

Future of Online Education in Crisis: A Call to Action

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ABSTRACT

Online education is growing rapidly and there is little doubt that it will continue to expand until it one day encompasses the majority of higher education course offerings. Higher education leaders agree that online education will continue to grow even in the face of a slight recent decline (Allen & Seaman, 2013). As the rise of online education began, concern also arose as to whether the quality of higher education would suffer as a result of this new fast tracked course of academia. The quality of education in general is in question. The average degree standards are lower in America (Cote & Allahar, 2011). Today in higher education it is almost unacceptable to expect students to be solely just that, students (2011). Working full time, while carrying a full load is becoming the acceptable norm (2011). This type of student is more often the student that elects an online education. Despite the current drawbacks, online education is still the best prospect for the future provided the barriers of faculty assessment and course design are addressed. Fear of student evaluations and administrative disapproval are causing grade inflation while simultaneously influencing course design. Instructors are designing courses that allow the student to easily pass the course, which in reality is a disservice to everyone involved. This literature review provides evidence to justify a warning to acknowledge the paradox of current faculty assessment practices and the codependent relationship with course structure, to ensure the future value of higher education remain just that; valuable.

Keywords: Online learning, online education, higher education, grade inflation, faculty assessment, student evaluations, cheating, online exams, exam proctoring

INTRODUCTION

The rapid growth of online learning (OL) demands careful attention to the academic vehicle of higher education. Higher education (HE) in general is a slow moving machine. Therefore when anything begins to accelerate out of contextual manner, caution should be taken to carefully attend to the details and direction of the force. OL has been growing at a rate well beyond that of overall HE (Allen & Seaman, 2014). The Babson Survey Research Group has been tracking online education (OE) for more than a decade. There have been eleven reports to date. These reports serve as useful barometers to keep a pulse on the trend of OL in the United States (US). The survey group collects data from more than 2,800 colleges and universities (2014). The latest report however reported a leveling out of the growth curve. Over the past few years online growth has been decreasing (2014).

Despite the seemingly temporary deceleration of OL growth in the US, OL is still considered to be the way of the future. Institutions are including OL in their long term strategies significantly more today than they did in 2002 when the survey's first began (2014). Online classes will continue to grow faster than traditional classes as they have been doing for so long (Thiede, 2012). The number of online students that are taking online courses remains at a steady normative of students taking at least one online course per year (Allen & Seaman, 2014). Interestingly it is found that the greatest increase of OL is occurring in the institutions that are classified by Carnegie as Doctoral Research Universities (Allen & Seaman, 2013).

It is questionable as to whether the push by institutions to increase OE is simply a way to increase their enrollment. Unfortunately the consideration of that possibility brings into question the resulting quality of HE and whether it may suffer in a race to increase enrollment.

Administrators hold a very positive outlook on the future of OE (Allen, Seaman, Lederman & Jaschik, 2012). The increase in administrators that are in favor of increasing OE has jumped significantly in the past decade. The Babcock Survey Group found that the percentage of administrators that considered OE important to the future of the institution went from less than half in 2002 to almost 70% in the 2012 survey (Allen & Seaman, 2013). The survey reflects that administrators believe that an OE is just as good as a face to face education; nearly 77% (2013).

Caution must be taken in the fact that OE means financial gain for institutions, which quite often is in the interests of the administration. Shorter courses are offered online to benefit the institution financially (Shaw,



Chanetzky, Burrus & Walters, 2013). For the institution, OE provides growth opportunity and is cost efficient (Bristow, Shepherd, Humpreys & Ziebell, 2011). The danger is that administration may begin to see OL courses as more prosperous than face to face courses. That perspective can lead to downsizing of tenured faculty and departments.

Even considering the pitfalls of OE becoming a money machine for HE institutions, it still remains one of the best prospects for the future provided certain precautions are taken and prospective pitfalls are admitted and addressed. Online education provides the best prospect for the future value of HE as long as the following barriers are conceded and addressed; methods of faculty assessment and course design. This study will focus on the best ways to proceed into the future of OE by constructing a literature review of current trends in OL in HE, methods of faculty assessment, current course designs of OL in HE and best practices and recommendations for the future of OE.

LITERATURE REVIEW

Current trends in OE.

