuition payments, accommodation assignment, course allocation, CBT, result compilation, and transcript). This project was adopted as the standard for all higher institutions in Kogi State.

References

Abati, R. (2023). Nigeria: More Universities Where? ThisDay Headline July 2023. https://www.thisdaylive.com/index.php/2022/08/02/nigeria-more-universities-where/

Adesulu, D. (2018, MAY 3). JAMB admission shortfall: Nigeria needs 1m varsity spaces. Vanguard News Online https://www.vanguardngr.com/2018/05/jamb-admission-shortfall-nigeria-needs-1m-varsity-spaces/

Baba, P. A. (2022). Determinants for Lack of Space within Nigerian Universities to Admit All Qualified Secondary School Graduates into Higher Education. College Student Journal, V55 N2 p170-174

JAMB (2017). JAMB Statistics 2015 – 2019. http://www.jamb.gov.ng/Statistics.aspx

Leedy, P. D., & Ormrod, J. E. (2010). Practical Research: Planning and Design (9th ed.). Upper Saddle River, NJ: Pearson/Merrill/Prentice Hall.

National Population Commission (NPC), (2017). Nigerian population now 182 million –NPC. http://population.gov.ng/nigerias-population-now-182-million-npc/

National University Commission (NUC), (2022). Universities in Nigeria – Statistics. http://www.nuc.edu.ng

UN Migration Report (2017). International Migration Report: Highlights. http://www.un.org/en/development/desa/population/migration/publications/migrationreport/docs/MigrationReport2017_Highlights.pdf

UNESCO (2007). Report of the International Workshop on Mass Literacy Campaign as a strategy for achieving the EFA and MDGs on education in Nigeria. Abuja: UNESCO.

World Bank (2023). GDP (current US$) World Bank National accounts data. http://www.data.worldbank.org/indicator/NY.GDP.MKTP.CD

Yin, R. K. (2017). Case Study Research Design and Methods (5th ed.). Thousand Oaks, CA: Sage. 282 pages. The Canadian Journal of Program Evaluation. 10.3138/cjpe.30.1.108.

Benefits and Challenges of Online Education for Adult Learners: Learning New Tricks

Pamayla E. Darbyshire, DH
Alumn
College of Doctoral Studies, UOPX

Mar Navarro, Ph.D.
Methodologist
University of Phoenix

Abstract

The terms distance learning, e-learning, and online instruction all refer to forms of accessing educational lessons via computer and the Internet. Course enrollments for online learning have increased exponentially, exceeding pre-pandemic levels, as it is an important tool helping to increase access to education for students who may not have other learning opportunities, including working adults. As technology continues to evolve to support online education, identifying both the benefits and challenges for adult learners can lead to innovations to improve online learning.

Introduction

The popularity of online courses has rapidly increased over the past decade and the global online learning market is expected to reach $325 billion by 2025 (Bouchrika, 2022). As more students reap the benefits of online learning, the future of online education will be shaped by augmented reality (AR), virtual reality (VR), and courses that teach skills that cannot be automated, such as emotional intelligence and creativity.

Changing student demographics, worldwide aging populations, individual motivational factors, and rapid changes in the workplace environment have led to significant numbers of adults seeking higher education (Bouchrika, 2022). Between 75 million and 375 million workers will be required to transition jobs by 2030 to remain in the workforce (Manyika, 2018). When new or additional skills and knowledge are necessary to stay employed or further a career, online learning is one of the most convenient ways to access education for adult learners.

The definition of distance learning is “the planned teaching and learning activities provided through the use of a communication channel within an institutional organization without any time and place limitations” (Moore & Kearsley, 2011, p. 2). Engaging in distance learning allows adult learners (18 years and older) to continue their education as well as balance family and work. The characteristics of adult learners bring unique challenges that influence their participation in distance education. When adult learners are successful at overcoming challenges in obtaining online education and staying connected with peers and instructors, they can become more independent, self-motivated, organized, and improve their writing skills and technological skills (Altinpulluk et al., 2019; Kara et al., 2019).

Identified Challenges

A review of the literature reveals challenges that adult learners experience when engaging in online learning including financial barriers, time management, psychosocial management, learning challenges, and technical challenges.

Financial Barriers: Education in general, and distance learning specifically, could cause a financial strain. Basic technological skills, a computer, and an Internet

connection are the basic requirements for online learning. Lack of any of these would make online learning inaccessible.

Time Management: Creating a balance between work and social responsibilities (e.g., family) could add challenges for the adult learner (Borkowski, 2019). The responsibilities of work and family may significantly reduce the adult learner's study time.

Psychosocial Management: The lack of face-to-face interactions between students, peers, and instructors may contribute to feelings of anxiety, isolation, and alienation. Adult learners may experience anxiety related to a lack of internet skills, classroom achievements, and negative educational interactions that may contribute to a lack of self-confidence in the online environment.

Learning Challenges: As students the expectations adult learners might have for themselves might be different from those of traditional learners. Adult students bring a plethora of personal and professional experiences to the educational environment. Given their previous career success, when adult students experience learning challenges, they may perceive mistakes as personal traits and develop lower self-esteem (Batool, 2022).

Technical Challenges: Lack of IT support, Internet connection, or technical skills are challenges that might interfere with online instruction for adult learners. Poor Internet accessibility or intermittent connectivity, lack of personal computers, personal space, and basic IT skills were found to be the most significant challenges to online learning (Appana, 2008).

Overcoming the Challenges: Innovation

The literature suggests strategies to mitigate the challenges adult learners could experience with online education. With a common theme of innovation, the strategies include hybrid work, work measurement, virtual meetings, real-world benefits, avatars, and storytelling.

Hybrid Work: Hybrid work combines onsite and offsite work activities. Access to educational programs that offer hybrid programs may offer a solution for some of the challenges faced by adult learners (Johnson et al., 2018).

Work Measurement: Considering alternative ways of measuring performance and results may provide more avenues of access to online education for adult learners. For example, a Results-Only Work Environment (ROWE) focuses on results, instead of activities and hours logged (https://www.gorowe.com/not-rowe).

Virtual Meetings: Meeting online has become an essential communication channel for institutions and organizations. These online platforms increase the convenience and flexibility of the learning process. Meeting remotely has the benefit of helping learners stay on track with interactions with peers and instructors. These advanced applications facilitate student and teacher interaction in a class-like setting that strengthens the learner-instructor relationship (OECD, 2022).

Real-World Benefits: Adult learners should be informed of the real-world benefits that online learning may provide them in terms of skills, tools, or new knowledge. Each learning module should include a note to explain how the content will offer adult learners real-world benefits. This helps them realize the purpose behind the educational experience as well as increase interest and motivation.

Avatars: When used with PowerPoint or other learning modules systems (LMS), avatars may assist in knowledge comprehension and retention if the learner is skilled in understanding and maneuvering within the platform. Educators can control avatars and share the experience of simulated virtual worlds, increasing both learner engagement and performance (Kasapakis & Dzardanova, 2022)

Storytelling: Over the last two decades, the definition of digital storytelling has evolved to include a spectrum of mixed-media formats e.g. podcasting, blogging, animation, and virtual reality (Smeda et al., 2014). Using multimedia tools to tell a story or characters such as avatars may provide the proper sense of immersion and inclusion making course content more compelling, exciting, and relatable. Digital storytelling has the potential to engage learners in integrated digital media learning methodologies (Smeda et al., 2014).

The Benefits of Augmented Reality and Virtual Reality

One of the key benefits of AR/VR is the enhancement of the learning experience by eliminating distractions using immersive devices in AR and headsets with audio devices and tactile sensors in VR. This approach to learning is more effective when the concepts are put to practical use through simulations. Another benefit of AR is the provision of increased personalization via virtual training rooms allowing learner interaction in real time with their online instructors (Rogers, 2021). Through AR lessons come to life and learning becomes more dynamic and easier to grasp through video simulations. Including multidimensional images and riveting animations as part of lessons can lead to enhanced lectures that capture the interest of learners. These creative presentations spark curiosity and drive learners to participate in lessons more proactively while leading to increased motivation to continue to learn.

AR technology enriches learning through the Internet of Things (IoT). For example, Google's Expeditions app allows learners/users to interact virtually with a model of the globe or take a museum tour from a smartphone screen. Learners may respond to an experience such as a 3D icon that moves and changes instead of a 2D image on a page. Using AR other forms of sensory contacts (e.g. touch, taste, and smell) can be used to promote learning and expand learning opportunities for students. In the future, smart glasses could be utilized to allow students to remotely connect with their peers, teachers, and educational resources without leaving their current physical location.

Collaboration: By building online communities and facilitating teamwork in the virtual classroom tools such as Microsoft Teams, Google Workspace and Zoom can enhance the virtual learning experience between learners and instructors. These external platforms contribute to face-to-face interactions that provide an increased connection with peers and instructors for the adult distance learner. Face-to-face interactions can contribute to a sense of belonging and may enhance self-esteem and self-confidence.

Mobile Devices: Devices such as cellphones, laptops, and tablets used in the classroom and training rooms can serve as learning aids for active learner engagement. Learning activities using software applications may be more engaging than in the traditional classroom.

Conclusion

The COVID-19 pandemic has contributed to the expansion of IoT and remote learning, remote team meetings, and real time face-to-face interactions (Batool, 2022; Eldokhny & Drwish, 2021). Online educational challenges perceived by the adult learner will depend on their individual characteristics such as age, gender, knowledge, skills, and context. Due to its flexibility, online education can help adult learners balance their learning, family, and work commitments. Online learning provides the adult learner an opportunity to develop skills and acquire a degree to fit into their schedule as learning can take place anywhere and at any time.

Additional skills, knowledge, or a new degree can empower and motivate adult learners in their professional life and future employment opportunities. Because online learning allows students to learn at their own pace, adult learners may greatly benefit from the unique learning opportunities provided by online education. The popularity of online learning has increased significantly and the advances in technology along with increased accessibility to the technology will continue to enhance the learning experience for adult learners. As more learners experience the benefits of online learning, the future of online education and training will continue to be shaped.

About the Authors

Dr. Darbyshire serves as an alumna with the collaborative research Alumni SIG, sponsored by the Center for Educational and Instructional Technology Research (CEITR) with the College of Doctoral Studies, University of Phoenix. Dr. Darbyshire has worked in nursing for over 35 years in the medical-surgical and critical care units before transitioning to peri-operative nursing, finishing her career as a clinical nurse specialist educator. As a researcher, consultant, and peer reviewer for numerous international journals, she conducted research on case management, chronic diseases, and Multiple Sclerosis. Dr. Darbyshire collaborates as a co-author for several articles and serves on the National Research Committee for AORN. Dr. Darbyshire continues to

engage in research and mentorship with various professional organizations.

Dr. Navarro holds a doctoral degree in Applied Experimental and Human Factors Psychology from the University of Central Florida. Dr. Navarro is a Research Fellow with the Center for Educational and Instructional Technology Research and serves as a University Research Methodologist for the University of Phoenix. Dr. Navarro's research interests are in cognition and cognitive ergonomics, including how humans learn, understand and process information. Within this area, Dr. Navarro has developed a special interest in online teaching and learning, has participated in the development of online course shells, and is certified by Quality Matters, a national program in quality assurance in online learning.

References

Altinpulluk, H., Kesim, M., & Kurubacak, G. (2019). The usability of augmented reality in open and distance learning systems: A qualitative Delphi study. Open Praxis, 12(2), 283-307. https://doi.org/10.5944/openpraxos.12.2.1017

Appana, S. (2008). A review of benefits and limitations of online learning in the context of the student, the instructor and the tenured faculty. International Journal on E-learning, 7(1), 5–22. https://www.learntechlib.org/primary/p/22909

Batool, H. (2022). Augmented reality applications as a digital learning innovation in response to the pandemic. Frontiers in Education, 7(937074), 1-7. https://doi.org/10.3389/feduc.2022.937074

Borkowski, M. (2019). Augmented reality: Bringing learning to life. [AR]Post Application. https://arpost.co/2019/04/23/augmented-reality-bringing-learning-to-life/

Bouchrika, I. (2022). Adult learning theory: Methods and techniques of teaching adults. Education. Research.com. https://research.com/education/adult-learning-theory

Eldokhny, A. A., & Drwish, A. M. (2021). Effectiveness of augmented reality in online distance learning at the time of the COVID-19 pandemic. International Journal of Emerging Technologies in Learning (iJET), 16(09), 198–218. https://doi.org/10.3991/ijet.v16i09.17895

Johnson, E., Morwane, R., Dada, S., Pretorius, G., & Lotriet, M. (2018). Adult learners' perspectives on their engagement in a hybrid learning postgraduate programme. The Journal of Continuing Higher Education, 66(2), 88–105. https://doi.org/10.1080/07377363.2018.1469071

Kara, M., Erdoğdu, F., & Kokoç, K. (2019). Challenges faced by adult learners in online distance education: A literature review. Open Praxis, 11(1), 5–22. https://doi.org/10.5944/openpraxis.11.1.929

Kasapakis, V., & Dzardanova, E. (2022). Virtual reality learning environments: Using high-fidelity avatars to enhance distance learning experience. Interactive Learning Environments, 30(11). https://doi.org/10.1080/10494820.2022.2146140

Manyika, J. (2018). Automation and the future of work. Milken Institute Review. https://www.mckinsey.com/mgi/overview/in-the-news/automation-and-the-future-of-work

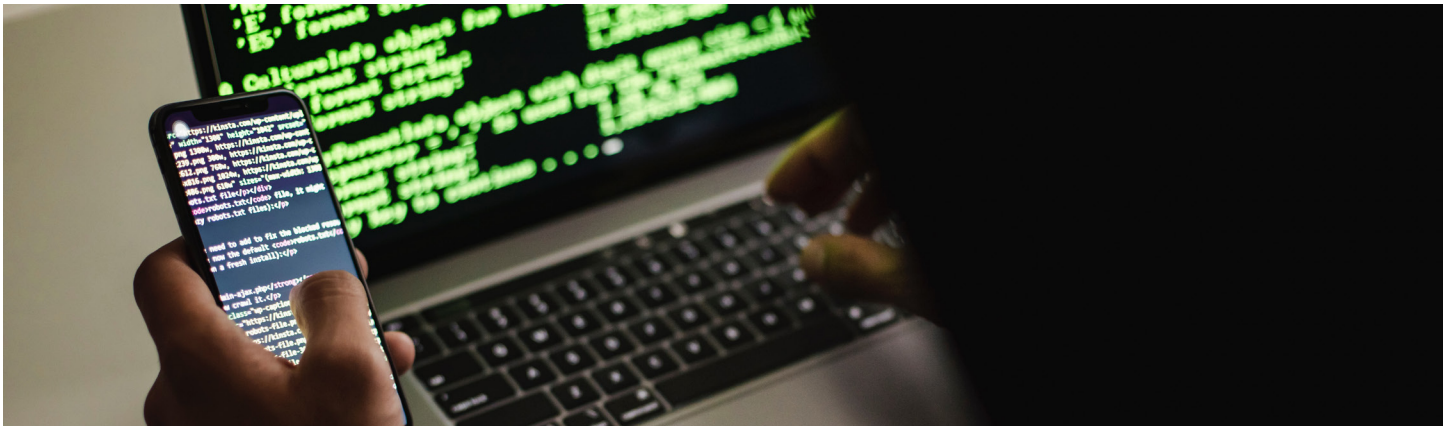
Moore, M. G., & Kearsley, G. (2011). Distance education: A systems view of online learning. Wadsworth.

