Longitudinal Perspectives: Expanding the Efficacy of End of Course Surveys in Higher Education

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This qualitative case study examines the use of end of course surveys in higher education and the value of student perceptive data to improve the delivery of online curriculum. The study presents four research questions that examine (1) whether a longitudinal analysis of end of course survey data can improve the delivery of curriculum; (2) how student reflected characteristics and attributes of instructors inhibit or contribute to student learning; (3) how student perceptions provide insight into the teaching styles of instructors; (4) the efficacy of qualitative analysis using end of course survey data. Ten end of course surveys are used in this study capturing the comments of 114 doctoral students. The survey data are coded revealing themes that address perceptions about online instructor characteristics and attributes, perceptions about instructor competence, and perceptions about how the instructor delivers curriculum. An analysis of longitudinal data demonstrates that a qualitative research design can be effective in capturing best practices for the self-studied instructor, as well as consideration for expanded studies at the institutional level to evaluate the efficacy of program administration, curriculum development, and delivery.

In higher education, end of course surveys (EOCS) are designed to capture both statistical data and student comments. Typically, after a course ends, results are sent to instructors and identities of students who complete the survey are stripped from the documents. The survey results are provided to instructors with the intent toward self-evaluation and improvement and to assess the level of student-instructor interaction within the online environment (Sher, 2009). The EOCS are also used to evaluate instructor performance at the institutional level. This qualitative case study provides an analysis of EOCS data collected from 10 sections of the same doctoral course taught over a two-year period by the same instructor. The research provides a thorough, thematic examination of the data collected to identify instructor attributes and characteristics that encourage student learning, improve instructor curriculum delivery, and enhance the student learning experience. Given the knowledge learned from this case study, it is anticipated that the application of this knowledge will serve as a positive contribution to the development of effective online teaching strategies and self-monitored, professional development, as well as expand upon what can be learned from a well-crafted EOCS.

THE PROBLEM

EOCS can become powerful self-monitoring tools to professionals who are seeking to improve their teaching skills. The surveys can also reveal the satisfaction and performance of students and their ability to connect with their instructors (Miller & Redman, 2010). The problem lies in how EOCS data are provided to instructors and what instructors are expected to do with it. The institution sends survey results to instructors shortly after the completion of their courses. A longitudinal perspective is not included in the EOCS results diminishing the holistic view of student perceptions as they pertain to characteristics and attributes that contribute to or inhibit student learning. The data does not provide critical insights into the manner in which the instructor delivers the curriculum over time, nor does it

synthesize student comments that reveal teaching strategies that take advantage of strengths or reveal weaknesses in the instructor's teaching pedagogy. End of course survey results do not include an academic program analysis using a similar longitudinal perspective, which could provide valuable curriculum development insights especially when multiple instructors are evaluated for the same course.

RATIONALE AND SIGNIFICANCE

This study employs a longitudinal viewpoint that triangulates recurring and cross-cutting themes over a two year period. This reflective feedback cannot come from a quantitative assessment as descriptive language provides clarity about the instructor's pedagogy from the language of student perception.

Instructor and program administrators become better informed about the kinds of teaching attributes that work best in course delivery when a long-term perspective is considered. The evaluation of EOCS data rarely extends beyond a semester or term and loses much of its utility as the memory of lessons learned are forgotten. The use of a longitudinal qualitative research design captures student perceptions over time, confirming commonly perceived learner constructs. The longitudinal value of this approach improves the use of EOCS as feedback instruments, aligns proven learning and teaching strategies to the curriculum, and contributes to the review of college programs as part of the EOCS analysis process.

Although this study closely examined a single instructor and one course taught over a two-year period, a similar approach could be used to look at all instructors teaching a single course or multiple courses over time to capture similar feedback. The efficacy of this approach provides another way to identify best practices, confirm student perceived value of the curriculum, and focus on faculty professional development opportunities to correct deficiencies and improve student perceptions.

