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Editors and Editorial Board

Letter from the Editor

Kathleen J. Tate, Ph.D.

Welcome to the last issue of *Internet Learning* Journal with the current name! After Volume 7, Issue 1, a title change to reflect the scope and purpose of the journal will occur with the next issue. The new title of the journal will be *Journal of Online Learning Research and Practice*. The hope is that the new title will attract both readers and potential authors to increase the journal's visibility in the field.

Within this issue, you will find book and media reviews, perspectives from the field, and research and theoretical articles. A focus on separate, but interrelated topics is prevalent in this issue, which includes pieces about course material types, considerations for teacher education, relationships in the online classroom, live group meetings, personalized learning as applied to new faculty members, and online apps for higher education contexts.

Dr. Susan Adragna's book review provides an overview of Leavoy's (2017) e-book *Tapping into the Power of Personalized Learning*. Dr. Adragna discusses the book's points about successfully onboarding new faculty members, or employees, through a personalized learning approach. She highlights the author's model of using mentoring and technology to create a personal learning path for new employees as learners.

In his media review, Dr. William Gillum describes online apps to enhance communication, interaction, and learning both within and beyond higher education classroom virtual walls. Gillum discusses the benefits of apps such as *Podbean* and *Google Suite*.

In the From the Field section, Dr. Jill Buban, Chief Academic Officer at Unizin and former Senior Director of Research and Innovation, Online Learning Consortium (OLC), is featured in *3 Questions for an Online Learning Leader*. Jill shares insights about underused technologies, competency-based learning, and future online learning trends.

Research and practical articles in this issue focus on course material type, a successful partnership between a teacher education program and public virtual school, practical strategies for building rapport and creating a sense of community, and tips and techniques for planning and leading live group meetings. Drs. Cramer and Douglas examined whether the student experience with physical and electronic course materials has an impact on their academic performance. They used one-way ANOVA tests to study the relationship between course material type (e.g., physical, electronic) and student performance in a high-enrollment, introductory-level, general education, online course with adult learners.

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Dr. Robyn Huss explores considerations for teacher education programs to be better prepared to meet the needs of twenty-first century learners in online, face-to-face, and hybrid contexts via technological resources. She presents a rationale for teacher education programs to consider in an era of new responsibilities, such as requiring virtual field experiences along with traditional, face-to-face field experiences.

Dr. Kimberlee Ratliff integrates theory, best practices, and professional successes to provide practical insights and strategies about how to attend to factors associated with the instructor–student relationships and student–student relationships that promote student satisfaction, motivation, and learning in online, higher education contexts. She focuses on approaches that foster building connections and a sense of community within virtual classrooms.

Finally, Dr. Natascha Gast addresses challenges and shares practical tips for facilitating live meetings using synchronous tools in an 8-week, online, college literature and composition course. She outlines steps for planning and leading sessions as a means to promote student engagement, persistence, and success by increasing social, cognitive, and teaching presence. Natascha covers three types of live meetings, including orientations to the class; assignment reviews for upcoming assignments; and workshops that use student work for collaborative discussion and revision.

This issue provides a wide range of approaches, tools, and research for university constituents to consider. Articles capture research, theory, and experience from the field. As always, I hope you extract discussion points that you can share with your own students, colleagues, or supervisors to prompt new directions in discourse, research, and practice.

Enjoy!

Dr. Kathleen J. Tate

Editor-in-Chief of Internet Learning Journal

Reference

Leavoy, P. (2017). *Tapping into the power of personalized learning*. Docebo. Retrieved from https://elearningindustry.com/free-ebooks/power-of-personalized-learning-tapping-into

Assessing the Effect of Course Materials Type on Undergraduate Student Performance in an Online Setting

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Abstract

The academic experience in higher education continues to become increasingly electronic and digitized. Whether online or in person, modern classrooms include virtual and electronic content and experiences. While these materials are effective in delivering accessible and lower-cost learning content to students, it is not clear if the student experience with physical and electronic course materials (e.g., textbooks) has an impact on their academic performance. This study examined the relationship between course materials type (e.g., physical, electronic) and student performance in a high enrollment, introductory level, general education, online course with adult learners. We found that course materials type was not related to student success for different types of assessments used to measure student performance. With tightening student and institutional budgets, and increasing need for accessible and portable content, we suggest that electronic materials are an effective alternative to physical materials and that both types of materials provide students with similar learning experiences and outcomes.

Keywords: electronic reading, course materials, student success, online learning

Evaluación del efecto del tipo de materiales de clase en el rendimiento de los estudiantes de pregrado en un entorno en línea

Resumen

La experiencia académica en educación superior continúa siendo cada vez más electrónica y digitalizada. Ya sea en línea o en persona, las aulas modernas incluyen contenido y experiencias virtuales

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y electrónicas. Si bien estos materiales son efectivos en la entrega de contenido de aprendizaje accesible y de bajo costo para los estudiantes, no está claro si la experiencia de los estudiantes con materiales de clase físicos y electrónicos (es decir, libros de texto) tiene un impacto en su rendimiento académico. Este estudio examinó la relación entre el tipo de material de clase (físico, electrónico) y el rendimiento del estudiante en un alto nivel de inscripción, nivel introductorio, educación general, curso en línea con estudiantes adultos. Descubrimos que el tipo de material de clase no estaba relacionado con el éxito de los estudiantes para diferentes tipos de evaluaciones que se utilizan para medir el rendimiento de los estudiantes. Al restringir los presupuestos de los estudiantes e instituciones, y al aumentar la necesidad de contenido portátil y accesible, sugerimos que los materiales electrónicos son una alternativa efectiva a los materiales físicos y que ambos tipos de materiales brindan a los estudiantes experiencias de aprendizaje y resultados similares.

Palabras clave: lectura electrónica, materiales del curso, éxito estudiantil, aprendizaje en línea.

在网络背景下评价课程材料类型对大学生学习成绩产生的影响美国公立大学系统，

摘要

高等教育的学术经验变得越来越电子化和数字化。现代教室无论是在线授课还是面对面教学，都覆盖虚拟电子内容和体验。虽然这些材料能有效地向学生提供可获取的低成本学习内容，但尚不清楚学生体验实体和电子课程材料 (如：教科书) 对他们的学习成绩是否有影响。本研究探讨了高入学率通识教育的入门级成人在线课程中课程材料类型(实体和电子)与学生成绩的关系。笔者发现，对于衡量学生成绩的不同类型评估，课程材料类型与学生的学习是否成功没有关系。随着学生和机构的预算紧缩，以及对可获取和可携带内容需求的增加，笔者认为电子材料能够有效地替代实体材料，而且这两种材料都为学生提供了相似的学习体验和收获。

关键词：电子阅读，课程材料，成功学习，网络学习

To increase accessibility and affordability, a key institutional goal of many academic institutions is to move from traditional, purchased, print course materials to open educational resources (OERs), materials that are open access and freely available. This approach brings significant savings to students and institutions; and OERs are reported by students and faculties to be the same or better quality compared to traditional textbooks (Bliss, Robinson, Hilton, & Wiley, 2013). What is not clear is whether traditional, physical sources have the same learning impact on students as less traditional, fully electronic sources.

Review of the Literature

While some prefer traditional print sources, readers have fundamentally shifted how they interact with texts due to growing opportunities to listen to or read them through applications on electronic devices, which provide easier portability and accessibility (Gibson & Gibb, 2011; Waters, Roach, Emde, McEathron, &Russell, 2014). In both K-12 and higher education, there is a growing interest in the quality of reading and reading comprehension that comes from reading physical versus electronic sources (National Research Center for Distance Education and Technological Advancements, 2016).

K-12 Learners

For younger readers growing up in the digital age, electronic reading is more common and often preferred, though there is some evidence that students report more issues with eye fatigue when using electronic materials (Jeong, 2012). Grimshaw, Dungworth, McKnight, and Morris (2007) found that young readers preferred electronic course materials because they provided supplements such as narration and dictionaries. These key features assisted students with their reading comprehension. Conversely, other studies of middle school students have demonstrated decreased reading comprehension and retention when students read on an electronic device rather than in print (Mangen, 2008; Schugar & Schugar 2014). Jeong (2012) found that students performed higher on quizzes after reading physical materials compared with electronic materials (Jeong, 2012). These studies show mixed results regarding the effectiveness of physical and electronic course materials for children and adolescents.

Adult Learners

The patterns found among younger learners differ from the patterns found among adult learners. In a 2011–2012 study of faculty and student perceptions of OERs across eight community colleges, faculty members reported that the students using electronic OERs were better prepared for class than students in the past who were using non-electronic OERs (Bliss et al., 2013). Students reported that their use of the OERs was similar to their use of non-OERs (Bliss et al., 2013). An international study of college students found

that the majority preferred print course materials to electronic course materials (Baron, 2016 as cited in Schaub, 2016).

Margolin, Driscoll, Toland, and Kegler (2013) presented undergraduates with electronic and print versions of narrative and expository passages and then measured reading comprehension. While the study found no significant difference in reading comprehension for the two formats, Margolin et al. suggest that additional research is needed to examine if resource format affects reading comprehension of informational passages. Studying a general education psychology course, Shepperd, Grace, and Koch (2008) did not find a difference in course grades for students using a physical versus electronic text. Similarly, a multi-institutional study found that across courses in four disciplines, student performance was similar in courses using OERs versus traditional resources (Fischer, Hilton, Robinson, & Wiley, 2015). Measuring undergraduate student experience retaining information from print and electronic presentations, Green, Perera, Dance, and Myers (2010) found no difference in reading comprehension and information recall between the two mediums. In contrast with these studies, other research suggests that student performance may be reduced when using electronic materials. For example, Ackerman and Goldsmith (2011) found that in untimed assessments, college students who had print versions of reading materials performed better on comprehension and retention tasks than students who had electronic reading materials.

Study Overview

In this study, we build on earlier research examining the effect of print and electronic course materials on reading comprehension and retention (Ackerman & Goldsmith, 2011; Baron, 2016 as cited in Schaub, 2016). This study examines if the type of course materials (electronic, print) is related to undergraduate student performance in an online course at an online institution serving adult learners. Adult learners in online courses tend to approach learning with a high degree of self-motivation, autonomy, and motivation to relate new learning to prior experience (Conaway & Zorn-Arnold, 2016). In this completely virtual environment, students are accustomed to an online learning experience, including asynchronous delivery of course content and participation. Thus, students may be more comfortable and agile with electronic reading. At this institution, undergraduate students also receive course materials as part of the program cost, meaning that all students have access to the course materials. We predicted that students who received electronic course materials will have equal levels of reading comprehension and retention, demonstrated through their performance on assessments, compared with students who received physical course materials.

Methods

This study examined undergraduate students in a high enrollment, introductory level online

8-week course over a six-month period, July–December 2016, where there are monthly course starts rather than traditional fall/spring/summer course starts. Each month, approximately four sections of the course were scheduled: with one section randomly assigned to the treatment group (i.e., students received physical course materials via mail). The other sections did not receive the treatment. Students enrolled in the no treatment group received electronic course materials. The course material used was a traditional, single author, pay for access, textbook. The print and electronic versions of this textbook did not differ in content or organization, therefore minimizing the potential impact that the factors would have had on student experience with the course material. This study included 482 students, or participants.

Students who were assigned to electronic course materials may have self-selected to purchase a physical copy of the course materials or print the electronic course materials. To address this concern in our data set, we asked each participating student if they received physical course materials (e.g., from the institution, by personal purchase, or through printing the assigned electronic materials) or if they solely used the electronic course materials provided in the classroom. Of the 482 students included in the study, 355 students reported using electronic course materials and 127 students reported using physical course materials.

The relationship between the type of course materials (e.g., electronic, print) and student performance on assessments was examined. Assessments that required a high degree of reading comprehension and retention were examined (e.g., discussion forums, quizzes) and assessments that required a medium degree of reading comprehension and retention with a larger focus on synthesis and application were also examined (e.g., assignments). In discussion forums, for example, students respond to a prompt that requires them to analyze specific concepts in the text. Likewise, quizzes require reading comprehension, retention, and analysis of the reading. Assignments focus more on application and synthesis. For example, students may be asked to identify how a theory from a particular discipline relates to a current event that they choose. Final course grades and percentages of the course completed were also measured. After the conclusion of the course and reporting of final grades, data on course material type and student performance were collected from online classrooms.

Statistical analyses were performed using the Statistical Package for the Social Sciences (IBM SPSS Statistics, Version 23.0). We used one-way ANOVA tests to examine the relationship between dependent, continuous student performance variables and the independent, nominal variable, course material type.

Results

We predicted that course material type would not have an effect on student perfor-

mance. We first examined assessments that required a high degree of reading comprehension: discussion forums and quizzes. We found no significant relationship between course material type and discussion forum performance ($F_{1,480}$=0.168, p=0.68; Table 1) or quiz performance ($F_{1,480}$=1.21, p=0.27; Table 1). We next examined assessments that required a medium or neutral degree of reading comprehension, assignments. Assignments in this course were largely applied, interpretive, and experiential. We found no significant relationship between course material type and assignment performance ($F_{1,\ 480}$=0.01, p=0.94, Table 1).

Table 1. Table of raw ANOVA results for how course materials type relates to student success rates on assessments, final grade, and percentage of gradebook completed

		Sum of Squares	df	Mean Square	F	Sig.
forum_success	Between Groups	77.699	1	77.699	.168	.682
	Within Groups	221950.461	480	462.397		
	Total	222028.160	481			
quiz_success	Between Groups	398.098	1	398.098	1.210	.272
	Within Groups	157882.178	480	328.921		
	Total	158280.276	481			
assignment_success	Between Groups	4.068	1	4.068	.006	.940
	Within Groups	344885.683	480	718.512		
	Total	344889.751	481			
final_grade	Between Groups	89.409	1	89.409	.234	.629
	Within Groups	183764.978	480	382.844		
	Total	183854.387	481			
gradebook_completed	Between Groups	1417.699	1	1417.699	3.667	.056
	Within Groups	185573.488	480	386.611		
	Total	186991.187	481			

To examine overall student performance and course material type, we also analyzed final grades and percentage of course completed by the student. We found no significant relationship between final grade and course material type ($F_{1,\ 480}$=0.23, p=0.63, Table 1). We found a nonsignificant trend between course material type and percentage of course completed ($F_{1,\ 480}$=3.67, p=0.06, Table 1, Figure 1). Students with physical course materials tended to complete more of the course than students with electronic course materials. For students with the electronic course materials, students ranged from 2% to 100% in completing the course requirements. For students with the physical course materials, students ranged from 5% to 100% in completing the course requirements (Figure 1). This could be an effect of the sample size for each category and merits further investigation in future studies; 355 students received electronic course materials and 127 students received physical course materials.

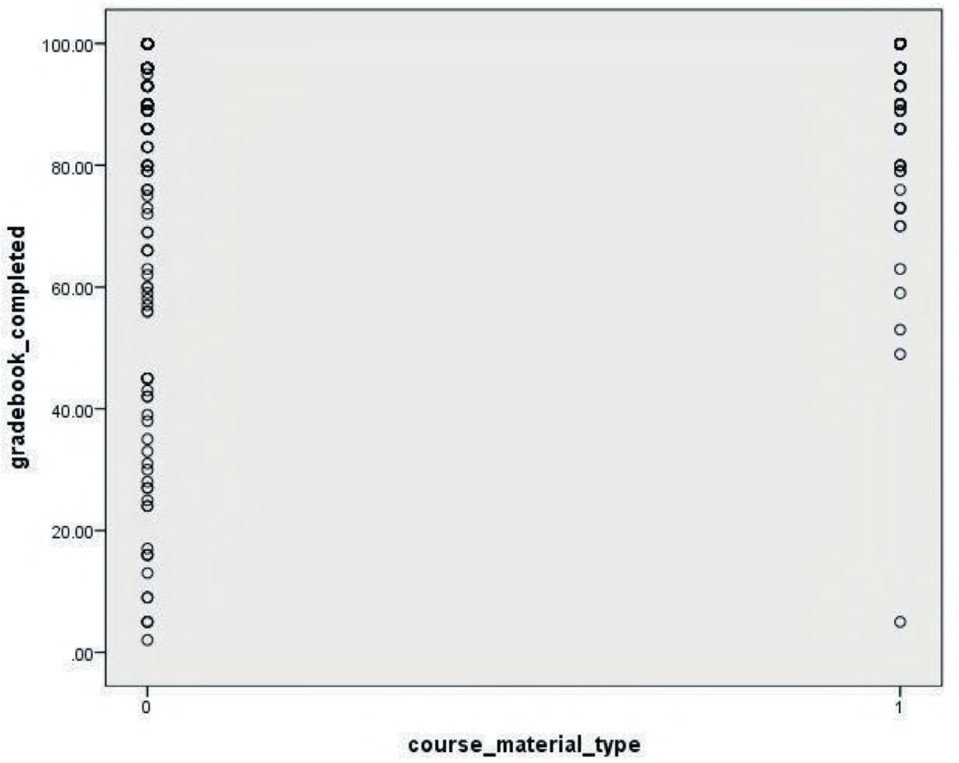

Figure 1. A nonsignificant but interesting relationship was found between course materials type (electronic course materials =0, physical course materials =1) and percentage of gradebook completed

Discussion

This study examined the relationship between course materials type (e.g., electronic or physical) and student performance in an introductory level, general education, online course serving adult learners. Compared with other studies of course materials and performance in college settings, this study uniquely focused on students who have chosen to learn in a fully virtual environment, potentially playing a role in their ability to effectively consume and retain content presented in electronic materials. As adult learners in an online setting, these students are accustomed to self-direction and electronic, asynchronous course environments in which the majority of content is accessed onscreen. Students in this population may be acclimated to screen reading and may adjust their reading strategies accordingly. Research on adult learners indicates that students benefit from assessments in which they can apply reading to their own experience (Conaway & Zorn-Arnold, 2016; Marschall & Davis, 2012); thus, the blend of formative and summative assessments in this online course may contribute to the reading strategies employed, regardless of the text medium.