OECD (2022). Education at a Glance 2022: OECD Indicators. OECD Publishing, Paris. https://doi.org/10.1787/3197152-en

Results Only Work Environment (ROWE). (n.d.). https://www.gorowe.com/not-rowe

Rogers, I. (2021). 10 Benefits of augmented reality and virtual reality for teaching. https://www.linkedin.com/pulse/10-benefits-augmented-reality-virtual-teaching-ian-c-rogers

Smeda, N., Dakich, E., & Sharda, N. (2014). The effectiveness of digital storytelling in the classrooms: A comprehensive study. Smart Learning Environments, 1(6), 1-21. https://doi.org/10.1186/s40561-014-0006-3



Education 4.0 and the Metaverse: Benefits & Challenges

Suchitra Veera, DBA
Associate Faculty
College of Business and
Information Technology, UOPX

Abstract

Through data gathered from virtual learning platforms, Learning Analytics (LA) combined with Artificial Intelligence (AI) enables educators to understand students' behavior and performance in the online classroom. In the future, Education 4.0 and the metaverse are expected to provide immersive educational experiences for students as well as allow educators to provide highly personalized and customized training and education. Individual privacy and security considerations are important because creating immersive and personalized learning experiences entails generating tremendous amounts of participants' personal data in a metaverse environment. Future research and development of tools and technologies that address these types of considerations are key to providing a safe and secure learning environment that leverages the benefits of Education 4.0 and the metaverse.

Introduction

Virtual learning environments are now a central feature of higher education. In virtual or hybrid learning modalities, these learning environments can include synchronous and asynchronous interaction and communication. Data are collected in real time from the virtual learning environment. Learning Analytics (LA) when combined with Artificial Intelligence (AI) can help improve the quality of higher education by illuminating how students learn (Luckin, 2019).

Benefits of LA and AI for Classroom Management

According to research studies, LA can improve learning support and teaching in higher education (Viberg et al., 2018). LA with AI can provide real-time status and make a variety of predictions for faculty (e.g., timeliness of completing assignments, expected retention, dropout). Professors can make adjustments to their teaching styles based on the insights gathered from the data collected (Nguyen et al., 2020). Advisors can also benefit from understanding problem patterns such as late submissions and non-participation

in class discussions. LA can empower teachers to identify and assist students requiring assistance, reach out to students and offer help, and alert the advisors about potential issues. It provides predictive learning analytics (PLA) to teachers in online learning settings as well as visualization of learning analytics tools (Herodotou et al., 2019; Junco & Clem, 2015). Students can benefit from AI technology. Chatbots can interact with students and point them to appropriate resources. Intelligent Tutoring Systems (ITS) can adapt to each student's level and performance to provide a customized learning experience (PANEL, 2016).

Education 4.0 Learning Experiences

While Education 3.0 involved personal computers and the internet, Education 4.0 includes Augmented Reality (AR), Virtual Reality (VR), Extended Reality (XR) and AI to create engaging and effective learning experiences (Mourtzis et al., 2018). As these technologies have made rapid advances recently, the concept of the metaverse has emerged and is expected to be the next major evolution phase of the internet (Fernandez & Hui, 2022). "The term metaverse was created by Neal Stephenson in his science fiction novel named Snow Crash in 1992. In this novel, humans in the physical world enter and live in the metaverse (a parallel virtual world) through digital avatars (in analogy to user's physical self) via virtual reality (VR) equipment (Wang et al., 2022).

Academic Learning Experiences Using Metaverse

It is expected that metaverse-based educational offerings will include sophisticated virtual reality scenarios in which students can immerse themselves in subjects from all disciplines. In higher education, avatar-based training modules have been developed to learn appropriate behavior when dealing with people from different cultural backgrounds (PANEL, 2016). Metaverse offerings could include interactive experiences with historical documents and the use of VR to explore interactive archeological sites. In the natural sciences such as biology, anatomy, geology and astronomy VR can allow students to interact with environments and objects that are difficult to engage with in the real world. Personalized learning experiences can me curated by delivering content in immersive ways after assessing student using AI tools. AI and intelligent platforms can help in monitoring student engagement and understanding as well as provide actionable insights into student welfare and mental health.

Industry Learning Experiences Using Metaverse

AI and Industry 4.0-related technologies are disrupting several sectors, including manufacturing and healthcare. Education 4.0 will develop skills and competencies for a new era of manufacturing education. A teaching factory paradigm supported by Industry 4.0 technology involves practitioners in task-specific industrial problems in groups with the help of AI in the context of VR, Robotics, and 3D imaging (Mourtzis et al., 2018).

Through the use of AI to create blended or hybrid medical curricula it is possible to support clinical and shared decision-making and tele-health applications as well as scout social media networks and use them to share meaningful medical news and advice. In a virtual metaverse environment, medical students can learn about complex surgical procedures with the opportunity to practice multiple times with minimal risk and substantial context-based support.

In all of these scenarios, AI will complement rather than replace humans, creating human/machine collaboration. The focus of work will shift from working on repetitive tasks to managing robots and AI technology that complete these tasks. Therefore, it will also require research and new emphasis on certain knowledge areas in education. For instance, ethics and philosophy courses as well as courses involving complex decision making, critical thinking, entrepreneurship and emotional intelligence will be of greater importance in the future.

Education 4.0 Challenges for Implementation

While Education 4.0 uses advanced technologies to provide a more expansive, engaging and personalized educational experience, there are a few major implementation challenges. Managing the metaverse users' personal privacy as well as the difficulty in managing risk and ensuring regulatory compliance are barriers to operationalizing AI, metaverse and related technologies (Fernandez & Hui, 2022). "A wide range of security breaches and privacy invasions may arise in the metaverse from the management of massive data streams, pervasive user profiling activities, unfair

outcomes of AI algorithms, to the safety of physical infrastructures and human bodies" (Wang et al., 2022).

Participant Data for a highly personalized Virtual Environment

Gathering users' biometric information including heart rate, gait, and gaze would help to make the virtual environment more responsive to a user's behavior, movement, and emotions. Incorporating this data allows the users avatar to be adapted based on the personalized data gathered from the user (Buck & McDonnell, 2022). However, these types of highly personalized and idealized interactions can present challenges for the governance of the virtual platforms (Fernandez & Hui, 2022). Such precise data gathered at a high frequency can reveal information about users such as their mental state, medical status, social preferences, levels of creativity, and medical conditions (Buck & McDonnell, 2022). Similarly, by using the software to be more appealing to users (e.g., changing voice and appearance), it is possible to maliciously influence user interaction unless properly controlled.

Managing Individual Data Privacy and Security

Education and awareness of the implications of biometric data combined with VR is critical. In addition to de-identification of personal data that has been collected, people should be provided with the option to opt out of such type of data collection (Buck & McDonnell, 2022). In addition to addressing some of the traditional threats to the communication network such as Single Point of Failure (SPoF), Denial of Service (DDoS), and stolen identities, local and global situational awareness is required to monitor these large-scale complex systems (Wang et al., 2022).

New Areas of Research

Further research using statistical computational methods that identify the dependencies within the complex, large-scale human behavioral data involving language, location and movement, networks, images, and video is important (Lazer et al., 2020). "Although machine learning will not easily allow us to reverse-engineer collective behavior, culture, or human decision making, we can systematically use such tools to identify new dimensions of social behavior" (Edelmann et al., 2020). Collaborations and interdisciplinary efforts between AI researchers and researchers in the humanities and social sciences are first steps in this effort.

Conclusion

LA combined with AI have provided the capability for educators to get better and actionable insights into students' behavior and performance in the virtual environment. Education 4.0 and the metaverse holds the promise of building on such technology-based benefits by providing immersive educational experiences for students and the ability for educators to provide highly personalized and customized training and education. Considerations of individual privacy and security are critical given the tremendous amount of data that is generated in a metaverse environment. Future research and development of tools and technologies that address these types of considerations are necessary to provide a safe and secure learning environment that leverages the benefits of Education 4.0 and the metaverse.

About the Author

Dr. Suchitra Veera has been a faculty member at the University since 2007 and teaches in the School of Business and Information Technology. Her research interest areas include Strategic Management & Decision Making, Product Development, Research Methodology, Technology & Innovation Management, Business and Learning Analytics. With over 20 years of industry experience, she has professional certifications in Project Management, Agile and New Product Development, Software Quality Management, Six Sigma, and Data Management. Besides teaching in academic settings, she is also experienced in provided training in corporate settings and for professional organizations.

References

Buck, L., & McDonnell, R. (2022). Security and privacy in the metaverse: The threat of the digital human. CHI EA.

Edelmann, A., Wolff, T., Montagne, D., & Bail, C. A. (2020). Computational social science and sociology. Annual Review of Sociology, 46, 61-81.

Fernandez, C. B., & Hui, P. (2022). Life, the Metaverse and everything: An overview of privacy, ethics, and governance in Metaverse. 2022 IEEE 42nd International Conference on Distributed Computing Systems Workshops (ICDCSW),

Herodotou, C., Rienties, B., Boroowa, A., Zdrahal, Z., & Hlosta, M. (2019). A large-scale implementation of predictive learning analytics in higher education: the teachers' role and perspective. Educational Technology Research and Development, 67(5), 1273-1306.

Junco, R., & Clem, C. (2015). Predicting course outcomes with digital textbook usage data. The Internet and Higher Education, 27, 54-63.

Lazer, D. M., Pentland, A., Watts, D. J., Aral, S., Athey, S., Contractor, N., . . . Margetts, H. (2020). Computational social science: Obstacles and opportunities. Science, 369(6507), 1060-1062.

Luckin, R. (2019). AI and Education: An Intelligence Infrastructure to Empower Self-efficacy.

Mourtzis, D., Vlachou, E., Dimitrakopoulos, G., & Zogopoulos, V. (2018). Cyber-physical systems and education 4.0–the teaching factory 4.0 concept. Procedia manufacturing, 23, 129-134.

Nguyen, A., Gardner, L., & Sheridan, D. (2020). Data analytics in higher education: an integrated view. Journal of Information Systems Education, 31(1), 61.

PANEL, S. (2016). One Hundred Year Study on Artificial Intelligence. https://ai100.stanford.edu

Viberg, O., Hatakka, M., Bälter, O., & Mavroudi, A. (2018). The current landscape of learning analytics in higher education. Computers in Human Behavior, 89, 98-110.

Wang, Y., Su, Z., Zhang, N., Xing, R., Liu, D., Luan, T. H., & Shen, X. (2022). A survey on metaverse: Fundamentals, security, and privacy. IEEE Communications Surveys & Tutorials.

Don’t Fear AI: Embrace Its Power

Sherry Markle, MAED, Ed.D.
Associate Faculty
University of Phoenix

Abstract

People are talking about AI and its potential effect in the working and educational arenas. Misinformation and disinformation add to the fear that AI is inherently evil. This essay makes the case for the benefits of AI; specifically in education but touches on further-reaching implications such as educator-institution-parent relationships and workforce competence. The essay also illuminates areas for further consideration that require more research for a better understanding. Like other technology before it, AI will become a normal part of society. If educators do not prepare now an entire generation of students may struggle to catch up, or at least keep up, with a changing society.

Introduction

There is a lot of talk in the news, educational podcasts, and many other media outlets that seem to suggest Artificial Intelligence (AI) is going to eliminate jobs. AI will help students cheat. AI needs to be eliminated. These arguments are as old as any technology. For example, trains were once believed to have the power to rip apart the human body; television was once thought to have the power to end meaningful conversation; and written words were thought to prevent intelligent thought and discourse (Marshall, 2014; Wilson, 2014). It is true that some jobs will be eliminated; however, other jobs will be created.

AI is rapidly becoming a fundamental part of modern society, and its potential benefits to education are vast and sweeping. By the end of 2023, AI is expected to be able to assist educators in a variety of ways, including personalizing learning, automating administrative tasks, and providing insights into student performance (Unknown, 2022). This essay will explore the ways in which AI can benefit education in 2023 and beyond, including its potential to improve student engagement and outcomes, enhance the efficiency of educational systems, and provide new opportunities for teacher professional development.

Personalization

One of the most significant benefits of AI in education is its ability to personalize learning (Lynch, 2022). AI-powered systems can analyze data from student interactions with educational materials and use this information to tailor the content and delivery of instruction to the unique needs of individual students. By the end of 2023, it is expected that AI-powered adaptive learning systems will be able to provide real-time feedback and adjust instruction in response to student progress. This can help educators to ensure that all students are challenged at the appropriate level, which can lead to improved student engagement and outcomes.

The benefits of using a student’s preferred learning style are well-known to educators. AI will allow educators to evaluate, understand, and deliver content according to the needs of individual students (Gambo & Shakir, 2021). Gambo and Shakir posited that this will improve the drop-out rate as well as increase

the competency rate. This personalization benefits individuals, teachers, institutions, and employers.

