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This manuscript reviews the effectiveness of online education, pointing out the weaknesses and the more recent positive outcomes. Regardless of the positive reviews, employers view online education negatively and will hire students from campus programs over online or blended (hybrid) programs. What characteristics can make one online program better than others? These programs are reviewed, but the exploration found that even the reviews for traditional programs are negative. Because of our economic-driven culture, many are calling for a drastic change in traditional doctoral education, saying that PhDs that choose only the academic arena are no longer needed because they serve too few, are applied infrequently, and are too expensive. Rather, a modification of online education, possibly a hybrid program, may answer the call. This article concludes with a brief description of a hybrid Doctor of Management program that might address the serious challenges to traditional programs.

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Introduction

Serving as both faculty and administrator creates struggles with the value of online education, particularly at the doctoral level. Will it produce the scientists and practitioner leaders needed in both education and industry? This question is both intriguing and challenging for administrators of an online doctoral program and requires an answer.

Whether faculty and administrators are in favor of e-learning, it is not going away anytime soon. Online teaching and learning in higher education has grown dramatically over the last few decades (Allen & Seaman, 2010). The average annual rate of growth of online programs between 2002-2009 was an increase of 19%, while campus-based classes grew only 2%. Nearly 33% of U.S. higher education institutions in 2008 that had programs in business had fully online programs (Allen & Seaman, 2008). This phenomenon attracts students for two reasons: this mode of education is convenient and flexible (Sullivan, 2001), which fits into their complex lifestyles.

If students find this attractive, it will lead to more online doctoral graduates in the future, begging an answer to the original question of whether this is the best preparation for our business future. This manuscript will explore the effectiveness of e-learning, employers’ perceptions of these programs, what promotes a quality online education, the future of doctoral programs in business; and it will conclude with an example of a Doctor of Management program that can challenge traditional methods and address the needs of the 21st century terminal graduate.

Effectiveness of Online Business Programs

Higher education leaders and faculty tend to minimize online education, rating it as inferior to face-to-face offerings (Allen & Seaman, 2009). Attitudes in business education are slow to change because of the criteria for accreditation and the media’s ranking of business schools (Redpath, 2012). The Financial Times Executive EMBA Rankings (Financial Times, 2010) excludes programs having less than 50% of instruction delivered in class; instead, they are included in a list of online MBAs that receives less attention and has less prestige. While accreditation agencies, such as the Association to Advance Collegiate Schools of Business (AACSB) International, have made some movement toward focusing on more learning outcomes rather than the mode of education, the membership schools view e-learning as second-class (Redpath, 2012) and synonymous with lower quality.
This theme continues, as an article in the *Harvard Business Review* (Barker, 2010) indicated that online was an inferior delivery mode. Barker (2010) argued that sound management education requires a learning environment with sharing and collaboration, which he implied is absent in online learning. Another article comparing the Chalkboard versus the Avatar (Bergstrand & Savage, 2013) stated that students felt they learned less and rated online lower than in-class courses.

While arguments continue on quality of online education, some new literature indicates interesting results. Arbaugh (2005) argued that subject matter is important when determining delivery methods. The hard disciplines (finance and accounting) appear to need more instructive methods, such as in-class or hybrid, while the soft disciplines (marketing and management) can use more constructive and collaborative methodologies such as online or blended approaches (Arbaugh, 2010a). His work indicated unbalanced research activities among the disciplines and suggested several reasons for this, such as the criteria for tenure and promotion, and the desirability and perceived status of engaging in research with educationally oriented questions. Thus, there may be little return on investment for time and effort placed on these questions in some business disciplines.