Some studies suggest that students tend to prefer physical copies of books (Marques, 2012) and that electronic reading takes more time and creates more eye strain (Jeong, 2010). Other studies report that the majority of college students prefer electronic resources (Al-Hariri & Al-Hattami, 2017) and that electronic resources can facilitate better learning (National Research Center for Distance Education and Technological Advancements, 2016).

Jeong (2010) and other researchers have pointed out that studies examining electronic and physical materials examine the different values of the choices, but do not suggest replacing one with another. Similarly, our study sought to explore how choice in materials affects student performance, to provide more information that can benefit both institutions and students in making decisions that best support student success. Resource type is a personal preference with complex variables like cost, eye fatigue, portability, and other factors playing a role in the reader's decision.

For academic settings, in particular, it is important that institutions and students make informed decisions about which resource format best supports learning and success based on student demographics and type of learning environment. Our study found that students assigned electronic or physical course materials were equally likely to be successful on different types of assessments, as well as with overall completion of the course. Replicating this study in face-to-face classes or environments with full-time, 18- to 22-year-old college students, would yield more data on the effects of overall learning environment and learner expectations. For adult learners in an online environment, access to course materials, whether print or electronic, yields equal performance. Our finding corresponds with Fischer et al.'s 2015 multi-institutional study, which found that students performed similarly whether courses were offered in an OER or traditional, print materials format.

Future studies might also consider the role that different faculty members teaching a course might play in student performance regardless of materials type. In our study, the courses were taught by several faculty members and results were pooled. The general content and assessments of the courses were the same in this standardized, general education course. Faculty members' experience teaching the course and engagement with students vary and may have had an impact on student learning. For instance, instructors may have taken different approaches to discussing and explaining the content, and each has unique interactions with students to help them further engage and reflect on the material. Investigating the potential impact of faculty engagement strategies on student performance with different types of course materials would be an interesting next step in this study. Examining the impact of materials type on student performance in upper level courses would also be worthwhile as students encounter more advanced content in their disciplines and may become more adept at using different types of learning materials.

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References

Ackerman, R., & Goldsmith, M. (2011). Metacognitive regulation of text learning: On screen versus on paper. *Journal of Experimental Psychology: Applied*, *17*(1), 18–32.

Al-Hariri, M. T., & Al-Hattami, A. A. (2017). Impact of students' use of technology on their learning achievements in physiology courses at the University of Dammam. *Journal of Taibah University Medical Sciences*, *12*(1), 82–85.

Bliss, T. J., Robinson, T. J., Hilton, J., & Wiley, D. A. (2013). An OER COUP: College teacher and student perceptions of open educational resources. *Journal of Interactive Media in Education*, *1*(4). Retrieved from https://jime.open.ac.uk/articles/10.5334/2013-04/

Conaway, W., & Zorn-Arnold, B. (2016). The keys to online learning for adults. *Distance Learning*, *13*(1), 1–6.

Fischer, L., Hilton III, J., Robinson, J., & Wiley, D. A. (2015). A multi-institutional study of the impact of open textbook adoption on the learning outcomes of post-secondary students. *Journal of Computing in Higher Education*, *27*(3), 159–172.

Gibson, C., & Gibb, F. (2011). An evaluation of second generation ebook readers. *The Electronic Library*, *29*(3), 303–319.

Green, T. D., Perera, R. A., Dance, L. A., & Myers, E. A. (2010). Impact of presentation mode on recall of written text and numerical information: Hard copy versus electronic. *North American Journal of Psychology*, *12*(2), 233–242.

Grimshaw, S., Dungworth, N., McKnight, C., & Morris, A. (2007). Electronic books: Children's reading and comprehension. *British Journal of Educational Technology*, *38*(4), 583–599.

Jeong, H. (2012). A comparison of the influence of electronic books and paper books on reading comprehension, eye fatigue, and perception. *The Electronic Library*, *30*(3), 390–408.

Mangen, A. (2008). Hypertext fiction reading: Haptics and immersion. *Journal of Research in Reading*, *31*(4), 404–419.

Margolin, S. J., Driscoll, C., Toland, M. J., & Kegler, J. L. (2013). E-readers, computer screens, or paper: Does reading comprehension change across media platforms? *Applied Cognitive Psychology*, *27*(4), 512–519.

Marques, S. (2012). *E-Textbooks usage by students at Andrews University: A study of attitudes, perceptions, and behaviors*. Proceedings of the IATUL Conferences, Paper 32. Retrieved from http://docs.lib.purdue.edu/iatul/2012/papers/32

Marschall, S., & Davis, C. (2012). A conceptual framework for teaching critical reading to adult college students. *Adult Learning*, *23*(2), 63-68.

National Research Center for Distance Education and Technological Advancements. (2016). *A study of the impact of open access textbooks on student performance and satisfaction.* University of Wisconsin-Milwaukee.

Nielson, J. (2000). *Designing web usability*. Indianapolis, IN: New Riders Publishing.

Schaub, M. (2016). 92% of college students prefer reading print books to e-books, study finds. *Los Angeles Times*. Retrieved from http://www.latimes.com/books/jacketcopy/la-et-jc-92-percent-college-students-prefer-paper-over-pixels-20160208-story.html

Schugar, H., & Schugar, J. (2014). *Reading in the post-PC era: Students' comprehension of interactive e-Books.* Paper presented at the American Educational Researcher Association, Philadelphia, PA.

Shepperd, J. A., Grace, J. L., & Koch, E. J. (2008). Evaluating the electronic textbook: Is it time to dispense with the paper text? *Teaching of Psychology*, *35*(1), 2–5.

Waters, J., Roach, J., Emde, J., McEathron, S., & Russell, K. (2014). A comparison of e-book and print book discovery, preferences, and usage by science and engineering faculty and graduate students at the University of Kansas. *Issues in Science and Technology Librarianship*, *75*. Retrieved from https://www.learntechlib.org/p/153218/

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Preparing Teachers for the 21st Century Classroom

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Abstract

Traditional neighborhood and community schools have given way to home schooling, magnet, and charter schools, and more recently, virtual schools. Virtual schools that deliver coursework online have an important impact on education. To meet the needs of 21st century learners in online, face-to-face, and hybrid contexts, teachers should better leverage technological resources. Learning management systems (LMSs) provide platforms through which teachers can deliver all or parts of their curriculum and resources via the Internet. Integrating technology effectively has become a priority in teacher education; however, this does not always include instruction about the positive impact of utilizing online LMSs or video-based instruction in courses focused on subject-specific teaching methods. Preservice and inservice teachers must be equipped with a myriad of skills needed to effectively use LMSs and technologies to deliver online instruction. Within these newer responsibilities of teacher preparation programs, including a field experience with a virtual school is a unique and timely way to meet this challenge. This article presents the benefits of a successful partnership between a teacher education program and a public virtual school for secondary students.

Keywords: educator preparation, online field experiences, online teaching, virtual school, preservice, inservice, flipped classroom

Preparando a los maestros para el aula del siglo XXI

Resumen

Las escuelas tradicionales del vecindario y de la comunidad han dado paso a la educación en el hogar, a las escuelas magnet y charter, y más recientemente, a las escuelas virtuales. Las escuelas virtuales que imparten cursos en línea tienen un impacto importante en la educación. Para satisfacer las necesidades de los alumnos del siglo XXI en contextos en línea, cara a cara e híbridos, los maestros deberían aprovechar mejor los recursos tecnológicos. Los sistemas de gestión de aprendizaje (LMS) proporcionan plataformas a través

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de las cuales los profesores pueden entregar todo o parte de su currículo y recursos a través de Internet. La integración efectiva de la tecnología se ha convertido en una prioridad en la formación docente; sin embargo, esto no siempre incluye instrucción sobre el impacto positivo de utilizar LMS en línea o instrucción basada en video en cursos enfocados en métodos de enseñanza específicos de la materia. Los maestros en servicio y pre servicio deben estar equipados con una gran cantidad de habilidades necesarias para utilizar eficazmente los LMS y las tecnologías para ofrecer instrucción en línea. Dentro de estas nuevas responsabilidades de los programas de preparación de maestros, incluir una experiencia de campo con una escuela virtual es una manera única y oportuna de enfrentar este desafío. Este artículo presenta los beneficios de una asociación exitosa entre un programa de formación docente y una escuela virtual pública para estudiantes de secundaria.

Palabras clave: preparación del educador, experiencias de campo en línea, enseñanza en línea, escuela virtual, servicio de asistencia, capacitación en el servicio, aula invertida

面向**21**世纪课堂的教师培养
美国佐治亚州卡罗尔顿西乔治亚大学

摘要

传统的社区学校已经让位于家庭教育、磁石学校、特许学校，以及最近的虚拟学校提供在线课程作业的虚拟学校对教育具有重要影响。为了满足21世纪学习者在网络、面对面和混合环境中的需求，教师应该更好地利用技术资源。教师借助学习管理系统(LMSs)提供的平台能够实现全部或部分课程和资源网络化。有效整合技术已成为教师培养的重点；然而，这种培养并非总是涵盖关于在线LMSs运用所带来的积极影响教学或侧重具体学科教学方法的课程视频教学。职前教师和在职教师必须具备能够有效运用LMSs和技术实现在线教学的大量技能。在教师预备方案中的这些最新职责之外引入虚拟学校实地实习是应对这一挑战独特而又及时的方法。本文介绍了中学生教师培养方案与公立虚拟学校之间成功合作所带来的益处。

关键词：教育人员预备，在线实地实习，在线教学，虚拟学校，职前，在职，翻转课堂

Throughout the history of American education, the typical public K-12 school classroom tends to have students sitting in desks, usually in rows or clusters, with their attention focused on the teacher. This stereotype is entrenched in the minds of students, families, and other constituents. It is the reason the cycle of lecture-based direct instruction continues to be so difficult to break, especially in secondary classrooms. However, two centuries of compulsory education in this style have been overturned within the last couple of decades as technology is prompting today's 21st century-infused classrooms to be different.

Schools are changing as traditional neighborhood schools have slowly given way to home schooling and magnet, charter, and, more recently, virtual schools. Virtual schools that deliver coursework online have had an important impact on education because they more easily allow students to make up credit for failed courses, earn credit for additional courses or courses not available within their local schools, and learn on a flexible schedule if the traditional school system is not the best fit for their personal lives. As the world becomes more global in its interactions, so does the model for learning as the Internet allows students to enhance their learning through more people, resources, and information.

The Khan Academy (2017), which brought video-based instruction into popularity, was founded in 2006. Since then, its instructional videos have grown into free, open, online courses. Public school systems, universities, and other organizations are increasingly designing online and hybrid courses through which students can earn online degrees and certifications. During the 2013–2014 school year, 33 states had full-time virtual schools that enrolled close to 262,000 K-12 students (Miron & Gulosino, 2016). Several states, including Michigan, Florida, Virginia, and Arkansas, have passed legislation that requires high school students to take at least one virtual course to be eligible for graduation (National Conference of State Legislatures, 2017).

World technologies advance and brick-and-mortar schools continue to change as portable electronic devices enable learning to be differentiated, individualized, and personalized and provide quicker access to information. The quickest way to learn the answer to a question or find out more about a topic of interest is to *Google it*. That is becoming the instinctual response to learning new information, whether using a computer, portable tablet, or phone voice recognition system. Education has moved from the rote memorization of facts to the need for literacy skills, metacognition, and critical thinking as necessary means to promote lifelong learning in a rapidly changing society. World Economic Forum (2016) states that:

> In many industries and countries, the most in-demand occupations or specialties did not exist 10 or even five years ago, and the pace of change is set to accelerate .... 65% of children entering primary school today

> will ultimately end up working in completely new job types that don't yet exist. (p. 3)

To prepare 21st century learners for the global market and improve learning, teachers can make use of readily available technological resources. Learning management systems (LMSs) provide platforms through which teachers can deliver all or parts of their curriculum and resources via the Internet. Two such platforms utilized by school districts at no cost are Moodle, which has been used by schools for more than a decade, and Google Classroom, which has been available since 2014 (Google, 2017; The Moodle Project, 2017). During the 2013–2014 school year, 16 states had blended learning schools that enrolled more than 26,000 K-12 students (Miron & Gulosino, 2016). Even schools that do not offer virtual or blended learning courses are using online resources to supplement instruction, such as by replacing printed textbooks with eBooks. The Georgia Department of Education, for example, has been providing free, interactive, online textbooks for middle and high school courses since the fall of 2014 (Cardoza, 2014). To further encourage the implementation of online learning, the Georgia Department of Education expanded its definition of learning resources as "instructional materials and content to include but not limited to systematically designed material in any medium, including digital instructional materials and content," effective September 2016 (GA DOE, 2016b, §1c). This follows state legislation that:

> local boards of education are strongly encouraged on and after July 1, 2020 to ... (1) Purchase all instructional materials and content in digital or electronic format; and ... (2) Provide a laptop, tablet, or other wireless electronic device to each of its students in grades three and higher or allow students to provide their own for use as the principal source of reading or accessing instructional materials and content. (Georgia General Assembly, 2015–2016, SB 89 § 20-2-1015a)

This aligns to Ross's (2015) assertion that "many digital learning materials completely overhaul how classes, from pre-k to grad school, are conducted; how students are tested on knowledge; and how teachers fit into the picture" (para. 5). Federal and state mandates, research, and experts increasingly call for integrating technology into teacher education courses so that teachers are better prepared to use technology in K-12 classrooms.

However, this does not usually translate to instruction about the positive impact of utilizing LMSs and video-based instruction in courses focused on subject-specific teaching methods. An avenue for authentic preservice and inservice teacher observation and practicum hours is the online public K-12 classroom. But field experiences in virtual schools are not commonplace. The way teachers are typically prepared in educator preparation programs across the country tends to remain the same: with a focus on face-to-face in-

struction during field experiences in local K-12 public school classrooms. While this preparation is important, it is equally important to prepare preservice teachers for virtual instruction so they are not ill-equipped to handle the changing demands of online learning in the 21st century classroom. Studies conducted as early as 2007 demonstrate the need for and benefits of including online instruction in teacher preparation programs (Charania, 2010; Compton & Davis, 2010; Davis, Demiraslan, Charania, Compton, & Correia, 2007; Ferdig, Cavanaugh, KiPietro, Black, & Dawson, 2009). By 2010, Iowa State University and Georgia's Kennesaw State University offered coursework to prepare teachers for virtual learning, and the University of South Florida and the University of Central Florida offered online teaching internships (Compton & Davis, 2010; Quillen, 2010). However, those programs were exceptions, and virtual learning for K-12 students continues to be a relatively new concept for teacher education (Ferdig et al., 2009; Quillen, 2010). Research is needed in this area (DiPietro, Ferdig, Black, and Preston, 2008) to inform programs and professional development. "Very few virtual school teachers receive training to teach online from their teacher education programs" (Barbour, 2012, p. 505) as much of the training is done through professional development by the virtual schools themselves. Barbour points out that the biggest obstacle is the lack of available models to guide effective design of virtual teaching experiences. Moore-Adams, Jones, and Cohen (2016), in their systematic review of the available literature, conclude that

> few programs address the range of skills and knowledge required by teachers to effectively teach online. As the number of online learning opportunities increase for K-12 students, both in the form of completely online and as hybrid learning experiences, these findings are important as the need for highly effective online teachers increases as well. (p. 345–346)

Today, training for preservice and practicing/invservice teachers to excel in virtual teaching exists more commonly as an elective experience in educator preparation programs rather than a required one, and through coursework rather than field experiences.

One clinical field example that could be emulated nationwide for improved effectiveness in teacher preparation is modeled in a University of West Georgia (UWG) graduate course for elementary and secondary preservice and inservice teachers: *ECSE 7566 Advanced Instructional Strategies for the 21st Century Classroom*. Course activities include teaching students, or candidates, to manipulate instructional components in an LMS, create their own instructional videos, and most importantly, participate in an active course field experience at Georgia Virtual School (GAVS). UWG's College of Education's online graduate education programs have received national recognition; *U.S. News & World Report* ranked them 101 of nearly 1500 distance education programs across the nation in its 2018 rankings (U.S. News, 2018). The UWG–GAVS partnership

for Internet-based learning in a virtual classroom is one of the ways the graduate education programs are on the cutting edge of 21st century instruction.

The Partnership

UWG's partnership with GAVS began in 2013 and was introduced as a field placement option for secondary preservice teachers during the spring semester of 2014. What started as an opportunity for candidates to elect an alternative field experience with GAVS turned out to be so successful that soon entire sections of them were enrolled in that option. By 2016, the virtual school field experience became the focus of a course developed specifically around the online instructional philosophy. In 2017, that graduate-level course grew to an offering for both preservice and inservice teachers at both the elementary and secondary levels; and enrollments in it fill to capacity every semester it is offered.