A current trend in OE is that the perception of students, faculty and administrators do not acquiesce. In fact research shows that students and faculty perceive their roles in almost an opposite way (Community College Research Center (CCRC) pt.2, 2013; Wachenheim, 2009). Students perceive online classes as the "easy way out" (2013). One student was quoted as describing face to face classes as "real learning" (2013). Students report that they feel instructors should be active in their learning experience, while instructors see their role as more of a facilitator or guide (2013).

The CCRC study found, as well as other researchers, that students expect instructors to be "on call" all the time including weekends (CCRC pt. 2, 2013; Mulig & Rhame, 2012). Faculty however, views their availability in quite the opposite way. They believe they should not be on call especially on weekends (2013). Students feel that faculty are responsible to motivate them, while faculty feel that students should be independent learners and self motivated (2013).

The administrators perspective is also quite different from the faculty perspective (CCRC pt.2, 2013). Allen & Seaman (2014) report that according to the findings of the Babcock Research Survey, academic leaders believe that OL is the positive way of the future for HE. Faculty have been reported to be more pessimistic about OE (Allen et al, 2012). Allen et al (2012) reported that almost 2/3's of faculty believe that learning through online courses is inferior to that of face to face classes. Wilkes, Simon & Brooks (2006), also report that faculty believe that face to face classes promote better learning than online classes.

Another current trend in OE is the debate over cheating. Students cheating when taking online courses is vast and increasing (Harmon, Lambrinos & Buffolino, 2010). On the contrary, in one study to investigate student's perspectives, students reported that they cheat less in online courses (Simonson, Hudgins & Orellana, 2009). As reported in the Babson Research Survey, students perceive online courses as easier (CCRC pt. 2, 2013). Kirtman (2009) studied student perceptions of online courses. They compared student's performance in online courses to performance in face to face courses (2009). The same teacher was used for both forms of instruction. Online learners did significantly worse on the midterm than the face to face learners, however the difference disappeared on the final exam (2009). It can be concluded that the students initially expected the course to be easier and once they performed poorly on the midterm they learned that the course was not as easy as they expected and put forth a greater effort for the final exam.

There is a trend to produce massive open online courses (MOOC). These courses allow hundreds of students to enroll and the institution gains considerable funding for these types of courses. Problems arise such as how to grade all the assignments and give the students the personal attention they are used to from online courses. Currently only 5% of HE is offering these MOOC courses (Allen & Seaman, 2014). However over nine percent say that they plan to offer them in the future (2013). The increase in these types of courses may solely be for the financial benefit because though there is an increase in the number of academic leaders that say they plan to offer them, less than ¼ of academic leaders actually believe MOOC is a good method of online instruction (2013). The problem with the small intimate courses is that faculty load will be higher with each faculty member teaching fewer students. Most HE leaders were found to be in expectation of OE reducing the costs to the institution.

METHODS OF FACULTY ASSESSMENT.



One of the common practices of faculty assessment is student evaluations. The problem with student evaluations being used for that purpose is that they do not reflect a teacher's effectiveness (Stark & Freishtat, 2014; Braga, Paccagnella & Pellizzari, 2014). Research shows that student's evaluation are more dependent on student's success, personal motivations and the amount of effort on the student's part (2014). In other words, students will evaluate a teacher higher when they do well in the course themselves or when they get a higher grade. The highly motivated student that makes a concerted effort in the course will typically rate the teacher higher.

Stark & Freishtat (2014) found that students typically fill out the evaluations in detail when they fall into either of the extremes. If the student is pleased with their grade and worked hard through the course, the self satisfaction is reflected in the instructor's evaluation (2014). The same is true for the other extreme. If the student earned a lower grade and lacked effort and self motivation, they are eager to blame the instructor and complain (2014). Anger is a very motivating emotion. Stark & Freishtat (2014) also point out that statistically, conclusions cannot be drawn from such small samples. The typical class size is small for current online courses, especially fast tracked courses. Small sample sizes are not justifiable in measuring anything including performance of a professional. Secondly, it is counterintuitive to expect any kind of meaningful evaluation of a professional by a non-professional (2014).

