Anna Luther

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Sample Annotations

References

Barber, W., King, S., & Buchanan, S. (2015). Problem based learning and authentic assessment in digital pedagogy: Embracing the role of collaborative communities. *Electronic Journal Of E-Learning*, *13*(2), 59-67.

 In this article, researchers examine the results of undergraduate students by having them complete an online class using problem based learning. Throughout the study, the researchers “qualitatively examine the relationship between problem based learning, authentic assessment and the role of community in fostering learning environments” (p.59). During the course of the class, the researchers saw students shift from resisting the freedom of problem based learning to embracing the intellectual stimulation that came from having ownership over their learning. Researchers used narrative inquiry to speak with the students openly about the course. The article concluded that while great strides were seen in this study, it takes a flexible student and learner to make a class centered around problem based learning effective. In this instructional format, students must have the skills to use the technology to create a digital community and they must also be able to advocate for themselves and acquire adequate information on particular topic to obtain expertise status. Although this article is not as teacher friendly as Belland’s article on problem based learning, it questions current instructional practices and provides ideas for creating higher order instruction.

Belland, B. R. (2010). Portraits of middle school students constructing evidence-based arguments during problem-based learning: The impact of computer-based scaffolds. *Educational Technology Research & Development*, *58*(3), 285-309. doi:10.1007/s11423-009-9139-4.

 Belland explores the possibilities of problem based learning in a seventh grade science classroom. Because these projects require an immense amount of higher order thinking skills, Belland focuses on how scaffolding effects students doing problem based learning projects. In the experiment, Belland uses students from a low SES school to answer his three research questions, “What impact do hard scaffolds have on argument evaluation ability? What impact do hard scaffolds have on group argument quality? What do students use for support while creating evidence-based arguments and why?” (p. 287). The research found on-level students participating in the study slightly outscored their peers when using the scaffolds provided, but there were no mentionable benefits of scaffolding for notorious high or low achieving students. While this article includes a variety of scientific and statistical jargon, it has many findings that could benefit fellow researchers and middle school teachers as they design problem based learning units. Teachers will appreciate the copious amount of student feedback Belland incorporates in order to gain feedback from the students, and researchers can benefit from the graphs and thorough analysis provided in the paper. This article may benefit other instructors, but a lot of the research revolves around the cognitive level of middle school students. In addition, a teacher who is unfamiliar with how to consume research may get lost in the multitude of formalities in this paper, and miss the crucial implications it has for all teachers while developing problem based learning units. Barber’s research looks more at the benefits of problem based learning and the hurdles that students have to overcome. Belland takes a different approach and strategically selects small groups of students to gain insight from.

Castillo, N. M., Jinsol, L., Zahra, F. T., & Wagner, D. A. (2015). MOOCs for development: Trends, challenges, and opportunities. *Information Technologies & International Development*, *11*(2), 35-42.

  MOOCs have the potential to provide equitable access to education. This article takes a unique look at MOOCs by using empirical research to study learners of all ages and backgrounds, and identify trends, challenges, and opportunities in MOOCs. This broadens the scope of the article and allows all educators or potential MOOC participants to glean knowledge from this article. This qualitative research does not offer a section of limitations; however, it does contain valuable conclusions. For instance, the article states that as MOOCs are expanding it would be best to create courses that would appeal to the cultures consuming the cultures. The conclusion the article presents to this issue is a program called, MICs, MOOCs-Inside Courses. These MOOCs are courses structured to help teachers already working in these developing regions use MOOCs to their full potential.  Like most online learning, MOOCs are constantly changing and adapting. The courses can vary greatly solely on who created it. Since there are so many variables in online learning, it can be complex and somewhat futile to do research on online learning unless you have a large sampling size with various experiences. Castillo’s team and Yuping’s team both had to sift through these many inconsistencies.

Chan, D., & Jia, W. (2014). The effect of human interactions on student performance and satisfaction of blended learning. *Academy Of Educational Leadership Journal*, *18*(3), 11-21.