GAVS was approached for the partnership because it is a public school in an online environment that serves students in grades 6–12 across the state of Georgia. GAVS "has been providing schools and students with options and opportunities to supplement public, private, and home school course offerings since 2005" (GA DOE, 2016a). GAVS teachers are state-certified, and most teach part-time online in addition to full-time teaching in traditional brick-and-mortar schools. Although some districts are able to offer online coursework of their own, GAVS is the largest, fully-accredited online system in the state and serves over 30,000 students each year (GA DOE, 2016a).

Setting Up the Virtual Field Experience

At the beginning of the semester, the UWG candidate names, email addresses, and teaching certification grade levels and content areas are provided to GAVS. The university students complete an online informational survey, which includes verification of their preservice or induction-level teaching certificate. They are then granted eligibility for the field experience, assigned a course in their area of certification, and receive login credentials.

Virtual Field Experience Expectations and Assignments

Most candidates who enroll in ECSE 7566, a fully online course, are familiar with the student perspective of online coursework. However, this experience does not translate to being prepared for the responsibilities of online instruction: not any more than being students in the K-12 school system prepares them to be teachers. Prior to entering the online course for their field experience, the candidates, or graduate students, are exposed to best practices in online teaching.

Teaching Online—Open Learning (TOOL) Courses

Teaching online—open learning (TOOL) badges were created by Georgia Virtual Learning and the Georgia Department of Education. TOOL is

a learning platform which provides professional development courses for educators and administrators in five areas: *Participate*, *Navigate*, *Communicate*, *Create*, and *Evaluate* (GA DOE, 2017). The five badges are components of the GAVS Effective Online Teaching course series and the platform is open for anyone to register free of charge; the badges can be reviewed, completed, and self-awarded. "K-12 school districts partner with TOOL to provide quality professional development courses to educators .... Post-secondary institutions partner with TOOL to enrich initial teacher certification programs and augment graduate study programs" (GA DOE, 2017). These are the same badges the GAVS instructors are required to complete by registering for the verified courses, for which a fee is charged.

UWG's education candidates are required to review the components of best practices as presented in each of the five TOOL courses. Then, they are expected to participate in an online discussion with their classmates about the most significant findings and implications for their future careers as educators. After students complete their overview of these five areas of best practices in online teaching, they are granted access to their GAVS field course.

Facilitating Online Discussions

As the education students, or candidates, immerse themselves into their active virtual field course, they must pay particular attention to the online discussions. They are expected to critique the discussion assignment directions as well as the posts of the secondary students and instructor. The observations and authentic virtual examples offer a thorough, threaded experience across the time span of their field experiences. To guide this process, critique guidelines are provided:

1. Select three units in the GAVS course you are observing and read over the discussion questions and responses for those units.
2. Reflect on your impressions of the discussions concentrating on the following:
    a. Are the discussion questions engaging?
    b. Are the student responses appropriate or not?
    c. Why are some students' responses *better* than others'?
    d. Has the teacher responded appropriately, especially to the students whose responses may be off topic or represent misconceptions?
    e. Are there any discussion questions you might add to this unit? Why?

Communicate is the TOOL most emphasized by the GAVS mentors, and that expectation is reflected in this assignment. This activity also informs the online discussion activities that candidates later create in the LMS.

Facilitating Online Assignments

Evaluate is another important TOOL at GAVS. For this reason, the educa-

tion students also critique assignment directions, student submissions, and feedback from the GAVS instructor. Critique guidelines for the assignments in their active virtual classroom are as follows:

1. Select three units in the GAVS course you are observing and read over the drop box assignments and submissions by the students.
2. Reflect on your impressions of the assignments concentrating on the following:
    a. Are the assignments engaging?
    b. Are the students' submissions adequate?
    c. Could the assignment be improved? How? (Be specific and feel free to suggest any great websites or applications that you might use.)
    d. Is the teacher's feedback appropriate? Could the feedback be better? (Make suggestions ... no offense will be taken!)
    e. Are there any assignments that seem repetitive or unnecessary?

After observing, reflecting, and analyzing, the candidates apply learning. They have the responsibility of creating engaging online assignments in the LMS. The activities provide them with the background knowledge they need to do this successfully.

Manipulating the Online Learning Management System

Observing and critiquing the discussions and assignments in the online field course help give the education students a clearer sense of the rationale behind the best practices they studied in the *Communicate* and *Evaluate* TOOL modules. The virtual field experience also offers examples for them to base their own discussion and assignment development for online K-12 learners, which are elements of the *Create* TOOL (GA DOE, 2017).

The education students are given access to a *sandbox* course in which to practice building instructional modules and explore the setup of online instruction. The instructional modules they create must complement their field course content and be original creations. The below instructions are provided to them:

1. Choose a topic that relates to one of the modules in your GAVS course that you observed for your critiques. The items you create should be designed to accompany that unit for the purposes of enhancing; expanding; improving; etc. what the GAVS teacher already has in place. GAVS policies do not allow you to create instructional materials for their courses, so you will do that in a sandbox instead of in the actual course.
2. In the sandbox, create a module for that unit (title the unit with your last name, subject, and unit topic). Your unit must include at least four <u>original</u> components:

   a. document file with instructional information (save all documents as PDF files)
   b. link to your own instructional video
   c. discussion
   d. assignment with a submission folder "drop box".

3. Your scheduled presentation will be a 10-minute (maximum) show-and-tell of your module and your rationale for the instructional pieces you have included. This will be done in groups, online through the sandbox platform.

Module Components 2c and 2d are based on the field experience in the virtual classroom. Component 2b is based on parallel learning in the UWG course, where three instructional videos are required: a voiceover narration using a presentation format, such as PowerPoint, a screencast, and either a presentation or screencast, with an embedded picture-in-picture video of themselves delivering the accompanying instruction. Creating a variety of teacher-made videos is a means for UWG's education students to implement the best practices presented in the *Create* and *Participate* TOOLs (GA DOE, 2017). The combination of these activities, especially the manipulation of the sandbox elements of the LMS, gives the field students experience facilitating the course as presented by best practices in the *Navigate* TOOL (GA DOE, 2017).

The culminating activity, Component 3, is a synchronous online meeting that fosters the dynamics as outlined in the *Participate* TOOL (GA DOE, 2017). Webcams are useful for creating more than videos, and in the online classroom, real-time communications are a must for many teachers and students. Fortunately, most LMSs provide a means for an online course meeting; and if that is not available, there are free options like Google Hangouts and Skype. For the preservice and practicing teachers enrolled in the online field experience course at UWG, the virtual school experience begins and ends with an online group meeting. Students know they need a working camera and microphone to participate, and early access to the orientation session allows several minutes for troubleshooting with students who need to update their settings and learn to activate and mute their webcams and microphones. The final presentation sessions at the end of the semester teach these educators how to navigate screen sharing as they present the online instructional components they created and allow them to explain how their files represent best practices in online learning for 21st century virtual classrooms. Throughout their course and field experience, it is emphasized that they should implement these online strategies with their own students whenever possible.

Learning Outcomes of the Virtual Field Experience

Not all education majors are preparing for fully online instruction in a virtual classroom. An important meta-cognitive aspect for

those who participate in the UWG–GAVS partnership is the realization that teachers may transfer their knowledge of the virtual classroom to enhance the physical classroom experience by integrating technology for increased student achievement. Education students who participate in the online field experience in an active virtual public school classroom recognize the value of the opportunity. This is evident by their forthcoming comments both during and after the experience.

Flipped Classroom

A buzzword in education describes the classroom that is flipped upside-down. With this model, traditional lecture-based classroom instruction is done in short, topical videos of less than fifteen minutes in length that are shared online. At home, students watch the videos, take notes, and learn at their own pace by pausing or rewinding as necessary. They are able to follow along with supplemental materials, such as their textbook or additional online resources. They then come to class more prepared and ready to engage in application activities with teacher guidance. In short, students are getting what used to be presented in class at home now, and thus doing their homework along with cooperative activities in class. During class, teachers have time to facilitate cooperative learning and individualized instruction. When students complete their practice work in class with the teacher's direct guidance and being more prepared, they are more engaged in their learning because they are actively working instead of passively sitting and watching the live version of what can alternatively be presented via video ahead of time. Education majors refer to specific information about turning instruction upside-down found in their course text *Flip Your Classroom* (Bergmann & Sams, 2012). One of the teachers who participated in the online field experience wrote "I have already begun creating video lectures. I will spend time finding a way to implement the flipped concept and addressing special population[s of students]" (Course Evaluation Comment, personal communication, Spring 2016). Addressing the diverse needs of individual students is an important skill for teachers and a learning outcome of the online field experience.

Differentiated Instruction

Regardless of whether instruction is in a virtual or brick-and-mortar classroom, including the use of teacher-made videos allows educators to be more efficient with instructional time, while using a differentiated approach to benefit unique needs of individual learners. All students can benefit from pausing or rewinding a video as they take notes at their own pace; and that feature may help to alleviate the boredom some students feel as they wait for others to catch up in a traditionally delivered lesson. Advanced thinkers may watch the video straight through to make better use of their time.

Required accommodations may be met through video-based instruction. English Language Learners have

the option to take the time they need to process meaning. Students who benefit from a front row-seating placement or quieter environment have those needs met through the video lesson. Those who need a louder volume setting or enlarged image can easily change their settings.

Unexpected Benefits

Various benefits emerged. For example, incorporating teacher-made videos can transform the quality of instructional time during class sessions that are facilitated by a substitute teacher or sessions interrupted by weather conditions. One participant in the online field experience realized that she "could use this knowledge to maybe create assignments for snow days or maybe if I ever know that I am going to be out for a few days in a row, I could video myself teaching a math class" (Course Evaluation Comment, Spring 2018). Preservice and in-service teachers expressed various levels of appreciation for the value of learning online learning methods. One education major commented that she plans "to use screencasting and voiceovers more in [her] classroom instruction and in completing grad school projects" (Course Evaluation Comment, Spring 2018). Educators found applications for online teaching techniques in both their university courses and K-12 classrooms.

Marketability

Participating in an online field experience in an active virtual classroom provides learning outcomes that directly enhance career possibilities. Teachers become more marketable when they have online teaching skills (Quillen, 2010). Those that have had field experiences in virtual classrooms appreciate having "learned how to build and facilitate an online course" (Course Evaluation Comment, Summer 2017). One teacher, after learning online teaching techniques, now feels comfortable enough with those skills to "possibly seek a way to work for Georgia virtual school on a part time basis" (Course Evaluation Comment, Spring 2016). Another has used her skills to improve her own teaching and has taken the lead with colleagues in her public school:

> I really enjoyed your class and the strategies you used. With the flipped instruction and Kahoot game, I have become teacher of teachers in my school, where other teachers and district staff come to visit and observe my class. I presented the above two in our faculty meeting. Right now, I am the only one in my school using [the] flipped model and all science and math teachers [are] using Kahoot games. My students are enjoying my class and learning is fun to them. During your class, I became the teacher of the month; also I was a few points away to becoming the teacher of the year. Your class has really benefited me and my students tremendously. (Personal Email Communication, April 25, 2014)

Enhancing career opportunities is one of the primary objectives of teacher education programs, and expanding field experience opportunities to include virtual instruction for online students is an impactful way to reach today's teachers and K-12 students.

Conclusion

The 21st century classroom is not a vision of the future as the 21st century began nearly two decades ago. If teachers are not being prepared to teach in a digital classroom, or at least with digitally enhanced curriculum delivery, then their skills are outdated even before they begin their profession as an educator. Educator preparation programs and the faculties who teach education courses, whether they serve preservice or inservice teachers advancing their expertise, must avoid this disservice. All teachers should be well equipped and highly competent with the myriad of skills needed to effectively use and teach within LMSs. These are the newest responsibilities of teacher preparation programs, and including a field experience with a virtual school is a unique and timely means to meet this challenge. This need is best captured by an education major who wrote that the experience "provided me with training that I would have never had access to otherwise" (Course Evaluation Comment, Summer 2017). Although the UWG field experience in a virtual school is a required course activity, it currently provides the experience for only 60 preservice and inservice teachers per year. It is not required for all those who complete a teacher education program, but should be. Today, teacher education must be different: it must meet the online demands of the 21st century classroom.

References

Barbour, M. K. (2012). Training teachers for a virtual school system: A call to action. In D. Polly, C. Mims & K. A. Persichitte (Eds.), *Developing technology-rich teacher education programs: Key issues* (pp. 499–517). Retrieved from http://digitalcommons.sacredheart.edu/cgi/viewcontent.cgi?article=1102&context=ced_fac

Bergmann, J., & Sams, A. (2012). *Flip your classroom: Reach every student in every class every day*. Washington, DC: ISTE.

Cardoza, M. (2014). *Free digital textbooks available from the Georgia Department of Education*. Georgia Department of Education. Retrieved from http://www.gadoe.org/External-AffairsandPolicy/communications/Pages/PressReleaseDetails.aspx?PressView=default&pid=219

Charania, A. K. (2010). *Preparing future teachers for virtual schooling: assessing their preconceptions and competence* (Doctoral dissertation). Retrieved from https://lib.dr.iastate.edu/cgi/viewcontent.cgi?referer=https://www.google.com/&httpsredir=1&article=2456&context=etd

Compton, L., & Davis, N. (2010). The impact of and key elements for a successful virtual early field experience. *Contemporary Issues in Technology and Teacher Education, 10*(3), 309–337.

Davis, N., Demiraslan, Y., Charania, A., Compton, L., & Correia, A. (2007). Teacher education goes into virtual schooling: Developing national models for virtual schooling experiences. *30th Annual Proceedings of the National Conference of the Association for Educational Communications & Technology, Volume 2*. Retrieved from https://members.aect.org/pdf/Proceedings/proceedings07/2007I/07_16.pdf

DiPietro, M., Ferdig, R. E., Black, E. W., & Preston, M. (2008). Best practices in teaching K-12 online: Lessons learned from Michigan Virtual School teachers. *Journal of Interactive Online Learning, 7*(1), 10–35.

Ferdig, R., Cavanaugh, C., KiPietro, M., Black, E. W., & Dawson, K. (2009). Virtual schooling standards and best practices for teacher education. *Journal of Technology and Teacher Education, 17*(4), 204–226.

Georgia Department of Education. (2016a). *Georgia virtual learning: Georgia virtual school*. Retrieved from www.gavirtualschool.org

Georgia Department of Education. (2016b). *160-4-4-.10 Instructional materials selection and recommendation*. Retrieved from http://www.gadoe.org/Curriculum-Instruction-and-Assessment/Curriculum-and-Instruction/Pages/Learning-Resources.aspx

Georgia Department of Education. (2017). *Georgia virtual learning: Teaching online open learning*. Retrieved from www.openteachertraining.org/

Georgia General Assembly. (2015–2016). *SB 89 Digital classroom act*. Retrieved from http://www.legis.ga.gov/legislation/en-US/Display/20152016/SB/89

Google. (2017). *Google classroom*. Retrieved from https://edu.google.com/k-12-solutions/classroom/

Khan Academy. (2017). *You can learn anything*. Retrieved from https://www.khanacademy.org

Miron, G., & Gulosino, C. (2016). *Virtual schools report 2016: Directory and performance review*. Boulder, CO: National Education Policy Center. Retrieved from http://nepc.colorado.edu/ publication/virtual-schools-annual-2016

Moore-Adams, B. L., Jones, W. M., & Cohen, J. (2016). Learning to teach online: A systematic review of the literature on K-12 teacher preparation for teaching online. *Distance Education, 37*(3), 333–348.

National Conference of State Legislatures. (2017). *Online learning*. Washington, DC. Retrieved from http://www.ncsl.org/research/education/online-learning-as-graduation-requirement.aspx#2

Quillen, I. (2010, September 20). Ed. schools lag behind in virtual-teacher training. *Education Week*. Retrieved from https://www.edweek.org/ew/articles/2010/09/22/04edtech_teachprep.h30.html

Ross, T. F. (2015, March 6). The death of textbooks? *The Atlantic*. Retrieved from https://www.theatlantic.com/education/archive/2015/03/the-death-of-textbooks/387055/

The Moodle Project. (2017). *Moodle*. Retrieved from https://moodle.org

U.S. News. (2018, January 9). U.S. News releases 2018 best online program rankings. *U.S. News & World Report*. Retrieved from https://www.usnews.com/info/blogs/press-room/articles/2018-01-09/us-news-releases-2018-best-online-programs-rankings

World Economic Forum. (2016, January). *The future of jobs: Employment, skills and workforce strategy for the fourth industrial revolution*. Retrieved from http://www3.weforum.org/docs/WEF_Future_of_Jobs.pdf

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Building Rapport and Creating a Sense of Community: Are Relationships Important in the Online Classroom?

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Abstract

Enrollments in online higher education programs and courses have increased and more instructors are now teaching online. Researchers have identified the best practices for creating a learning environment that meets the needs of post-secondary students enrolled in online courses. This paper examines the factors associated with the instructor–student relationships and student–student relationships that promote student satisfaction, motivation, and learning in online contexts. Researchers have identified several instructor characteristics that aid in building relationships and help facilitate learning. Practical strategies for building rapport and creating a sense of community illustrate how these concepts apply to online classrooms.