Students are however, in a good position to report a professor's availability or their own boredom or excitement. For example, a student may complain that a professor was not available enough to help them through the course because the instructor did not answer emails on the weekend. Their perspective is that it wasn't enough, but the institution's perspective is that it is fine. Part time instructor's are not expected to work all through the weekends, just like face to face professors are not expected to work all weekend, or hold weekend office hours.

Better evaluation tools would be the materials the instructor uses in the course such as the instructor's syllabi, the lectures, the assignments, materials created to enhance course exams, samples of student's work that professors have graded and grading rubrics. Furthermore, teacher's ongoing behaviors may be observed easily by the institution. For example, is the teacher revising work? Does the teacher take time to record video? Does the teacher give research supervision online, such as teaching proper APA style and giving feedback on it? And probably most important, is there a normal grading curve?

GRADE INFLATION

More instructors are part time without the security of tenure and may need their positions desperately enough to be more lenient in online courses (Kamenetz, 2014). Kemenetz (2014) found that professors who hand out easy A's get higher student evaluations. Grade inflation is a growing problem in HE (Schutz, Drake & Lessner, 2013). Grade inflation lowers learning standards, lowers the value of education and causes the student to feel entitled thus lowering their efforts (2013). Students gain a false sense of achievement and they then reward the instructor with a favorable student evaluation. Schutz et al, (2013) conducted a study comparing tenured faculty (who feel a greater sense of job security) to adjuncts and found that adjuncts inflated grades significantly more than tenured faculty. More than likely these results reflect the fear that adjuncts have of administrators letting them go.

Barr, Kadiyah & Zussman (2009) conducted what is now known as the famous Cornell study on grade inflation. They studied 500 students and found that grade inflation is steadily increasing, and students were choosing classes with the highest median grade average. These results reflect the desire of students to have an instructor that is willing to give away high grades easily. Since this study Cornell stopped posting the average median grade (2009).

Wellesley College implemented anti-grade inflation policy (Butcher, McEwan & Weerapana, 2014). They found that student evaluations were tied to lenient grading. Once the policy lowered the grade inflation, student evaluations dropped significantly (2014). The problem is that faculty are now trying to satisfy both students and administration, while trying somehow to hang on to some shred of ethical value. Teachers are enticed into planning easy assignments that are easy and fun for the students. The problem is, we as faculty and HE institutions are supposed to be preparing these students for the real world where hard work and effort will be expected. We are also preparing professionals. If students do not really learn and retain the education that our devalued diplomas say they hold, would you really want that so called "accountant" doing your taxes. Or would you like these graduates to be your "lawyer" representing you in court, or worse, have that graduate as your surgeon? It may be tempting to look at simple psychology courses as something that is not really harmed if they student learns the information or not, until they are operating as a professional social worker counseling a teenager contemplating suicide. Suddenly what they are supposed to be an expert in becomes very important to society in general.



Higher average grades in a class are reflective of an instructor that is turning out students that are not really learning the material for any permanent amount of time if at all. Higher average grades in a class lead to less effort of students (Babcock, 2010). Lower average grades on the other hand lead to a greater effort on the student's part (2010). Khanlarian & Singh (2014) describe today's online learner as lazy wanting to do the least amount of work to complete the task. For example most discussion board assignments require a student to make comments to at least two of the peer posts each week. Most students log into the discussion board at one small point during the week and make sure to get their two meaningless posts up and counted for. What learning occurred there? The researchers also found that today's online students do less work and ask for lots of help from the teacher (Babcock, 2010). What would happen in the case of an MOOC class? Would the instructor be responsible for motivating and hand holding each student? It would be impossible. The online student must be self-motivated and self-directed.

Grade inflation harms the student, the individual institution and most of all HE in general. It devalues the student's degree, it devalues the education that comes from that institution and may eventually ruin their reputation and most important it destroys the value of a HE in general.

Therefore it must be concluded that student evaluations must be reconsidered as to what they are used for. Certainly they give insight into the student's perspective, however they are nowhere near an assessment tool for a professional's performance especially the instructor that gave them a grade. If anything at all, it is a conflict of interest. Perhaps administration could put in more effort to really look at all the work the professor has put in to building and improving the course.

CURRENT COURSE DESIGNS OF OL

The social aspect.