THEORETICAL FOUNDATIONS

Whether online or in traditional classrooms, instructors need to understand the psychology of student preferred learning styles. This understanding is needed if instructors are to help students link course content to the context of their life experiences. This connection helps adult learners put what they learn into a familiar context needed to create knowledge. Researchers have connected learning styles and students into types based on the way students like to learn and how students use a range of concepts based on the context of their learning environments (Bach, Haynes, & Smith, 2007). Bach et al. (2007) also established the need for students to understand their own learning style, thereby assisting them to be more adaptable and to find ways to make what they are learning more transferable to their working environment.

In addition to helping students understand how they learn, facilitators need to connect life experiences to the curriculum to help learners construct new knowledge. Knowles (1988) discussed at length the need to design and manage learning activities. He identified three key implications for practice that orients the learner and depicts how the application of learning strategies aligns with adult student learning styles. These included "the orientation of adult educators" with particular emphasis on the logical development of curriculum and the need to "attune to the existential concerns of the individual and institutions they serve and be able to develop learning experiences that will be articulated with those concerns" (Knowles, 1988, p. 55). The second of three was the "organization of the curriculum" (Knowles, 1988, p. 55). Knowles (1988) emphasized that adult learners are oriented toward problem-centered or problem-solving learning. This focus is on the adult student's ability to apply the material in a practical manner. The pragmatism associated with adult learner strategies must be inculcated within the curriculum and the teaching pedagogy when presented within an adult learning environment. The third point that Knowles (1988) related was the "design of the learning experiences" (p. 55). As mentioned, adult learners tend toward the problem-oriented learning style which implies that "the starting point for every learning experience is the problem and concerns that the adult learner has on their mind at the time the instruction is given" (Knowles, 1988, p. 55). This concept is consistent with Merriam, Caffarella, and Baumgartner (2007) and the belief that there is a linkage between adult interactions within contemporary society and the motivation for adult educational opportunities. Adults are typically motivated by practical purposes either to solve a particular problem or to develop the knowledge and competency to increase their abilities to solve problems within their individual and expanded social environments.

Knowles, Holton, and Swanson (as cited by Stavredes, 2011) contended that adult learners are self-directed in that they are apt to diagnose their own learning needs and goals, as it relates to evaluating their relationship to achieved learning outcomes. Of particular note was Stavredes's (2011) comments relating to motivation and student persistence in learning; "for learners new to the subject, with little life experience, or with low motivation, [these conditions] can lead to a poor learning experience and affect their ability to persist" (p. 14). The literature clearly establishes links between adult experience to the subject matter and their motivation to persist in the learning experience.

Stavredes (2011) also tied cognitivist, behaviorist, and constructivist learning theories to adult learning taxonomies. This included how the curriculum, learning strategies, instructional strategies and curriculum influence how instructors focus learners in the building of knowledge. For example, Leonard (2002) highlighted the fact that constructivism is "learner-centric…in which content is constructed by the learners in a team-based collaborative learning environment rather than that of the instructor" (p. 37). Leonard (2002) elaborated further by suggesting that the instructor is "no longer a primary intermediary and single conduit of knowledge between the learner and the learning experience" (p. 37). Clearly, in the constructivist approach, the teacher or instructor is better suited as facilitator, which is more in line with non-traditional online education.

There is a compelling alignment between the social constructivist approach and that of social cognitive theory, which describes learning "based on the premise that neither spontaneous behavior nor reinforcement was necessary for learning to occur" (Snowman, 2009, p. 275). Snowman (2009) further stated that social cognitive theory "incorporates elements of both operant conditioning and information processing, and it emphasizes how behavioral and personal factors interact with the social setting in which the behavior occurs" (p. 275). Of special interest again is the connectedness of problem-oriented education of adult learners and the link to practical applications as a key motivating force for the adult to construct knowledge. Other areas of interest relating to the application of social cognitive theory include the concepts of self-efficacy, self-regulation, and self-control, all of which may have application in this study.

THE ROLE OF THE INSTRUCTOR

The role of the instructor in online adult learning takes on a facilitative, pedagogical posture within the online classroom. The instructor's role is focused on guiding the student through modular curriculum. Key to curricular design is the need to motivate student engagement in online learning activities. Horton (2012) described the kinds of instructional strategies online instructors can use to engage students in online learning activities. These patterns of interaction include a tutoring one-to-one or a one-to-many relationship where the instructor provides common information to all students and a question and answer didactic learning strategy similar to that used in traditional classrooms. Ryan, Cooper, and Tauer (2008) explained that appropriate feedback is key to ensure that students are actively learning the curriculum.