Administrative Aid

AI can also be used to automate administrative tasks in education, such as grading assignments and providing feedback to students (Marr, 2018). This can save educators valuable time and allow them to focus on more important tasks, such as planning and delivering instruction. Lynch (2022) posited by the end of 2023, it is expected that AI-powered systems will be able to grade and provide feedback on a wide range of assignments, including written essays, coding projects, and even oral presentations. This can help to ensure that students receive timely and accurate feedback on their work, which can improve their motivation and engagement in the learning process.

Another benefit of eliminating the most time-consuming aspects of education (e.g., grading), is teachers will have more time to spend assisting students in areas that they struggle. Since learning is unique to each student, the assistance of AI in evaluating the needs of students will be invaluable. With the improvements in efficiency, parents will not feel the struggles of tutoring their students at home.

Evaluating Student Performance

In addition to personalizing learning and automating administrative tasks, AI can also provide educators with valuable insights into student performance. By analyzing data from student interactions with educational materials, AI-powered systems can identify patterns and trends in student performance, such as which students are struggling with certain concepts or which students are excelling in certain areas. By the end of 2023, it is expected that AI-powered systems will be able to provide real-time insights into student performance, which can help educators to identify and address issues quickly and effectively (Seo et al., 2021).

Neil DeGrasse Tyson famously said the thing he would change about education is the system we use for evaluating student success and predictors of success (Valuetainment, 2023). “In school, students cheat because the system values high grades more than students value learning” (Tyson, 2017). AI will give schools a way to better evaluate performance without focusing on arbitrary concepts that do not always predict the success of students and do not encourage students to cheat. AI can give institutions ways to evaluate a student’s ability to progress based on skill readiness instead of grades.

While some people focus on students using AI to cheat, others see an extremely beneficial opportunity for AI to help students synthesize information. With various studies having a diversity of concepts of focus, finding gaps and commonalities will be faster. In utilizing AI to find these, students will be able to identify valuable information they can present to others.

Another potential benefit of AI in education is its ability to provide new opportunities for teacher professional development. AI-powered systems can be used to analyze data from teacher interactions with students and provide feedback on teaching practices (Lameras & Arnab, 2022). By 2023, it is expected that AI-powered systems will be able to provide more detailed and tailored feedback, which can help educators improve their teaching skills and better serve the needs of their students. Further, institutional interactions can be more productive, the parental contribution can be better defined, and transferrable skills can be better suited to future work situations.

Further Research

One thing teachers and college professors will need to consider is how to prepare students for jobs that do not yet exist. While this has presented a problem for teachers for several decades, more rapidly evolving technology requires more rapid advancements in education. While AI can synthesize information faster than any human will ever be able to, it is unlikely to predict the needs of educators in 5 years, 10 years, or more. Staying current with technological advancements is more critical to students, educators, and schools than ever.

Conclusion

AI has the potential to benefit education in a multitude of ways including personalizing learning, automating administrative tasks, providing insights into student performance, and providing new opportunities for teacher professional development, AI can help educators to improve student engagement and outcomes, enhance the efficiency of educational

systems, and support teacher professional development. Educators should be especially aware of the potential benefits of AI and explore ways to integrate it into their routines.

About the Author

Sherry Markle has been teaching at the University of Phoenix since March 2009. She started in the Education department and transferred to General Studies as a Full-Time Faculty (FTF) in 2015. When the FTF program was downsized, she transitioned to an Associate Faculty while teaching English to Children in China. Markle continues to teach in the General Studies program and remains committed to working on a better education system.

References

Gambo, Y., & Shakir, M. (2021). An artificial neural network (ann)-based learning agent for classifying learning styles in self-regulated smart learning environment. International Journal of Emerging Technologies in Learning (iJET), 16(18), 185-199.

Lameras, P. & Arnab, S. (2022). Power to the teachers: An exploratory review on artificial intelligence in education. Artificial Intelligence and Games Science in Education, 12(1), 14. Doi: 10.3390/info13010014

Lynch, M. (2022). Using artificial intelligence and data to personalize higher education. The Tech Edvocate. https://www.thetechedvocate.org/using-artificial-intelligence-and-data-to-personalize-higher-education/

Marr, B. (2018). How is AI used in education-Real world examples of today and a peek into the future. Forbes Magazine. https://www.thetechedvocate.org/using-artificial-intelligence-and-data-to-personalize-higher-education/

Marshall, C., (2014). 12 technologies that scared the world senseless. TechRadar. https://www.techradar.com/news/world-of-tech/12-technologies-that-scared-the-world-senseless-1249053

Seo, K., Tang, J., Roll, I., Fels, S., & Yoon, D. (2021). The impact of artificial intelligence on learner–instructor interaction in online learning. International Journal of Educational Technology in Higher Education, 18(1), 1-23. https://doi.org/10.1186/s41239-021-00292-9

Tuomi, I. (2018). The Impact of Artificial Intelligence on Learning, Teaching, and Education. JRC Publications. Publications Office of the European Union, Luxembourg, ISBN 978-92-79-97257-7, doi:10.2760/12297, JRC113226.

Tyson, NG [@neiltyson]. (2017, September 6). In school, students cheat because the system values high grades more than students value learning [Tweet]. Twitter. https://twitter.com/neiltyson

Unknown (2022). The impact of artificial intelligence on the future of workforces in the European Union and the United States of America. Us-EU Trade and Technology Council Inaugural Joint Statement. https://www.whitehouse.gov/wp-content/uploads/2022/12/TTC-EC-CEA-AI-Report-12052022-1.pdf

Valuetainment (2023). Education in America w/ Neil DeGrasse Tyson. YouTube. https://www.youtube.com/watch?v=qy1arYKgugo

Wilson, L., (2014). 11 examples of fear and suspicion of new technology. Len Wilson Consulting. https://lenwilson.us/11-examples-of-fear-and-suspicion-of-new-technology/

Comparing Soft Skills in Higher Education with Industry's Want List for Remote Work

Olivia Miller, M.A.
Associate Faculty
College of General Studies, UOPX

Abstract

The shift to remote work has resulted in calls for new soft skills for remote workers. Having a college degree is not enough, yet no standard classification of the soft skills needed by students exists. Keyword searches of industry and trade reports published during and after the pandemic sought to discover the soft skills employers seek in job recruits for positions using remote work, listing the 10 most touted soft skills. These were compared with the findings from articles telling higher education's views on soft skill development in students, located by keyword searches of research studies from journals, conference proceedings, and review articles published during the same timeframe. Both groups placed a high value on communication and collaboration skills, but the lists of additional soft skills differed. Technology has changed the workplace and higher education may need to change to prepare graduates for that workplace.

College graduates since the pandemic enter a changed workplace. The Bureau of Labor Statistics estimates that during the 2020 pandemic, 38 percent of workers became remote (Dalton, 2022). By 2023, however, the remote work numbers were declining as the job market improved and companies sought to bring workers back under one roof (Smith, 2023). Still, demand for remote jobs, considered more convenient and often with higher pay (Dingel, 2020), remained high. LinkedIn reported that 52.8 percent of job applications during 2021 were for remote positions (Smith, 2023). Remote work is defined as occupations performed at home or at another site because it requires no physical presence at the place of business.

One outcome of the shift to remote work has been calling for new soft skills along with industry-specific knowledge for remote workers. Having a college degree is not enough. Workers' soft skills determine remote work potential (Lund, 2020). In fact, soft skills are predictors of career success (Biocom, 2021). Employment trends for 2023 include an emphasis on developing soft skills (NACS, 2023), but these soft skills are also needed in experienced white-collar corporate workers who have become the bulk of remote workers (Bhattacharyya, 2020). Soft skills are defined as qualities, tangible and intangible, different from the essential skills of a profession that help workers in the performance of their jobs (Noiman, 2022).

"Remote working relies more heavily on soft skills than in-office working, as the social, cultural, and verbal cues generated by in-person interactions are diluted in a remote environment" (Clearword, 2022, p.2). Companies watch for soft skills during the interview process, asking applicants about telecommuting experiences and how they stay focused while working at home (How to craft, 2022; Tunggal, 2021).

Curiosity to know what the business community considers essential soft skills lead this instructor to conduct keyword searches of industry and trade reports published during and after the pandemic (2020-2023). What soft skills do employers seek in job recruits for positions using remote work?

Twenty-six industry articles focusing on soft skills for remote work were examined and a list of the skills those articles touted was compiled. This list was compared with the findings from 16 articles telling higher education's views on soft skill development in students, located by keyword searches of research studies from journals, conference proceedings, and review articles published during the same timeframe of 2020-2023.

Where these intersect is in this instructor's online classroom for first-year university students. How can instructors contribute to the key soft skill development that students will need in their workplaces should they choose remote work? It is challenging to use exercises and assignments that cover the required course content while developing the soft skills of students. Should this secondary effort be tracked and managed, or should instructors simply hope the skills are developing?

Would the lists differ? Is there a disconnect between the soft skill needs published in business publications and the soft skills that educators seek to develop in students seeking higher education? The Conference Board of Canada reported a skill disparity between what employers want and the skills of recent graduates (Lindzon, 2020). One study concluded that no standard classification of the soft skills needed by students exists (Pai, 2022.). A study of Brazilian higher education institutions found a disconnect between what education provides for students and what those graduates need as workers according to managers (Goulart, 2022). A study investigating European college students' values of soft skills found students themselves rank soft skills lower in importance than employers (Succi, 2020). One European university elected to offer a course in soft skill development as a solution to the need (Shtaltovna, 2021).

The 10 most frequently named soft skills touted as important by the 26 business publications included communication (25), time management, (9) adaptability (12), collaboration (11), initiative (15), decision-making (12), tech savviness (10), leadership (3), trust/reliability (5), and organization (2). The tally of the soft skills explained and said to be developed in students in the 16 research studies concerned with higher education was as follows: communication (15), time management, (5) adaptability (1), collaboration (12), initiative (7), decision-making (10), tech savviness (2), leadership (3), trust/reliability (2), and organization (4). Of note, the higher education articles included soft skills not mentioned by the business publications, such as listening, professionalism, ethics, etiquette, and humor.

The three most often mentioned soft skills for the industry were communication, collaboration, and initiative. The three most often mentioned for academia were communication, collaboration, and decision-making. There is no disconnect between these three soft skills. The biggest difference was that 46 % of industry publications ranked adaptability as very important, and only .06% of academic studies mentioned adaptability.

The soft skill mentioned by all but one of the business publications and all, but one academic publication was communication. Communication skill for students was described by higher education as written assignments and expressions of ideas during discussions. Communication in industry publications covered many aspects in addition to the written communication expected in a job. Composing email, effective video conferencing, writing reports, and speaking in person or instant messaging with clients and customers are examples (Soft Skills, 2022). Video chat proficiency was rated the top skill needed by 38 percent of hiring managers, according to PRNewswire (ResumeBuilder.com, 2021).

On the negative side, remote workers have to be able to work with the loss of body language, and office socializing such as becoming friends with colleagues which is routine for in-person employment (Oliver, 2021). Too much communication can result in what one study identified as digital communication fatigue. Strong communication soft skills typically work with savvy use of technology to stay in touch with employees and bosses. Workers may use mobile devices to deliver and receive critical information. Lack of communication can lead to lower levels of trust (Peroznejad, 2021). Both groups placed a high value on communication skills.

Collaboration for the business publications meant more than just communicating with a team on projects, the main application used in the classroom. Working on shared documents, and dealing with delays and time zones can reduce productivity for inexperienced remote workers (Prossack, 2020). Collaboration may cross languages as well as time

zones. Trust is also a factor in collaboration, with team members using transparency and timeliness to develop trust.

Adaptability, the soft skill with the disconnect, is the capacity to overcome challenges and be resilient (Peroznejad, 2021). Adaptability can also mean being good at stress management and handling stress triggers to manage workflow around the distractions of the home environment. Students in an online classroom face similar circumstances, meaning this soft skill has a high degree of common ground between industry use and academic use, even if not ranked high in academic studies about soft skills. Similarly, tech savviness can be taught without the need for curriculum changes as students learn to troubleshoot software and hardware (8 soft, 2020).

This brief, casual research on soft skills as perceived by industry publications and higher education research studies suggests that technology has changed the workplace and higher education may need to change to prepare graduates for that workplace. While some researchers recommend that assignments be changed to problem-based learning to encourage many of the soft skills prized by the business community, a reset of higher education will take time.

Meanwhile, the online classroom has the advantage of a fully digital approach to the learning landscape, which prepares students for the same in remote work, at this point an advantage over traditional classroom education. A simple change such as offering weekly Collaborate sessions may increase the level of video conferencing experience. Just appearing on screen and contributing requires courage in first-year students. Online students gain experience in technology-related trouble-shooting such as loss of access or slow Internet speed along with power failures. Online students collaborate across time zones with peers using shared documents. Online students use communication modalities other than face-to-face communication to navigate courses. Online students must balance home life priorities and distractions for years while completing tasks and assignments as they progress through degree programs. Online courses offer students the option of developing key soft skills prized by the workplace.

About the Author

Olivia Miller holds a Master of Arts in Journalism from the University of Memphis and a Bachelor of Science in Clothing & Textiles from Auburn University. She has taught in person and online, both graduate and undergraduate classes for the University of Memphis, Lakeland University, and the University of Phoenix. She currently teaches online at the University of Phoenix.

References

Bhattacharyya, R. (2020, October 14). The post-Covid resume: Hybrid workplaces will need employees to gain new technology and soft skills. Economic Times, https://link.gale.com/apps/doc/A638260544/STND?u=uphoenix&sid=bookmark-STND&xid=9315f227

Biocom California Institute and California life sciences Issue 2021 life sciences workforce trends report for California, (2021, November 9). Professional Services Close-Up, https://link.gale.com/apps/doc/A681643026/ITBC?u=uphoenix&sid=ebsco&xid=f49e8ba7

Clearword. (2022, March 18). The essential soft skills for remote working. LinkedIn. https://www.linkedin.com/pulse/essential-soft-skills-remote-working-clearword/

Dalton, M., Dey, M., & Loewenstein, M. (2022). Office of Employment and Unemployment Statistics: The impact of remote work on local employment, business relocation, and local home costs. U.S. Bureau of Labor Statistics. https://www.bls.gov/osmr/research-papers/2022/pdf/ec220080.pdf

Dingel, J. I., & Neiman, B. (2020). How many jobs can be done at home? Journal of Public Economics, 189, 104235

Goulart, V. G., Liboni, L. B., & Cezarino, L. O. (2022). Balancing skills in the digital transformation era: The future of jobs and the role of higher education. Industry and Higher Education, 36(2), 118–127.