Online instruction has developed some structures that appear to be a given such as discussion boards. Originally academic leaders and faculty were worried that online courses take away the social and interactive element that face to face courses provide and those aspects of face to face courses are indeed important (Aksal, 2011). Aksal (2011) constructed an evaluation tool to assess online learning and they found that social interaction is highly important. Social interaction can be implemented into online courses however, what is really lost in online courses compared to face to face courses is the built in discipline of having to put aside a certain time for the course each week. OE looses that forced structure of having to make an effort for the course and with fast courses there is the loss of time to take the material in.

Discussion boards offer very little value to online courses (Sebastianelli & Tamimi, 2011). In a study by Tucker (2012), they examined the social interactive constructs of OE. They found that discussion boards are worthless (2012). The responses were generally brief and didn't reflect scholarly thought (2012). Most of the time the responses did not add anything to the topic (2012). They also found chat sessions to be worthless (2012). Students that type slow ended up going silent in the sessions, or reported feeling left out of the conversation (2012). When they compared discussion boards with face to face class discussions, they found that class discussions promoted student retention and learners perceived the instructor as prompting an atmosphere of community (2012). They also found that instructors in the face to face classes received higher student evaluations (2012).

Group projects are another effort to socialize online coursework. Capdeferro & Romero (2012) found that group assignments cause students frustration. It violates the very reason many of the online students take their courses over the internet. They don't have time to conform to everyone else's schedule. Also the other students in the group don't always do their part. Online learners appear to prefer riddance of group assignments (2012).

Course length.

Course length recently is a paradigm of change in the structure of online courses. Institutions have found ways to generate more income by faster turnover. Accelerated courses are online courses that are completed in less than the traditional 16 week course. Course lengths vary anywhere from 5 to 8 weeks in duration. The research is in the middle on this issue. Shaw, Chametzky, Burrus & Walters (2013) found that 16 week courses were not found to facilitate learning any better than 8 week courses. The only problem with this example is, there were no exams given in the online course, just 18 homework assignments and a final grade generated from the homework assignments.

Ferguson & DeFelice (2010) compared five week courses to 16 week courses. The five week course received higher satisfaction ratings from the students with regard to student to student communication (2010). The students in the 16 week courses expressed higher satisfaction with student to professor communication (2010).



The perceived learning was higher in the 16 week course, however the students in the five week course had significantly higher grades (2010). It was not reported however, whether the students in the five week course had proctored exams or even if they had exams (2010).

Mensch (2013) compared student grades in three week, five week and 14 week courses. They found that students in the three week course had significantly better grades. However when examining the grading distribution, the three week course had a grade compression clustered around A's making the average grade an A (2013). This clearly indicates grade inflation by the course instructor. The research did not report whether exams were proctored or timed, or even if there were exams. The researchers admitted that there was a possibility that the three week course was probably made easier because it was short.

Flexible course lengths may offer the most promise for varying the course length. Zucca (2013) found that adults that were given a flexible time limit to work on the material performed well. They could finish the course faster if they wanted to, as in five weeks, or they could take the full 16 weeks to complete the course. Learning was better in all cases when students were allowed to set their own pace within the bounds of the 16 week traditional course time.

Proctored exams.

In each of the cases of course acceleration, it is expected that students will retain the same information in a very condensed time compared to the traditional 16 week course, whether online or face to face. In each of the studies presented here, the terms of examination or grade assessment were not made clear. Grade assessment is important for to the retention of information and actual learning. Students do cheat when exams are not proctored (Harmon & Lambrinos, 2008). Online students take advantage when exams are not proctored. Two different classes were compared. One class was administered a proctored exam. The other class was not. Three of the previous exams during the semester were unproctored. The class receiving the unproctored exams were not warned they would receive a final proctored exam. They did significantly worse than their previous exams (2008). Furthermore, they did significantly worse on the final exam than the other class who was receiving proctored exams throughout the entire semester (2008). The indication here being that if students do not think they are really going to be tested on their knowledge, without notes or books to help them, they will not make the effort to learn the material. It has to be concluded that no real learning has occurred.

Wachenheim (2009) compared the performance of students in both online and face to face classes on a proctored final exam. They found that the face to face class performed significantly better than the students in the online class (2009). However when comparing students taking a proctored exam to students taking a non-proctored exam the students taking the non-proctored exam performed significantly better, indicating cheating (2009).