For instructors to give appropriate feedback, they need to learn how to decode student behavior and messaging to assess whether student learning is occurring. In the traditional classroom, this kind of communication model is much more robust because the instructor can use both verbal and nonverbal cues to formatively assess student learning. Horton (2012) also suggested that instructors in online environments use a didactic pattern of questions and answers. This would be more than asking the student a question and then leaving the student to provide an answer without engaging the student in a discussion. Horton (2012) discussed the need for active engagement between the instructor and the student to provoke student learning. The key to Horton's (2012) comments is the active engagement of the instructor to facilitate active learning whether it is individual or collaborative. The idea is to provide iterative feedback to keep adult learners engaged, especially when that interaction ties student interests to problem-solving and problem-oriented discussion that is relevant to the student's needs.

According to Clark and Mayer (2011), instructors need to be psychologically visible to the student. Clark and Mayer (2011) suggested, "There is preliminary evidence that using the visible author style can promote deeper engagement in some learners" (p. 200). Apparently, this human connection provides a source of motivation to students where "social presence encourages the learner to engage in deeper cognitive processing during learning, leading to a better learning outcome"

(Clark & Mayer, 2011, p. 200). Clark and Mayer's (2011) emphasis on a psychologically visible presence in the online classroom underscores the need for the instructor to actively motivate the student to learn.

Instructors benefit when introduced to the Attention Relevance Confidence Satisfaction (ARCS) Model (Keller, 2009), which can guide faculty to increase student motivation for learning by incorporating motivational approaches into their lesson planning and presentation. The model includes four steps or categories that can be used to stimulate knowledge creation. These include getting students' attention, or "capturing the interest of learners and stimulating their curiosity to learn," making the curriculum content relevant, encouraging students as they progress through the curriculum with "confidence," and "reinforcing their accomplishments" by helping them feel satisfaction in their learning experience (Keller, 2009, p. 44). For adult learners, keeping the primary focus on why the learner is attending the class and what their end objectives are provide the leverage for instructors to apply the ARCS Model. This model fits nicely with Gagné's (Gagné, Wager, Golas, & Keller, 2005) nine events of instruction. These nine events focus on (1) gaining the attention of the learner; (2) informing the learner of the learning objective; (3) stimulating recall of prior learning (critical to tying prior experience to the lesson plan of an adult learner); (4) presenting the curriculum in a stimulating manner; (5) providing learners guidance; (6) eliciting and providing feedback;(7) assessing student performance; (8) looking for ways to enhance the retention of knowledge learned; and (9) appealing to the interests of the learner.

END OF COURSE SURVEYS

End of course surveys (EOCS) have been used within higher education to evaluate the quality of traditional and online instruction. Dittmar and McCracken (2012) recently studied the use of what they call the META Model. This model uses a strategy that captures, as part of a continuous quality improvement model in online teaching, specific elements that can concentrate on professional engagement and development. It uses an ongoing assessment to measure peer individual faculty or self, along with student evaluations like EOCS to capture exemplary practices. It is worth noting that the aims of this model are to develop a cadre of high-performing faculty capable of "fostering rigorous learning" and "programs [that] strengthen both effectiveness and productivity" (Dittmar & McCracken, 2012, p. 164). The model centered its continuous improvement metrics on faculty, in areas such as student mentoring and technology, by integrating emerging technologies such as Web 2.0 tools and platforms, engagement through training and performance improvement, and assessment, which includes the use of an exemplary teaching rubric.

Drennan, Kennedy, and Pisarki (2005) linked the concept of flexible online learning to the idea that "students should be viewed as active participants in the learning process and that deeper approaches to learning should be encouraged" (p. 332). From their research, they synthesized two basic attributes that influence student satisfaction affecting the student's locus of control and their perceived usefulness of the course content and curriculum presentation. These perceptive attributes or factors focused on the student's use of technology within the learning environment and "autonomous and innovative learning styles" (Drennan, Kennedy, & Pisarki, 2005, p. 331). Student satisfaction increased as student perception of the usefulness of curriculum content improved. The use of technology by instructors and students also facilitated the positive perceptions of curriculum usefulness and satisfaction. The implications from their study directly relate to the facilitative role, or learner-centered role, faculty enact in teaching online courses.