In addition to the importance of the subject matter, the characteristics of both the instructor and the learner appeared to explain the variance in these studies. Learning is optimal when a high level of interaction and collaboration exists (Arbaugh, 2010b). Students in online courses have more power concerning their learning activities, which demands that the instructor encourage more collaboration, self-directed discovery, and uncovering meaning (Bekele & Menchaca, 2008). The faculty member becomes a facilitator rather than a direct communicator of knowledge (Arbaugh, 2010b). Research has shown that the actual presence of an instructor is unnecessary in fostering critical thinking, deep learning, and engagement communities of interaction (Redpath, 2012). A sense of trust must be established that promotes honest communication through reinforcing participation, collaboration, and knowledge transfer. Encouraging collaboration can be time consuming and requires careful interaction with students. Too much or too little instruction can have a negative effect on student participation (Arbaugh, 2010b). High levels of interaction by the instructor can be overwhelming for the students, and they may react by uploading superficial postings to stay abreast of the activities (Ke, 2010).

Is online learning the bane of education, or does it possess some promising characteristics? Allen and Seaman (2007) examined some of the “urban myths” concerning online education with chief academic officers from 2002-2006 by reviewing eight statements. They found that four were myths, two had mixed results, and two had some basis in fact.

Four statements were found as myths:

1. **Myth**: Students are not as satisfied in an online course. **Fact**: Chief academic officers universally disagree.
2. **Myth**: Students do not want online courses; they would prefer a face-to-face course. **Fact**: Both enrollment trends and the opinions of academic leaders say that this is not an issue.
3. **Myth**: It is harder to evaluate an online course than a face-to-face course. **Fact**: Academic leaders believe it is not more difficult to evaluate an online course.
4. **Myth**: Flash-in-the-pan online courses will not be around for the long term. **Fact**: An increasing number of schools are portraying that online education is critical to their long-term strategy. (Allen & Seaman, 2007, 137-138)

Two statements had mixed results:

1. **Statement**: Online courses can be perceived as poorer quality. **Fact**: The majority of chief academic officers do not believe this to be the case, but a sizable minority still has concerns.
2. **Statement**: It takes more time and effort for faculty to teach an online course. **Fact**: There is some agreement that it takes more time and effort, but most leaders are neutral on this issue. (Allen & Seaman, 2007, 137-138)

Two statements tended to be true:

1. **Statement**: Faculty do not accept or value online instruction. **Fact**: This is overwhelmingly the case; there does not seem to be any change over the years that the Sloan survey has investigated this question.
2. **Statement**: Students require more discipline to complete online courses. **Fact**: The evidence is very consistent on this point; academic leaders believe this to be the case, and the more experience they have with online the stronger their belief. (Allen & Seaman, 2007, 137-138)

A weakness exists in this research, in that it illustrates the perception of only chief academic officers, and the
question is unanswered as to how this aligns with the perceptions of students, faculty, staff, and the general public (Allen & Seaman, 2007).

Much of the research supports what online educators and researchers have argued for some time: pedagogy, more than technology or mode of delivery, determines success (Arbaugh & Benbunan-Fich, 2006). While the communication, interaction, and delivery systems differ between online and classroom learning, the online outcomes are no more or less effective than classroom learning (Redpath, 2012). Most of the research operationally defined online as 80% online interaction as opposed to 100% (Allen & Seaman, 2007).

If online is 80% online interaction, what are the blended or hybrid classes? They are a combination of classroom and online, with learning that occurs through an application of classroom teaching and online learning as an extension of the classroom experience (Rovai & Jordan, 2004). The student gets the best of both worlds – the interaction of the instructor and classmates with the flexibility and convenience of online. Advantages to this mode of learning are increased communication, maintaining a face-to-face environment, sense of community, improved academic performance, collaborative tasks, adequate feedback, help, and active participation (Tayebińik & Puteh, 2012). The authors concluded that hybrid education would become the popular model of the future. Although very little experimental evidence can be found, the literature appears to view hybrid or blended learning equally effective as the classroom experience. Future employers ultimately will determine whether these forms of education are successful at both the undergraduate and graduate levels.