Keywords: online education, rapport building, sense of community, student motivation, instructor–student relationship, student–student relationship

Crear una buena relación y un sentido de comunidad: ¿Son importantes las relaciones en el aula en línea?

Resumen

Las inscripciones en programas y cursos de educación superior en línea han aumentado y más instructores ahora están enseñando en línea. Los investigadores han identificado las mejores prácticas para crear un entorno de aprendizaje que satisfaga las necesidades de los estudiantes de educación superior inscritos en cursos en línea. Este documento examina los factores asociados con las relaciones instructor-alumno y las relaciones alumno-alumno que promueven la satisfacción, la motivación y el aprendizaje de los alumnos en contextos en línea. Los investigadores han identificado varias características del instructor que ayudan a construir relacio-

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nes y ayudan a facilitar el aprendizaje. Las estrategias prácticas para crear una buena relación y crear un sentido de comunidad ilustran cómo estos conceptos se aplican a las aulas en línea.

Palabras clave: educación en línea, desarrollo de relaciones, sentido de comunidad, motivación del estudiante, relación instructor-estudiante, relación estudiante-estudiante

建立融洽关系和营造社区意识：网络课堂中人际关系重要吗？

摘要

在线高等教育项目和课程的注册人数有所增加，现在有更多的教师在网上教学。研究人员为创造能够满足在线课程注册的高等教育学生需求的学习环境确定了最佳实践方案。本文探讨了网络环境下师生关系和同学关系促进学生满意度和学习动机的相关因素。研究人员已经确定了几种有助于建立人际关系和促进学习的教师特征。建立融洽关系和社区意识的实践战略说明了这些概念是如何应用于网络教室的。

关键词：网络教育，融洽关系建设，社区意识，学生动机，师生关系，同学关系

Access to a college education has been more readily available with the development of online educational courses and programs. According to the National Center for Education Statistics (2016), 14% (*n*=2,824,334) of students enrolled in post-secondary institutions in the United States are exclusively taking distance education courses and 28.5% (*n*=5,750,417) are participating in some distance education course(s). There are typically two types of online courses: those that (a) have no face-to-face interaction with the instructor and classmates; or (b) operate in a hybrid format with both online and face-to-face interaction. For the purpose of this discussion, the online classroom is defined as one in which interactions with the instructor and classmates exclusively occur virtually, or online.

Some of the most notable benefits of online education are the convenience

and flexibility it provides, particularly for students who are in areas without physical access to a university or need a flexible schedule to accommodate work and family obligations. As online education has gained popularity and provided increased access, researchers have explored the quality of online education and which specific factors play a role in achievement, motivation, and persistence in this unique environment. Similar to face-to-face courses, instructors who help create a sense of community and establish rapport with students can positively affect student motivation, persistence, and achievement (Joyner, Fuller, Holzweiss, Henderson, & Young, 2014; Malott, Hall, Sheely-Moore, Krell, & Cardaciotto, 2014; Pascarella & Terenzini, 2005). Online instructors play a critical role in creating an effective learning environment through social interaction, teaching presence, fostering a sense of community by encouraging student connections, and demonstrating various characteristics associated with rapport-building, such as warmth, caring, support, enthusiasm, and creativity. The most effective online instructors place an emphasis on relationship building efforts and do not ignore the human interaction and social factors in the learning process (Allen, Whitt, & Wheeless, 2006; Lowman, 1996; Meyers, 2000; Sitzman & Leners, 2006; Wilson, 2006).

Awareness of Student Needs

Before considering instructor influence in online classrooms, it is important to consider needs of students who are enrolled in online courses. Instructors who understand and meet students' individual needs help to increase student satisfaction, motivation, and persistence. When instructors are not attuned to students' needs, it may lead to frustration and dissatisfaction, which may also result in withdrawing from the course.

Technology Challenges

A mismatch between instructor expectations and failure to recognize student needs can lead to assumptions and misunderstandings. For example, instructors may assume that students taking online courses are well-versed in technology and how to use the Learning Management System (LMS). Mupinga, Nora, and Yaw (2006) found that 93% of students participating in their study needed technical assistance, which included navigating the LMS. Not recognizing this trend may lead to students having ongoing difficulties and possibly withdrawing from the course. Instructors should serve as both the content expert in the subject area and needed resource in helping learners navigate the virtual classroom. Thus, embracing both roles is essential in the online classroom. Students taking online courses may also experience anxiety associated with technology and this can have a negative influence on their performance and satisfaction (Sun, Tsai, Finger, Chen, & Yeh, 2008). Being aware of these particular needs is important to provide the level of support necessary. This may be particularly true of those students who will be taking an online course for the first time.

Individual Circumstances

Another factor that online instructors may need to consider is that students have circumstances that led them to take courses at a distance. Students may be limited to this mode of education for various reasons. For example, they may live in a rural area and lack proximity to a post-secondary institution. Or, they may be military members who endure frequent deployments and relocations. Students may be working fulltime jobs and online courses are more accommodating for their work schedule. Learners may have family obligations, such as taking care of young children or aging parents. In some cases, students may have their own health issues that prevent attendance in a brick and mortar classroom.

Keeping these possible scenarios in mind, students persevering through various personal challenges are better attended to when instructors allow for some flexibility without compromising the quality of the learning experience. Asynchronous online learning environments inherently provide flexibility as attendance is not limited to a specific meeting day or time. Instructors can provide expanded flexibility by accepting assignments past the due date without late penalties. Being knowledgeable about organizational offerings (e.g., writing centers, library resources, mental health support systems, etc.) equips instructors to more efficiently direct students to receive appropriate assistance. Getting to know each student's story and his or her particular needs assists in providing the necessary support, while better situating the student for academic success.

Need for Belonging

In addition to considering students' individual stories and technology skills, Milheim (2012) discussed the need for acceptance and belonging within the online classroom community. Beyond building a positive instructor–student relationship, students also need a sense of community and connection with classmates. This learning community helps prevent a sense of isolation among students (Komarraju, Musulkin, & Bhattacharya, 2010; Perera-Diltz & Monaghan, 2014), which can be a common problem in distance education. Specific instructor behaviors and characteristics have the potential to create a learning community fostering both meaningful instructor–student and student–student relationships, which have been associated with better learning outcomes, increased motivation, and persistence in the course or program.

Building Rapport

Rapport building helps establish a positive instructor–student relationship. Instructors teaching completely online typically operate in an asynchronous manner and may have limited opportunities to interact at the same time with their students. Although advances in technology have provided several options for online synchronous interaction, it is not always possible when navigating different time zones and student preferences. It is also important to note that some students

who choose online education may not be interested in meeting face to face or in real time, whereas others might welcome the opportunity. Despite not having face-to-face interaction, rapport can still be developed in online settings. Having an understanding of student circumstances and needs, gaining insight into their interests and personalities, and maintaining regular communication can help an instructor develop rapport even when interaction is limited to the online classroom.

Ways to Build Rapport

Murphy and Rodriguez-Manzanares (2012) identified several ways to build rapport in online educational environments. Recognizing the person/individual involves gathering some personal information, which is often the goal of an introduction posting in the course's discussion area, or forum, where instructors and students share more about themselves and help establish some connections during the first week of the course. One strategy I use to help build rapport involves pointing out commonalities, strengths, and goals among students' introduction forum postings. This biographical information is also helpful when providing tailored feedback specific to each student. Timely, quality feedback is mentioned throughout the body of literature as an important factor in building the instructor–student relationship (Herbert, 2006; Murphy & Rodriguez-Manzanares, 2012). In addition to providing constructive criticism, providing praise, encouragement, and support help to build a positive connection with students. Sharing resources, such as institutional-provided tutoring, assistance from librarians on call, or referrals for emotional support are additional ways to build rapport by meeting individual student needs.

Availability, accessibility, and responsiveness include timely responses to emails, substantive feedback, and having times available for individual conferencing. In addition to being available, instructors need to be approachable or students may not take advantage of office hours or individual conferencing opportunities. Even though the nature of online courses is asynchronous, there are occasions when non text-based interactions are important to structure. Hearing or seeing one another may promote clarity and deeper connectedness. I have found verbal communication, especially, to be an effective method for building instructor–student rapport.

Messages that convey a friendly, positive, and respectful tone aid in building a positive working relationship (Murphy & Rodriguez-Manzanares, 2012). For example, I have used digital storytelling, verbal narration in PowerPoint presentations, and recorded webinars across courses. Screencasting is another popular tool instructors use to connect with students in online classrooms. This tool allows for recording verbal assignment feedback, reviewing expectations outlined in the syllabus, delving deeper into a concept students are struggling to learn, demonstrating a *how to* on using specific functions in the classroom, conferencing with individual students, and helping build com-

munity (Luongo, 2015). When communicating with students, it is often not the words said, but *how* they are conveyed that makes a difference. Communicating empathy and understanding when a student is experiencing personal, professional, or academic difficulties improves the instructor–student relationship. Lastly, non-academic conversation/interactions such as showing caring and concern or engaging in social conversations can foster rapport (Murphy & Rodriguez-Manzanares, 2012).

Instructor Characteristics

Rapport building and developing a positive working relationship with students are essential components of building a classroom climate conducive to learning (Malott et al., 2014) and students want to have relationships with instructors who know them (Exter, Korkmaz, Harlin, & Bichelmeyer, 2009). Building rapport has been associated with specific instructor characteristics that increase student motivation and academic achievement. Students report increased motivation when instructors are caring (Meyers, 2000; Sitzman & Leners, 2006; Wilson, 2006), supportive, enthusiastic, humorous, creative (Lowman, 1996), interactive (Capra, 2011), responsive, respectful, and warm (Allen et al., 2006). Additionally, Rugutt and Chemosit (2005) found instructor–student interactions, such as providing emotional support, encouragement, respect, and guidance on professional goals, are associated with academic achievement. All of these characteristics contribute to a positive instructor–student relationship and help set the stage for successful learning. Demonstrating these instructor characteristics in online classrooms can be a challenge, but not impossible. Instructors may display these traits in creative ways even without interacting with students face to face.

Caring. Caring is one of the predominant characteristics associated with building rapport. Behaviors associated with caring include (a) effective and timely communication, (b) supportive guidance (Allen et al., 2006; Meyers, 2009), (c) personal connection and empathy, (d) availability, and (e) instructor commitment to learning (Sitzman & Leners, 2006). Holzweiss, Joyner, Fuller, Henderson, and Young (2014) found that graduate students specifically expect prompt responses to emails and assignment feedback, so there may be slight differences in expectations based on educational level. Herbert (2006) found responsiveness to be the most important characteristic of caring instructors. Instructors, who provide clear, concise directions, respond promptly to email and discussions within 48–72 hours, and are available for phone conferences, communicate that they care about meeting student needs (Sitzman, 2010). When communication and responsiveness are lacking, students perceive the instructor as disengaged and proceed to disengage from the course (Armstrong, 2011). On the other hand, students who perceived high level of interaction and communication with instructors felt they learned more (Swan, 2006; Trolian, Jach, Hanson, & Pascarella, 2016) and reported increased confidence and motivation (Komarraju

et al., 2010). Regular interaction and timely responses communicate the instructor cares and remains invested in students' learning experiences. Engaging with students through accurate, timely, and effective communication appears to be a necessary component of building rapport and setting the stage for academic success.

Genuine concern. In addition to responsiveness, Wilson (2006) found that communicating genuine concern as the most significant predictor of motivation, academic achievement, and satisfaction in the course. Demonstrating caring and genuine concern could be intentionally reaching out to students when they lack engagement in forum discussions or miss an assignment due date. Sending an encouraging personal message and asking if assistance is needed communicates that the instructor cares about the student's engagement in the course and that his or her participation is valued. For example, an instructor might write, *I noticed your initial post in the forum discussion is missing this week and wanted to check in and see if everything is okay. If you are having any difficulty with the topic or need assistance of any type, please let me know. I look forward to seeing your response to the question this week.* Following this approach for the past 7 years, I have noticed responses from students have been overwhelmingly positive. Often, students will reveal an obstacle they are facing, which gives more insight to the barrier preventing them from participating in the course discussion area.

When students submit assignments late, flexibility may be needed. Adhering to inflexible expectations, such as not grading any late work regardless of circumstance, negatively affects the instructor–student relationship, fosters disengagement, and decreases motivation. Students reported respecting instructors who were flexible and understanding, particularly related to assignment deadlines when students were overwhelmed by navigating multiple roles and responsibilities (Mupinga et al., 2006).

Supportive guidance. Supportive guidance is another way to demonstrate caring and is defined by the ability to relate to students' challenges in online classrooms; helping to troubleshoot those challenges; offering support directly to students; providing specific assignment feedback; and giving encouragement to increase student self-efficacy (Allen et al., 2006; Meyers, 2009). Being relatable also helps students to see the instructor as approachable and understanding. So this may open the lines of communication when students are having difficulties in courses, including obstacles that distract them from participating fully.

Student motivation improves when instructors are viewed as approachable (Komarraju et al., 2010). Sending an introduction message before a course begins and sharing brief, specific expectations can communicate that an instructor is approachable, relatable, available, and enthusiastic. Instructors may use self-disclosure in their course welcome messages the first week of class by sharing both professional and personal interests. They may also relate to student difficulties, such

as by communicating, *I know APA style may be challenging and to be honest, I keep my copy of the style guide on my desk to double check my own work at times*. Sharing this type of information with students communicates the instructor relates to the student experience and is attempting to foster a genuine connection. Another benefit of being relatable and approachable includes prompting connections with students beyond the classroom setting. It may lead to opportunities to work with students on additional projects, such as collaborating on research, presenting at a professional conference, or participating in a related university student organization.

There are several ways instructors might grant supportive guidance and encouragement through feedback. One technique is sharing two strengths for every listed area of improvement. Focusing only on areas of improvement without pointing out student strengths may give the impression that an instructor is only focused on pointing out the negatives, which may damage the instructor–student relationship. When students receive information about their strengths along with constructive criticism, this fosters a positive relationship and increases student confidence.

Similar to face-to-face communication, the tone in which an instructor communicates is important in online settings. Setting a positive tone communicates support and encouragement. For example, an instructor may provide the following feedback: *Good analysis of the case study and following the consultation model provided in this week's lesson. I noticed you provided some references from popular news sources and although the information was relevant and timely, your paper's credibility is improved when you use peer-reviewed journal articles and sources grounded in research. If you are having difficulty finding peer-reviewed sources, here are some links and contacts in the library that can be helpful. Feel free to contact me if you have any questions or need additional assistance.* Online instructors who use video feedback have the ability to communicate through tone of voice and body language. There is an opportunity to review the video and adjust any unintended body language or negative tone prior to sharing it with one or more students. Imparting constructive criticism is an art and pairing that criticism with acknowledged student strengths may communicate the instructor is approachable and supportive.

Availability. Instructors also show that they care by offering one on one conferences to review feedback, grades, or progress in the course. Conferences allow for sharing additional resources and supporting students having difficulty navigating the classroom or course content. For students performing well, conferences may be used to suggest collaborating on publishing, presenting, or other related activities. Giving students the option to meet in the online chat room, meet on a conference call, or exchange emails communicates respect for the students and their preferred modes of communication.

Building Sense of Community

In addition to instructors building rapport with individual students, some of the same instructor characteristics are helpful when fostering a sense of community in online classrooms. According to Joyner et al. (2014), effective learning environments are those in which students feel valued and a sense of belonging. Online courses may be perceived as impersonal and static; however, instructors who build connections with students and develop a sense of community contribute to their retention and academic success (Pascarella & Terezini, 2005). Similarly, students' interactions with the instructor and other students have been associated with increased sense of community and a supportive learning environment, where students are engaged in their own learning and in helping others (Young & Bruce, 2011). Rovai (2002a) identified spirit, trust, interaction, and learning as the characteristics necessary for creating a sense of community. Spirit is defined as belonging, cohesion, and developing a group identity and friendships. Learning refers to student perceptions and interactions within the classroom and to what extent interactions support shared educational goals and expectations (Rovai, 2002b). Building upon research by Rovai and Lucking (2000), Wilson, Ludwig-Hardman, Thornam, and Dunlap (2004) identified the following characteristics associated with creating a sense of community: (a) shared goals; (b) a safe/supportive environment (e.g., comfortable with sharing thoughts and ideas); (c) group identity (e.g., sense of belonging); (d) collaboration (e.g., student–student interaction); (e) respectful inclusion (e.g., differences respected); (f) progressive discourse (e.g., questions and discussions facilitate learning); and (g) mutual appropriation (e.g., reliance on each other to learn). Shu-Fang and Aust (2008) found sense of community and interactions with peers were significant predictors of satisfaction in the course and perceived learning. Lack of a collaborative, supportive environment (Murphy & Cifuentes, 2006; Rovai, 2002) and limited interactions with instructors and other students (Johnson, Aragon, & Shaik, 2000; Rovai & Downey, 2010) were identified as some of the reasons for being dissatisfied with distance education programs. In order to develop a sense of belonging and identify shared goals, instructors may begin a course by modeling an introduction that includes self-disclosure about interests, hobbies, and current/future goals (Murphy & Rodriguez-Manzanares, 2012; Oliphant & Branch-Mueller, 2016). When the instructor and students share such details, common interests and experiences surface and they have the opportunity to relate to one another. Discovering commonalities with others can aid in developing sense of classroom community.