Student satisfaction perceptions were also studied by Getzlaf, Perry, Toffner, Lamarche, and Edwards (2009) who claim that student perceptions are tied to "effective instructor feedback" (p. 1). Their qualitative study examined student- instructor online feedback and identified five major themes that tie into the instructor's ability to capitalize on learner-centered, flexible learning. These major themes are "student involvement/individualization, gentle guidance, being positively constructive, timeliness and future orientation" (Getzlaf et al., 2009, p. 16). A surprising finding in the Getzlaf et al. (2009) study was the student belief that effective instructor feedback was a mutual activity performed between instructor and student, and it was this mutual connection that was instrumental in helping students find relevance with the curriculum. A similar finding by Jones (2012) who con-

ducted a study that looked closely at the validity of EOCS data found that "stimulation of learning had the most effect on perceptions of teaching effectiveness" by student online learners (p. 49).

PURPOSE

The purpose of this study is to evaluate the efficacy and use of a qualitative research design to capture themes that illuminate means of improving the delivery of course curriculum from longitudinal EOCS data. Along that line, the research methodology addresses four cross-cutting research questions that focus on the longitudinal potential of thematic qualitative research design. The remaining research questions draw from the data information that reveals the interrelationship of students with their instructor, the characteristics students perceive exists in their instructor that may contribute or inhibit the student learning experience, and student perceptions on instructor delivery of the curriculum. The collection and analysis of this information confirm the efficacy of longitudinal EOCS data analysis and qualitative research design.

RESEARCH QUESTIONS

The overarching research emphasis for this case study addresses the efficacy and use of this qualitative approach and research design in capturing themes that can improve the delivery of course curriculum. The EOCS used in this study contained one narrative question that became the source for analysis by these four research questions:

- R1: Can a longitudinal and more detailed analysis of student perceptive comments found within EOCS provide more insight into student learning than looking at individual EOCS comments?
- R2: What are the student-reflected characteristics and attributes of the instructor that may be contributing to or inhibiting student learning?
- R3: What are student perceptions relating to the manner in which the instructor delivers the curriculum?
- R4: What can be synthesized from student comments that have the potential for improving learning strategies that may take advantage of the strengths or address weaknesses discovered through qualitative analysis of student perceptive data?

METHODS

The methodology and design of this study focused on answering the research questions using a robust, qualitative research case study design. The coding process applied axial coding logic (Strauss & Corbin, 1998). This involves coding the actual words used by students in their EOCS comments and then looking for conceptualizations that help answer the research questions. In essence, the cross-cutting themes represented in the research questions were categorized and subcategorized to illuminate the phenomenon. Miles and Huberman (1994) stressed the importance of coding by "noting reflections," identifying relationships, patterns and themes, and isolating those themes to a small set of generalizations that reveal "commonalities and differences" (p. 9). This approach struck a common qualitative design theme acknowledged by Richards and Morse (2007). Richards and Morse (2007) suggest six steps or "moves" that frame the research design used in a qualitative study:

> (1) Coding the data as data records are created; (2) recording reflections and insights; (3) sorting and sifting through the data to identify similar phrases, relationships, patterns, themes, distinguishing features, and common sequences; (4) seeking patterns or processes, commonalities and differences and extracting them for subsequent analysis; (5) gradually elaborating a small set of generalizations that cover the consistencies discerned in the database; and, (6) confronting these generalizations with a formalized body of knowledge in the form of constructs or theories. (p. 47)

DESIGN

The research design utilized the following steps:

1. EOCS PDFs were imported into a qualitative software tool called NVivo (QSR International, 2012). NVivo software is a popular and robust qualitative research tool used to analyze and code text and multimedia sources.
2. Each research question was coded separately and stored in a parent node. Thematic subcategories were added in vivo.
3. A second level of coding occurred using common themes found in each of the parent nodes. These themes were coded and stored in newly created child nodes to further delineate more structured cross-cutting themes and relationships.