How to craft a remote-friendly recruitment and retention strategy. (2022, February). CPAPracticeAdvisor.com. https://link.gale.com/apps/doc/A704463072/ITBC?u=uphoenix&sid=ebsco&xid=fa792d23

Lindzon, J. (2020, July 4). In the age of remote working, it's time for employees to brush up on soft skills. Globe & Mail. https://www.theglobeandmail.com/business/careers/article-its-time-to-brush-up-on-your-soft-skills-in-the-age-of-remote-working/

Lund, S., Madgavkar, A., Manyika, J., & Smit, S. (2020, November). What's next for remote work: An analysis of 2,000 tasks, 800 jobs, and nine countries. McKinsey Global Institute. http://thebusinessleadership.academy/wp-content/uploads/2021/01/MGI-Whats-next-for-remote-work-v3.pdf

NACS. (2023, January 5). Here are 5 employment trends for 2023. https://www.convenience.org/Media/Daily/2023/Jan/5/4-5-Employment-Trends-2023_HR

Noiman, E. (2022). Soft skills: Need for growth graph. Business World. http://bweducation.businessworld.in/article/Soft-Skills-Need-For-Growth-Graph/01-09-2022-444688/

Pai, S., & Mayya, S. (2022). A systematic literature review on training higher education students for soft skills. International Journal of Management, Technology, and Social Sciences, 7(2), 97-142. DOI: https://doi.org/10.5281/zenodo.6958964

Peroznejad, A., Razmerita, L., Panteli, N., & Kärreman, D. (2021). Remote work adaptability: Cabin fever or newfound freedom? Paper presented at 10th International Workshop on the Changing Nature of Work with ICT. CNOW 2021, Austin, Texas, United States.

Prossack, A. (2020, July 30). 5 Must-have skills for remote work. Forbes. https://www.forbes.com/sites/ashiraprossack1/2020/07/30/5-must-have-skills-for-remote-work/?sh=310288c433c4 1/5

ResumeBuilder.com survey shows 38% of hiring managers want job candidates with advanced video-conferencing skills. (2021, July 26). PR Newswire. https://link.gale.com/apps/doc/A669667439/STND?u=uphoenix&sid=bookmark-STND&xid=ab6f487f

Schad, E. (2020, August 27). 8 Soft skills for students to prepare them for remote work . Telecommuting-Survival. https://www.virtualvocations.com/blog/telecommuting-survival/soft-skills-students-prepare-remote-work/

Shtaltovna, Y., & Muzzu, C. (2021). Teaching digitally-ready soft skills for employability: A review of the COVID-semester online-teaching strategies. GiLE Journal of Skills Development, 1(2), 58-67.

Smith, R, (2023, January 25). Remote jobs are now harder to find.) Wall Street Journal, A-9.

Soft skills: Need for growth graph. (2022, September 1). Business World. https://link.gale.com/apps/doc/A718953248/ITBC?u=uphoenix&sid=ebsco&xid=1a167de3

Soft skills every remote worker needs. (2022, July 12). Randstad. https://www.randstadusa.com/job-seeker/career-advice/career-development/soft-skills-every-remote-worker-needs/#

Succi, C., & Canovi, M. (2020). Soft skills to enhance graduate employability: Comparing students and employers' perceptions. Studies in Higher Education, 45(9), 1834–1847. https://doi.org/10.1080/03075079.2019.1585420

Tunggal, A. T. (2021, October 13). 18 essential remote work skills for remote workers. Medium.com. https://medium.com/himalayas-blog/18-essential-remote-work-skills-for-remote-workers-80979ccdd305

Reskilling or Upskilling? What Employers Need to Know about Empowering Long-term Employee Potential

Erik Bean, Ed.D.
Associate University Chair
Center for Leadership Studies and Organizational Research
College of Doctoral Studies, UOPX

Introduction

It's no surprise that a traditional college degree is not always an elixir for every employee looking to move up or build specific new skills for specific niche subject matter expertise. What is surprising is the number of choices available to employees when talent needs bolstering and that some human resource departments may be overlooking such opportunities to keep their valuable employees in the know, not to mention happier and content. Aside from providing incentives for employees to obtain additional college degrees, other choices with faster more relevant, and timely results may be found in earning an academic certificate to internal training sessions as well as specific types of workshops each adapted to the employee's day-to-day responsibilities.

Moreover, there are sundry other types of learning experiences that can add much to an employee's intellect and overall well-being, each that undoubtedly will improve the products and services all companies offer.

According to Daphne (2022):

> This is the best upskilling and reskilling opportunity in a generation. Nearly 7 in 10 workers globally are willing to retrain and learn new skills on the job [Boston Consulting Group]. Yet many of these workers are leaving their current jobs to pursue advancement elsewhere according to a Pew Research Center survey. (para 4)

Most agencies, entities, and corporations agree that automation has threatened more jobs than at any other time in history. COVID also contributed to this reality but has faded a bit since. The Boston Consulting Group (2022) surveyed and discovered that age and concerns about automation are experienced differently:

> In our survey, concerns about automation were especially common among younger workers, with 46% of those in their twenties and 41% of those in their thirties saying they had become more worried since the prior year about technology putting them out of work. The inverse relationship between age and concern about automation has a certain logic: younger respondents realize there is simply too much time left 'on the clock' for them to be confident of not being there when the change comes. (p. 5)

The Boston Group notes that there are differences in how automation is perceived based on geographics. This occurs in areas where fewer employee protections exist based on laws.

> If people feel that their jobs are at risk—owing to either COVID-19 or automation—it makes sense for them to at least entertain the possibility of a career change. Retraining willingness is an indicator of this flexibility. Altogether, 68% of our survey takers said they are willing to retrain and only 4% said they are unwilling to retrain under any circumstances—similar to the numbers who said this in 2018 when we last asked the question. The willingness is particularly high among people in the earlier and middle parts of their careers;

it's lower among the youngest workers and those older than 60 (some of whom may be nearing retirement). (p. 9)

Companies that invest in their employees typically experience less turnover, better morale, and quite frankly, better quality products and are more competitive in the marketplace in general. According to Barbara Corcoran, Shark Tank television star and self-made billionaire, good supervisors put the needs of their employees and customers, for that matter, before their own (WCBS 880, 2021). Whether it is investing in technology that helps employees do their job better or in helping them acquire new skills, bolstering their happiness levels by allowing them to achieve and be recognized, companies must put their employees first (Paycom, 2021; Colletta, 2019).

Upskilling/Reskilling Opportunities & Tie Ins

The need for upskilling or reskilling begins when, "most organizations face skills gaps due to aging and digitalization" (Dayiya, 2021, para 5). Technology and how companies incorporate such innovations is never ending and affects all aspects of personnel from the mail room to the board room and even stockholders for that matter. A popular method to allow for such upskilling to take hold can start with internal training or peer training. In this fashion, employees pass down their proven techniques on anything from efficiencies in writing internal and external communication or utilizing important customer experience (CX) techniques where engagement and buy-in from all company departments are essential. After all, these days companies who embrace CX understand how important promises made must be promises kept, a foundational concept that can lead to customer advocacy and future business (Shapiro, 2021).

The training process may include designation rotation, so employees understand how other aspects of the operation work so their role becomes more clearly defined. The benefits are many including better productivity, confidence building, adaptation to change, and as mentioned earlier the ability for companies to leverage more technology that helps employees not necessarily replace them. Finally, all of these experiences help improve soft skills, team engagement, building future leaders, a zest for learning, and customer satisfaction. Of course, not everyone can and should be upskilled all at once. The business, after all, does have to keep its doors open in the meantime (Dayiya, 2021).

Who Has Benefited?

Who's benefited from upskilling? A large full-service U.S. bank like PNC has used upskilling not only to attract new employees but to keep current ones, optometry centers across Europe, and the Australian Tertiary Education Quality and Standards Agency, among many (PR Newswire, 2022; Perspectives, 2020; Lorenza & Carter, 2021). "Training and Upskilling programs are an investment and show that companies care for their employees' future. This plays a vital role in increasing their loyalty to the companies and ensures a high retention rate" (Campbell, 2022, para 9).

So the next time your organization experiences a gap by age or one due to the never-ending digitalization of our world, think to upskill or reskill and invest in employees not only for their sake, but a win/win for the sake of your customers, products, and services. Whether it's time for a particular member of your workforce to obtain a special certification or time for internal training, each employee can ultimately benefit from the infusion of learning that makes curiosity front and center and fuels stimulating and new ways to grow with purpose and conviction.

About the Author

In addition to serving as the Leadership Perspectives section editor of the *Journal of Leadership Studies*, Erik Bean, Ed.D. is an Associate University Research Chair, at the Center for Leadership Studies & Organizational Research, University of Phoenix. He is the author of Bias Is All Around You: A Handbook for Social Media & News Stories and is the Michigan representative for Media Literacy Now, providing leadership on information literacy legislation and education. A high school English teacher at St. Catherine of Siena Academy in suburban Detroit in 2022 Dr. Bean earned a Henry Ford Innovation Nation First Place Teacher award for media literacy studies used in the classroom, the theme of his most recent presentations at the 2022 JEA/NSPA Fall National High School Journalism Convention, the 2022 National Council of Teachers of English ELATE Home Coming, and the 2022 Qualitative Report Conference.

References

Boston Consulting Group. (2021). Decoding global reskilling and career paths. Retrieved from bcg-decoding-global-reskilling-and-career-paths-apr-2021.pdf

Campbell, G. (2022, Jul 14). How companies can benefit from upskilling their employees with AI and machine learning. Financial Express https://www.proquest.com/newspapers/how-companies-can-benefit-upskilling-their/docview/2688932364/se-2

Colletta, J. (2019). Five HR lessons from Shark Tank's Barbara Corcoran. Retrieved from https://hrmasia.com/five-hr-lessons-from-shark-tanks-barbara-corcoran/

Daphne, K. (2022). Could the Great Resignation become the Reskilling Revolution? Retrieved from https://www.forbes.com/sites/forbesbusinesscouncil/2022/07/15/could-the-great-resignation-become-the-reskilling-revolution/?sh=50ebc5e14e39

Dayiya, A. (2021). Employee training and development: The benefits of upskilling or reskilling your team. Retrieved from https://auzmor.com/blog/benefits-of-upskilling-or-reskilling/

Lorenza, L., & Carter, D. (2021). Emergency online teaching during COVID-19: A case study of Australian tertiary students in teacher education and creative arts. International Journal of Educational Research Open, 2, 100057. https://doi.org/10.1016/j.ijedro.2021.100057

Paycom Blog Contributor. (2021). Barbara Corcoran discusses how Beti empowers employees. Retrieved from https://www.paycom.com/resources/blog/barbara-corcoran-discusses-how-beti-empowers-employees/

Perspectives. (2020). Optometry Today, 60(9), 35-39

PR Newswire. (2022, October 6). Pnc Bank Expands Partnerup® Career Pathway Initiative to High Schoolers in New Markets. PR Newswire US.

Shapiro, J. (2020). Promises made, promises kept: How to develop your customer centricity in 2021. Retrieved from https://level5strategy.com/how-to-develop-customer-centricity-2021/

WCBS 880. (2021). Video: Why Barbara Corcoran believes best investments are in people. Retrieved from https://www.audacy.com/wcbs880/news/business/why-barbara-corcoran-believes-best-investments-are-in-people

Online Education: Risks and Challenges

Frank Kardasz, MPA, Ed.D.
Faculty
University of Phoenix

Abstract

In the contemporary climate of online threats and misuse of personal information, educators must be cognizant of the associated risks and challenges. Risks can include doxing, harassment, malware, phishing, ransomware, sextortion, and manipulation via social engineering. Online threats can sometimes escalate into face-to-face confrontations and violence. Personal information including images can be misused for deepfakes, financial fraud, and identity theft. This work explores some of the risks and challenges associated with online learning and suggests possible mitigations and prevention techniques.

Anecdotes, Research, and Warnings

Periodic reports of online dangers associated with educators and students often appear in the media and in research. Here are a few recent items of interest:

- An American Psychological Association (APA) study of violence against educators during the Pandemic found that even under conditions of remote or hybrid instruction, teachers and school personnel reported significant physical violence (e.g., objects thrown at participants, ordinary objects weaponized, and physical attacks), primarily from students (McMahon et al., 2022, p. 12).
- The US Department of Homeland Security issued a National Public Safety Alert regarding sextortion schemes (US Immigration and Customs, 2022).
- According to the US Internet Crime Complaint Center (IC3), complaints about cybercrimes continued to rise, with an estimated of 18.7 billion dollars of losses in 2021 (USDOJ, 2021).
- The US Cybersecurity and Infrastructure Security Agency (CISA) warned about the theft and misuse of Personally Identifying Information (PII), indicating that in recent years the education sector has been a frequent target of ransomware attacks. Impacts from these attacks included restricted access to networks and data, delayed exams, canceled school days, and unauthorized access to and theft of the PII of students and staff. (CISA, n.d.).
- Nationwide: Since 2005, K–12 schools, colleges, and universities in the US experienced over 1,850 data breaches, involving more than 28.6 million records (Cook, 2021).
- Connecticut: False allegations and misreporting resulted in threats and doxing of a Connecticut school superintendent who was wrongfully accused in social media of sexualizing young students (Gilbert, 2022).
- Arizona: A student journalist at the University of Arizona became the target of an online harassment campaign after writing an article that was critical of a fellow student/TikTok creator (Lorenz, 2022).
- Missouri: Nobel laureate Professor Philip Dybvig is being investigated by Washington University in St. Louis about allegations of

sexual harassment (Fan & Kocieniewski, 2022).