Ways to Build Community Connections

One of the most important elements of building a sense of community involves fostering connections among students and instructors. Before delving into course content, relationship building is

worth time and effort. Instructors and students make their first impressions in the first forum discussion area, which is typically reserved for introductions and sharing biographical information. Creating introduction postings that are engaging and fun helps classmates connect and more readily relate to each another. As they connect in this way, students feel safer to express their thoughts and ideas (Wilson et al., 2004). The more students are familiar with each other and feel comfortable in the classroom, the better the learning environment.

For example, I created a cultural collage introduction forum for a graduate level school counseling diversity course I teach. I share my own collage introduction using photos and words (see Figure 1) that tells my cultural story along with a written summary that highlights various aspects of my identity. This provides a model for students who then in turn completed their own cultural collage introduction to share with the class. Such activities serve multiple purposes as they: (a) foster personal connections; (b) model K-12 school approaches; (c) connect to and highlight course objectives; and (d) offer an immediate concrete connection to course content. Sharing cultural backgrounds leads to clearer understandings about perspectives and more honest conversations in the forums throughout the course. I often receive personal feedback from former students who share that the cultural collage forum helped them feel as if they knew me personally and ultimately more connected to their classmates as compared to other courses.

Murphy and Rodgriguez-Manzanares (2012) recommend finding ways to express personality and this can be done through creative forum prompts. For example, creating a digital photo story with personal photographs and voice narration helps convey a personality more than through a written introduction. Students can post within forums in a similar manner and possibly share more about their personalities. I often give students options that attend to various comfort levels. Understanding that some students will be more comfortable with technology than others, instructors should provide various options for creative formats that allow for expression of personality. Options such as sharing a collage, presentation, digital story, or other creative format the students are familiar with may increase their confidence in completing the task.

Interactions in Forums

According to Tello (2007), student persistence is influenced by frequency of interaction with instructors. As interactions between the instructor and students increased, so did student-to-student interactions. This indicates that instructors' increased engagement with students and subsequent potential to increase students' interactions may lead to building group identity and mutual appreciation. Creating a space conducive for those connections and interactions may result in decreasing attrition rates.

Since interactions take place regularly in typical forum discussions,

Figure 1. Cultural collage example

higher frequency of responses may encourage more dialogue among students (Murphy & Rodriguez-Manzanares, 2012). Encouraging the use of critical thinking questions in reply postings establishes an expectation for students to pose questions to classmates, and should serve to propel dialogue forward, resulting in more responses and interactions. Instructors should capitalize on recognized points of disagreement and promote further discussion that considers differing points of view.

One strategy I use is what I refer to as *linking*. This process is similar to weaving, which highlights important points from students, weaves them together in a summary, and encourages further discussion by inviting students to respond to a question or challenge (Salmon, 2011). When I notice two students with very different perspectives, I reach out to both students in the forum to encourage further dialogue and debate. For example, I create a forum discussion posting with the students' names in the title (e.g., *Question for Fred and Jane*) to alert them to read that specific post. I synthesize aspects of their postings, summarize, and include one or more questions to foster connecting and learning from their unique perspectives. By *linking* the students, they have the opportunity to expand their understanding from one another's point of view.

Collaborative Learning

Collaborative learning is another way students may build connections with one another and various tools are available to provide such opportuni-

ties online. However, it is interesting to note that when too much of the course grade is based on collaborative group work, students perceive they learned less in the course (Swan, 2006). So, in structuring a course, it is suggested that instructors balance graded group and individual assessments. On the other hand, Oliphant and Branch-Mueller (2016) found that group assignments and forum discussions helped develop and maintain a sense of community. Some LMSs include chat features within forums that give students a place to discuss projects, ask questions, work together on assignments, share smaller works with the entire class, and connect about professional topics. For example, my students prepare for a professional licensure exam during their counseling program. In each course, they have the option to participate in a discussion forum thread about their preparation for the exam. This encourages working together and making connections based on a common goal as they share fears, insights, and resources to increase the probability of success. Further, it develops deeper awareness of professional field expectations and skills needed to function within professional learning communities (PLCs).

Acknowledging Student Strengths

Recognizing and acknowledging student strengths, such as perseverance (Crosling, Heagney, & Thomas, 2009), and providing activities that encourage students and instructors to make social connections benefit the online classroom climate. Instructors set the stage for student engagement, which has been identified as a significant factor in retention and persistence (Boston et al., 2010; Kezar & Kinzie, 2006). Creating lessons, assignments and forums relevant to students' experiences and aligned to learning outcomes may influence student engagement and encourage more meaningful participation. Considering the diverse experiences students bring to classrooms, recognizing and leveraging their strengths through collaborative activities is crucial. Activities may include completing peer review exercises, creating a presentation or forum response, or using problem-based learning to solve a scenario.

I designed a *progressive case study* to capitalize on students' strengths and situate a collaborative problem-based learning scenario. I developed this idea based on the progressive dinner experience where each participant provides a part of a five course meal. In this case, everyone provides one part of the case study prior to working together in order to help identify better solutions. A *progressive case study* forum involves assigning students to individually develop different elements of a case study and then equipped with the broader range of others' elements, have them address the concerns, issues, and solutions collectively as a team.

For example, in a counselor education *progressive case study*, Student 1 gathers demographics, Student 2 contributes historical and cultural data, Student 3 adds relevant assessment information, and Student 4 describes the problems. Once group members complete their assigned sections, they work

cooperatively to choose interventions and apply a decision-making model. Each student has a specifically assigned role leading to the project culmination of problem-solving case solutions collaboratively. Students' strengths may be considered in assigning specific individual tasks. Students skilled at providing detailed information might develop the historical backgrounds of the case. Students experienced with assessments in their professional positions might be assigned accordingly. Instructors who provide such structured course activities provide opportunities for students to use their strengths and collaborate as a team to solve challenging scenarios similar to what they will experience in the field.

Further, collaborative learning fosters community. Creating a sense of community in online classrooms has been associated with positive outcomes, such as increased student satisfaction, motivation, and achievement (Joyner et al., 2014; Malott et al., 2014; Pascarella & Terenzini, 2005). Since these outcomes are desired within online classrooms, it is recommended that instructors encourage student–student relationships to develop a sense of community and facilitate a safe, supportive space for student learning. Although the primary means of communication in online courses is dependent upon technology and not occurring face to face, instructors can creatively facilitate respectful, encouraging, and engaging environments for students.

Future Recommendations

The characteristics necessary for building rapport and sense of community in online classroom have been identified primarily based on student perception data. Other studies have found associations between these characteristics and motivation, persistence, and achievement (Joyner et al., 2014; Malott et al., 2014; Pascarella & Terenzini, 2005). What has not been explored in depth is which specific methods have the most significant impact on student outcomes and sense of belonging. With the myriad of available technologies, future research studies should explore which strategies, approaches, and tools have a greater impact on student learning outcomes to guide best practices for creating effective online learning environments. With so many options, instructors may be overwhelmed with trial and error. The strategies presented in this paper have received positive responses from students based on my personal experiences. The next recommended step is to build on this anecdotal evidence and conduct empirical research studies that examine the effectiveness of the approaches and strategies. For example, if desired instructor characteristics, such as caring, are expressed more effectively through screencasting in comparison to written responses, then this might inform how an instructor provides feedback to students. Conducting research studies that focus on how a strategy was implemented and can be replicated helps to increase the generalizability of findings.

Another recommendation is studying whether students' learning styles or personality characteristics may influence the perception of effective strategies and approaches in online classrooms. It may be helpful to explore how these factors influence students' sense of community, relationships with the instructor, and learning outcomes. Although online courses are typically designed to meet the needs of a large group, data about individual students help with adapting environments to both individual and collective student needs.

Future research exploring instructor–student rapport building and effective developing of a sense of community may need to include factors beyond the traditional LMS. Some universities provide opportunities outside of the classroom to foster relationships with faculty members and peers through social media, student organizations, mentoring, advising, or other means. Research on effective tools and strategies within online classrooms may apply to a broader context of rapport building and sense of community among the university community as a whole. Instead of viewing online classrooms as isolated spaces, it would be beneficial to consider a more comprehensive perspective of students' experiences and whether successful in-course strategies can be used more widely.

Conclusion

As higher education leaders, faculties, and staff seek ways to support students and their persistence, priority should be given to designing learning environments that attend to building rapport, connectedness, and sense of community. Then students who may otherwise feel isolated when taking courses online might persist and be successful. Specifically, instructors who demonstrate caring, respect, understanding, enthusiasm, approachability, creativity, and other traits conducive to developing relationships with and among students create online courses that promote motivation and achievement. Spending time on the relationship aspect of online learning is a worthwhile investment and an important responsibility. As online course and program offerings increase, research on optimal online learning environments to support student motivation, achievement, and persistence is needed to guide best practices.

References

Allen, M., Witt, P. L., & Wheeless, L. R. (2006). The role of teacher immediacy as a motivational factor in student learning: Using meta-analysis to test a causal model. *Communication Education, 55*, 21-31.

Armstrong, D. A. (2011). Students' perceptions of online learning and instructional tools: A qualitative study of undergraduate students use of online tools. *The Turkish Online Journal of Educational Technology, 10*(3), 222-226. Retrieved from http://www.tojet.net/articles/v10i3/10325.pdf

Boston, W., Diaz, S. R., Gibson, A. M., Ice, P., Richardson, J., & Swan, K. (2010). An exploration of the relationship between indicators of the Community of Inquiry Framework and retention in online programs. *Journal of Asynchronous Learning Networks, 14*(1), 3-19.

Capra, T. (2011). Online education: Promise and problems. *MERLOT Journal of Online Learning and Teaching, 7*(2), 288-293.

Crosling, G., Heagney, M., & Thomas, L. (2009). Improving student retention in higher education: Improving teaching and learning. *Australian Universites' Review, 51*(2), 9-18.

Exter, M. E., Korkmaz, N., Harlin, N. M., & Bichelmeyer, B. A. (2009). Sense of community within a fully online program: Perspectives of graduate students. *Quarterly Review of Distance Education, 10*(2), 177-194.

Herbert, M. (2006). Staying the course: A study in online student satisfaction and retention. *Online Journal of Distance Learning Administration, 9*(4). Retrieved from https://www.westga.edu/%7Edistance/ojdla/spring61/miller61.htm

Holzweiss, P. C., Joyner, S. A., Fuller, M., Henderson, S., & Young, R. (2014). Online graduate students'perceptions of best learning experiences. *Distance Education*, *35*(3), 311-323.

Johnson, S. D., Aragon, S. R., & Shaik, N. (2000). Comparative analysis of learner satisfaction and learning outcomes in online face-to-face learning environments. *Journal of Interactive Learning Research, 11*(1), 29-49. Retrieved from https://www.learntechlib.org/p/8371/

Joyner, S. A., Fuller, M. B., Holzweiss, P. C., Henderson, S., & Young, R. (2014). The importance of student-instructor connections in graduate level online courses. *Journal of Online Learning and Teaching, 10*(3), 436-445.

Kezar, A., & Kenzie, J. (2006). Examining the ways institutions create student engagement: The role of mission. *Journal of College Student Development*, *47*(2), 149-173.

Komarraju, M., Musulkin, S., & Bhattacharya, G. (2010). Role of student–faculty interactions in developing college students' academic self-concept, motivation,

and achievement. *Journal of College Student Development*, *51*(3), 332-342.

Luongo, N. (2015) Missing the chalkboard: Using screencasting in the online classroom. *Computers in the Schools, 32*(2), 144-151.

Malott, K. M., Hall, K. H., Sheely-Moore, A., Krell, M. M., & Cardaciotto, L. (2014). Evidence-based teaching in higher education: Application to counselor education. *Counselor Education and Supervision, 53*, 294-305.

Meyers, S. (2009). Do your students care whether you care about them? *College Teaching, 57*, 205-210.

Milheim, K. L. (2012). Toward a better experience: Examining student needs in the online classroom through Maslow's hierarchy of needs model. *Journal of Online Learning and Teaching, 8*(2). Retrieved from http://jolt.merlot.org/vol8no2/milheim_0612.htm

Mupinga, D. M., Nora, R. T., & Yaw, D. C. (2006). The learning styles, expectations, and needs of online students. *College Teaching, 54*(1), 185-189.

Murphy, K. L., & Cifuentes, L. (2006). Using web tools, collaborating, and learning online. *Distance Education, 22*(2). Retrieved from http://www.tandfonline.com/doi/abs/10.1080/0158791010220207

Murphy, E., & Rodriguez-Manzanares, M. A. (2012). Rapport in distance education. *The International Review of Research in Open and Distributed Learning, 13*(1). Retrieved from http://www.irrodl.org/index.php/irrodl/article/view/1057/2076

Oliphant, T., & Branch-Mueller, J. (2016). Developing a sense of community and the online student experience. *Education for Information, 32*(4), 307-321.

Pascarella, E. T., & Terenzini, P. T. (2005). *How college affects students: A third decade of research*. San Francisco, CA: Jossey-Bass.

Perera-Diltz, D. M., & Monaghan, C. H. (2014). A dialogue on strategies for effective online counselor education instruction. Retrieved from https://www.counseling.org/docs/default-source/vistas/article_54.pdf?sfvrsn=2677d2c_10

Rovai, A. P. (2002a). Building sense of community at a distance. *The International Review of Research in Open and Distributed Learning, 3*(1). Retrieved from http://www.irrodl.org/index.php/irrodl/article/view/79/152

Rovai, A. P. (2002b). Development of an instrument to measure classroom community. *Higher Education, 5*(1), 197-211.

Rovai, A. P., & Downey, J. R. (2010). Why some distance education programs fail while others succeed in a global environment. *The Internet and Higher Education, 13*(3), 141-147.

Rugutt, J. K., & Chemosit, C. C. (2005). A study of factors that influence college academic achievement: A structural equation modeling approach. *Journal of Educational Research and Policy, 5*(1), 66-90.

Salmon, G. (2011). *E-moderating: The key to online teaching and learning* (3rd ed.). NY: Routledge.

Shu-Fang, N., & Aust, R. (2008). Examining teacher verbal immediacy and sense of classroom community in online classes. *International Journal on ELearning, 7*(3), 477-498.

Sitzman, K. (2010). Student-preferred caring behaviors for online nursing education. *Nursing Education Perspectives, 31*(3), 171-178.

Sitzman, K., & Leners, D. W. (2006). Student perceptions of CARING in online baccalaureate education. *Nursing Education Perspectives, 27*(5), 254-259.

Sun, P. C., Tsai, R. J., Finger, G., Chen, Y. Y., & Yeh, D. (2008). What drives a successful E-learning? An empirical investigation of the critical factors influencing learner satisfaction. *Computers & Education, 50*(4), 1183-1202.

Swan, K. (2001). Virtual interaction: Design factors affecting student satisfaction and perceived learning in asynchronous online courses. *Journal of Distance Education, 22*(2), 306-331.

Tello, S. F. (2007). An analysis of student persistence in online education. *International Journal of Information and Communication Technology Education*, *3*(3), 47-62.

Trolian, T. L., Jach, E. A., Hanson, J. M., & Pascarella, E. T. (2016). Influencing academic motivation: The effects of student-faculty interaction. *Journal of College Student Development, 57*(7), 810-826.

U.S. Department of Education, National Center for Education Statistics. (2016). *Digest of Education Statistics, 2015* (NCES 2016-014). Retrieved from https://nces.ed.gov/fastfacts/display.asp?id=80

Wilson, J. H. (2006). Predicting student attitudes and grades from perceptions of instructors' attitudes. *Teaching of Psychology, 33*(2), 91-95.

Wilson, B. G., Ludwig-Hardman, S., Thornam, C. L., & Dunlap, J. C. (2004). Bounded community: Designing and facilitating learning communities in formal courses. *The International Review of Research in Open and Distributed Learning, 5*(3). Retrieved from http://www.irrodl.org/index.php/irrodl/article/view/204/286

Young, S., & Bruce, M. A. (2011). Classroom community and student engagement in online courses. *Journal of Online Learning and Teaching*, *7*(2). Retrieved from http://jolt.merlot.org/vol7no2/young_0611.htm

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Introducing Live Group Meetings in an Online Class: Tips and Techniques

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Abstract

Live group meetings using synchronous tools in online classes promote student engagement, persistence, and success by increasing social, cognitive, and teaching presence. Based on one instructor's experience in 8-week composition and literature class sections of 15–25 students at an online university, practical recommendations for instructors considering integrating live group meetings, for the first time, as part of an online course emerged. Three specific types of live meetings include orientations that introduce students to the class, instructor, and each other; assignment reviews that provide guidelines and strategies for success for upcoming assignments; and workshops that use student work for collaborative discussion and revision. Tips and techniques provide for planning and leading live group meetings, overcoming challenges, and maintaining Family Educational Rights and Privacy Act (FERPA) and Americans with Disabilities Act (ADA) compliance.