4. Child nodes were analyzed using queries or reports. Queries created in NVivo were linked to their respective nodes allowing the researcher to drill down deeper into the analysis. Additional nodes were created from queries capturing cross-cutting themes and data relationships. For example, a Word Frequency Query was used to illustrate common student perceptions. Other illustrations were created to provide clarifications on student perceptions as they related to thematic subcategories coded in child nodes.
5. The results were compared again to the theoretical literature.
6. A narrative was written to reflect what the researcher learned from the analysis, leading to answers for each of the research questions and opportunities for future research.

PROCEDURE

Data collection began in 2010 and ended in 2012. In Table 1, the month and year are indicated along with the number of participants who completed the survey. The EOCS instrument used in the study has 14 questions. Of the 14 questions only one question was open ended, allowing students to provide an unstructured narrative response. Thirteen questions utilized a five-point Likert-scale and were not used in the study. The open-ended question asked students the "reason that you would or would not recommend this instructor?" The narrative responses were imported into NVivo for coding. Only the open-ended question was used for this study.

Table 1: Participants

End of Course	Survey Participants
EOCS_NOV_12	10
EOCS_SEP_12	9
EOCS_SEP_12	6
EOCS_AUG_12	3
EOCS_JUL_12	11
EOCS_JUN_12	14
EOCS_APR_12	17
EOCS_FEB_12	18
EOCS_NOV_11	14
EOCS_SU1_10	12
Total Surveys: 10	**Total Participants: 114**

PARTICIPANTS

The participants were "purposely selected" (Creswell, 2003, p. 185). This means that the researcher had selected participants that "can best help the researcher understand the problem and the research question" (Creswell, 2003, p. 185). The majority of participants were employed in education administration at the primary and secondary levels. There is a smaller subset of students who were healthcare professionals, and then a yet smaller group in the doctoral management leadership track.

Generally, these students were mid- to upper-level career adults and enjoyed considerable experience in online education with many completing online master's degrees. All students were given the option to self-select participation. Not all students attending these 10 courses completed the surveys. The average number enrolled per class was 20 with the potential for 200 participants. Of the 200 potential participants, 114 completed the EOCS. We can assume that those who completed the survey were motivated to do so. The numbers of participants by survey or course is listed in Table 1. Individual identities were removed by the university providing the data for this study. The university has also given permission to use the data on the condition it not be named, further protecting the participants. The researcher cannot link the data to the participant.

CODING

Embedded in the Richards and Morse (2007) steps is the undergirding of axial coding, which includes the categorization and conceptualization of data. The use of NVivo 10 (QSR International, 2012), a qualitative analysis software tool, was used to create coding nodes that reflect researcher observations and insights that were categorized and subcategorized for common or similar phrases, sequences, patterns, and themes. Narrative responses were coded seeking to conceptualize themes from the initial iteration to a second iteration, framing the results from general to specific themes. After coding the results, the researcher revisited the literature to further triangulate related concepts that confirmed the coded analysis.

DATA ANALYSIS

Nodes were created reflecting the perspectives of student responses to the open-ended EOCS question during the coding process. The initial coding

focused on answering the four research questions. Coded responses were collected into parent nodes. A second round of coding focused on subcategories, which naturally emerged during the coding analysis. These subcategories were coded as separate child nodes revealing the word essence of what students were describing. Cross-cutting themes emerged and are reflected more pronouncedly in research questions R2 and R3. The longitudinal insights reflected in R1 and the student improvement insights reflected in R4 clearly underscore the efficacious relationship of the data analysis. Figure 1 depicts the data analysis process. Figure 2 provides a graphic representation of the node hierarchy.