- Massachusetts: A Chinese music student at the Berklee College of Music in Boston was arrested and charged in connection with stalking and harassing another Chinese student for advocating democracy in China (Treon, 2022).
- North Carolina: Students at Duke University were hit by a large-scale phishing attack. The fraudulent messages notified students of a "Warning" or "Urgent Warning" related to their Duke account or offered them false UNICEF jobs or remote work (Keegan, 2022).

Users Unwittingly Exposing Themselves to Risk

Notwithstanding the attacks from random external sources, some users of the Internet tacitly contribute to their own victimization. In their quest to gain fame, fortune, recognition, votes, clicks, or a personal brand, victims sometimes seek to become "influencers" and to add viewers, subscribers, and "likes" via social media. In that attention-seeking, sometimes profit-motivated efforts, victims often expose far too much about themselves, their families, and their finances; thus permitting data harvesters and bad actors to exploit the information. A post from a "Guest Writer" at Hellopartner.com warns, "Choosing to become an influencer comes with some inherent risks. While fortune and fame are often the goals for many, the cost can be a loss of privacy both in the real world and online" (Guest Writer, 2022).

The Risks: Definitions and Mitigations

There are many online risks that confront educators and students. The following section defines (in alphabetical order) just a few of the risks and suggests mitigation strategies.

Deepfake

A deepfake is a type of artificial intelligence-generated media, typically a video or image, that has been manipulated using algorithms to seem like a genuine, realistic representation of a real person. Deepfakes are used to create fake news stories, political propaganda, and other malicious purposes.

Mitigation - Deepfakes

1. One mitigation strategy suggested to slow the use of Deepfakes is to use digital watermarking on images and videos before sharing them in Cyberspace.
2. Another suggestion is to use more secure media formats. Media formats that are more resistant to deepfake manipulation include audiovisual formats such as H.264, AAC, and FLAC. These formats are more resistant to manipulation because they are compressed and contain fewer data than other formats such as MP4 or MOV. Formats such as Motion JPEG 2000 are also more secure, as they contain digital signatures that can be used to authenticate the source of the media. These formats will not totally prevent deepfakes but may make reduce the quality of the resulting images.

Doxing

Doxing is the practice of researching and broadcasting private or identifying information about an individual or organization on the internet, typically with malicious intent. This can include anything from home addresses and phone numbers to financial records and private emails.

Mitigation - Doxing

Mitigation strategies for Doxing include the following:

1. Remove personally identifiable information (PII) from online profiles or websites.
2. Change privacy settings on social media accounts and online forums to the highest security settings.
3. Never post private information online, including photos, addresses, phone numbers, and birthdates.
4. Regularly monitor online accounts for signs of doxing.
5. Use secure passwords and two-factor authentication.
6. Never share personal information with unknown sources.
7. Contact law enforcement if doxing is suspected.
8. Consider using a virtual private network (VPN) to protect privacy online.

Financial Fraud

Online financial fraud is any form of fraud or deception that occurs in an online financial transaction. This can include scams, identity theft, phishing, credit card fraud, and other malicious activities that are designed to steal money or sensitive information from a victim.

Mitigation – Financial Fraud

Mitigation strategies for online financial fraud include the following:

1. Implement multi-factor authentication (MFA) for online accounts and transactions.
2. Use strong passwords that are frequently changed.
3. Monitor account activity and watch for suspicious activity.
4. Only use secure websites (https) and networks.
5. Use secure payment gateways that are Payment Card Industry (PCI) compliant.
6. Utilize fraud detection and prevention software.
7. Implement fraud alerts on accounts.
8. Educate employees and students on best practices for protecting data.
9. Install and regularly update operating systems, anti-virus and anti-malware software.
10. Segment networks and limit user access to data.

Harassment

Online harassment includes abuse, bullying, or threatening behavior. It can include posting hurtful comments, sending threatening messages, making unwanted sexual advances, or sending unsolicited or inappropriate pictures.

Mitigation - Harassment

Mitigation strategies against online harassment include the following:

1. Block the Harasser: Most online platforms allow users to block other users. This prevents the harasser from viewing a profile, messaging a person, or commenting on posts.
2. Report the Harasser: Most online platforms have a feature to report users who have violated terms of service. This alerts the platform to investigate the harasser's activities and take appropriate action.
3. Ignore the Harasser: While this may be difficult, it is important to remember that ignoring the harasser is a form of self-care. The harasser is likely "trolling" and trying to get a reaction out of the victim, so ignoring them is a way to deprive them of the attention they are seeking.
4. Change the Privacy Settings: Most online platforms allow users to control who can interact with their content. This can help to protect from online harassment by limiting who can view the content and who can interact with it.
5. Reach Out for Support: When online harassment occurs, the victim should reach out to friends, family, or other supportive people. They can offer emotional support and help find resources to handle the situation.

Identity Theft

Identity theft is the illegal use of someone else's personal information, such as their name, Social Security number, or credit card information, in order to commit fraud or other crimes. It can involve opening new accounts, making purchases, or taking out loans in the victim's name. Identity theft can cause financial damage, as well as emotional trauma to the victim.

Mitigation – Identity Theft

Mitigation strategies against identity theft include the following:

1. Monitor accounts regularly. Check bank and credit card statements for suspicious activity.
2. Do not share personal information on social media.
3. Secure devices with strong passwords.
4. Use two-factor authentication.
5. Do not respond to emails or texts asking for personal information.
6. Shred documents containing personal information.
7. Use a secure web browser and adjust the browser settings to improve security.
8. Implement a credit freeze.

Malware

Malware is of malicious software designed to damage or gain unauthorized access to a computer system. It can take the form of viruses, spyware, adware, ransomware, or other malicious code. Malware can be used to steal personal information, delete or corrupt data, or take control of a user's computer.

Mitigation - Malware

1. Keep computer operating systems and software up to date.
2. Use anti-virus and anti-malware software and configure it to scan the system regularly.
3. Avoid downloading files from unknown or untrusted sources.
4. Do not open email attachments or links from unknown or untrusted sources.
5. Use a firewall to protect the internet connection.
6. Use a secure web browser.
7. Disable unnecessary services and programs.
8. Use caution when downloading free software.
9. Stay informed about online security threats.
10. Regularly back up important files and documents.

Phishing

Phishing is a type of cyberattack where the attacker attempts to fraudulently acquire sensitive information such as usernames, passwords, and credit card details by impersonating a trustworthy entity in an electronic communication, typically in an email, or on a social networking site. Phishing is done by sending a message that appears to come from a legitimate source, such as another user of the social network, a bank, or another financial institution, in order to gain access to confidential information.

Mitigation - Phishing

1. Use updated security software, web browsers, and operating systems, and keep them updated with the latest security patches.
2. Configure the email client to display the full email address of the sender, not just the name.
3. Be cautious of unsolicited emails and avoid clicking on links or downloading attachments.
4. Verify the authenticity of the sender by checking the domain name in the link or the email address.
5. Utilize two-factor authentication.
6. Use a password manager to generate and store strong, unique passwords.
7. Regularly check credit card and bank statements for suspicious activity.
8. Report suspicious emails to the information technology team.
9. Educate employees and students about the dangers of phishing

Ransomware

Ransomware is malicious software (malware) designed to block access to a computer system or its data until a ransom is paid. It typically spreads through phishing emails or by unknowingly visiting an infected website. Once active on a system, ransomware often encrypts files and folders, making them inaccessible. Victims are then required to pay a ransom, usually in the form of cryptocurrency, to regain access to their data.

Mitigation - Ransomware

Mitigation strategies against ransomware include the following:

1. Back up important files regularly.
2. Keep system and software updated.
3. Use antivirus and anti-malware software and maintain it properly.
4. Disable macros in Office documents.
5. Use application whitelisting to block potentially unwanted programs.
6. Use a pop-up blocker to prevent malicious websites from automatically opening.
7. Create multiple user accounts and restrict access to certain accounts.
8. Disable remote desktop access unless absolutely necessary.
9. Restrict privileges for users and use the principle of least privilege.
10. Set up a firewall and configure it properly.

Sextortion

Sextortion is a form of blackmail where an individual

threatens to share intimate images or videos of someone else for the purpose of obtaining money, sexual favors, or other forms of leverage.

Mitigation - Sextortion

Mitigation strategies against sextortion include the following:

1. Never share personal information or intimate photos with anyone online.
2. Be wary of requests from unknown people and never agree to meet them in person.
3. Use strong passwords for all online accounts and change them regularly.
4. Install anti-virus software and keep it updated.
5. Avoid clicking on suspicious links or downloading files from unknown sources.
6. Set privacy settings for all online accounts and monitor them regularly.
7. Contact the authorities or a lawyer if you are contacted by someone attempting to extort money from you.
8. Install a firewall and configure it to block certain websites or services.

Social Engineering

Social engineering is the use of deception to manipulate individuals into divulging confidential or personal information that may be used for fraudulent purposes. It is a type of attack used by hackers to gain access to systems, networks, or physical locations by exploiting human psychology, rather than by breaking in using technical hacking techniques.

Mitigation – Social Engineering

Mitigation techniques against social engineering include the following:

1. Provide training about social engineering tactics, such as phishing emails, so that users can learn to recognize and avoid them.
2. Establish a chain of trust with students and staff so that sensitive information is only released to those who are authorized to receive it.
3. Ensure that two-factor authentication is in place.
4. Have a plan in place for responding to a social engineering attack. This should include steps for notifying those involved, reporting the incident to the relevant authorities, and ensuring that systems are secured.
5. Monitor security: Monitor accounts, systems, and networks for suspicious activity that could be indicative of a social engineering attack.
6. Require strong passwords, change them regularly, and use multi-factor authentication.

Conclusion

As cyber-attacks persist, educators and students should continue to respond by hardening defenses and implementing mitigation strategies. This work explored some of the risks and challenges associated with online learning and suggested possible mitigations and prevention techniques. There is no single fix that can prevent all the myriad types of attacks. The best that one can do is to stay abreast of the current threats and continually implement preventative measures.

About the Author

Frank Kardasz is a former law enforcement officer having served in the US States of Michigan, Arizona and Hawaii. He served as a Supervisory Special Agent and Commander of Internet Crimes Against Children Task Forces. Dr. Kardasz earned a Bachelor's Degree in Criminal Justice, a Master's Degree in Public Administration, and a Doctorate in Educational Leadership from colleges and universities in Michigan and Arizona. He received hundreds of hours of additional technical training involving cybercrime and other subjects. As an educator, he has trained federal, state, and local sworn and civilian personnel in an eclectic variety of disciplines. He currently works as a consultant and adjunct professor at several US colleges and universities including the University of Phoenix.

References

CISA. (n.d.). Recommendations for protecting PII. Fact sheet to address the increase in malicious cyber actors using ransomware. https://www.cisa.gov/sites/default/files/publications/CISA_Fact_Sheet-Protecting_Sensitive_and_Personal_Information_from_Ransomware-Caused_Data_Breaches-508C.pdf

Cook, S. (2021, December 15). US schools leaked 28.6 million records in 1,851 data breaches since 2005. Comparitech. https://www.comparitech.com/blog/vpn-privacy/us-schools-data-breaches/

Fan, E. & Kocieniewski, D. (2022, December 16). Nobel Prize-winning economics professor faces harassment inquiry. Bloomberg/MSN. https://www.msn.com/en-us/money/other/nobel-prize-winning-economics-professor-faces-harassment-inquiry/ar-AA15lTYU

Guest Writer. (2022, July 7). Cybersecurity: why social media personalities must protect themselves. Hello Partner, Influencer Marketing https://hellopartner.com/2022/07/07/influencer-cybersecurity-why-social-media-personalities-must-protect-themselves/

Gilbert, D. (2022, April 13). The far-right is doxxing school officials they think are "groomers". Vice.com. https://www.vice.com/en/article/jgm3xx/far-right-groomers-doxxing-school-officials

Keegan, H. (2022, September 27). Duke hit by largest email phishing attack since 2020. Duke Chronicle. https://www.dukechronicle.com/article/2022/09/duke-phishing-email-attack-largest-since-2020-office-of-information-technology

Lorenz, T. (November 19, 2022). Online mobs are now coming for student journalists. Washington Post.https://www.washingtonpost.com/technology/2022/11/19/student-journalist-harass-arizona/

McMahon, S. D., Anderman, E. M., Astor, R.A., Espelage, D. L., Martinez, A., Reddy, L. A., & Worrell, F.C. (2022). Violence against educators and school personnel: Crisis during COVID. Technical Report. American Psychological Association. https://www.apa.org/education-career/k12/violence-educators-technical-report.pdf

Treon, C. (2022, December 16). Chinese Berklee student arrested for stalking, harassing pro-democracy peer. Yahoo News. https://news.yahoo.com/chinese-berklee-student-arrested-stalking-205004963.html

U.S. Department of Justice. (2021). FBI internet crime report, 2021. Internet Crime Complaint Center. https://www.ic3.gov/Media/PDF/AnnualReport/2021_IC3Report.pdf

U.S. Immigration and Customs. (2022, December 19). HSI, federal partners issue national public safety alert on sextortion schemes. https://www.ice.gov/news/releases/hsi-federal-partners-issue-national-public-safety-alert-sextortion-schemes

Facilitating Adult Education: Lessons Acquired from "Double" Distance Learning 2,000 Years Ago

Firpo Carr, Ph.D.
Associate Faculty
University of Phoenix

Abstract

"Distance learning," "distance education," "online learning," and "online education" are all synonymous expressions. They are generally associated with the distance separating, for purposes of this study, the adult learner and instructor that can encompass an area within the same neighborhood or where the adult learner's location is situated away from the instructor on the other side of the world. The distance can also take on a temporal dimension, such as referencing an event in the distant past. Along with modern-day technology and telecommunication tools that facilitate learning across vast distances, the pedagogy of stakeholders in higher education could include an examination of distance learning spanning two thousand years back to the first century CE. At that time, a prominent teacher exchanged letter correspondence with students of diverse backgrounds from a distance. Several lessons can be acquired from this well-documented case, arguably the oldest instance of distance learning and the most famous yet least recognized example of the genre. Content notwithstanding, in the didactic environment of adult education with an emphasis on modality, methodology, and mechanism, distance combined with time equates to "double" distance learning.