Keywords: synchronous tools, live meetings, online classroom

Presentación de reuniones grupales en vivo en una clase en línea: consejos y técnicas

Resumen

Las reuniones grupales en vivo que usan herramientas sincrónicas en las clases en línea promueven la participación, la persistencia y el éxito de los estudiantes al aumentar la presencia social, cognitiva y de enseñanza. Basándose en la experiencia de un instructor en secciones de 8 semanas de clases de escritura y literatura en inglés de 15 a 25 estudiantes en una universidad en línea, surgieron recomendaciones prácticas para los instructores que consideran la posibilidad de integrar reuniones grupales en vivo por primera vez como parte de un curso en línea. Tres tipos específicos de reuniones en vivo incluyen orientaciones que inician a los estudiantes a

 doi: 10.18278/il.7.1.5

la clase, al instructor y entre ellos; revisiones de tareas que proporcionan pautas y estrategias para el éxito de las próximas tareas; y talleres que utilizan el trabajo de los estudiantes para la discusión y revisión colaborativa. Las sugerencias y técnicas brindan planificación y dirección de reuniones grupales en vivo, superación de desafíos y cumplimiento de la Ley de Privacidad y Derechos Educativos de la Familia (FERPA) y la Ley de Estadounidenses con Discapacidades (ADA).

Palabras clave: herramientas síncronas, reuniones en vivo, aulas en línea

网络课堂中引进实时小组会议：提示和技巧
美国公立大学系统

摘要

在线课堂上使用同步工具的实时小组会议通过增加社会、认知和教学影响来促进学生参与、增强学生耐心和帮助学生成功。根据一位导师在一所在线大学长达八周的写作文学课程教学经验，首次考虑实时小组会议作为部分在线课程的实用建议得以提出。三种特定类型的实时会议包括向全班同学和教师介绍自己的迎新活动；提供成功指导方针和策略的作业评审；以及通过学生工作进行合作探讨和修订的小组讨论。提示和技巧为规划和领导实时小组会议、克服挑战、遵守家庭教育权利和隐私权法（FERPA）以及美国残疾人法（ADA）奠定了基础。

关键词：同步工具，实时会议，在线课堂

While asynchronous discussions and videos are a staple of the online classroom, the use of synchronous communication varies widely among instructors and institutions despite most learning management systems including some types of synchronous tools, such as Adobe Connect, Collaborate, and WebEx. Such synchronous tools provide an online meeting space for real-time communication using audio, video, and screen and document sharing.

The use of synchronous tools in the online classroom adds to social, cognitive, and teaching presence as part

of the community of inquiry model developed by Garrison, Anderson, and Archer (2000). Live group meetings build social presence by allowing participants, the instructor and students, to express their individuality as *real* people within the online environment; develop cognitive presence by adding to the construction of meaning and understanding of course content; and improve teaching presence by facilitating learning outcomes. Martin, Parker, and Oyarzun (2013) specifically point out the usefulness of synchronous meetings for becoming better acquainted with others, planning tasks, and discussing and demonstrating subject matter.

Live orientations, assignment reviews, and workshops attend to socialization, planning, discussion, and demonstration. Such activities provide a good starting point for instructors new to the use of synchronous tools in the online classroom because these types of live group meetings are easy to plan and implement. I base this on my experience using Adobe Connect in 8-week composition and literature courses of 15–25 students at a mostly online university.

Usefulness of Live Meetings

Live meetings strengthen the social presence of instructors by providing more opportunities for collaboration and social communication. In the theory of transactional distance, Moore (1993) explains that physical distance can lead to feelings of isolation and miscommunication. Live meetings reduce transactional distance between the instructor and students and create transactional presence as defined by Shin (2003), which can lead to increased learner persistence and success. Learners who participate in synchronous elements of online courses are more likely to stay on task, collaborate, and complete courses (Yamagata-Lynch, 2014). Watts (2016) reports several studies showing that when live interaction is included in an online course, students feel more socially connected to others, appreciate the immediate feedback, and report experiencing less transactional distance. Cao, Griffin, and Bai (2009) indicate improved student satisfaction overall. The body of literature aligns to my personal experiences.

Cognitive and teaching presence are increased by engaging in specific supportive interactions related to course content and student work, providing direct instruction through focused discussions, and confirming and clarifying course material. Instructors are able to provide immediate feedback on student work and answers to student questions, encouraging further application and consideration of skills or assignments being discussed in that live session. Live group meetings recreate more closely the traditional classroom experience, making the online classroom more comfortable for those students accustomed to face-to-face learning environments. Some students may be more likely to ask a question or discuss their work live with a group rather than in a one-on-one session with the instructor or by posting in a public discussion forum that may seem more permanent and open to scrutiny than a verbal conversation.

Live meetings have distinct benefits compared to prerecorded videos. Typically, a live session is longer (e.g., approximately 10–60 minutes) than a prerecorded video (e.g., approximately 2–10 minutes) because a live session provides opportunities for direct student–teacher and student–student interactions. Both live sessions and prerecorded videos can increase teaching and cognitive presence by providing lectures, personal messages, and demonstrations, but only a live meeting provides a space to answer direct student questions, revise student examples, discuss class content, and otherwise collaborate. Thus, live sessions are more interactive and engaging (e.g., similar to course forum participation) when compared to more passive and solitary prerecorded videos (e.g., similar to course announcements). A live session provides actual instructor presence in contrast to only a sense of presence in a prerecorded video.

Live sessions and prerecorded videos should be complementary and supportive of each other (Oztok, Zingaro, & Brett, 2013). For instance, if no student shows up for a scheduled live meeting, it allows time to record a lecture or update a previous video recording to implement like any other prerecorded video in multiple classes. Thus, the time set aside for a live session still benefits overall cognitive and teaching presence while giving students an increased sense of social presence by having had the opportunity for a live session. In the end, online students learn more through both synchronous and asynchronous tools (Moallem, Pastore, & Martin, 2011), possibly due to the increased sense of social presence provided by the combined use of those tools (Yamagata-Lynch, 2014; Moallem, 2015).

Integrating Live Meetings

Live meetings work only if students know when and how to participate. It is important to include announcements about live meetings with instructions on how to engage in them in several areas of the class, so students can attend live or review the recording or transcript later. Many students have specifically chosen online classes because of flexible scheduling and have not encountered a live option in other courses. Therefore, live meetings should be flexible and easy to access by providing many opportunities and clear instructions for participating live and reviewing recordings and transcripts.

Determining a Schedule

Consider conducting a poll of students during the first week of class to determine availability and preferred day/times. Completing such polls in the past resulted in certain favored times emerging, such as Tuesday through Thursday afternoons and evenings. I vary the timing of live sessions based on these general preferences. For example, the first live meeting takes place on a Wednesday evening, and the next meeting is on a Thursday afternoon a few weeks later. Variation makes it more likely that a student will attend at least one live session during the term.

Promoting Attendance

After identifying meeting times, post a schedule of live meetings and information about specific sessions in the announcements, course calendar, and forums. Leveraging more areas of the course space allows multiple avenues for students to become aware of how to participate or watch recordings later. I also send an invitation by email, which seems to increase attendance because some students are more likely to pay attention to personal emails than general class announcements and forum postings. When appropriate, I personally invite students to live sessions to discuss specific examples, questions, or concerns expressed in the forums (see Figure 1).

To promote engagement, prepare students for the technology requirements of live attendance. I provide students a how-to guide with step-by-step instructions for accessing and participating in a live session. The instruction guide includes images and short videos to demonstrate exactly how to locate and use common tools, such as the raise hand button, file upload area, and microphone. Instead of creating a technical guide, instructors might opt to use links to resources provided by the company that offers the synchronous tools used in that classroom..

Following Up with Recordings and Transcripts

Offering recordings and transcripts as soon as possible after a live session in the class announcements and forum/discussion areas of the course should be a priority. Summarize the main points covered during the live session and include a direct link to the recording and transcript. When posting the recording and transcript in the forum area, encourage engagement with specific material from the live session. Students who did not attend live should be encouraged to post any questions and/or provide confirmation of having watched the recording or reviewed the transcript. For example, I post forum replies that encourage students to apply content from the live session as part of the asynchronous discussion (see Figure 2). If a student was not present for a live session, but her work was a part of a sample during that session, I notify that student by email and/or post a reply directly to that student in the forum, referring her to the recording and transcript (see Figure 2).

Live Orientations

Providing just one live 30-minute orientation is a great first step in integrating live group meetings. Such orientations are suitable for any class of any size to introduce students to the course, instructor, and each other. Early in the first week of a course, it is ideal to post an announcement and send an email inviting students to attend an orientation later that week. The outreach efforts should include the meeting link for easy access along with the technical guide (or resource links) for how to participate live.

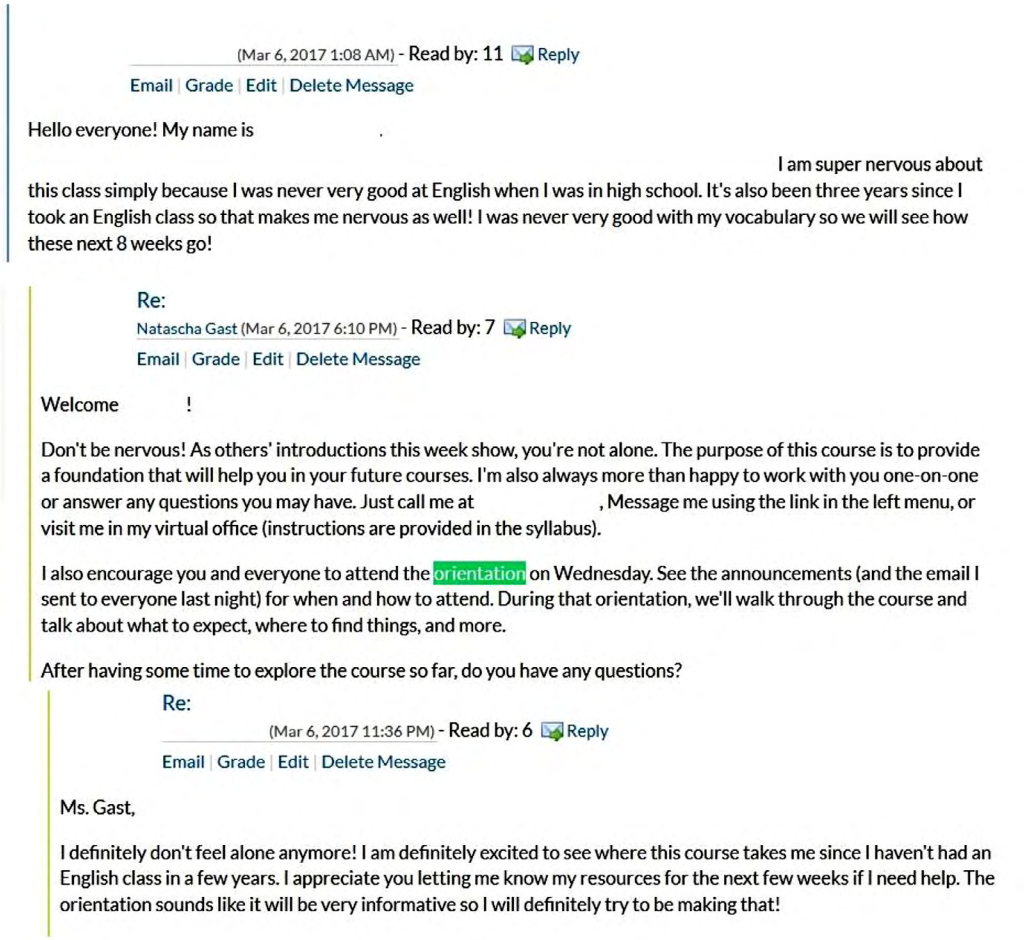
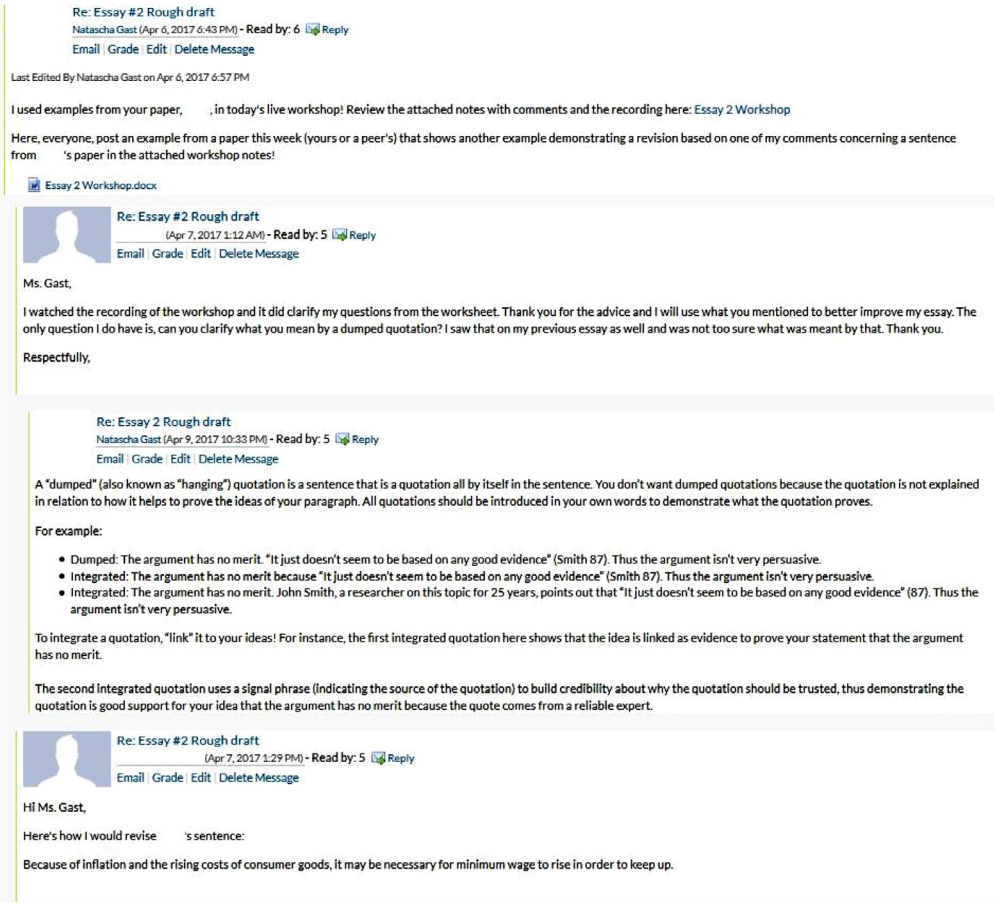


Figure 1. Forum exchange inviting a student to attend a live orientation to alleviate the student's expressed nervousness about taking an online English class

Establishing Community

During a live orientation, the professor may provide a personal introduction and welcome to the course, while students introduce themselves or participate in a brief icebreaker activity. This creates a foundation for a social community for the duration of the class. I encourage all students to introduce themselves using their microphones, or at least by typing a message in the chat box. These activities help introduce the students to the technical tools of the live meeting space in an authentic manner while helping to establish connections among one another. Associating a voice with other students and the instructor in a class makes the online experience much more personal for all, including others who only view the recording later. During the orientation, the instructor might mention details posted in the forum discussion by students not in attendance. For example: *You mentioned that you are interested in photography. You may want to say hello to Omar in*


Re: Essay #2 Rough draft
Natascha Gast (Apr 6, 2017 6:43 PM) - Read by: 6 Reply
Email | Grade | Edit | Delete Message

Last Edited By Natascha Gast on Apr 6, 2017 6:57 PM

I used examples from your paper, , in today's live workshop! Review the attached notes with comments and the recording here: Essay 2 Workshop

Here, everyone, post an example from a paper this week (yours or a peer's) that shows another example demonstrating a revision based on one of my comments concerning a sentence from 's paper in the attached workshop notes!

Essay 2 Workshop.docx

Re: Essay #2 Rough draft
(Apr 7, 2017 1:12 AM) - Read by: 5 Reply
Email | Grade | Edit | Delete Message

Ms. Gast,

I watched the recording of the workshop and it did clarify my questions from the worksheet. Thank you for the advice and I will use what you mentioned to better improve my essay. The only question I do have is, can you clarify what you mean by a dumped quotation? I saw that on my previous essay as well and was not too sure what was meant by that. Thank you.

Respectfully,

Re: Essay 2 Rough draft
Natascha Gast (Apr 9, 2017 10:33 PM) - Read by: 5 Reply
Email | Grade | Edit | Delete Message

A "dumped" (also known as "hanging") quotation is a sentence that is a quotation all by itself in the sentence. You don't want dumped quotations because the quotation is not explained in relation to how it helps to prove the ideas of your paragraph. All quotations should be introduced in your own words to demonstrate what the quotation proves.

For example:

- Dumped: The argument has no merit. "It just doesn't seem to be based on any good evidence" (Smith 87). Thus the argument isn't very persuasive.
- Integrated: The argument has no merit because "It just doesn't seem to be based on any good evidence" (Smith 87). Thus the argument isn't very persuasive.
- Integrated: The argument has no merit. John Smith, a researcher on this topic for 25 years, points out that "It just doesn't seem to be based on any good evidence" (87). Thus the argument isn't very persuasive.

To integrate a quotation, "link" it to your ideas! For instance, the first integrated quotation here shows that the idea is linked as evidence to prove your statement that the argument has no merit.

The second integrated quotation uses a signal phrase (indicating the source of the quotation) to build credibility about why the quotation should be trusted, thus demonstrating the quotation is good support for your idea that the argument has no merit because the quote comes from a reliable expert.

Re: Essay #2 Rough draft
(Apr 7, 2017 1:29 PM) - Read by: 5 Reply
Email | Grade | Edit | Delete Message

Hi Ms. Gast,

Here's how I would revise 's sentence:

Because of inflation and the rising costs of consumer goods, it may be necessary for minimum wage to rise in order to keep up.