Some course designers of online courses believe that letting students retry an answer over and over until they get the correct answer on weekly quizzes will help them better retain the information and promote learning. Wachenheim (2009) found that not to be true. Weekly quizzes were also given to in class students but they weren't allowed to use books or redo the answers until all were correct. The online students were allowed to use books and re-submit answers until the correct answer was found. If the hypothesis is true that retrying until you find the correct answer on weekly quizzes promotes learning, then the online students should have learned more than the students in the face to face class. This however was not what the researchers found. When the proctored final exam was given the in class students performed much better than the online students (2009). The researchers concluded when exams are not proctored online students will cheat and when exams are not proctored online students really do not experience learning (2009).

Further Harmon, Lambrinos & Buffolino (2010) found a correlation between assessment type and cheating. Courses with non-proctored exams affect the credibility of the institution (2010). According to Mayadas, Bourne & Bacsich (2009), it is common practice to take the final exam under a proctor. However that may not be the case today with the recent findings that adjunct professors grade inflate more than professors (Schutz, Drake & Lessner, 2013; Barr, Kadiyah & Zussman, 2009).

Online student profile.

It's possible that students learn from the instructor's leniency that effort is not required. Allen & Seaman (2013) report that today's online students lack discipline. Students in classrooms were found to put more time into a course than students online put into a course (Brown & Liedholm, 2002). It is possible that the academically stronger student gravitates to the face to face method of instruction. Research does show that academically stronger students tend to gravitate towards face to face classes (Driscoll, Jicha, Hunt, Tichavsky & Thompson, 2012). They found that online classes were perceived as easier, therefore they attracted the weaker students



(2012). Overall GPA's of online students are found to be lower (2012). Withdrawal is also higher with online students (2014).

RECOMMENDATIONS FOR QUALITY ONLINE EDUCATION

Improvement begins with the institution and the administration. The institution should create readiness activities for students to determine the probability that they will be successful in online courses (CCRC pt.2, 2013). Institutions should make sure that faculty receive professional development (CCRC pt.2, 2013). Entrance requirements may be a course of action to ensure quality of OL and administer a connotation of greater effort and value of the OE, such as minimum grade point average standards to be eligible to enroll in online courses (CCRC pt.2, 2013).

Institutional responsibilities.

Institutions must have a teaching plan and a reliable technical delivery system (Institute of HE policy, 2000). Khanlarian & Singh (2014) found that students are frustrated when there are IT issues. Student frustration is important because frustration is correlated to student's success (2014). There should be a centralized tech system in place that both students and faculty may rely on (2014).

The institution should show an interest in the faculty by actually reviewing instructional materials periodically while minimizing their reliance on student's evaluations. The Institute of HE policy (2000) suggests that minimal standards should be used for development, design and delivery. Technical assistance should be available to the instructors and instructors should receive training and assistance in technology for the courses (2000).

Instructor evaluation should be based on the syllabi, the lectures, the assignments, the materials used to enhance the course, the assessment methods used in the course and samples of the student's work, that have been graded by the professor. Instructor or faculty evaluations should not be rooted on student evaluations (Stark & Freishtat, 2014). In a research university it is even more important to evaluate an instructor's grading rubric to ensure that they are properly preparing students for academic level research and writing skills.

At the conclusion, institutions will eventually be held accountable for students actually learning and retaining information for the college credits they bestowed upon their graduates (Brazina & Ugras, 2014).

Faculty responsibilities.

Faculty should ensure daily communication. They should provide feedback in a reasonable efficient time (Barr & Miller, 2013). They should express high expectations and embrace cultural diversities (2013). Their instructions should be very specific with the use of rubrics given in advance, preferable in the course guide (Thiede, 2012). Therefore students will have a good concept of what the instructor is looking for when grading an assignment. The assignments should cause students to engage in research, discuss the course material with others and force them to take an analytical approach (Thiede, 2012).

Exams should always be proctored or timed allowing no more than 2 minutes maximum per question (Institute of HE policy, 2000; Wachenheim, 2009; Barnes & Paris, 2013; Mayadas, Bourne & Bacsich, 2009; Stanley, 2006; Harmon & Lambrinos, 2008; Kirtman, 2009). The use of proctored test sites is best. However, sometimes that is not possible therefore timed exams are essential. Timed exams that allow 24 or 48 hours for the students to look up the answers are not considered "real" exams. That type of "exam" is really nothing more than a homework assignment.

