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Original Paper

History, Research, and Theory to Practice: Scaffolding Framework for Graduate Online Courses

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Abstract

The expansion of modern technology has vastly changed and continues to change the way we learn, communicate, and connect with one another. Institutions of higher learning including Community Colleges and Universities, traditionally known for their face-to-face courses, have had to reconsider programmatic and delivery mode over the years to transfer their face-to-face courses into online courses based on the growing demand. With this transition, comes reflective reevaluation of curriculum and programmatic structure of courses. These programmatic courses must provide instructional experiences that are meaningful and purposeful for graduate students in higher education and prepare them in the same manner and level of quality as face-to-face courses. There is a need for pedagogical research to assist faculty and instructors to make this transition to online teaching. The following paper examines 1) the historical context of distance education 2) research on face-to-face instruction in comparison to online instruction 3) a modern framework for scaffolding graduate courses and graduate course content.

Keywords

scaffolding instruction, distance learning, online instruction, theory to practice, diverse instructional technologies, graduate education

1. Introduction

Transformational growth, teaching, and learning is on-going and fluid in all academic learning environments. Public and private schools K-12, for the most part, continue to provide face-to-face learning environments *(brick and mortar)* as foundational platforms for instructional teaching and learning. However, the expansion of modern technology has vastly changed and continues to change

the way we learn, communicate, and connect with one another. As a result, 21st-century academic environments have been altered from the traditional face-to-face classrooms with K-12 gradually transitioning into virtual spaces and online forums (Archambault & Crippen, 2009). Academic institutions have evolved to provide more technology infused classrooms that can facilitate learning and provide virtual experiences into the classrooms through blended or web facilitated classrooms in amalgamation with face-to-face meetings. According to Picciano and Seaman (2009), a National Data Survey reported 867 school districts across the country indicated that 69.8% of the district's students, at their respective campuses, had enrolled in online courses in 2007-2008, which is an indication that the vast majority of American school districts are providing some form of online learning for their students. While many educational classrooms K-12 across the country are using technology as a means of facilitating teaching, many organizations including home schooling academy's (*Texas Connections Academy, Bridgeway Academy, Liberty Academy*) are now offering all online virtual learning and classroom teacher environments as an alternative to face-to-face learning. Higher education institutions and organizations have also gradually transitioned towards online learning environments. According to Chiasson, Terras, and Smart (2015), online instruction in higher education has shown substantial growth over the past decade. Institutions of higher learning including Community Colleges and Universities, traditionally known for their face-to-face courses, have had to reconsider programmatic and mode of delivery over the years to transfer their face-to-face courses into online courses. In some cases, to compete with new emerging Universities that offer 100% online programs and degree offerings. Another challenge that traditional higher education institutions and organizations are grappling with, is maintaining the rigor of course expectations within programs, certificates, or degrees. Over the past decade, numerous traditional academic universities have transitioned into online degree and program offerings with the intent that these courses would be comparable to traditional face-to-face courses. According to Allen and Seaman (2013), more than 2,800 traditional colleges and universities reported online learning as critical to university frameworks in terms of long-term strategic planning for the future as part of university goals. As online education continues to fluidly increase, faculty will be challenged to prepare curricula and teaching in this environment. Allen and Seaman (2013) reported that the number of students taking at least one online course at institutions of higher education equaled 6.7 million students. Based on the growth in online enrollments, faculty have been tasked with transitioning from face-to-face instruction to online instruction. Some with more experienced technological faculty gradually easing into the transition, and others with little to no technology experience resistant to the transition (Hixon, Buckenmeyer, Barczyk, Feldman, & Zamojski, 2012). Faculty are often not provided with the necessary training and resources on how to use the technology available to them to transition to online teaching. Furthermore, with this transition, comes reflective reevaluation of curriculum and programmatic structure of courses. These programmatic courses must provide instructional experiences that are meaningful and purposeful and prepare them equally as well with the level of quality of face-to-face courses. Faculty are content experts and not necessarily

technology savvy, so it is important to provide them pedagogical support, strategies, and frameworks from which to consider when making that transition to online instruction, Hence, there is both a lack of training for faculty and instructors and limited pedagogical research in the field to assist them in the transition. The historical context and pedagogical suggestions for online instruction are explored here. The following paper examines 1) the historical context of distance education 2) research on face-to-face instruction in comparison to online instruction 3) a modern framework for scaffolding graduate courses and graduate course content.