Figure 2. . Forum exchange demonstrating active student engagement with live content by inviting a student whose samples were used during the live session to review the recording or transcript and inviting all students to practice additional revisions based on the live session

the forum discussion this week because he is also a photographer. Students not in attendance who watch the recording later may feel more included. As one of my composition students indicated in a forum reply, "*I am lol'g at the mention of my name in the live recording, as I write this!:-)"*

Providing an Overview

Live orientations should provide a walkthrough, or overview, of the class site, which is especially important for students who may be taking an online course for the first time. Go to each menu tab in the classroom to demonstrate how information and areas are organized. Demonstrate how to use specific elements of the class site, such as how to post a forum message, attach a file when submitting an assignment, and review gradebook feedback. I provide tips for navigating the classroom that even experienced online students may not know, such as how to expand all forum postings for quick and easy

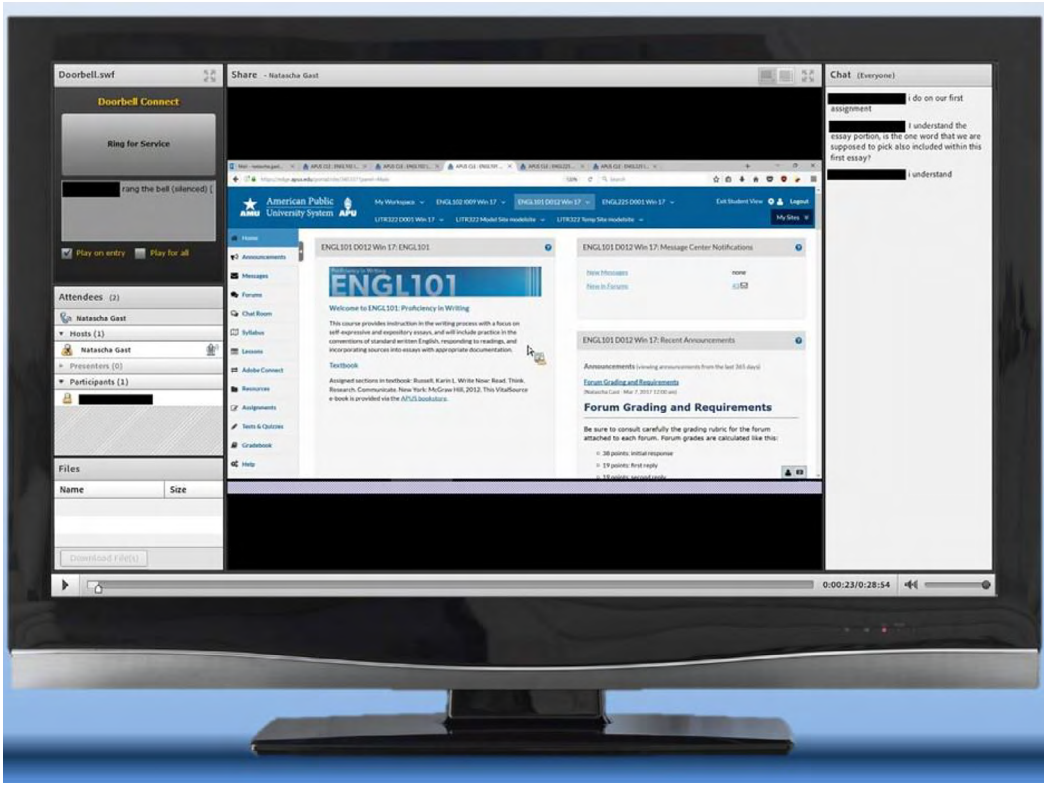


Figure 3. Screencap from a live orientation for a composition class

> **Timesaving Tip:** If no one attends the scheduled live orientation, record a video orientation. If no one attends a live orientation in a future class, a prerecorded orientation is ready to share.

reading, search the class or forums for keywords, and post video or audio to the forums.

Reviewing Class Polices and Strategies

Live orientations should provide a review of class policies and strategies for success, addressing common concerns and questions students may have about that particular course or instructor's practices and expectations. For example: *When is the first assignment due? How will students be notified when feedback and grades are available? What is the instructor's late policy? How can the instructor be contacted?* Of course, these questions are typically addressed in the syllabus and assignment instructions, but I use a live orientation to emphasize specific policies and strategies for success that are often overlooked in that particular course and syllabus.

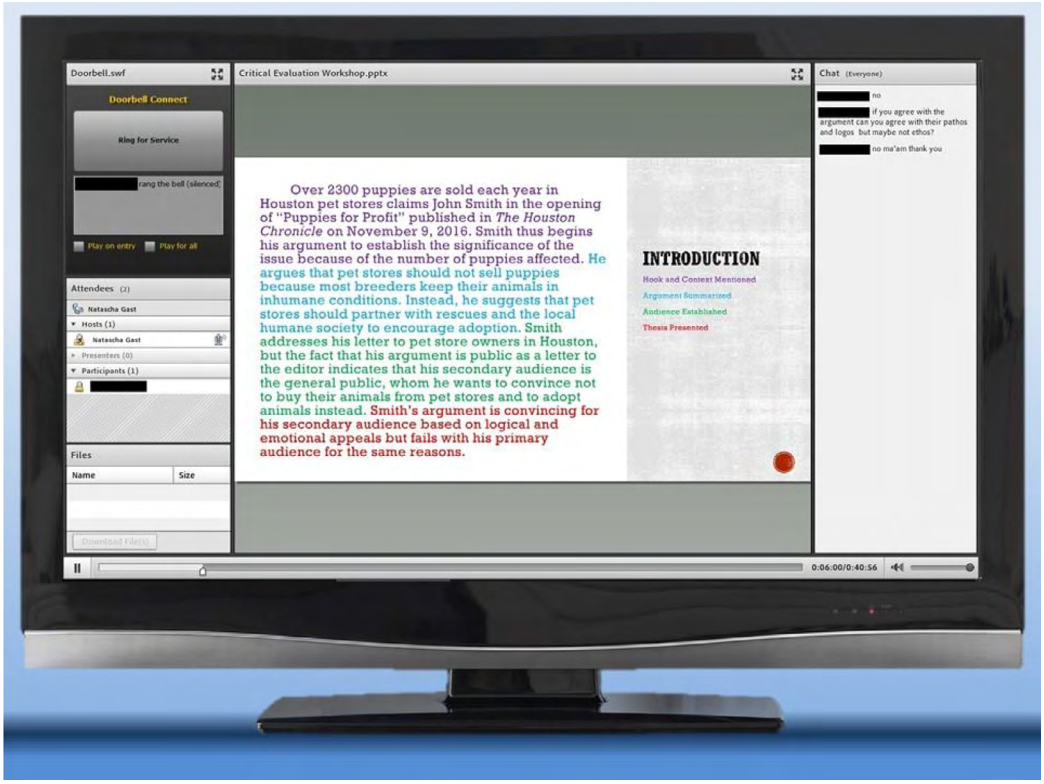


Figure 4. Screencap from a live assignment review for a composition class, demonstrating a sample introduction paragraph for a rhetorical analysis essay, and a student asking a question in the chat box and acknowledging the verbal response

Most important, reviewing these policies and strategies provides the students in attendance the chance to ask questions and receive immediate real-time answers. Students, or attendees, may ask questions via microphone or the chat box. I pause periodically to allow time for this and encourage students at throughout the session to use the *raise hand* button. Figure 3 demonstrates a student asking such a question in the chat box and acknowledging my verbal response at the start of a live orientation for an English composition class.

Live Assignment Reviews

Live assignment reviews, which are typically 15 to 45 minutes, provide an overview of requirements, objectives, and strategies for success for a particular assignment. These live sessions might include viewing model examples (see Figure 4), reviewing the grading rubric, and discussing common pitfalls to avoid in completing the assignment submission. Assignment reviews should be offered when instructors expect students to begin work on the assignment. Overall, the purpose of such sessions is to emphasize and clarify expectations and how to meet them.

During live assignment reviews, students have the opportunity to ask specific assignment questions and receive immediate answers (see Figure 4). Sometimes these questions have led me to revise future live sessions, and even assignment instructions as needed, to preemptively answer such questions for future students. These live assignment reviews provide the instructor a chance to reassess the assignment's instructions, rubric, and resources.

Although much of the live session can be prepared like a lecture, think about allotting time for student questions. Encourage students to discuss their plans for the assignment. At the beginning of the session, I ask students about their topics or current progress on the assignment. During the session, I refer to these topics when discussing strategies for completion of the assignment, making the review session personalized for the students in attendance.

Consider preparing polls/questions for the live session, so students can practice applying the principles discussed. For example, in my composition and literature courses, integrating research skills is key: so, I provide a multiple-choice question with several quotations and ask students to identify which one demonstrates integration most effectively. In one composition assignment, a common pitfall is writing an analysis rather than an argument. As a proactive measure, I provide several sample thesis statements and ask students to explain which one is best for an argument essay rather than an analysis essay.

> **Timesaving Tip:** Prepare a presentation with the assignment instructions, grading rubric, samples, and other items for the session along with the polls/questions. This presentation may be an assignment resource for future classes.

Live Workshops

Live workshops, typically 30 to 60 minutes in length, provide an opportunity to collaborate directly with students on their work. During a workshop, the instructor and students discuss samples of student work to illustrate a specific skill or strategy. A live workshop extends the forum discussions and allows students to collaborate in the application of specific strategies or skills during a review or revision of student samples. For instance, in my composition courses, I typically focus each live workshop on 3–5 specific writing skills, such as citing sources, writing conclusions, avoiding fragments, and developing thesis statements.

A live workshop may be successful with any number of students as long as all are able to participate in the workshop process. While reviewing samples, encourage students to type their suggested revisions into the chat box. When groups are small, I sometimes

ask students to vote by microphone or in the chat box on which revision is the best. With larger groups, I quickly choose a few revisions to discuss. The goal is to guide students in revising selected samples, discussing the strengths or areas for improvement of suggested revisions. The success of a workshop may be gauged by the number of acceptable revisions offered by students during live sessions and through the forum postings made by those students who did not attend. Even students who do not attend live workshops find them helpful as indicated by representative forum postings and instructor evaluation comments. One student wrote, "*I found the workshop extremely informative. I am very fortunate you record these! I wish I could have been involved while live. ... I feel better prepared as I finalize my draft today*." Another student shared "*I got a lot out of the live workshop recordings. A lot.*"

Student samples used for a live workshop should be chosen from work volunteered by students. Students do not need to prepare for a workshop, but invitations might request that students who plan to attend live have work ready to share and discuss. I select work already posted publicly by students in a forum discussion. Adding an optional or graded peer-review forum activity to obtain student samples is another option.

All student samples chosen for a workshop should be representative of common areas for improvement. When discussing them, emphasize they are good examples of the skill or strategy of focus. The workshop should not seem like a negative critique of a particular sample from any one student but rather as an explanation of how good work can always be even better and that a strategy or skill can be applied to anyone's work. For instance, I might note a strength of an essay followed by a strategy for improvement, mentioning by name other students not in attendance whose work in that class similarly needs to be revised to improve in that area. A live workshop might focus on just one student's work to discuss multiple issues but only in a way that does not seem to imply that the work is particularly bad or good. I typically use samples from

Timesaving Tip: Before the workshop, include notes on selected student samples to summarize advice and revision strategies to discuss during the workshop. These notes can later help to create the transcript. If providing sample revisions, type them beforehand in white font and during the live workshop, highlight the white text, select black font, and thus reveal the prepared sample revision. Figure 5 demonstrates notes as margin comments in a Word document and sample revisions in white font ready to be highlighted and revealed during a live essay workshop for a composition class.

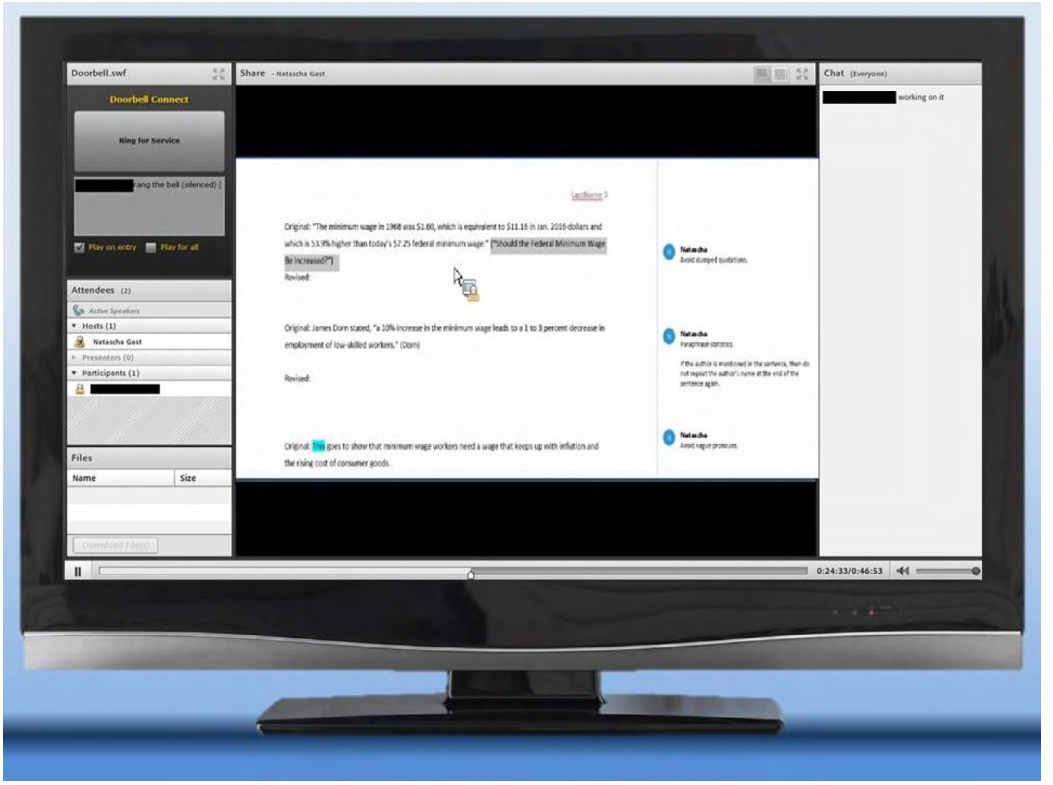


Figure 5. Screencap from a live essay workshop for a composition class

3–5 students per workshop, perhaps 1–2 examples from each student, so no student feels singled out. If holding multiple live workshops during a term, I try to use an example from every student in at least one workshop.

Overcoming Challenges

From my experience, the biggest challenge to live meetings is low or no attendance, which likely occurs because the institution is almost fully online. Thus, students are geographically diverse and across time zones. This makes it difficult for widespread real-time participation to be required. If live meetings are not mandatory, then incentives might be necessary. Perhaps offer bonus points or forum participation credit to anyone who attends live or does a short activity to acknowledge having watched the recording or reviewed the transcript. For example, during a workshop, I have offered bonus points to any student who posts a revision demonstration to the forum area based on an example shared in it. When I post that workshop recording in the announcements and forum discussion, I indicate students must watch the recording or review the transcript to find out how to get the bonus points. Another suggestion is to mention students not in attendance by name. I have found that doing so encourages students to attend live workshops in the future because they want to be present in case I refer to them.

Another obstacle I experienced when I first started offering live sessions is slipping into a lecturing mode. Remember the intent is not to create recorded videos. Welcome students by name at the start and encourage them to test their microphones and introduce themselves. Pause regularly throughout the session to ask students if they have any specific questions or concerns. During assignment reviews or workshops, I ask students to suggest a revision or apply a discussed strategy, which motivates students to engage rather than passively listen and watch. To prompt more in-depth dialogue and engagement, frequently ask open-ended questions.

As with any technology, technical difficulties are always a possibility. In addition to providing students with a technical guide or resource links ahead of time, encourage students to login earlier than the start time so that they can practice with the technology before the live session begins. I make the live meeting space accessible throughout the academic term and encourage students to enter and practice with the tools even when I am not present. Consider limiting some technical features, such as webcams or private chat, if such options frequently tend to cause confusion or distractions.

Finally, interruptions will happen. If a student interrupts with a personal question/concern not appropriate for public discussion, ask the student to wait until the end of the session to discuss the issue privately. Encourage anyone not currently speaking to mute microphones to minimize background noise. In the end, a dog barking or child crying provides an opportunity for building an authentic social exchange.

Compliance

To be in compliance with the Family Educational Rights and Privacy Act (FERPA) and Americans with Disabilities Act (ADA), ensure all student information remains confidential and all content shared live is accessible to all. If not in the United States, be sure to investigate and comply with any regional legal requirements. The goal of such laws is to confirm that all students have equal access to all learning materials.

Avoid posting recordings of live sessions from one class to other classes. Although a student's name and posted content is public information for that class, it is not public for students in other classes. In any live session, only use examples students have volunteered or shared publicly within that class.

Provide a transcript at minimum and preferably closed captioning for every recording. The presentation file, such as a PowerPoint or Word document, used for a live assignment review or workshop provides a sufficient transcript as long as the content comprehensively covers the material provided verbally during the live session. Most integrated conferencing tools provide an option for saving the recording offline as an .mp4. A captioning service, such as the free tool MovieCaptioner, can add captions to the .mp4 file, which

can then be uploaded for student viewing. Some institutions may be able to provide captioning or transcription services through the disability or instructional design departments and some webinar tools even offer a live captioning option.