 Researchers Du and Wu look at the components of blending learning and examine the value of interaction in these courses. This shift in instruction provided more time for skills that required a higher depth of knowledge and let students acquire more basic skills during independent, online activities**.** The qualitative study analyzes blended learning occurring throughout an undergraduate course by using narrative research retrieved from student surveys. Drawbacks to potential consumers of this article might include the references ranging from 1989 to 2009. The study was published in late 2014, yet the research began in 2010. Some might see this as outdated since new generation of learners have entered classrooms. This research is primarily for the university world, yet certain implications can be made by K-12 teachers as the blended learning model begins to infiltrate schools. The experiment begins by the researchers strategically recreating the accounting course to a meaningful blended learning course. The researchers began testing their theory with a fall and spring course. In the spring course, the instructor put a larger emphasis on human interaction than the fall course. At the end of the semester, the researchers discovered, “the blended course with greater human interaction does not impact the student performance after controlling certain control factors, such as, prior GPA, math grade, gender, and transfer. However, students’ evaluations have improved with greater interaction, suggesting that human interaction is associated with greater satisfaction with teaching” (20). This article compliments Belland and Barber’s articles on problem based learning. Problem based learning is most beneficial when students have someone to walk them through the initial struggles they face. It also would be ideal in a blended setting, so students feel more comfortable with their new found freedom.

Edwards, S. (2015). Active learning in the middle grades. *Middle School Journal*, *46*(5), 26-32.

 This case study discusses cognitively appropriate ways to get middle grades students to have meaningful interactions with content as they learn. Edwards’ case study observes middle grades teachers in every content area, and reveals how they changed a potentially bland lesson into something engaging. This articles concludes that too often middle school teachers have expectations for students to sit and receive the curriculum when this is truly inappropriate delivery. Since this article focuses solely on middle grade learners, it narrows the scope of the article and the potential for universal usage of the article. Other limitations and obstacles to implementing this research include: limited access and student engagement. However, this article is written in a very practical way so each middle grades teacher can glean ideas from the article. It lays step-by-step foundations on how the teachers observed in the article converted a lesson to make it more engaging for all students. Unlike the other articles on problem based learning and MOOCs, this article takes a specific look at the age group that I will be working with throughout my capstone experience. It provides great, practical ideas that can immediately change my teaching practice.

Greer, D., Rowland, A. L., & Smith, S. J. (2014). Critical Considerations for Teaching Students With Disabilities in Online Environments. *Teaching Exceptional Children*, *46*(5), 79. doi:10.1177/0040059914528105.

 In this article, researchers present information to parents and teachers about using technology with K-12 students who have disabilities. This article is teaches parents and teachers how to apply research; instead of, doing a case study. Plain language is used to detail frequent obstacles that students with disabilities commonly face academically and describe how technology tools can help teachers tailor the content to learners on all levels. With this sort of language used the scope of the article is significantly widened. The authors also included many tables and links to helpful resources, which could help teachers developing a unit a blended or online unit. The only limitation presented to online learning is the preparation. In order to teach students with disabilities successfully in the online learning environment, teachers must be aware of the resources available and use the ones that suit the individual learning needs of their students. Greer and the research team did a great job did a great job describing the research in a reader friendly format as well as describing the strengths and weaknesses of using online tools with students with disabilities. With the growing popularity of blended and online learning, “students with disabilities will increasingly be exposed or engaged in these learning options. For the teacher, and increasingly the parent, instructing students with disabilities using blended and virtual learning presents advantages as well as challenges” (90) the article presents these and offers solutions for both parents and teachers.

Kuo, Y., Belland, B. R., Schroder, K. E., & Walker, A. E. (2014). K-12 teachers’ perceptions of and their satisfaction with interaction type in blended learning environments. *Distance Education*, *35*(3), 360-381. doi:10.1080/01587919.2015.955265.

 Research on blended learning and MOOCs shows teachers are rarely emphasized during research process. This qualitative case study follows teachers who are students participating in blended learning while also addressing the strengths and limitations of blended learning. The researchers made several powerful conclusions about the effects of blended learning by looking at two different points of view. The article states, “Blended learning appears to outperform traditional classroom instruction in terms of effectiveness (Bernard, Borokhovski, Schmid, Tamim, & Abrami, 2014)” (361). This is perhaps because instructors can design courses that play to the strengths of face-to-face and online learning to create a course to ensure students have sufficient interaction and independence. The study also shows that participants in blended learning who view themselves as extraverted have better experiences with online learning than introverted students. Because this article’s research was focused on satisfaction and was done with a diverse group of learners and content areas, the scope of the article is wide and can be used by all teachers. One of the main limitations of the article was the small sampling size and misleading title of the article. The researchers acknowledge the sampling size in the limitations portion of the article and comment that a similar study done on a larger scale would be more beneficial for K-12 teachers. It would also be more beneficial for researchers to put more focus on the teachers’ who are using blended learning models in their K-12 classroom. The article title claims to base the research of the teachers, but is truly about teachers participating in a course.