2. Historical Overview of Distance Education

Online education, also known as distance learning, historically dates back to the 18th century with some historians suggesting that its origins are prior to documented accounts. Distance education is defined as a learner and a teacher working from distant locations. The purpose of distance education was to provide educational opportunities for those in remote locations, who otherwise would not have access to the traditional educational offerings (Jonasson, 2001). Distance education in the early years was comprised of parcel correspondence, audio, video, and television technologies. Methods of delivery gradually progressed with technological advancements including that of advanced computers and the Internet.

2.1 Earliest Evidence of Distance Learning

The earliest evidence of distance learning prior to the 18th century was documented in the form of advertisements in newspapers offering lessons in shorthand or lessons in Art, but historians have argued if this truly fits the criteria for distance learning since there was no way to track nor document evidence that there was actual two-way-communication or correspondence providing feedback on the actual learning process (Verduin & Clark, 1991). In 1840, Isaac Pitman began teaching shorthand by postal correspondence in England, where he would mail postcards to students and instructed them to transcribe Biblical passages into shorthand and to return them by post, for correction, analysis, and criticism. Pitman is recognized as one of the forefathers of distance education and this eventually led to the development of what became Correspondence Colleges (Verduin & Clark, 1991). Thereafter, the Chautauqua Movement and various other correspondence studies and programs in the 1870s, soon became models and the foundation for other universities and educational institutions to follow. In the 1870s, Illinois Wesleyan College established itself as the first academic institution to offer degree programs in absentia through distance learning programs (Emmerson, 2004; Kentnor, 2015; Harting & Erthal, 2005). The interest and demand for educational opportunities, that would otherwise not be possible due to location, became apparent and evolved as growing concerns over the quality of the education became the focus. As a result, in 1915 the National University Extension Association was formed to establish methods and standards for distance education (Kentnor, 2015). Just as parcel correspondence was evolving, the spark transmitter, the first radio device, and educational broadcasting were progressive advancements that contributed to the distance education evolution. Distance educators began to explore communication technologies through radio and broadcasting techniques that would

enhance distance learning. Broadcasting licenses were issued for various purposes including sports, dramas, concerts, lectures, and educational material. The establishment of the National Broadcasting Company (NBC) and the National Committee on Education by Radio (NCER) are a few of the significant organizations that formed and impacted how radio communications became the new technologies for distance education (Verduin & Clark, 1991; Kentnor, 2015).

2.2 Visual Technology Revolution and Personal Web

Visual media, long distance video and voice transmission, evolved into television screens and become known as the visual technology revolution. Within this movement, several institutions became innovators of educational television including the University of Iowa, Kansas State University, the University of Michigan, and American University. Interestingly, use of radio and television in education continued to expand, but not in terms of distance education (Kentnor, 2015; Verduin & Clark, 1991). According to Verduin and Clark (1991), television courses for distance education seemed to decline in popularity, as they were poorly constructed and not appealing to the general audience. The personal computer and the personal web were the next major inventions to transform distance education. In 1989 the University of Phoenix became the first institution to launch a fully online collegiate institution using CompuServe, one of the first consumer online services that offered both bachelors and master's degrees. Thereafter, in 1991, the World Wide Web or Internet was unveiled which created a pathway for Universities and colleges to further experiment with online courses (Carlson & Carnevale, 2001; Kentnor, 2015). Blackboard Learning Systems were also developed with over 40,000 instructors teaching 150,000 online courses to more than 6 million students in 55 countries across the globe (Onlineschools.org). Some institutions such as Western Governors University and California Virtual University thrived in enrollment and some traditional universities began the transition and bought into this movement as well. However, by the late 1990s some institutions sustained these methods of online delivery, but numerous traditional universities were on the decline (Carlson & Carnevale, 2001). It is important to point out that online education is a different medium for teaching and learning and failure to understand that this requires a different pedagogy can result in negative consequences (Shelton & Saltsman, 2005; Bernard et al., 2004). A number of factors led to the decline of online education during the late 1990s, but a large part reflected on the failure of educators to recognize differences that existed between teaching and learning in online forums and face-to-face environments (Arenson, 1998). According to Shelton and Saltsman (2005), faculty reported that online education prompted concerns about the quality of education being provided through this medium, had concerns regarding the lack of institutional support, and finally had concerns regarding the lack of understanding of this method of teaching and delivery. The rush to jump into this on-line education market by the end of the 1990s, resulted in many institutions ignoring the essential principles of institutional governance, development planning, and more importantly the quality of education being transmitted (Kentnor, 2015).