**Perception of Employers**

Columbaro and Monaghan (2009) conducted an extensive literature review that examined empirical studies and popular outlets, such as newspaper, trade magazines, online journals, websites, and blogs, to understand how “gatekeepers” view online, hybrid, and classroom education. A gatekeeper is anyone who may come between the student and a hiring person, such as HR managers, recruiters, resume screeners, and receptionists. They found that “gatekeepers have an overall negative perception of online degrees” (p. 6). A more detailed examination of these findings is needed, as there are some qualifiers to this statement. Definitions of online learning were very clear and included evaluations of all three. Traditional or minor web-facilitated courses were less than 29% e-learning, hybrid had 30-79% of the content disseminated online, and fully online had 80% of the content dispersed through online methodology (Allen & Seaman, 2005).

Columbaro and Monaghan (2009) evaluated numerous career options and found varying perceptions of the credibility of online education. Online coursework in higher education is considered inferior, and academics would prefer to hire someone with a traditional degree. Community colleges were more receptive than traditional schools to hiring those with online degrees. In healthcare, there was some concern over whether science could be effectively taught online; however, in hiring practices there was no difference between traditional and online methodology (Chaney, 2002). In a more recent study that included bachelors through doctorate degrees, healthcare professionals preferred those with traditional degrees over online degrees, although 29% chose those with hybrid degrees (Adams, DeFleur, & Herald, 2007), indicating hybrid programs may be seen as more positive to potential employers.

Of industries hiring bachelor degrees in accounting, business, engineering, and information technology, 96% chose the candidate with the traditional degree, while 75% preferred the traditional degree to the hybrid (Adams & DeFleur, 2006). Participants noted that the type of degree made a difference in their hiring choice. This basic premise was supported by Siebold (2007), who studied the more quantitative degrees.

The popular press viewed online degrees as viable options but warned readers to assess the school’s accreditation (Dolezalek, 2003). Montell (2003) advised potential job seekers to avoid using the term “online” on their resumes. Many schools stated that both online and on-campus programs require the same accreditation, and students should not delineate them on their resumes (Columbaro & Monaghan, 2009).

Common concerns exist about online degrees (Columbaro & Monaghan, 2009), such as lack of rigor, lack of face-to-face interactions, increased potential for academic dishonesty, association with diploma mills, and the commitment of the students to education. On a positive note, however, some conditions will increase a positive hire, such as name recognition of the granting institution, appropriate level and type of accreditation of the school, and the perception that online students are more self-directed and disciplined. Candidates generally worked while attaining their degrees and possessed relevant work experience. An important question surfaces as to whether the organization for
which they worked considered them for promotions or whether they were applying to new positions elsewhere. While gatekeepers generally view an online degree as negative, more research is needed, as some challenge that statement. The question remains as to what type of online education could supply the knowledge employers are demanding?

**What Does Quality Online Education Include?**

Mayes, Luebeck, Akarasriworn, Akarasriworn, and Korkmaz (2011) discussed in a recent article the strategies for transformative online education, of which many have promise for quality doctoral programs. In order to create a community, they suggested skillful interactions over content that must be structured and carefully facilitated with areas for informal interaction, such as a lounge, large and small group discussions, informal critiques of postings, and projects that facilitate a cohort/faculty interaction. For excellence in pedagogy, techniques consisted of creating a learner-centered environment through increasing student presentations with facilitations, encouraging critical thinking through problem-solving exercises, encouraging collaboration and shared learning among students, and incorporating hypothetical lessons with discussions about decisions and ethics. Feedback and frequent immediate reactions from the faculty present an opportunity for shaping student behavior. Summative assignments that draw together course learning are essential but must be preceded with specific rubrics and examples. The content must be student-centered and exploratory, while taking full advantage of the web-based nature of the class. These criteria apply equally to classroom and online instruction.

Instructional methods also are important. The initial point of contact is the syllabus, which provides details about the content, the objectives, the assignments, and instructor contact. The assignments should have clear instructions and rubrics for assessment, with immediate feedback from the instructors to promote appropriate shaping of correct behavior. This method is no different than an in-class experience, but online instruction is more challenging due to geographical distance (Finch & Jacobs, 2012). The conclusion may be drawn that quality online classes result from the application of quality in-class instruction.