Conclusion

Live orientations, assignment reviews, and workshops are excellent ways to begin using synchronous tools in an online classroom to promote student engagement and success by increasing social, cognitive, and teaching presence. The instructor and students can engage as *real* people in an online meeting space that allows for immediate instruction and collaboration. My student feedback reveals that students overwhelmingly appreciate the opportunity to attend live sessions. Even though most students do not participate live, which is the biggest challenge, they seem to enjoy having the opportunity for direct interaction with the instructor and peers, reporting that live meetings, even just watching the recordings, make the instructor more personal, the course content more understandable, and the class more engaging overall. One student commented, "*I really enjoy the live group sessions when I am able to attend them. I feel that the students are able to get instant feedback from these sessions versus just watching a recording. ... If I happen to miss a session, I always watch the recording at least twice to gain as much knowledge as possible.*"

In addition to improving social presence and direct instruction, live meetings also provide the opportunity for continued course development. Specifically: (1) recording a live orientation may cause the instructor to notice a way to reorganize course content for easier navigation; (2) preparing a live assignment review might lead to clarifying instructions or the grading rubric; and (3) selecting student samples for a live workshop could reveal the need for further instruction or resources concerning a certain course objective.

To begin implementing live group meetings, the recommendation is to start with an orientation session during the first week of the course. Then later, add a live review for each assignment or just the major course assignment. Provide information about pacing for larger projects and suggested time lines for students. Follow with a live workshop using samples of student work related to that assignment.

Live sessions allow for many more possibilities. Live meetings may include open or problem-based discussions rather than those focused on specific assignments or student work. Live meetings might include guest speakers as co-presenters or in lieu of instructors being the leaders. Some live sessions may even be student-led, where students read their creative writing, provide peer-reviews, or share presentations. The possibilities are endless.

References

Cao, Q., Griffin, T. E., & Bai, X. (2009). The importance of synchronous interaction for student satisfaction with course web sites. *Journal of Information Systems Education, 20*(3), 331-338.

Garrison, D. R., Anderson, T., & Archer, W. (2000). Critical inquiry in a text-based environment: Computer conferencing in higher education. *The Internet and Higher Education, 2*(2-3), 87–105. Retrieved from http://cde.athabascau.ca/coi_site/documents/Garrison_Anderson_Archer_Critical_Inquiry_model.pdf

Martin, F., Parker, M., & Oyarzun, B. A. (2013). A case study on the adoption and use of synchronous virtual classrooms. *Electronic Journal of E-Learning, 11*(2), 124-138.

Moallem, M. (2015). The impact of synchronous and asynchronous communication tools on learner self-regulation, social presence, immediacy, intimacy and satisfaction in collaborative online learning. *The Online Journal of Distance Education and e-Learning, 3*(3), 55-77. Retrieved from https://www.tojdel.net/journals/tojdel/articles/v03i03/v03i03-08.pdf

Moallem, M., Pastore, R., & Martin, F. (2011). A comparative study on the impact of various communication tools on student learning, motivation, self-regulation, and satisfaction. In C. Ho & M. Lin (Eds.), *Proceedings of E-Learn: World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education 2011* (pp. 1519-1534). Honolulu, HI: Association for the Advancement of Computing in Education (AACE). Retrieved from https://www.learntechlib.org/p/38933/

Moore, M. (1993). Theory of transactional distance. In D. Keegan (Ed.), *Theoretical principles of distance education* (pp. 22-38). London: Routledge.

Oztok, M., Zingaro, D., & Brett, C. (2013). Exploring asynchronous and synchronous tool use in online courses. *Computers & Education, 60*(1), 87-94. doi:10.1016/j.compedu.2012.08.007

Shin, N. (2003). Transactional presence as a critical predictor of success in distance learning. *Distance Education, 24*(1), 69-86. doi:10.1080/01587910303048

Watts, L. (2016). Synchronous and asynchronous communication in distance learning: A review of the literature. *Quarterly Review of Distance Education, 17*(1), 23-32.

Yamagata-Lynch, L. C. (2014). Blending online asynchronous and synchronous learning. *The International Review of Research in Open and Distributed Learning, 15*(2), 189-212. Retrieved from http://www.irrodl.org/index.php/irrodl/article/view/1778/2837

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Three Questions for an Online Learning Leader

Featuring Jill Buban, Ph.D.

Chief Academic Officer at Unizin and former Senior Director of Research and Innovation, Online Learning Consortium

3 preguntas para un líder de aprendizaje en línea

Jill Buban, Ph.D.

Directora Académica en Unizin y ex Directora Senior de Investigación e Innovación, Online Learning Consortium

来自现场针对在线学习领导者提出的三个问题

受访者：Unizin首席学术官和前在线学习联合会研究创新高级主任 Jill Buban博士

Dr. Jill Buban formerly served as the Senior Director of Research and Innovation for the Online Learning Consortium (OLC). Prior to that, she was the Assistant Provost for Research and Innovation at Post University. She had served as Master of Education, Academic Program Manager, and Dean of the School of Education. She also previously held a position in Academic Affairs at SUNY Empire State College. Jill's research interests pertain to effective technology use for adult learners in online environments. Dr. Buban earned a B.A. in History from the University of New Hampshire; an M.S. in Curriculum and Instruction from State University of New York College at Plattsburgh; and a Ph.D. in Educational Studies with a Specialization in Adult Learning from Lesley University.

1 Which technologies are underused and should be better integrated into adult education settings?

While I hate to seem as if I am avoiding the question, this is fairly broad and can be institution specific. My favorite integration tool and/or technology is the implementation of inclusive access digital content programs. An inclusive access program allows students to access their course materials, albeit publisher materials, library materials, and/or Open Educational Resources. Through these

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implementations, access and affordability increase. This is important not only for the typical adult learner but also for military and international students. These implementations do not happen overnight. Typically, a team that is comprised of faculty, instructional designers, IT professionals, librarians, and administrators work together to roll out a pilot and then create a road map that will bring it to scale. Luckily, many institutions have started their digital content journey and can be an available resource to other like-minded institutions.

2 How do you view progress with the use and acceptance of competency-based learning?

We continue to see pockets of innovation in this area at select institutions in the United States and abroad. Competency-based models have the capacity to provide direct links to workforce needs. If institutions work with employers to create certain competencies, they could strengthen the connections between education and employment. To create a full competency-based education (CBE) program, it often takes a different type of system functionality, or system, so the implementation takes planning and a large investment. CBE programs are extremely self-directed and must allow students to move with agility through course modules and courses in the learning management system. Internationally, there are pockets of CBE program use where institutions can build from the ground-up.

3 What are emerging and future trends in online education?

I think we will continue to see the growth and expansion of digital courseware, as well as adaptive and personalized learning models. Any opportunity to increase access, decrease cost, and positively impact student success should see an increase in online and digital learning modalities. Of course, scalability is always a plus too! To scale many of these models, it takes an institution to look for areas in which they can replicate models in similar environments. Tackling the big issues in higher education, such as scale, access, and affordability, often happens best when like-minded institutions come together in a consortium, at conferences, or through professional development. In regard to digital learning, I recommend the Online Learning Consortium, Educause, and ShapingEDU.

A Review of *Tapping into the Power of Personalized Learning*

Leavoy, P. (2017). *Tapping into the power of personalized learning.* Docebo. Retrieved from https://elearningindustry.com/free-ebooks/power-of-personalized-learning-tapping-into

By Susan Adragna
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Abstract

Onboarding new employees is a process that organizations develop to meet the needs of the organization and the new employee. While the process typically focuses on the policies of the organization, little is made available to address the personal learning path of the new employee as a learner. Leavoy addresses the use of technology and mentoring as a means to tap the potential of new employees.

Keywords: personalized learning, onboarding, technology, behavior, learning path

Una revisión de *Aprovechando el poder del aprendizaje personalizado*

Leavoy, P. (2017). Aprovechando el poder del aprendizaje personalizado. Docebo. Obtenido de https://elearningindustry.com/free-ebooks/power-of-personalized-learning-tapping-into

Resumen

La incorporación es un proceso que las organizaciones desarrollan para satisfacer las necesidades de la organización y los nuevos empleados. Si bien el proceso generalmente se enfoca en las políticas de la organización, hay poco disponible para abordar la ruta de aprendizaje personal del nuevo empleado como aprendiz. Leavoy aborda el uso de la tecnología y la mentoría como un medio para

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aprovechar el potencial de los nuevos empleados.

Palabras clave: aprendizaje personalizado, incorporación, tecnología, comportamiento, camino de aprendizaje

书评：《挖掘个性化学习的动力》

Leavoy, P。 (2017)。《挖掘个性化学习的动力》。Docebo。来源：https://elearningindustry.com/free-ebooks/power-of-personalized-learning-tapping-into

摘要

入职培训是组织为满足组织和新员工需求而发展起来的一个过程。虽然该过程通常侧重于组织政策，但对于新员工作为学习者的个人学习途径指导毫无用处。Leavoy提出利用技术和辅导来作为为开发新员工潜力的一种手段。

关键词：个性化学习，入职培训，技术，行为，学习途径

Introduction

The retention of new employees in varied educational and corporate environments, both full and part time, has an impact on the profitability of the institution. Given the traditional onboarding methods, initial training, and the plethora of manuals and policies, employees as learners might feel inadequate to fulfill individualized job responsibilities and uncomfortable in a new work culture. The first introductory page of the eBook is a description of the problem and a more in-depth analysis of the differences in onboarding approaches.

Text Design/Layout

The text is easy to read and the graphics include photos that add to the design appeal. Figures are included to represent data in an easy-to-understand way.

Background

Leavoy offers a brief historical reference to lay the groundwork and then details the differences between standard learning paths and personalized learning paths with clearly communicated examples. In essence, the personalized learning path is similar to the practice of differentiated instruction. The author invites reflection before moving to the *Current State of Personalized Learning*.

Current State of Personalized Learning

In this section, the author references the Brandon Hall Group (2015) survey data to determine the strategic use of personalized learning. The author also uses the 70:20:10 model to support the premise of experiential learning, social learning, and classroom learning. Leavoy asserts that the personalized learning path aligns with this model, which needs all three types of learning.

Realizing Effective Personalized Learning

In this section, Leavoy uses another Brandon Hall Group (2015) figure to show the breakdown of the different ways to present personalized learning. Here, this is like differentiated instruction, in which technology, social interaction, eLearning opportunities, and videos contribute to the new employee's ability to learn and feel part of the workplace culture. One could also relate this concept to Gardner's multiple intelligences theory.

The Problem with Personalized Learning

Leavoy notes that many organizations use technology alone to onboard employees; however, effective onboarding requires a blend of people, technology, and processes. A Venn diagram is used to show the three aspects; but, the center intersects could have been used to show individualized learning.

How to Integrate

In this section, Leavoy offers eight strategies to implement personalized learning paths for employees as learners. The strategies include acquiring technology, developing a competency framework (similar to learning outcomes), and managing support, along with other strategies to insure successful onboarding of new employees. Leavoy details each strategy and includes examples. Of interest is the personalized learning strategy for new hires as learners. The strategy includes a logical way to organize the individual aspects of the personalized learning path.

Conclusion

The author concludes with a reminder that new hires as learners synthesize materials differently and as such need the advantages that the personalized learning path has to offer. Leavoy reminds the reader that a gap frequently exists between organizational expectations and the reality of what is available to onboard, which might not be optimal. However, Leavoy also notes that new strategies may be implemented to retain new hires. Those at universities and similar organizations should find the book useful.

Dr. Susan Adragna earned a Ph.D. online from Capella University, an Ed.S. degree in professional teaching from Stetson University, MAT in music education from Rollins College, and a B.M. in music theory and piano from the Manhattan School of Music. She has a diverse education and work history across business, K-12, and higher education contexts. Dr. Adragna performs with the International Flute Orchestra and the Florida Teacher's Orchestra. Dr. Adragna is an educator who promotes the art of flute playing in diverse settings, both in the U.S. and abroad. As a member of the International Flute Orchestra, she has taken part in educational music exchanges in 28 different countries. Dr. Adragna has experience as a Ph.D. and Ed.D. program writer, Chair of Education Doctoral Programs, adjunct faculty member, professional APA editor, Educational Testing Service (ETS) assessor trainer, and CAEP reviewer.

Utilizing Online Apps to Improve University Instruction

William M. Gillum, *Ontario, California, USA*

Abstract

As apps and technological options continue to increase, discernment and awareness are needed to identify the most useful tools for fostering within and beyond course communication and various student skills. Tools such as Podbean, Anchor, and Google Suite allow instructors to have more personalized communication and learning options.

Keywords: apps, communication, online course, Google Suite

Utilizando aplicaciones en línea para mejorar la instrucción universitaria

Resumen

A medida que las aplicaciones y las opciones tecnológicas continúan aumentando, también lo hace la necesidad de discernimiento y conciencia para identificar las herramientas más útiles para fomentar la comunicación dentro y más allá del curso y las diversas habilidades de los estudiantes. Las herramientas como Podbean, Anchor y Google Suite permiten a los instructores tener opciones de aprendizaje y comunicación más personalizadas.

Palabras clave: aplicaciones, comunicación, curso online, Google Suite

媒体评论
利用在线软件改善高校教学
美国加州安大略省

摘要

随着应用程序和技术选择的不断丰富，人们越来越需要增强识别能力以确定最有用的工具来促进课程内外交流和提升各

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种学生技能。诸如Podbean、Anchor和Google Suite之类的工具帮助教师拥有更个性化的交流和学习选择。

关键词：应用程序，通讯，在线课程，Google Suite

Teaching in today's university classroom is augmented by the tremendous opportunities that exist through the integration of online applications and websites to improve interaction and motivation for students. Diliberto-Macaluso and Hughes (2015) found that students using mobile applications in an introduction to psychology course demonstrated greater performance from pretest to posttest than students using an online textbook. As university leaders consider how to best connect with and educate today's learners, online applications and the use of smartphones will likely become the focus of delivery and utilization of many online courses.

Communication within an Online Course

One important element in an effective learning process is the ability to maintain effective communication between the instructor and student, which can be a bit more challenging in many of today's online classrooms that tend to be asynchronous. Creating announcements utilizing short podcasts can be an effective supplement to written announcements to assist with course presence and communication. *Podbean* is a user-friendly program to create podcasts that can be shared easily with students. *Anchor* is a mobile app that also allows users to create and upload podcasts effortlessly, and is available for free. It is a great resource for students to use to create their own podcasts and demonstrate understanding of a concept in a narrative format. For example, students are able to create groups and conduct interviews in which they highlight critical course concepts that they record and submit to demonstrate understanding in an assignment.

Like podcasts, videos provide an uncomplicated way for instructors to interact with their students, particularly in online classrooms. Videos may be created through applications such as *Jing*, a free online resource, and uploaded to *YouTube* to share with students. Instructors can provide feedback on weekly assignments via videos and embed or post links to the videos in multiple locations. This type of platform not only simplifies the process, it can result in a more personal connection that is often missing in some classes where face-to-face meetings are limited or non-existent.

Communication beyond an Online Course

A great way to improve interaction, make the classroom more engaging,

and allow for contact outside of the online format or beyond scheduled class sessions is through the use of virtual office hours. *Google Hangout* is a communication platform developed by Google and is free to users. Part of *Google Suite*, or *G Suite*, *Google Hangout* is a great resource to create group conversations for up to 100 people and can include maps, emoji, stickers, and GIFS. *Hangout* allows for group calls and video-conferencing. Another useful element of *Google Hangout* is that the platform saves on-record conversations and allows for later access to them (Google, n.d.). Online leaders such as Robbie Melton (3 Questions for an Online Learning Leader, 2017/2018) favor *G Suite* app use in higher education.

Along with *Hangout*, *G Suite* offers a number of other online tools, such as *Google Docs* and *Google Slides*, which can be quite useful in encouraging student collaboration outside of the classroom. These free services share many of the same features as *Word* and *PowerPoint*, which allow for an instructor or student to create a document that multiple students can work on at the same time collaboratively or separately. Collaborative work through technological tools fosters digital literacy, information literacy, and other skills that are increasingly in demand by employers. Documents such as the Lumina Foundation's (n.d.) Degree Qualifications Profile framework include a variety of such skills as reference points for associate, bachelor's, and master's degree programs to better prepare graduates for success in a more globally connected world.

Conclusion

There are many web-based resources available to improve the efficiency and effectiveness of teaching and learning in the university setting, and more are being developed at a rapid rate. One great factor of the resources discussed is that all of them can be downloaded as applications on a phone through platforms such as iOS and/or Android. Having these tools available through a smartphone application makes it even more convenient to access courses, students, and their work.

References

3 Questions for an Online Learning Leader. (2017/2018). *Internet Learning*, *6*(2), 55–58.

Diliberto-Macaluso, K., & Hughes, A. (2015). The use of mobile apps to enhance student learning in introduction to psychology. *Teaching of Psychology*, *43*(1), 48–52.

Google. (n.d.). *Record a meeting*. Retrieved from https://support.google.com/meet/answer/7557124?hl=en&ref_topic=7290350

Lumina Foundation. (n.d.). *The Degree Qualifications Profile*. Retrieved from https://www.luminafoundation.org/files/resources/dqp.pdf

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