2.3 Technological Progressive Advancements

After years of reflection and technological progressive advancements, online education is no longer a trend. With current technological improvements, online education is now the fastest growing form of distance education. This has shifted faculty pedagogical perspectives and how institutions approach online instruction for both traditional and non-traditional colleges and universities. More recent data suggests that universities are including online instruction as part of their university goals, in addition, some faculty are also reporting more technological support from their universities and administrative support towards re-envisioning online instruction. Sener (2012) and Kentnor (2015) suggest that the first era of online education was focused on providing access, while the second era of online education is now focused on the potential to improve the quality of education, with this in mind it is not about changing the knowledge that is being conveyed, but "altering and rethinking the way it is transmitted, preserved, and generated" (Sener, 2012, p. 124). According to *Onlineschools.org* website, 1 out of 4 college students across the country were enrolled in at least one online course as of 2009. In 2009, there were a reported 4.5 million students enrolled in online classes and 83% of all U.S. institutions offering online courses stated that they expected an increase in online course enrollment in the coming decade (Allen & Seaman, 2011; Kentnor, 2015). Distance education has transformed education from its earliest beginnings of parcel correspondence, to radio and television, and then the invention of computers and the Internet. Due to progressive technological advancements, lessons from the successes and failures by innovators, teachers, and institutions have been learned. As we continue with his medium of delivery, the focus must be on the quality of education and how it best prepares students for future sustainability and for future jobs that have yet to be conceived.

3. Research on Face-to-Face Instruction vs. Online Instruction

Online courses are more student centered because of the interactive and collaborative nature of computer communication and as a result less teacher centered. Williams and Peters (1997) suggest that engagement in online courses requires an instructor to shift from the role of content provider to content facilitator, whereas, students take on a more active role in their learning process. The teaching approach of providing the content in the traditional lecture setting, has now shifted towards the instructor facilitating the students' learning of content. Collective current research has explored the dynamics comparing teaching face-to-face vs. online instruction. It is apparent that the research history on distance education has provided a foundation, lessons, and guidance on how to improve online teaching. The improvements in technology aligned with the evolution of distance education, and pedagogical considerations have created an online instructional presence that is fluidly evolving.

3.1 Research Studies

Smith, Ferguson, and Caris (2001-2002) conducted a study in which they interviewed 22 college faculty for purposes of investigating faculty experiences of teaching college courses online vs. teaching face-to-face. The researchers explored social and media effect issues and teaching strategies. The data