Although aspects have been explored on creating a successful online class, the examination of online degrees often consists of MBA or bachelor-based research, as opposed to doctoral-level education. The following issues will be addressed in this article: What do graduates of doctoral programs need in order to be successful? What, then, is the future of doctoral programs, and what constitutes a quality program that can be credible in the 21st century?

**Future of Doctoral Programs**

Doctoral education emerged in the early 19th century at Von Humboldt University (Pedersen, 1997), and PhD graduates became a discipline-based elite group who taught and conducted research at a university. Thus, teaching and research were basically embedded in the quasi-medieval guilds that valued the thesis as the masterpiece that allowed an individual to become a member of the “guild of masters” (DeMeyer, 2013, pp. 477-486). This model was readily adopted by the United States and spread around the world. In some countries (USA, Canada, and Denmark), one must undertake designated courses to be qualified as a discipline expert. It is an apprentice program in the U.K. Regardless of the training, the end result is scientific research and placement in a university as a career path. This portrays a flawed view of education in the 21st century, particularly when the doctorate is housed in a business school.

The literature calls for change due to several reasons. Today’s economies are knowledge-based (DeMeyer, 2013). The economy has driven production to lower cost countries, which leaves the industrialized nations to lead the development of knowledge. Industrial leaders are looking for highly educated employees who can produce this knowledge with rigor. The universities must train and meet this employer demand, and traditional doctoral education lacks that ability.

PhDs have more employment choices because of new demands outside the academic setting. They may remain in academia or choose more applied settings that move them away from scientific research and toward practical outcomes for the industry. Due to today’s turbulent environment in business, more competition exists and results in increased mobility opportunities for the most successful of these applied researchers (DeMeyer, 2013).

These demands extend globally, and students can be trained in other countries and seek international positions, in both academia and in the business world.
(DeMeyer, 2013). The job market is now worldwide, with a global exchange of information. The advent of the internet, global databases, global journals and trade magazines, conferences and global corporations demands widespread dissemination of research that crosses boundaries. The completion of a literature review for a doctoral dissertation requires extensive use of global databases and access to infinite sources of data, which, at one time, involved only the local university library. The availability of information has exploded, which brings with it an increased risk that someone in another part of the world has already developed a thesis question and published the results. Thus, a skilled researcher must conduct an extensive review of the literature.

The accepted model of education for a select number of doctoral students in a specific research area is no longer effective. These programs experience a high rate of attrition and require individuals to dedicate up to five years (with post docs) as full-time students with no income other than grant funds. This model is inefficient, and one can question whether the course content is relevant (DeMeyer, 2013). The major areas taught include specific knowledge in the discipline, research methodology, and the development of an original contribution to the literature, which is read mainly by only academics in that discipline. One can question whether today’s graduates should be multi-disciplinary. Are they taught critical evaluation, critical thinking, problem solving, and leadership for today’s world?

Alternatives to this model have emerged that address some of these issues. The earliest answer for business was the Doctor of Business Administration (DBA). Over the last 20 years, numerous programs have been initiated globally (Banerjee & Morley, 2013). These programs responded to the criticism of PhD programs by providing relevant research meeting the demands of the new economy. The DBA certainly answers the applied problem solving, and leadership for today’s world?

In reviewing these programs, Radda et al. (2012) found that, in the perceived cognitive outcomes, research and writing was 38.40%, critical thinking was 25.79%, and leadership skills 20% of the programs. In the perceived behavioral learning outcomes, they found that time management was 26.42%, perseverance 23.11%, interpersonal skills 18.87%, and critical thinking 15.09%.

To meet today’s demands, PhD education must move in the following direction:

1. Educate efficiently and in a shorter time frame;
2. Produce rigorous, relevant, and revealing research with a solid understanding of the field and less emphasis on originality;
3. Become more multi-disciplinary and more aligned with the needs of society;
4. Develop an end project that may be a set of papers, an interactive model or database, or a collective product, as opposed to a dissertation;
5. Move toward a career path that alternates between academia and practice in knowledge-driven industries; and
6. Deliver knowledge and research methods to a larger group of students with an investment in the development of communities that will share those values of rigorous research.