Although there is a lack of consensus on when distance learning started, Harting and Erthal (2005) argued that the genre began in the 1700s in the form of the correspondence school model and became increasingly popular as a more efficient postal system evolved. More specifically, Holmberg (1995) documented that when Caleb Phillips proposed sending shorthand lessons to interested readers in a Boston Gazette advertisement, it constituted an early milestone in distance learning.

Later, in the 1800s, when conventions at the time restricted learning opportunities for young women (among other constraints), Anna Eliot Ticknor established an adult distance learning curriculum —a correspondence school—she called "Society to Encourage Studies at Home" (MacKenzie & Christensen, 1971). It included 24 subjects within the departments of literature, history, science, French, and German Anyone so inclined could enroll in these courses. Whether the start date for adult distance learning was in the 18th- or 19th centuries, it confronted a formidable foe in the well-grounded age-old in-person model.

The Ancient Greeks and In-Person Learning

Before finding its niche in the modern world, the advent of the phenomenon of distance learning emerged from an age-old uphill battle with the traditional, ubiquitous in-person learning model (Willis, 1994). For example, around 387 B.C.E., Plato acquired property near Athens where he conducted in-person classes using Socrates' model of question-and-answer interchange that "included mathematics,

dialectics, natural science, and preparation for statesmanship" (Britannica, n.d.-a).

The plot of land that Plato procured was tinged with theology as it was previously sacred ground for the legendary hero Academus (Britannica, n.d.-a), whose name gave birth to the English word academy. Hence, academic learning involving questions and answers occurred in an intimate, in-person setting. Such was also the case with Aristotle, who conducted in-person sessions with his young pupil, a teen Alexander the Great, who learned "philosophy, medicine, and scientific investigation" (Britannica, n.d.-b) from the famous philosopher.

Distance learning was not yet a concept that engaged the Socratic method (Wilberding, 2021). However, though not generally recognized in the literature, a few centuries later, distance learning as a mechanism employing the Socratic method involving numerous pupils scattered about would reshape the learning landscape in a major way.

Distance Learning 2,000 Years Ago

Some two thousand years ago, in the first century C.E., Paul, the apostle, New Testament Bible writer, and attorney in Jewish law, declared: "My education was in the strict rules handed down by our ancestors" (God's Word Translation, n.d., Acts 22:3). Through in-person sessions, Paul as a young man was taught by Gamaliel, "a doctor of the law, respected by all the people" (Douay-Rheims Bible, n.d., Acts 5:34; Acts 22:3). Given that both Jewish and Greek educators adopted the Socratic method, it should be unsurprising that Paul, who was an influential teacher and talented student (Acts 9:22; 14:11-12; 17:2-3; 19:8; 26:24-25; Galatians 1:14), implemented it after establishing a Christian congregation in the ancient Grecian city of Corinth (Acts 18:8-11). Later, in the city of Ephesus, he "had discussions daily in the lecture hall of Tyrannus" (New International Version, n.d., Acts 19:9). Indeed, as an instructor, Paul engaged in daily in-person discussions with his pupils, and as a pupil himself received in-person curricula under the tutelage of Gamaliel. However, the apostle did not restrict his teaching methodology to in-person instruction.

Before writing the canonical Bible book of First Corinthians (alternately, and interchangeably, 1 Corinthians), Paul wrote an initial letter to Corinthian adult learners that were not included in the canon or library of New Testament Bible books. Paul was in Ephesus when he wrote First Corinthians, which was a distance of about 400 miles by a ship traveling east across the Aegean Sea, or 1,000 miles by land.

Content notwithstanding, Paul referenced the initial noncanonical letter this way: "I wrote [past tense] you in my previous letter not to associate with sexually immoral people" (Amplified Bible, n.d., 1 Corinthians 5:9). Then Paul wrote two verses later, "but now [present tense] I am writing to you not to associate with anyone who calls himself a Christian who is sexually immoral" (NET Bible, n.d., 1 Corinthians 5:11). This passage from the canonical book of First Corinthians references Paul's noncanonical but chronologically first letter ("previous letter") to the Corinthians. Significantly, distance or correspondence education began with the Corinthians' question-filled response letter to Paul's first offering.

Sandwiched between Paul's noncanonical initial letter and the book of First Corinthians was a letter the Corinthians wrote containing questions possibly provoked by subjects in Paul's "previous letter." He began addressing these when he wrote, for example, "Now I will answer the questions you asked in your letter. You asked, 'Is it best for people not to marry?'" (Contemporary English Version, n.d., 1 Corinthians 7:1), and, "In your letter, you asked me about food offered to idols" (Contemporary English Version, n.d., 1 Corinthians 8:1).

The final letter in the chain of correspondence between teacher and pupils is the canonical Bible book of Second Corinthians (alternately and interchangeably, 2 Corinthians). Paul was in Macedonia when he penned Second Corinthians, a distance of about 350 miles north of Corinth). He crafted Second Corinthians for several reasons (2 Corinthians 2:3-4; 7:12), not the least of which was to test his pupils, just as is done in adult distance learning today. Candidly, he stated, "I also wrote because I wanted to test you and find out if you would follow my instructions" (Contemporary English Version, n.d., 2 Corinthians 2:9). Testing was part of the facilitation process that reasonably ensured his pupils understood the material presented. Notably, several months likely separated the correspondence.

The dynamism and facilitation of adult distance learning were in the beginning stages of character development when Paul penned Second Corinthians. An unmistakable theme or overall thread was connecting (1) Paul's initial noncanonical letter, (2) the

response letter from the Corinthians, (3) the canonical letter of First Corinthians, and (4) the canonical letter of Second Corinthians.

The apostle Paul and the university instructor share the same power differential over their congregants and students, respectively. Furthermore, although Paul and the Corinthians deceased two thousand years ago, the distance learning apparatus, effectiveness, and facilitation have surfed the pages of time to arrive on the shores of online learning in the 21st century. And given that the Bible is the most popular book in history (Hammond, 2010), the case of Paul and the Corinthians is the most renowned recorded instance of adult distance learning.

The Case for Adult Distance Learning

Researchers at Florida National University (2019) who studied adult distance learning make a case for online education by concluding that it is equal in quality and validity to in-person learning, that earning potential is the same as in-person learning, and that adult distance learning offers flexibility for students everywhere.

Moreover, the modality, methodology, and mechanism of adult distance learning are still robust when juxtaposed with in-person learning. Hearing a message like, "Fluffy the cat died," or, "you won the lotto," is just as impactful when heard over the telephone (a mode of distance learning) as in person. Besides the interchange of letter correspondence between teacher and students (as was the case with the apostle Paul and his Corinthian pupils), the telephone, radio, and television were prominent modes of adult distance learning before the proliferation of online learning (Gordon, 2020).

Conclusion

In-person learning has been a staple in the adult learning environment for millennia. The massive example of adult correspondence distance learning that included traversing land and sea made its debut about two millennia ago. That it occurred in the distant past adds the temporal element. Its success geographically and temporally justifies the label "double" distance learning and has been an invaluable aid in facilitating adult distance learning. While none of the ancient characters considered here are alive today, their message illuminates the pages of secular works such as the classics and the pages of letters in the New Testament. Additionally, whether pupils subscribe to philosophy as found in the classics or adopt Christianity as values, adult distance learning as the modality, methodology, and mechanism—whatever its content—has proven effective and has withstood the test of time. Stakeholders would do well to list "double" distance learning as an effective and efficient way to facilitate adult education.

About the Author

Firpo Carr earned his Ph.D. in Health Psychology from Northcentral University, has a Master of Arts in Management from the University of Redlands, a Master of Arts in Urban Ministry from Grand Canyon University Seminary, and a Bachelor of Arts in Information Systems Management from the University of San Francisco. He is approaching his 30th year of facilitation at the University of Phoenix. He has taught at UCLA Extension and Mt. Saint Mary's University.

References

Amplified Bible. (n.d.). Amplified Bible Online. https://biblehub.com/1_corinthians/5-9.htm

Britannica. (n.d.-a). Encyclopedia Britannic. https://www.britannica.com/topic/Academy-ancient-academy-Athens-Greece

Britannica. (n.d.-b). Encyclopedia Britannica. https://www.britannica.com/biography/Alexander-the-Great

Contemporary English Version. (n.d.). Contemporary English Version Online. https://biblehub.com/1_corinthians/7-1.htm

Douay-Rheims Bible. (n.d.). Douay-Rheims Bible Online. https://biblehub.com/acts/22-3.htm

Florida National University. (2019). The evolution of distance learning. https://www.fnu.edu/evolution-distance-learning/

God's Word Translation. (n.d.). God's Word Translation Online. https://biblehub.com/acts/22-3.htm

Hammond, G. (2010). Translations of the Bible. A New Companion to English Renaissance Literature and Culture, 1, 419-429.

Harting, K., & Erthal, M. J. (2005). History of distance learning. Information Technology, Learning, and Performance Journal, 23(1), 35-44. https://www.proquest.com/scholarly-journals/history-distance-learning/docview/219815808/se-2

Holmberg, B. (1995). Theory and practice of distance education. Routtedge.

Gershon, Livia (2020). Three centuries of distance learning. JSTOR Daily. https://daily.jstor.org/three-centuries-of-distance-learning/

MacKenzie, O., & Christensen, E. L. (1971). The changing world of correspondence study: International readings. Pennsylvania State University Press.

NET Bible. (n.d.). NET Bible Online. https://biblehub.com/1_corinthians/5-11.htm

New International Version. (n.d.). New International Version Online. https://biblehub.com/acts/19-9.htm

Wilberding, E. (2021). Socratic methods in the classroom: Encouraging critical thinking and problem solving through dialogue. Routledge.

Willis, B. (1994). Distance education: Strategies and tools. Educational Technology Publications.

Effective Teaching and Learning Strategies: A Reflective Essay

Sandy Forrest, Ph.D.
Associate Faculty
University of Phoenix

Abstract

This article is a response to reading three excellent books on teaching. First, Palmer (2017) The Courage to Teach served to strengthen my interactions with learners. The second, Nagel's (1994) Tao of Teaching reminded me of why I chose to enter academia and how each day each learner gives me a gift of allowing me to enter their world and perhaps change it, if only for a short while. Third, Weimar (2013) Learner-centered teaching encouraged me to place myself among students rather than standing in front of them.

Introduction

This article is a reflective exercise in response to reading several books on effective teaching. First, The Courage to Teach (Palmer, 2017), served to strengthen my interactions with learners. The second, The Tao of Teaching (Nagel, 1994), reminded me of why I chose to enter academia and how each day each learner gives me a gift by allowing me to enter their world and perhaps change it, if only for a short while. Third, Learner-Centered Teaching (Weimar, 2013), encouraged me to place myself among students rather than standing in front of them. The most successful teachers are those who show you where to look but do not tell you what to see. They possess a capacity for connectedness (Palmer, 2017).

What is Learning?

> "What is learning: tell me and I forget. Show me and I remember. Involve me and I understand" (Xunzi, third century, BCE)

In its broadest sense, learning refers to a process of progressive change from ignorance to knowledge, from inability to competence, and from indifference to understanding (Welkener, 2013). As this change occurs, we move from novices to experts continuously creating meaning in our experiences. In essence, we are constantly learning.

Although teachers are aware individuals learn in a multitude of ways, the application of this awareness seems, at times, irrelevant. Faculty may use a wide

variety of teaching methods, believing this affords learners an opportunity to gain the necessary knowledge regardless of their learning style. Although the method may be expedient, it can be ineffective. Individuals learn best when the relationship between context, content, and demands of the learning task is evident.

Learning styles

Learning styles are reflections of the mind forming unique learning preferences (Morrison et al., 2004). They are the way individuals begin to concentrate on, process, internalize, and remember new information or skills (Dunn & Griggs, 2003). Students learn more quickly and easily when they can capitalize on their preferred learning styles. Adult learners have needs and requirements different from those of children and adolescents (Shermis & Vesta, 2014). Critical elements involved in adult learning include:

- Accumulation of experience: Learners become increasingly independent relative to ways of supporting their values and beliefs in reaction to new information.
- Developmental trends: During periods of transition adults are receptive to opportunities to reassess goals, reassert themselves as valued members of society, and reconfirm their self-esteem.
- Anxiety and ambivalence: Adults experience anxiety and ambivalence resulting in a gradual increase in personal willingness to take responsibility based on selected values and ideas.
- Autonomy and self-direction: Adults prefer to be free to direct themselves and select activities reflecting personal interests.
- Goal-orientation: Adults usually know what objective they want to attain and appreciate organized opportunities using clearly defined elements.
- Practicality and relevancy orientation: Adults must see a reason for learning something and learning needs to be applicable to one's responsibilities to be of value.
- Behavior: Adults access study behaviors from a personal repertoire relative to the context in which they find themselves (Fischer & Rose, 2001). In this instance, context refers to environmental demands, assessing which approach will work best, and an evaluation of prior knowledge. When these factors are relatively established, the option of study proficiencies is reasonably encouraging. When learning ability is influenced by transitory environmental demands and short-term objectives, the learner resorts to less constructive routines (Applehans & Schmeck, 2002). Less capable learners may feel stressed and rely on literal memorization whereas those who are more proficient effectively approach the task as a problem to be solved by dividing the content into specified elements.
- Thinking style: Refers to a way of using one's intelligence (Dunn & Griggs, 2003). Our thinking style corresponds with the way we are being challenged and how we learned to accomplish the task. Learners who approach these opportunities with confidence typically work independently with specified guidelines and expectations of academic success. Less confident learners need support and assistance, but still may be unable to complete the task.
- Gender: Differences do not vary according to subject or teacher but do occur based on learning style (Sutton & Posamentier, 2021). Specifically, women who use memorizing and rehearsing strategies depend on faculty to organize learning processes and define learning as the process of taking in knowledge. Men are ambivalent as to why they are studying and often lack parameters or guidelines. Androgynous learners use a meaning-directed learning style as they learn independently, are personally interested in the subject, and are learning to construct knowledge.
- Content: Although humans appreciate the common and the familiar, the brain seeks and reacts to innovative occurrences (Mertler, 2003). Rote learning (e.g., memorizing terminology) is frustrating because the brain resists meaningless stimuli. Invoking the brain's natural capacity to integrate information allows us to assimilate boundless amounts of information.
- Learning preferences: Learning preferences relate to a fondness for methods individuals

believe enhance their learning proficiency (Grasha & Yangarber-Hicks, 2000). For example, with complex content, learners want clear structure and goals, the material presented in an exciting manner, assistance with assimilating divergent and contradictory data and to be personally challenged. For less challenging material, learners like the pace of instruction increased, information made more challenging, assurance they are processing the content, and small group exercises to review concepts.