results indicated that faculty recognized that online teaching required different styles of communication that had to be adjusted when teaching face-to-face in comparison to taking the same content online. Faculty data reported that online teaching required more work time and attention to detail. The course content must be fully developed and in delivery mode in advance (lectures, assignments, course materials) and instructions and feedback must be well organized and detailed to provide guidance and avoid miscommunications with students. Some of the positive commentary provided by faculty from the study were that online teaching in comparison to face-to-face teaching required that faculty reassess and reflect on how the course content was being presented and that deeper online class discussions required participation from everyone online. Another positive was that faculty felt that online class environments allowed spaces for more equality between students and instructor. Final concluding data from the study, suggest that both faculty and student communication was described as feelings of isolation or community. Feelings of community are often experienced within face-to-face classes, as for online courses feelings of community are possible in online forums when online experiences involve more reflective and deeper curricula (Smith et al., 2001-2002). A qualitative study by Chiasson, Terras, and Smart (2015) was conducted to examine the experiences of ten faculty members who developed and taught online courses from their originally designed face-to-face courses. The research intent design was to examine faculty perspectives and experiences having taught a face-to-face course and then transitioning it over to an online forum. The data reported indicated that faculty spent ample time with learning new technologies and with instructional designers in efforts to support their self-identified pedagogy. Faculty also felt that compensation for course development was necessary, as the time and effort went above and beyond their teaching responsibilities. Researchers also concluded that it was extremely important that an established conceptual framework was developed prior to teaching an online course and that teaching online required that they be reflective, regardless that their role had now shifted to a facilitator online. It was important to recognize that the faculty participants for this study were from a College of Education. The understanding is that they have strong pedagogical backgrounds, this may have influenced how faculty engaged in this transition from face-to-face to online teaching (Chiasson et al., 2015). Wiesenburg (1999) documented her perceptions and experiences regarding face-to-face teaching in comparison to online teaching and how research alongside years of experience have allowed her to revisit her theory to practice framework. The process of critical self-reflection has reconnected the researcher to her philosophical background that embraces adult education principles and practices. Traditional face-to-face instruction in comparison to online instruction differs in structural constructs where a traditional forum offers listening and speaking opportunities vs. reading and typing. Online teaching allows for flexible self-pace participation of instructional learning within open 24 hour forums. Course objectives guide the instructional design of online courses which may include discussion forums, assignments, research, and timelines and due dates. All these factors require depth of critical and intellectual participation for effective development and delivery of the online course to occur (Wiesenburg, 1999).

3.2 Model of Teaching Adult Learners

Wiesenburg (1999) asserts that Pratt's (1999) model of teaching adult learners is certainly applicable to teaching in both mediums. Pratt's (1999) general model of teaching adults consist of five components which include learner, teacher, content, ideals, and context. Three relationships are present within these components: learner and teacher, teacher and content, and learner and content. Furthermore, there are five distinctive perceptions on teaching adults: 1) *transmission*, teacher is the content expert and establishes course objectives while carefully constructing a learning environment and communicates evaluation of course objectives 2) *apprenticeship*, teacher modeling and coaching while providing feedback to learners on their degree of success 3) *developmental*, teacher is a facilitator and guide adjusting content for learners' and scaffolding their knowledge base to push learners to reflect and expand on their knowledge 4) *nurturing*, teacher facilitator builds a climate of trust and motivates learners and 5) *social reform*, teacher advocates ideals by authentically demonstrating them through words or actions (Pratt, 1999). Wiesenburg (1999) asserts that her experiences teaching in both face-to-face and online classrooms informs her that this framework is equally validated in both forums. Wiesenburg (1999) reverts to Pratt's theoretical model for adult learners as a foundational tool for structuring and guiding her online courses. As a teacher, Wiesenburg (1999) takes on this role of facilitator with the goal of challenging her students' prior knowledge and understandings of concepts and work towards moving learners beyond their current ways of thinking. Online classrooms must scaffold instruction to move students from dependent to self-directed learners. Wiesenburg (1999) concludes that it is not necessary to discover an innovative teaching approach towards teaching online courses. What is required, is a critical reflective approach towards pedagogical conceptual frameworks that have deemed successful within our own pedagogical frameworks (adult learning principles) when teaching in face-to-face forums. Her experiences have taught her that while the approach to teaching is fundamentally the same in both forums, the instructional roles and specific instructional strategies applied differ in important ways (Wiesenburg, 1999).