(DeMeyer, 2013, pp. 484-485)

Based on what is required of terminally qualified individuals in the global community, the potential for success may rest with the nontraditional approach to doctoral education. The development of a high-quality blended or hybrid experience that exceeds the present day online or traditional PhD would be challenging. One must be able to train candidates through a quality PhD program and the application of the nontraditional, while producing practitioner-scholars who understand our global economy. The following section describes a program that was created and implemented and became such a program.
High Quality Hybrid Doctor of Management Program

Much is expected of today’s terminal business graduates. In order to accomplish this, doctoral education must change. The following program began as a mediocre hybrid degree and grew into one that would challenge any traditional PhD program with the rigor of its curriculum and the quality of its faculty.

The Students

The recruiting of students throughout the country consisted mostly of word of mouth marketing from recent graduates. The student ages ranged from 30 to early 60s. All had at least five years of management experience in their field and had knowledge of the functional areas of business. Approximately 90 students were in the program, most married, and the majority was full-time employees, many with children from preschool to college. This number grew to just slightly under 400 in about five years. At the start of the program, the majority were men, but the representation grew to 55% women and 45% men. The admissions policy was liberal, but the students were warned about the demands of the program and the sacrifices they would be expected to make between family, work, and school. The students were recruited four times a year, with early cohorts at 15 to 20 per quarter. During the program’s peak, this rose to 60, and the cohorts were broken into sub-groups of 20-30 to maintain the inherent advantages of a cohort.

Cohorts were essential to the success rate of a hybrid program. Positive or negative life events, such as a promotion or illness, could cause a student to question his/her commitment to obtaining a terminal degree. Generally, cohort members supported and counseled others through these life crises and encouraged them to stay. They studied as a group or sub-group, read one another’s papers, and provided feedback on writing and content prior to submission deadlines.

Most students completed the program in three years possibly with an additional one or two quarters. Most reasons given for leaving the program were life crises or lack of motivation. The dropout rate remained at 50%, with graduation rates of 40%, and 10% were “All But Dissertation” (ABD). As in all doctoral programs, we found that students would complete coursework but, for many reasons, would not complete the terminal project.

The Program

This was a three-year program in management, with the assumption that participants were familiar with the functional areas of business. Therefore, these areas were not a part of the curriculum. The total program cost was $50,000 to $60,000 USD. The first year encompassed the basics of management; the second year included methodology, design, and statistics; and the third year involved leadership. The choice of terminal product was made during the first year. Participants were enrolled in one research and writing class and one core class each quarter, totaling four core classes and four research classes in any year.

Subsequent to new leadership, the program design was changed, making it more relevant for today’s leaders. The first year became an overview of the management and research-based classes. The second year became the specialty area that focused their research, and the last year remained the leadership of their sub-discipline. The concentration areas in order of popularity were Organization Development and Change (OD&C), Global Leadership, Environmental and Social Sustainability (ESS), Homeland Security, and Emerging Media. As a point of interest, the Global Leadership concentration was the first doctoral-level program, and a strong need for a PhD is still present because of the demand for practitioner-scholar leadership in global organizations, whether corporations, non-profits, non-government, or government organizations. Eventually, the Emerging Media concentration was moved to computer science, as most of those students wanted the Computer Science degree rather than management.

During the second year, students would leave their cohort and join others who were working on the same specialization to share content, experience, and ideas for their terminal project. This allowed four core classes in their specialization, with encouragement in all research and writing classes to conduct research and write in their concentration. When they reached their final year, they returned to their original cohort, and all papers were written about leadership, ethics, strategy, and futuring and innovation in their own discipline.