Exams should be single entry online. Students should not be permitted to save the exam and come back later to finish it. Exams should be changed each semester (Barnes & Paris, 2013). If possible lock the student's browser during testing (2013). The questions should be changed each semester (2013). Questions on exams should concentrate more on conception rather than general knowledge (Wachenheim, 2009).

$Student\ responsibilities.$

Students should make the strongest effort in an online class. Students should be self-motivated and operate as self-directed learners. Students must take OE seriously and apply themselves accordingly. Students must realize that they will not benefit from the least amount of work possible (Khanlarian & Singh, 2014). Research shows that better note taking in class results in better grades (Nakayama, Mutsuura & Yamamoto, 2014). Unfortunately it is found more and more that students prefer courses that require the least amount of effort and time (Marshall, Greenburg & Machun, 2012). Student effort was found to be one of the best indicators of success in OE (Firmin,



Schiorring, Whitmer, Willett, Collins & Sujitparapitaya, 2014). The entire online environment is weakened when a professor's time is consumed by students who do not put forth a copious effort to succeed.

CONCLUSIONS

OE is the fastest growing segment of HE and it is a positive academic direction. However, there are cautionary situations that must be addressed immediately. There are two paths presenting themselves in front of OE as it approaches its future. One path will degrade HE in general and devalue education in the US considerably. The US is currently the country with the most successful online programs in the world (Mayadas, Bourne & Bacsich, 2009). With the US leading the future of OE, it is important for change to begin in the US.

The other path is to sustain a strong and vital growth in HE that not only maintains integrity but strengthens HE. The possibility presents itself to elevate HE to a level of value higher than it has ever been. But to do that, there are barriers that demand extraction. The use of student evaluations for any sort of faculty performance indicator must be eliminated. Student evaluations may still be collected but the use and value should be placed elsewhere.

True exams must be required of all faculty. Proctored or limited timed exams must be used. Some studies report success with the use of web cameras, however complaints of costs have impeded that form of assessment becoming common (Barnes & Paris, 2013). Administrators must give clear guidelines of exam expectations and monitor grading curves. Faculty should have a normal grading curve in the course. Faculty that have an average grade of "A", should be evaluated closely.

The design of online courses should include a social aspect but not as the most important standard for success. Success should be surmised on the premise that learning has occurred. It is not just assumed learning that is considered acceptable, but learning with some form of verification. OE must include clear communication between the student, faculty and institution which starts with a clear and detailed course guide that is approved by the institution, endorsed by the faculty and understood by the student. Grading rubrics and high expectations married to strong student effort and motivation will result in a strong education in the US and the world. As educators, we are in agreement that the most important objective of what we do is to induce or facilitate learning in the student. Cote and Allahar (2011) stated it very well when they said "Simply handing someone a credential, without the personal and intellectual resources to back it, is to shortchange that person" (p. 119).