4. Evolution of Scaffolding

The evolution of scaffolding dates back to Bruner's (1966) foundational educational learning theory. This theory was concerned with how knowledge is represented and organized through different approaches to thinking, with an emphasis on early cognitive development of young children. Jerome Bruner's *The Process of Education* (1960) suggested through his constructivist theory that learners can construct and develop new knowledge on their own as along as it is organized appropriately. This is applicable to adult learners and not limited to young learners. Furthermore, Bruner (1961) emphasizes that the goal of education should be not to impart knowledge, but to facilitate thinking skills (scaffolding) that can be transferred into future learning situations so as to create autonomous learners. Both Bruner (1978) and Vygotsky (1978) agree that a child's social environment should be embedded with adults playing an active role in assisting a child's learning progression. The purpose of the provision is to allow

the child to achieve higher levels of development (skills) which became known as scaffolding. According to Bruner (1978), "scaffolding refers to the steps taken to reduce the degrees of freedom in carrying out some task so that the child can concentrate on the difficult skill she is in the process of acquiring" (p. 19). The actual word scaffolding made its first appearance in the literature when Wood, Bruner, and Ross (1976) conducted a study on how tutors' engaged with a preschooler to problem solve a block reconstruction task. According to Wood et al. (1976), this instructional strategy was to provide a framework that guides and supports learning and helps students' complete tasks while teaching them valuable skills about moving towards working independently. Furthermore, the concept of scaffolding is comparable to Vygotsky's zone of proximal development, and at times the terms are used interchangeably within the literature. The concept of scaffolding is influenced by Lev Vygotsky's (1978) Zone of Proximal Development Theory. Vygotsky (1978) conceptualized three concentric circles that represent 1) things you can currently do 2) things you can do with assistance from an expert or fellow learner, and 3) things beyond your capability. When properly employed, instructional scaffolding transitions a learner from assistance with comprehension and skills towards a learner who can apply those skills towards increased and improved learning on their own and into larger context. The development of scaffolding has evolved over the years from an emphasis on early cognitive development of young learners, to that of transfer of skills towards a progressive process with assistance that is easily applicable to adult learners.

4.1 Instructional Scaffolding

In general education, instructional scaffolding refers to a variety of instructional techniques used progressively to move students toward stronger understanding and, ultimately, greater independence in the learning process. Educators provide successive levels of temporary support that help students reach higher levels of comprehension and skill acquisition. The goal is to help learners' bridge a cognitive gap, through feedback, explaining, modeling, and asking questions that require a cognitive answer. Scaffolding strategies include, but not limited to, the following: providing students' examples of expectations and modeling protocols of tasks, connect students' prior knowledge to new concepts being introduced, assist students with organizing their thought process before approaching a task, and teach students to breakdown assigned task into smaller manageable tasks (sub-tasks). The objective is to facilitate the learning process as opposed to simply directing it as mirrored in the early literature by Bruner (1960) and Vygotsky (1978). Appropriate goals, procedures, and proper structures can move students from being dependent on their instructor to self-sufficient learners. Scaffolding is an effective way to teach students to manage and organize their time while tapping into prior knowledge, and reflecting on the bigger picture or learning goal. Instructional scaffolding provides a learning environment that is supportive and this is critical to on-line instruction as it can be an isolating experience for the learner. Over the years, various scaffolding frameworks for on-line instruction have been proposed to facilitate a variety of learning processes and outcomes, such as constructing evidence-based influences (Belland, Glazewski, & Richardson, 2008), science explorations (Quintana

et al., 2004), structured problem solving (Ge & Land, 2004; Geet al., 2012), and motivation (Belland, Kim, & Hannafin, 2013). A diverse range of research literature has examined scaffolding frameworks that focus on certain skills which have produced positive outcomes for online instruction. However, research and recommendations on frameworks for scaffolding of online courses for purposes of achieving student learning outcomes and programmatic goals are limited. The following proposes a framework based on the theoretical foundations of the scaffolding model.