The Residency

Each quarter included a residency to begin classes at no charge. Students were required to attend three residencies per year and could not continue the program if the first was missed. This first residency involved
socialization, an explanation by former students and graduates on how to succeed, introduction to their first classes, and a description of their choices concerning a terminal project. Due to costs and a shortage of space and number of students, the residency requirement was lowered to two per year, but the first was still required. During two quarters per year, classes were fully online and participants did not meet their faculty. Students were allowed to attend any residency; if five or more of the cohort attended, the instructor was brought in for residency. Students who were unable to travel were oriented through group phone calls, Skype, or a meeting through the teaching platform.

During residency, time was divided among distinguished speakers in the field who conducted workshops for the group (both new and returning students), class time, special instructions of methods needed for terminal projects, and workshops to gain skills practical for their concentration and for skill building. Residencies were at 4.5 days; however, due to cost and space, they were reduced to 3.5 days. As the cohorts grew in size, more instructors were hired to allow class sizes of 20-25. The research-based classes maintained a size of 15, as they were the most challenging. Faculty in the design, methodology, and statistics classes conducted optional meetings with students by phone, Skype, or platform when needed by the students.

**The Faculty and Mentors**

The brightest and most qualified faculty from numerous schools and practices (business and consulting) were invited to be a part of this program. All possessed terminal degrees and were doctoral qualified. In order to teach a core course, faculty were required to have 10-15 peer-reviewed publications, although most had 40 plus on average. The faculty were the cream of the crop at their universities, generally full professors and distinguished in their field, and came to residencies and taught the online portion of the classes. They mentored dissertations and supervised terminal projects to publication. Distinguished speakers also volunteered to chair terminal projects. No traditional program could have afforded these professionals. Generally, traditional programs consisted of two to four renowned faculty, and students competed for the opportunity to study with them.

**The Terminal Project**

Students had a choice in the terminal project because they entered the program with clear expectations about their future and the direction they wished to take in their careers. The first choice was the traditional dissertation with five chapters. The second was the Harvard dissertation model with three publishable papers: a literature review, an academic paper that was quantitative or qualitative, and a practitioner paper based on the results of the academic paper. Upon committee approval, these papers often were submitted to journals, providing the student with an impressive publication record for potential employers.

**Action Research**

All concentrations in the program were exposed to the methodology of action research. However, OD&C, Global Leadership, and ESS required an advanced action research class. For the first two, this constituted an international project, but ESS had the choice of domestic or international. These projects were supervised by two instructors who were culturally proficient in the country in which the students would work. During the prior quarter, the participants would learn about the culture and the organizations with which they would engage. During the class, they came to residency for final preparation and would travel to the country to engage in the project that was most relevant to their concentration. They would proceed through one to two cycles with the organization, depending upon the problem and time. In some cases, the students paid for travel and room and board if not supplied by the organizations. This experience was a major life event for these working adults, and for some it was the first time they had traveled abroad.

**Conclusion**

Students generally received their degree in three years. Their experiences included an education from highly qualified faculty; international or domestic applied project experience; choice of globally relevant concentrations and type of terminal project; content relevant to the current economy; and high-quality collaboration between faculty, cohort, and individual students. This program culminated at the pinnacle of what a hybrid doctoral program could become. Unlike most traditional doctoral education, this was a
profit-maker for the university, with a high Return of Investment (ROI). Unfortunately, a higher ROI was needed, and the corporation slowly released most of the doctoral-qualified faculty, curtailed the international and domestic projects, reduced residency lengths to two days, assigned mentors who did not publish, and eliminated the choice of terminal project in favor of a five-chapter traditional dissertation. These changes temporarily increased profit, but program size decreased to around 10-15, in spite of corporate advertisements.

This dream program is now inoperative, but the potential still exists for another progressive university to pick up the gauntlet and run with it. This initiative challenged traditional PhD programs with its quality and rigor. The model could be easily adapted to an academic-oriented program, with an applied bent, to meet the demands of the 21st century. The opportunity would greatly enhance the future of doctoral education, while affording considerable profit. If a university might want to take on this challenge, there are students and potential employers globally who are demanding these changes, and that university could dominate this market niche.

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