What is Teaching?

> "Every truth has four corners: as a teacher, I give you one corner, and it is for you to find the other three" (Confucius).

Just what is it teachers do? To teach refers to 'any practice furnishing a person with skill or knowledge' (American Heritage College Dictionary, 2007). The exact nature of the action, what teachers do and do not do, is at the center of an ongoing dialogue.

Educators, regardless of the context, are generally viewed as facilitators of learning. They are sensitive to the learning styles of the student. This sensitivity involves assessing the learner's capacity, need, and capability in handling instructional demands. Although the teacher may assume direct control of educational tasks, this can best be accomplished in an encouraging environment - where relationships are established and maintained. It is essential teachers understand these responsibilities in the context of an individual's learning. To do this, a teacher seeks further knowledge and training to expand on and become proficient with various teaching styles (Schunk, 2019). Common assumptions related to teaching include:

- When a teacher with the appropriate degree enters the classroom, people will learn. Unfortunately, possession of a certain level of expertise by the teacher does not in itself guarantee individuals will learn (Palmer, 2017). Knowledge must be transformed into instruction. Instruction needs to be designed, planned, and structured to facilitate learning, regardless of the teacher's level of understanding.
- Learners' minds are like empty vessels waiting to be filled (Tiberius, 2006). In most cases, it is generally more beneficial to engage in an active dialogue rather than to offer a scripted delivery of information (no matter how well done).
- Learners accept criticism when they can see results (Morgan-Fleming, 2000). When the intent of the teacher's criticism is discernible, teachers can effectively challenge learners to work to their maximum level of achievement.
- Undue agitation and productive enthusiasm can be separated by only a split second (Sutton & Posamentier, 2021). Effective teaching creates a synergy maximizing time, opportunity, and curiosity, creating a forum for reflection and tranquility.

Teaching is an art, a craft, and a profession (Morgan-Fleming, 2000). The art of teaching involves an appreciation for daily improvisational performances and an understanding that:

- Each teacher and learner are unique.
- The classroom is transformed into a community in which learners and teachers can contribute fully.
- An artist strives for but never reaches perfection. The difference is not a matter of form, but talent and quality.
- Autonomy and individuality are crucial to the artist.
- The teacher is like a conductor, rather than a soloist, and more like a director than an actor giving a soliloquy. Viewing this as a challenge instead of a frustration calls for openness for reflection and self-critique.

As artists, teachers of adult learners encourage them to go beyond the limits of their capabilities (Brown, 2003). This involves believing in learners, viewing them through the lens of time, being genuine with them, taking time during teachable moments, and knowing you cannot inspire everyone to greatness (Palmer, 2017). When applying these principles, the essence of the teaching-learning process includes recognizing and living your truth, creating moments of possibility, and recognizing there is much we do not know (Shepard, 2019).

Skillful educators do not rely on a specific technique or style. Rather, over time unanimity develops

between the teacher and the learner. The foundation for this process is the teacher's uniqueness, humor, perseverance, passion, and ability to indulge in the learner's desires. Although the allowance is made for the learner's behaviors, it is a teacher's character or personality that influences the learner's perceived needs and the content/skill being taught. Teaching is a revelation of the self - more than the use of learned postures. It is the stamp of authenticity more than it is the show of authority. It is the element of trust (Gayle et al., 2006).

Evaluating Your Teaching and Learning Styles

Feedback enables faculty to design teaching plans to help individuals achieve their highest level of understanding. For the individual, an awareness of the preferred learning style can allow for a more efficient, effective, and enjoyable learning experience. The following list provides a variety of inventories useful in accomplishing this objective:

- Index of Learning Styles Questionnaire (Felder & Soloman, 2007): preference approach based on the hierarchy of needs and achievement motivation.
- VARK strategies (Fleming, 2001): examines kinesthetic sensory modalities used for learning information. Attitude or readiness to learn is influenced by a preference for extraversion, introversion, perceiving, and judging.
- Learning Styles Profiler (Jackson, 2002): modeled on principles of approach and avoidance; temperament and character.
- Universal Design for Learning (2018): learner access and participate in meaningful, challenging learning opportunities; engagement, representation, action, and expression.
- Teaching Perspectives Inventory: provides a path for critical reflection on, and articulation of one's beliefs, actions, and intentions of teaching (Pratt & Collins, 2000).

Conclusion

Regardless of the content, individuals have unique preferences relative to how they approach learning that correlate with their learning style. For successful learning to occur, the ultimate responsibility lies in the teacher's skills and judgment after getting to know and appreciate the uniqueness of each learner. Educators are encouraged to approach their teaching as a 'work in progress - one that will evolve and change over time' (Weimar, 2013).

About the Author

Sandy Forrest is a nurse clinician and educator. She maintains a clinical practice working with individuals experiencing emotional and psychological challenges. Additionally, she appreciates the opportunity to work with nurses pursuing graduate degrees at the University of Phoenix.

References

American Heritage College Dictionary. (2007). Cengage.

Applehans, B.M. & Schmeck, R.R. (2002), Learning styles and approach versus avoidant coping during academic exam preparation. College Student Journal, 36, 157-163.

Bakken, Y., Carson, N., & Ohm, M. (2019). The difficult conversation: Facilitating students' professional learning and development. Universal Journal of Educational Research, 40-49.

Brown, K.L. (2003). From teacher-centered to learner-centered curriculum. Education, 124(1), 49-54.

Dunn, R. & Griggs, S. (2003). Synthesis of the Dunn and Dunn Learning Style Model Research: Who, what, when, where, and what? St. Johns' University.

Felder, R.M. & Soloman, B.A. (2007). Index of Learning styles questionnaire. Open Access Library Journal, 10(1).

Fischer, K.W. & Rose, L.T. (2001). How students learn. Educational Leadership, 59(3), 6-12.

Fleming, N.D. (2001). Teaching and learning styles: VARK strategies. Author.

Gayle, B.M. Preiss, R.W., Burrell, N., & Allen, M. (2006). Classroom communication and instructional processes. Routledge.

Grasha, A.F. and Yangarber-Hicks, N. (2000). Integrating teaching styles and learning styles with instructional technology. College Teaching, 48(2), 2-10.

Jackson, C.J. (2002). Learning styles and its measurement. PSI.

Mertler, C.A. (2003). Classroom assessment. Bowling Green State University.

Morgan-Fleming, B. (2000). Characteristics of the teaching art and nature of competencies that insure learning. Education, 120, 159-169.

Morrison, G.R., Ross, S.M. and Kemp, J.E. (2004). Designing effective instruction (4th ed). John Wiley & Sons.

Nagel, G.K. (1994). The tao of teaching: The ageless wisdom of Taoism and the art of teaching. Penguin.

Palmer, P.J. (2017). The courage to teach: Exploring the inner landscape of a teacher's life. Josey-Bass.

Pratt, D.D. & Collins, J.B. (2000). The teaching perspectives inventory (TPI).

Schunk, D.H. (2019). Learning theories: An educational perspective. Pearson.

Shepard, L.A. (2019). Classroom assessment to support teaching and learning. The ANNALS of the American Academy of Political and Social Science, 683(1), 183-200.

Shermis, M.D. (2011). Classroom assessment in action. Rowman & Littlefield.

Sutton, D.H. & Posamentier, A.S. (2021). Innovative teaching. World Scientific.

Tiberius, R. (2006). Metaphors underlying the improvement of teaching and learning. British

Journal of Educational Technology, 17(2), 144-156.

Universal design for learning guidelines (2018). Wakefield.

Weimar, M. (2013). Learner-centered teaching: Five key changes to practice. Jossey-Bass.

Welkener, M.M. (2013). Understanding the complexities of cognition and creativity to reform higher education practice. International Journal of Educational Reform, 22(3), 221-234.

No Looking Back: Trasforming the Learning Landscape with Feedforward

Tina Miller, MFA
Associate Faculty
University of Phoenix

Abstract

Educator interactions with students are invaluable. Such interactions, however, are often reactive and encourage students to think back on their past actions. What if educators embraced a forward focus? Feedforward is an approach that encourages just that. With feedforward, educators can provide students with the support they need as students educationally grow towards their own and the institution's established learning goals. The focus is on future action so that students do not become bogged down with negative emotions and perspectives about learning because their past actions were not suitable enough. Feedforward is a positive learning approach that everyone in the academic arena could benefit from.

Educators are well-versed in the continual process of learning, evaluating, commenting, facilitating, and guiding. Throughout this process, however, they are continually focused on students and "What has happened?" during the learning process. In classrooms, students complete tasks, and educators assess such tasks by focusing on the criteria students have or have not met. With a pre-designed curriculum and limited room for change or extensive time commitments, educators likely face difficulties considering students' depth of learning and skill application. After all, after one task is completed, students must move to a new task. What, though, if that does not have to be the case? With feedforward, it does not have to be.

With the feedforward approach, educators are directly encouraged to identify specific actions students should take to improve while motivating students to focus forward and take direct action on their learning. Both educators and students can then develop a "What's next?" mentality and shift away from the "What has happened?" mentality. As Marshall Goldsmith, a business coach adopting feedforward, suggests, "We can change the future. We can't change the past. Feedforward helps people envision and focus on a positive future, not a failed past" (2007). This approach requires educators to build and develop based on specific actions students should take, as opposed to judging past actions students took and, perhaps, failed at. Thus, with feedforward, educators nurture students to develop a builder's mentality.

Students build from point A (where they exist now) to point B (where they will exist in the future) instead of reflecting on where they were and what was incorrect about this. Specifically, in a classroom, as Hill and West explained, "Feed-forward refers to feedback given by teachers that either impacts upon an upcoming assignment or are given post-assignment with specific direction on how it can be applied to future assignments" (2020, p. 84). This learning approach relies on engagement between the educator and the student. The educator says, "Here are the steps to take to reach X goal, and here are the resources to

help." Not only does this provide students with clearer pathways to learning, but it also allows educators to make learning more individualized. Educators are as much an active part of the students' learning experiences as the students are.

One of the more evident uses of feedforward is during the assessment process. Student X submits an essay. Therein, the student does not include a thesis statement. Feedback addresses this directly: "Your thesis was missing." This feedback focuses on what the student did not do and emphasizes that the student erred. With feedforward, educators encourage students to add more to their learning toolkits. That essay submission is point A. Now, the educator must encourage the student to step from point A to point B: "To write a thesis statement, start with your position statement." The educator can take their time and guide the student in learning how to create a thesis statement instead of just recognizing that it was not there in the student's recent submission. After all, if it was not there, likely, the student does not understand how to write one. Feedforward can provide the student with actions they can take to understand this more clearly. On a broad scale, feedforward establishes learning goals that students can focus on, and because adult learners are often self-directed, "The educator should only serve as a guide" (Cercone, 2008, p. 144). Feedforward encourages educators to be guides who establish clear actions and goals for students to take. It provides students with a forward focus after they have completed a specific assignment.

However, while feedforward is often associated with the evaluation of work, it can also be used as a tool to not only guide student learning after they share deliverables but also to prepare students during the learning process. It serves as a problem-solving approach while also equipping students with proactive learning tools. For instance, a group of students receives a checklist of tasks they must complete for an assignment. This checklist provides students with a guide of actions they must complete fulfilling the assignment requirements. Perhaps, students are given a step-by-step guide to complete a task. This guide provides students with a list of actions they must take to fulfill the assignment. In a feedforward study conducted by Saeed and Mohamedali, the use of feedforward during the learning process proved beneficial. "...students said that the feedforward approaches equipped them with knowledge regarding the nature of the assignment. They had a better understanding of what was needed in terms of the assignment's requirements" (2022, p. 12). The feedforward approach can be especially effective during the draft-revision process where the educator guides students' planning and drafting processes and then evaluates the draft with more feedforward so that the students have a clear understanding of and goals for the finished product and the expectations thereof.

Regardless of when feedforward is used, it naturally eliminates many emotional factors of learning. It is direct and objective and provides no room for subjective judgment (Dulama & Ilovan, 2015, p. 842). Plus, feedforward is a proactive, not reactive, tool. The more proactive educators can be, the more engagement they can encourage from students. After all, "mature students returning to education after a long break, students with weak entry qualifications, time management issues (juggling education with employment and family commitments), financial pressures, diverse cultural backgrounds, language barriers, and personal issues (e.g., family problems and lack of confidence)" (Saeed & Mohamedali, 2022). Students already have much on their plates, and any way educators can encourage them to move forward can prove beneficial. Plus, it reduces challenges, as feedforward provides students with a list of tasks or learning goals that are understandable, encourages positive actions instead of negative reactions, and provides learning experiences so that students can evolve, regardless of their apprehension or barriers. It is a natural tool in the ever-evolving learning process. Students receive tasks, process how to complete such tasks (along with educator guidance and resources), and build. It provokes action, and to develop a depth of knowledge, students must act.

While the differences between feedback and feedforward can be nuanced if used solely for evaluation purposes, feedforward encourages those in academia to become task-oriented and focus on positive behaviors throughout the entire learning process. As well, just as the grit and growth mindset so often encouraged in learning environments, feedforward encourages students to focus on their growth and learning, one task at a time. It guides students to focus on the next steps in the process. After all, such is expected in students' personal and professional environments. Academia should evolve to mimic such environments.

About the Author

An educator for 20 years, Tina Miller always embraces the possibility that we can all do better. Transforming from a middle school Language Arts educator to an adjunct professor/facilitator to a learning coach, she recognizes that the possibilities are endless for anyone in academia. Her motto: Onward and upward.