5. Modern Framework for Instructional Scaffolding

Berge (1995) recommends an instructional framework for virtual online teaching that provides structural functionality components. This framework includes: 1) pedagogical guidance on critical concepts 2) social, consultative, and collaborative learning environment 3) managerial organizational role with established learning objectives, agenda, and procedural rules 4) technical skills. Online teaching requires a shift in roles from expert planner and manager, to co-learner, reflective practitioner and researcher.

5.1 Foundational Context for Instructional Scaffolding of Graduate Courses

The following modern framework for instructional scaffolding of graduate courses to meet programmatic goals and student learning outcomes was collectively constructed based on that which is described in this context in conjunction with 25 years of academic teaching of grades K-12 and university level instruction both face-to-face and online. As a public school teacher across grade levels, technology was a means to facilitate instruction and impart curiosity to all learners. Years of pedagogical experiments and theory to practice methods occurred over the years, while developing a philosophical foundation for teaching that was influenced by Bruner (1978) and Vygotsky (1978). This transferred over to university level instruction that included face-to-face instruction and online courses. Over the last eight years, a movement of transitioning to more online instruction evolved at my university. As a faculty member within a College of Education, a shift in delivery mode of some graduate programs, certification programs, and undergraduate courses began to transition from hybrid to fully online instruction. As history both repeats itself and informs us, the online course offerings would provide access to higher education for those not able to have access otherwise, and with this accessibility came the challenge of providing quality education programs. As a faculty participant in the development of program goals and student learning outcomes for various educational programs, the task of restructuring five graduate Reading courses for online delivery became the focus. These five graduate courses had been taught previously in face-to-face forums and were degree requirements for a concentration in Reading that were an extension of satisfying requirements for various Master's Degree Programs in the College of Education.

5.2 Instructional Scaffolding Framework for Graduate Reading Courses

Once the Reading Program goals and student learning outcomes were established collectively, by faculty and informed by state and National Reading Standards, then the task shifted towards how these objectives would be addressed in a meaningful and sequential matter that would provide quality instruction in an online medium. The process involved critical reflection on a philosophical foundational paradigm in education (Bruner, 1978; Vygotsky, 1978) and on past and current research in distance learning (Kentnor, 2015; Verduin & Clark, 1991; Chiasson, et al., 2015). In addition, instructional design experts and new technologies that would facilitate instruction were critical to the effectiveness of the development of these courses. The next task at hand was to redesign the five current courses in place which required revising course descriptions, course title changes, and alignment of student learning outcomes (guided by state standards) in each course. The courses were scaffold in a sequential manner by which each course build on concepts that were introduced, reinforced, and practiced. The first course in the sequence is a foundational theoretical models course in Reading. The second course build on the foundations of student knowledge gained in Reading within the first course, and tasked students with evaluating reading programs and then designing their own reading program. The third course in the sequence tasked learners with applying knowledge from the first two courses towards assessing and diagnosing reading problems in students. The fourth and fifth courses were focused on reading remediation and strategic plan development. They focused on case study reviews, implementation of reading interventions, development of campus and district action plans for improvement, and focused on practicum practices in the field of Literacy. These were the culminating courses in the sequence where students were expected to work independently to practice and apply knowledge learned in previous courses.

5.3 Instructional Scaffolding Framework for Course Content

Within this same paradigm of scaffolding courses, the actual course content was being scaffold for student learning and understanding through the use of various technologies implemented. The role of field expert, planner, manager to co-learner, and reflective practitioner was enacted here, as described by Berge (1995) and Wiesenburg (1999). One example includes student development of conceptual knowledge on the foundations of Reading theory to practice models. The use of discussion thread engagement and peer/professor responses were embedded in multiple courses. For example, prompts were posted that included multilayered questions that required students to think critically and triangulate new knowledge, with state standards, and their teaching experiences as a means of responding to each prompt. Students were then asked to respond to a peers' response and the professor would then check for understanding and accurate conceptual knowledge base, before tasking students to design their own reading model. Another strategic scaffolding example, student learners are coached and mentored with instructor guidance and through teacher-student videos where they are provided models of implementation of various literacy assessments and diagnostic tools. Students are then assigned to implement an assessment instrument and develop an intervention plan to assist a struggling