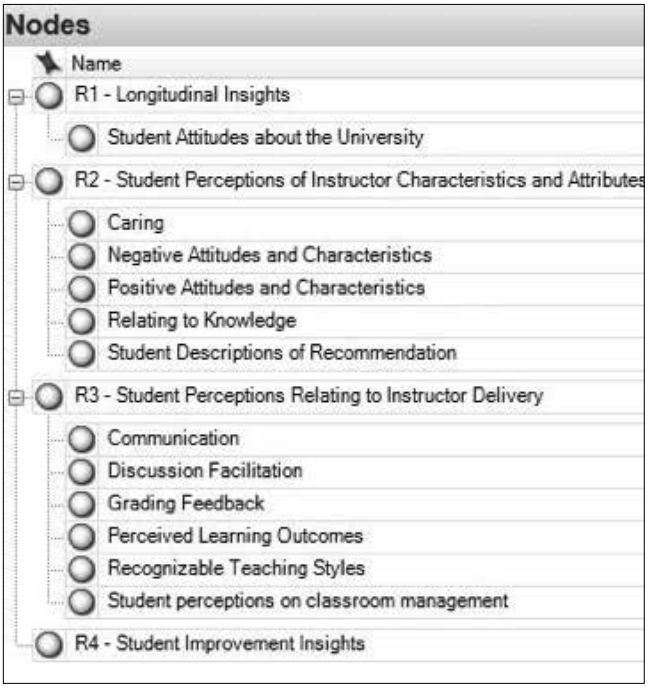
There were five subcategories that emerged from the second research question node during the analysis. These included a subcategory called "caring," which was a recurring theme from students. The second category included negative attitudes or characteristics, which seemed to emerge as a separate category. The third was the positive attitudes or characteristics students expressed about the instructor. The last two subcategories related to student feelings about the instructor's competency as it relates to knowledge of the curriculum and specific descriptions that highlight their recommendations or willingness to recommend the instructor to their peers.

There were six subcategories that emerged from the data relating to student perceptions about the instructor's ability to deliver the curriculum. These focused on the way the instructor communicated to students, how the instructor facilitated online discussions, the nature of grading feedback, perceived learning objectives, recognizable teaching styles, and how students felt about the feedback received from graded assignments. Student comments also indicated whether the instructor's teaching style lead to specific or perceived learning outcomes. In addition, the last two subcategories identified from student comments indicate a distinct or recognizable instructor teaching style and perceptions on how the instructor approached and managed the online classroom.

Figure 1: Research analysis

1) **Data imported into NVIVO**
2) **Initital coding creating parent nodes using research questions for structure**
3) **Second level coding creating child nodes or sub-categories**
4) **Analysis**
5) **Revisiting the literature**
6) **Writing the research narrative**

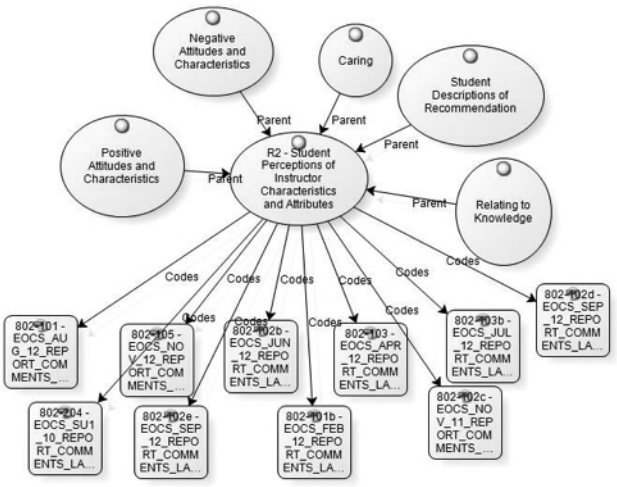
Figure 2: Nodes



SECOND LEVEL CODING

By referring again to Figure 2, the relationship between the parent and child nodes becomes apparent. Child nodes were created in vivo, meaning they were created on the fly as the subcategories were revealed to the researcher. Another example of the coding relationships existent between the parent, child, and sources is illustrated in Figure 3. Note the relationships between the child nodes to the R2 research question and the EOCS PDFs. The data analysis relationships are fully aligned, maintaining validity and reliability in design structure and analysis.