REFERENCES

- Allen, E. & Seaman, J. (2014). Grade change: Tracking online education in the United States. *The Sloan Consortium*. Retrieved from http://www.onlinelearningsurvey.com/reports/gradechange.pdf
- Allen, E., Seaman, J. Lederman, D. & Jaschik, S. (2012). Conflicted: Faculty and online Education, 2012. *The Sloan Consortium*. Retrieved from
 - http://www.insidehighered.Com/sites/default/server_files/survey/conflicted.html
- Allen, E. & Seaman, J. (2013). Changing course: Ten years of tracking online education In the United States. *The Sloan Consortium*. Retrieved from http://www.onlinelearningSurvey.com/reports/changingcourse.pdf
- Allen, E. & Seaman, J. (2009). Learning on demand: Online education in the United States, 2009. *The Sloan Consortium*. Retrieved from http://www.sloansurvey/pdf/learningondemand.pdf
- Aksal, F. A. (2011). Developing evaluative tool for online learning and teaching process. *The Turkish Online Journal of Educational Technology, 10*(3). Retrieved from http://eric.ed.gov/?id=EJ944933
- Babcock, P. (2010). Real costs of nominal grade inflation? New evidence from student course Evaluations. *Economic Inquiry*, 48(4), 983-996. doi:10.1111/j.1465-7295.2009.00245.x
- Bar, T., Kadiyali, V. & Zussman, A. (2009). Grade information and grade inflation: The Cornell experiment. *Journal of Economic Perspectives*, 23(3), 93-108. doi:10.1257/jep.23.2.93
- Barnes, C. & Paris, B. L. (2013). An analysis of academic integrity techniques used in online courses at a southern university. *Northwest Decision Sciences Institute Annual MeetingProceedings*. Retrieved from http://nedsi.org
- Barr, B. A. & Miller, S. F. (2013). Higher education: The online teaching and learning Experience. *Online Teaching and Learning*. Retrieved from http://files.eric.ed.gov/Fulltext/ED543912.pdf
- Braga, M., Paccagnella, M. & Pellizzari, M. (2014). Evaluating students' evaluations of professors. *Economics of Education Review*, 41, 71-88. doi:10.1016/j.econedurev.2014.04.002.
- Brazina, P. R. & Ugras, J. Y. (2014). Growth and changes in online education. *Pennsylvania CPA Journal*, 85(3).
- Bristow, D., Shepherd, D. C., Humphreys, M. & Ziebell, M. (2011). To be or not to be: That isn't the question! An empirical look at online versus traditional brick-and-mortar courses at the university level. *Marketing Education Review*, 21(3), 241-250. doi:10



.2753/MER1052-8008210304

- Brown, B. W. & Liedholm, C. E. (2002). Can web courses replace the classroom in principles of microeconomics? *American Economic Review*, 92(2), 444-448. doi: 10.1257/0002828020191778
- Butcher, K. F., McEwan, P. J. & Weerapana, A. (2014). The effects of an anti-grade-inflation policy at Wellesley College. *Journal of Economic Perspectives*, 28(3), 189-204. doi:10.1257/jep.28.3.189
- Capdeferro, N. & Romero, M. (2012). Are online learners frustrated with collaborative learning experiences? The International Review of Research in Open and Distance Learning, 13(2). Retrieved from http://www.irrodl.org/index.php/irrod1/article/view/1127/2179
- Cote, J. E. & Allahar, A. L. (2011). *Lowering Higher Education: The Rise of Corporate Universities*. Toronto, University of Toronto Press Incorporated.
- Community College Research Center pt. 2 (2013). Creating an effective online environment. *Teachers College, Columbia University*. Retrieved from http://ccrc.tc.columbiaEdu/media/k2/attachments/creating-effective-online-environment.pdf
- Driscoll, A., Jicha, K., Hunt, A. N., Tichavsky, L. & Thompson, G. (2012). Can online courses deliver in-class results? A comparison of student performance and satisfaction in an online versus a face-to-face introductory sociology course. *Teaching Sociology*, 40(4), 312-331. doi:10.1177/0092055X12446624
- Ferguson, J. & DeFelice, A. (2010). Length of online course and student satisfaction, perceived learning, and academic performance. *International Review of Research in Open and Distance Learning*, 11(2), 73-84. Retrieved from http://0-
- search.ebscohost.com.library.acaweb.org/login.aspx?direct=true&db=eric&AN=EJ895748&site=eds-live Firmin, R., Schiorring, E., Whitmer, J., Willett, T., Collins, E. D. & Sujitparapitaya, S. (2014). Case study: using MOOCs for conventional college coursework. *Distance Education*, *35*(2), 178-201. doi:10.1080/.01587919.2014.917707
- Harmon, O. R., Lambrinos, J. L. & Buffolino, J. (2010). Assessment design & cheating risk in Online instruction. *Online Journal of Distance Learning Administration*, 13(3). Retrieved from http://www.westga.edu/~distance/ojdla/fall133/harmon lambrinos buffolino133.html
- Harmon, O. R. & Lambrinos, J. (2008). Are online exams an invitation to cheat? *Journal of Economic Education*, 39(2), 116-125. doi:10.3200/JECE.39.2116-125
- Herman, J. H. (2013). Faculty development programs: The frequency and variety of professional development programs of professional development programs available to online instructors. *Journal of Asynchronous Learning Networks*, 16(5), 87-106.
- Khanlarian, C. J. & Singh, R. (2013). An exploratory study of the online learning environment. *Issues in Accounting Education*, 29(1), 117-147. doi: 10.2308/iace-50614
- Kirtman, L. (2009). Online versus in-class courses: An examination of differences in learning outcomes. *Issues in Teacher Education*, *18*(2), 103-116. Retrieved from http://eric.ed.Gov/?id=EJ858508
- Marshall, J., Greenberg, H. & Machun, P. A. (2012). How would they choose? Online student preferences for advance course information. *Open Learning*, 27(3), 249-263. doi:10.1080/02680513.2012.716656
- Mayadas, A. F., Bourne, J. & Bacsisch, P. (2009). Online education today. *Science*, *323*(5910), 85-89. doi:10.1126/science.1168874
- Mensch, S. (2013). The relationship between course grades and retention rates when the same Class is offered in different time lengths. *Insights to a Changing World Journal*, 2013(3).
- Mulig, L. & Rhame, S. (2012). Time requirements in an online teaching environment: How to be more effective and efficient in teaching online. *Journal of Accounting and Finance12*(4), 101-109.
- Nakayama, M., Mutsuura, K. & Yamamoto, H. (2014). Impact of learner's characteristics and learning behavior on learning performance during a fully online course. *TheElectronic Journal of e-Learning*, 12(4), 394-408. Retrieved from http://www.ejel.org
- Schutz, K. R., Drake, B. M. & Lessner, J. (2013). Do community college full-time and Adjunct faculties differ in their perceptions of rigor in assigning grades? *American Journal of Educational Studies*, 6(2), Retrieved from http://www.amhighed.com/ajes.htm
- Sebastianelli, R. & Tamimi, N. (2011). Business statistics and management science online: Teaching strategies and assessment of student learning. *Journal of Education for Business*, 86, 317-325. doi:10.1080/08832323.2010.525545
- Shaw, M., Chametzky, B., Burrus, S.W. & Walters, K. J. (2013). An evaluation of student outcomes by course duration in online higher education. *Online Journal of Distance Learning Administration*, 16(4). Retrieved from
 - http://www.westga.edu/~distance/ojdla/Winter164/shaw_chametzky_burrus_walters164.html
- Simonson, M. R., Hudgins, T. L. & Orellana, A. (2009). *The Perfect Online Course: Best Practices for Designing and Teaching.* Charlotte, N.C., Information Age Publication.
- Stanley, O. L. (2006). A comparison of learning outcomes by 'incourse' evaluation techniques for an on-line course in a controlled environment. *The Journal of Educators Onine*, 3(2), 1-16.