reader. Students then provide a short video of this process where faculty then provides feedback on the learner-student engagement with an opportunity to engage in reflective practices. A critical component associated with earning a Master's Degree is becoming a researcher. In this case, students are called upon throughout the sequence of courses to engage in research practices. Students are provided resource materials (links to library database access and library videos) within these five courses so that students can learn how to utilize library resources and to participate in research practices to expand their knowledge base in the field of Education. This support is provided to assist students when they are assigned to collectively review case study articles in the field of reading practices/interventions. Students' review of case study articles is another example of strategic scaffolding where the teacher is providing examples of the criteria, characteristics, and context of varying case studies. Then a check for conceptual understanding based on the reporting of their interpretation of each study through the use of discussion board responses and virtual meeting spaces. This is conducted before students engage in a thorough independent case study of an actual student leaner in the field. Both technologies of discussion board engagement and virtual meeting spaces, are opportunities to check for conceptual understanding and clarity. These technology mediums are utilized at various points within the five courses. Finally, the development of campus and district action plans for improvement and practicum practices in the field of Literacy are the culminating tasks of the sequential design of these programmatic reading courses. Students are provided extensive literature and sample models on campus and district action plans. Virtual meetings and discussions over characteristics of these plans set the foundation for students to develop their own campus/district strategic plans focused on improving Literacy levels based on the current data. In addition, students are required practicum field tasks for two purposes 1) as observers understanding the roles and responsibilities of reading experts and practitioners and 2) being mentored, observed, and provided feedback while engaging in intervention practices in academic settings.

5.4 Conclusions on Instructional Scaffolding Framework

Johnston's (2012) spiral curriculum, based on Bruner's (1960) cognitive theory, is represented here in this framework model of courses in that it allows a logical progression of simplistic ideas and prepares a learner for more complicated advanced ideas. The connectivity between scaffold sequential courses based on learning outcomes and scaffolding of course content in conjunction with technologies that facilitate content leaning is present in this framework described. The scaffolding framework for graduate courses suggested are also aligned with Pratt's (1999) theoretical model of adult learner relationship principles of teacher and content, learner and teacher, and learner and content. Furthermore, this framework model of courses provided also draws parallels and is consistent with Berge's (1995) instructional framework for virtual online teaching that provides structural functionality inclusive of pedagogical guidance on critical concepts, next a social, consultative, and collaborative learning environment, a managerial organizational role with established learning objectives, agenda, and procedural rules, and finally technical skills. As previously mentioned, online teaching requires a shift

in roles from expert planner and manager, to reflective practitioner and researcher. The research data comparison between face-to-face teaching and online instruction described earlier supports elements of the framework proposed here (Chiasson et al., 2015; Smith et al., 2001-2002; Wiesenburg, 1999; Williams & Peters, 1997).

6. Final Conclusions

Moore (1993) suggested, from a conceptual and sociological perspective, that there are three types of interaction necessary for effective distance education 1) learner-content interaction 2) learner-instructor interaction and 3) learner-learner interaction. The growing demand for online instruction, the historical context of distance learning, pedagogical theory to practice foundations in combination with current research on distance learning practices, have contributed to the development of the framework outlined. This scaffolding framework contributes to the limited field of research from the perspective of a critical and reflective practitioner of best practices in the field of Education. Online instruction is no longer a trend, but a necessity and way of the future for many traditional universities and educational institutions. Faculty and researchers are challenged to reexamine what they know, and what is familiar in their field of practice and what has worked pedagogically. Designing curriculum frameworks for programs and course content, while working with the technologies available in efforts to strive towards providing quality online instruction is the future. It is critical that faculty and teachers look to history and lessons learned from the past in guiding the transitioning into this new era of distance learning-online education.

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