References

Cercone, K. (2008). Characteristics of adult learners with implications for online learning design, AACE Journal, 16(2), 137-159. https://eds.s.ebscohost.com/eds/pdfviewer/pdfviewer?vid=1&sid=49b527c3-f994-4aec-b591-d2abd381a583%40redis

Dulama, M. E., & Ilovan, O-A. (2015). How powerful is feedforward in university education? A case study in Romanian geography education on increasing learning efficiency. Educational Sciences: Theory & Practice, 16(3), pp. 827-848. https://doi.org/10.12738/estp.2016.3.0392

Goldsmith, M. (2001, January 1). Feedforward. https://marshallgoldsmith.com/articles/feed-forward/

Hill, J., & West, H. (2020). Improving the student learning experience through dialogic feed-forward assessment. Assessment & Evaluation in Higher Education, 45(1), pp. 82–97. https://doi.org/10.1080/02602938.2019.1608908

Reimann, N., Sadler, I., & Sambell, K. (2019). What's in a word? practices associated with "feedforward" in higher education. Assessment & Evaluation in Higher Education, 44(8), pp.1279-1290. https://doi.org/10.1080/02602938.2019.1600655

Saeed, N., & Mohamedali, F. (2022). A study to evaluate students' performance, engagement, and progression in higher education based on feedforward teaching approach. Educational Sciences, 12(1), pp. 56-71. https://doi.org/10.3390/educsci12010056

Video Clips Tell Stories to Online Students and Enhance Engagement

Chosen T. Cheng, MBA
Faculty
University of Phoenix

Abstract

In a changing global environment, where students and business employees work from home, education must make adaptations to teach students the skills necessary to compete globally. This means alternative methods of instruction are necessary including online methods. But students accustomed to the classroom may have challenges engaging with online methods. According to Malcolm Knowles' andragogy principles of adult learning, adults must know why they are learning, and adults learn best by doing.

Online Communication and Collaboration are Becoming a New Norm

The Sept 11, 2001, attack on the World Trade Center caused the United States (U.S.) to shut down air traffic for a week and since at that time paper checks had to be air freighted back to the originating bank to clear, the forced realization that moving electronic checks was cheaper and faster than moving paper checks led to the accelerated adoption of paperless check clearing, a major productivity gain. Similarly, the shutdown reaction of many governments to the 2020 COVID-19 pandemic in the name of preserving public health and belatedly considering the economy forced many businesses to resort to remote workplace communication and collaboration, and that led to accelerated adoption of remote workplace practices across the board in all industries. Remote work had previously only been used by distributed networks of skilled consultants and multi-national project teams. It is still too early to be able to measure any boost in productivity of remote work in various kinds of workplaces, but certainly replacing many hours of commuting to and from the office with Zooming in from home to an online meeting can be said to have its merits.

Working remotely, what have we learned about ourselves? What do current technology and emerging technology mean for facilitating student learning and communication and collaboration in the workplace? Adults may take online courses for academic credit to pursue a degree or may participate in a webinar for corporate training purposes. However, they may not know what they do not know about how to participate most effectively in an online learning process. It has been of concern for three decades or more that the pervasiveness of television in daily life affected the ability of children to think critically since watching television is such a passive activity (Healy, 1990). It is of concern today that the pervasiveness of Internet-accessible phones with entertainment apps monopolizing users' time and attention has affected the ability of children and adults to think critically (Cladis, 2020). Unlike movies which are consumed passively, entertainment apps are not passive activities. They are interactive, but they do not typically engage users with requirements for deep cognitive thinking, such as for learning. The potential for using Internet-based locations to do deep cognitive thinking is certainly present, but it

requires the user to be curious and strive to do critical thinking about matters of concern. Adults in an online higher education class may need to shake the habit of passively consuming online entertainment content to engage the brain cognitively. Adults in an online learning modality may benefit from faculty and peer role models that show how to gain traction with course material.

Creating Short Video Clips

This paper builds on the Benjamin Bloom hierarchy of learning and the Malcolm Knowles principles of andragogy to attract the attention of adult learners using short video clips that tell a story (Conaway & Zorn-Arnold, 2015; Krathwold, 2002). A planned sequence of short videos of one to five minutes each can serve to attract attention, inform the learner about a key point, motivate the learner to consider the material, and activate the learner's imagination for how to apply the concepts in real life. The video storytelling approach can be used to introduce an assignment and coach the learner on why and how to approach the assignment in the most efficient way. These could be considered tips and shortcuts from an experienced practitioner faculty member. Also, the short videos can be used to share the success stories of students and graduates (Fermanda, 2020). These videos would help the adult learner see the relevance of the material and the benefits to be gained by learning and then applying.

Asynchronous learning involves reading and research and developing a critical thinking approach to extend the discussion thread. Faculty posts should provide role models for critical thinking since faculty have real-life career experience. It all starts with faculty being willing to package their streetwise experiences into success-oriented video clips so that students can be exposed to course content being applied to real-world situations. Telling stories around the campfire is a classic and memorable means of communication. What if we could package those campfire stories? In today's online world personalized videos in a virtual classroom, the situation complements the written text and supports the learning styles of those who value both oral and more animated and dynamic forms of presentation than just written text.

The best response I have had with engaging students is when I share a real-life success story from a former UOPX student since it shows what is possible if students apply their own effort to their own situation. Viewing and discussing such videos as a class activity is true engagement because it does not take preparation to participate, but students' life experience qualifies them to contribute, and each student could be thinking about doing something similar.

Conclusion

Adults need to know why they should learn something and then learn by doing. There is ample anecdotal evidence for the value of including success stories in classroom communications. Talking to a faculty member, student, or graduate the value-add of the teacher providing real-world context for the assignments and telling stories about the successful application of the course materials is an easy decision. In today's business world where much is done online, it is important to simulate being together in a virtual classroom. Especially for asynchronous classroom modalities, being able to shift time and space works if students are self-motivated to persist through the online materials. But short video clips from faculty that supplement the prepared text and third-party curriculum can be motivational and help more students engage. Today with free smartphones and Internet-based tools that all can learn to use, faculty and students can accomplish more with online learning and in the process become better and better at communicating and collaborating across time and space (Corazza et al., 2021).

About the Author

Chosen Cheng is a retired marketing and training executive and small business consultant. In addition to Marketing and Finance and Information Systems roles, he facilitated Problem Solving and Critical Thinking workshops for hundreds of Silicon Valley managers and supervisors for Kepner-Tregoe Associates. After leaving corporate life, for over 20 years he has taught business courses to over 4000 University of Phoenix students, many of whom are the first generation in their families to get a degree and many have been ex-military. He enjoys keeping up with the latest educational trends through his students, his consulting projects, and communicating and collaborating with his four Southern California and

East Coast grandchildren online through Facetime and Messenger.

References

Cladis, A. (2020). A shifting paradigm: An evaluation of the pervasive effects of digital technologies on language expression, creativity, critical thinking, political discourse, and interactive processes of human communications. E-Learning and Digital Media, 17(5), 341-364. http://dx.doi.org/10.1177/2042753017752583

Conaway, W. & Zorn-Arnold, B. (2015). The keys to online learning for adults. Distance Learning, 12(4), 37-42.

Corazza, G. E., Reiter-Palmon, R., Beghetto, R., & Lubert, T. (2021). Intelligence and creativity in the space-time continuum for education, business, and development. Journal of Creativity, December (31).

Fermanda, A. M. (2020). Storytelling in the higher education classroom: Why it matters. College Teaching, 58(4), 187-188.

Healy, J. M. (1990). Endangered minds, why children don't think and what we can do about it (pp. 195-217). Touchstone, Simon & Shuster, Inc.

Krathwohl, D. R. (2002). A revision of Bloom's taxonomy: An overview. Theory Into Practice, 41(4), 212. https://doi.org/10.1207/s15430421tip4104_2

Upcoming Events and Workshops

The College of Doctoral Studies offers a variety of events and workshops for students, faculty, and alumni. Below, you will find inforamtion for upcoming events and workshops; to access the full calendar please visit the **Workshop Calendar** on the Research Hub. All events are in the Arizona time zome, which does not observe daylight savings time. Feel free to reach out to us if you have an idea for a future event or workshop.

Date	Time	Title & Presenter	Description	Details
03/18/23	9 AM (MST)	**CDS Student Coffee Chat**	The College of Doctoral Studies Student Coffee Chat (SCC) is a virtual, bi-monthly event aimed at fostering student success. Each session includes a lively discussion, with like-minded people, for inspiration and guidance as you advance within your program and beyond. SCC topics are announced approximately one month beforehand, so please visit the SCC page often!	Registration Via Google Form
03/23/23	4 PM (MST)	**Research Designs: Research Problem, Purpose, and Questions for a Grounded Theory Design** Dr. Mark McCaslin	This webinar provides detailed explanations and examples for developing appropriate research problems, purposes, and questions for a grounded theory study. Participants may bring their examples to discuss.	Via Collaborate
04/06/23	4 PM (MST)	**Research Designs: Research Problem, Purpose, and Questions for a Q Methodology Design** Dr. Stella Smith	This webinar provides detailed explanations and examples for developing appropriate research problems, purposes, and questions for a Q Methodology study. Participants may bring their examples to discuss.	Via Collaborate

Date	Time	Title & Presenter	Description	Details
04/13/23	4 PM (MST)	**Deep Dive: APA Rules for Citations and Resources** CDS Writing Support Team	This session will allow students to familiarize themselves with some of the basic format requirements. This 90-minute workshop will highlight general guidelines students should know, familiarize students with effective utilization of the manual, and present the mechanics of some of the more common citation and resource formats.	Register Via Google Forms Registration is required and participation is caped at 20.
04/20/23	4 PM (MST)	**Research Designs** **Research Problem, Purpose, and Questions for Casual Comparative (Ex Post Facto) Design** Dr. Frederick Lawrence	This webinar provides detailed explanations and examples for developing appropriate research problems, purposes, and questions for a casual comparative (EX Post Facto)study. Participants may bring their examples to discuss.	Via Collaborate
04/27/23	4 PM (MST)	**Research Dissemination** **Developing an Academic Book Proposal** Dr. Erik Bean	This workshop focuses on how to identify an academic book publisher, prepare a proposal, and submit your work for publication consideration	Via Collaborate
05/11/23	4 PM (MST)	**Deep Dive: Proposal and Dissertation Alignment** CDS Writing Support Team	Dissertation alignment is a key concept in writing a dissertation. Alignment must be evidenced throughout the proposal and final dissertation. Each section of the proposal is focused and consistent on specific content of the proposal elements. This workshop session will help students narrow their focus and develop consistency in presenting the Title, Problem Statement, Purpose Statement, and Research Questions throughout the proposal and dissertation. Proper alignment ensures the methodology is sound. Examples of alignment for each of the research chapters will be presented during the session.	Register Via Google Forms Registration is required and participation is caped at 20.
05/18/23	9 AM (MST)	**UOPX Doctoral Graduate Guest Speaker: Dissertation of the Year Awardee Frank Druse, Ph.D. Nursing** Dr. Louise Underdahl	Disssertation Title: The Lived Experiences of New Graduate Nurses During the COVD-19 Pandemic: A Phenomenological Study Chair: Anne Brett, Ph.D., Committee members: Susan Steele-Moses, DNS, Charlene Romer, Ph.D. Join this webinar to learn about the doctoral journey of the speaker and how the doctoral degree from UOPX impacted the career development of the speaker.	Via Microsoft Teams

Date	Time	Title & Presenter	Description	Details
05/20/23	9 AM (MST)	**CDS Student Coffee Chat**	The College of Doctoral Studies Student Coffee Chat (SCC) is a virtual, bi-monthly event aimed at fostering student success. Each session includes a lively discussion, with like-minded people, for inspiration and guidance as you advance within your program and beyond. SCC topics are announced approximately one month beforehand, so please visit the SCC page often!	Registration Via Google Form
05/25/23	4 PM (MST)	**Research Design** **An Introduction to PsyToolkit: A Survey Instrument Resource** Dr. Rodney Luster	Join this webinar for an overview PsyToolkit a free tool where you can create surveys, experiments and aggregate data.	Via Collaborate
06/08/23	4 PM (MST)	**Research Design** **Research Problem, Purpose, and Questions for an Action Research** Dr. Mansureh Kebritchi	This webinar provides detailed explanations and examples for developing appropriate research problems, purposes, and questions for action research. Participants may bring their examples to discuss.	Via Collaborate
06/15/23	4 PM (MST)	**Research Dissemination** **How to Self-Publish an Academic Book** Dr. Erik Bean	This workshop demonstrates the various steps, costs, and purposes for self-publishing a book as well as tips on marketing it.	Via Collaborate
07/13/23	9 AM (MST)	**Research Designs** **Research Problem, Purpose, and Questions for a Repeated Measure Design** Dr. Frederick Lawrence	This webinar provides detailed explanations and examples for developing appropriate research problems, purposes, and questions for a repeated measure study. Participants may bring their examples to discuss.	Via Collaborate
07/27/23	4 PM (MST)	**Research Designs** **Research Problem, Purpose, and Questions for a Phenomenology Design** Dr. Karen Johnson	This webinar provides detailed explanations and examples for developing appropriate research problems, purposes, and questions for a phenomenology study. Participants may bring their examples to discuss.	Via Collaborate

Date	Time	Title & Presenter	Description	Details
08/03/23	4 PM (MST)	**Research Designs** **Research Problem, Purpose, and Questions for a Regression Design** Dr. Frederick Lawrence	This webinar provides detailed explanations and examples for developing appropriate research problems, purposes, and questions for a regression study. Participants may bring their examples to discuss.	Via Collaborate
05/25/23	4 PM (MST)	**UOPX Doctoral Graduate Guest Speaker: Dissertation of the Year Awardee Lee Ann Wright Smith, DHA** Dr. Louise Underdahl	Disssertation Title: A Qualitative Multi-Case Study of Nurses: Perceptions and Experiences with Point of Use Supply Automation Chair: Cheryl Anderson, Ph.D., Committee members: Rebecca Back-Little, Ph.D., James Connelly, Ph.D. Join this webinar to learn about the doctoral journey of the speaker and how the doctoral degree from UOPX impacted the career development of the speaker.	Via Collaborate

Join us on the Research Hub for all Center activities, KWBA dates, and new research information!

Phoenix.Edu/Research

University of Phoenix®

ISSN 2771-6503