Loyens, S. M., Jones, S. H., Mikkers, J., & van Gog, T. (2015). Problem-based learning as a facilitator of conceptual change. *Learning And Instruction*, *38*34-42. doi:10.1016/j.learninstruc.2015.03.002

 Loyens chose Dutch undergraduate psychology students to test out his theory on problem based learning. In the study, the students were split into three groups of how they would receive the necessary information for the course, “the PBL-group (n=25,6 male), the lecture group (n=27,3 male), and the self-study group (n=25, 4 male)” (p.37). The students in all groups were give a pre-test, immediate post-test, and delayed post-test. The quantitative results of the three assessments showed that the PBL group had the highest amount of growth, yet lecture and self-study also showed smaller amounts of growth. This article is easier to consume than some other researchers work simply because the researchers took the time to include parenthesis with definitions of terms that are not common to teachers not regularly involved with the research process, this broadens the scope of the article. Although this article failed to present a formal section on limitations, one clear limitation is the small sampling size used during the research. On the other hand, the article is weighted down with statistical terms and copious amounts of physics. These two things would deter K-12 teachers or researchers from reading the article before they finish the second sentence of the abstract. Overall, this article would benefit fellow researchers and professors as they design instruction geared toward undergraduate students.

Nigh, J., Pytash, K.E., Ferdig, R.E. & Merchant, W. (2015). Investigating the potential of MOOCs in K-12 teaching and learning environments. *Journal of Online Learning Research, 1*(1), 85-106. Association for the Advancement of Computing in Education (AACE).

 MOOCs are very complicated to study, and at times it can be difficult to draw comparisons between MOOCs that are done with adults and MOOCs in a K-12 setting. This article’s scope is wide because it uses qualitative and quantitative research and addresses many contemporary issues in education, such as, student engagement. While there is a plethora of information about MOOCs available, K-12 information on MOOCs is rare, which was a major limitation of the research. This study reflects on a cMOOC done with adults and high school students, but the research focuses on the higher school learner. Researchers found that the most engaged students were the students who immersed themselves into the content, had prior technology skills, and saw the benefits of completing the MOOC. On the other hand, researchers also saw disinterested students who joined the MOOC because they were persuaded to take the course for extra credit. Therefore, it can be hard to determine the success of a MOOC in a K-12 environment because all students will not necessarily be interested in the content presented. The most important conclusion the researchers make states, “The goal is to submerge students into the practices of the community” (104).  Other articles look at the effects of MOOCs, but this article strives to look at the purpose for MOOCs. It also explores the value of MOOCs in a K-12 classroom.

Yuping, W., Xibin, H., & Juan, Y. (2015). Revisiting the blended learning literature: Using a complex adaptive systems framework. *Journal Of Educational Technology & Society*, *18*(2), 380-393.

This literature review studies the impact blended learning has had on education and examines the limitations of current blended learning practices. While conducting this study, researchers discovered that many educators fail to focus on the full scope of blended learning. This article aims to give clarity on current blended learning methods and research in addition to providing a thorough literature review. Because researchers were careful to observe every aspect of blended learning, it widens the scope of the article and could be used by all educators and educational leaders.  Looking at the blended learning model as a whole, the researchers identified a framework for blended learning called the CABLS, or The Complex Adaptive Blended Learning System.  CABLS examines six essential components of blended learning: the teacher, the institution, the learner, the learning support, technology, and content. One admitted limitation of this article is the lack of available research on blended learning that covers all aspects of the CABLS model. The vast majority of the available research covered the learner and content, but research on the institution, teacher, and learning support was especially lacking. This weakness can be seen by looking at the articles written on both blended and problem based learning. Barber and Belland’s articles covered a lot of material, yet they never mentioned the learning support and rarely referred to the institution. There is a desperate need for research on blended learning that provides a holistic view for the consumers. Because this research provides an excellent overview, it would be best for educators to read this while they are still exploring the possibilities that blended learning has to offer.