- Stark, P. B. & Freishtat, R. (2014). An evaluation of course evaluations. *Center for Teaching and Learning, University of California, Berkley*. Retrieved from http://www.stat.berkeley.edu/~stark/Preprints/evaluations14.pdf
- Stevens, R. (2004). Proposals presented to curb grade inflation. *Princeton Weekly Bulletin*, 93(24). Retrieved from http://www.princeton.edu/pr/pwb/04/0419/1b.shtml
- The Institute for Higher Education Policy (2000). Quality on the line: Benchmarks for success in internet-based distance education. *National Education Association*, 1-45. Retrieved from http://www.nea.org/assets/docs/HE/QualityOnTheLine.pdf
- Thiede, R. (2012). Best practices with online courses. US-China Education Review A(2), 135-141.
- Tucker, S. Y. (2012). Promoting socialization in distance education. *Turkish Online Journal of Distance Education*, *13*(1). Retrieved from http://tojde.anadolu.edu.tr/tojde46/articles/article_11.htm
- Wachenheim, C. J. (2009). Final exam scores in introductory economics courses: Effect of course Delivery method and proctoring. *Review of Agriculture Economics*, 31(3), 640-652. Doi:10.111/j.1467-9353.2009.01458.x
- Wilkes, R.B., Simon, J. C. & Brooks, L. D. (2006). A comparison of faculty and undergraduate, student perceptions of online courses and degree programs. *Journal of Information Systems Education*, 17(2), 131-140
- Zucca, G. (2013). Classroom course model: A different model needed for adult online students? *The International Journal of Technology, Knowledge and Society, 9*, 99-107.