Figure 3 R2: Node relationships



ANALYSIS PROCESS

Child nodes were analyzed with the help of NVivo queries. These included the child nodes for each of the parent nodes illustrated in Figure 2. The analysis started when the researcher began coding and categorizing the data into nodes. Once the coding was complete, a series of NVivo queries were generated. Through some trial and error, the researcher found queries relating to the most frequent descriptive words to be the most helpful. For example, the Word Frequencies Query in Figure 5 are linked to their respective nodes allowing the researcher to drill down into the data to better understand the context associated with the usage of each particular word. This is illustrated with the use of the word "feedback" as one of the most frequently used words by students in the EOCS. Figure 4 describes 15 of the most frequently used words in student comments. The figure also provides a spacial view of the most commonly used words. The Word Frequency List is also illustrated in Table 2. The key to reviewing the Word Frequency List is to graphically picture the spacial relationships of key words illustrated in Figure 4 (below). The Tree Map illustrates graphically and spatially the use of 15 words mentioned in Figure 4. A similar analysis was also provided with a cluster analysis in Figure 5. The researcher was able to drill down to further examine student perceptions in context from all 10 of the EOCS source documents. Word lists were linked to their coded narrative examples. The weighted percentage on the use of descriptive words can be seen in Table 2 (below).

Table 2: Word Frequency List

Word	Length	Count	Weighted Percentage (%)
feedback	8	197	3.17
helpful	7	82	1.32
questions	9	71	1.14
assignments	11	70	1.13
great	5	70	1.13
time	4	68	1.10
engaging	8	66	1.06
gave	4	65	1.05
learning	8	60	0.97
discussion	10	54	0.87
always	6	52	0.84
timely	6	50	0.81
recommend	9	49	0.79
engaged	7	41	0.66
discussions	11	39	0.63

Figure 4: Tree map 15 (word frequency spacial view)

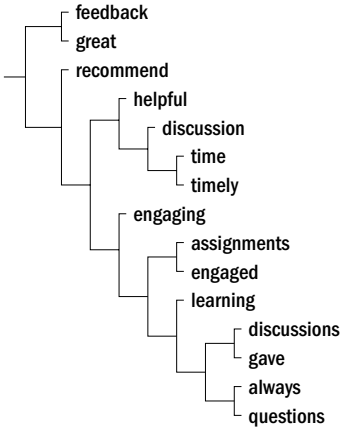
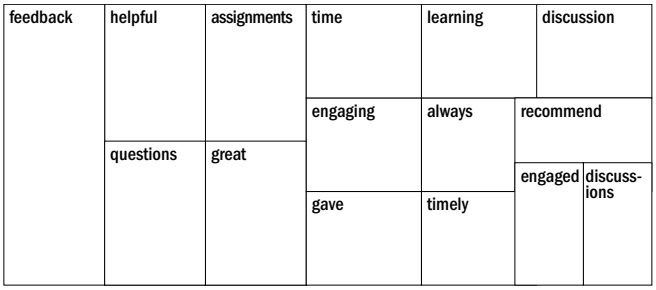


Figure 5: Word frequency query



REVISITING AND COMPARING CODED RESULTS WITH THE LITERATURE

Following the coded analysis, the researcher again examined the literature. Many of the sources examined were downloaded as PDF source documents and were loaded into the NVivo database. Simple word comparisons of the literature of descriptive words used by students gave the researcher the opportunity to pinpoint the significance from prior research as articulated in the literature to the coded analysis.

WRITING THE NARRATIVE

The narrative was written after an analysis of the coding and a second look at the literature was completed. The author was careful not to allow the initial literature review to bias the coding. The second review of the literature allowed for a comparison of coded analysis with the body of knowledge represented in the literature.

RESULTS

The overarching research question was R1, which addressed the efficacy of including a longitudinal perspective when providing EOCS data to instructors. Questions R2 through R4 underscore what could be learned should a longitudinal perspective frame the analysis and are included when EOCS results are distributed to instructors following the completion of their courses.

R1: LONGITUDINAL INSIGHTS

The first and overarching research question asked: can a longitudinal and more detailed analysis of EOCS student perceptive comments provide more insight into student learning than looking at individual EOCS comments? It was clear from the analysis that a longitudinal view of EOCS data over the two-year period provided an outlet allowing for suggestions and some student venting of steam on issues that prevented or enhanced student learning experiences at the administrative level. Student insights underscore the diversity of comments and the importance of those comments communicated in the survey and coded in the R1: Longitudinal Insights node. Coded comments gave examples of basic attitudes about the university. Many also illustrated a mental image of the student's position or relative relationship to the university at the time the survey was taken.

R2: STUDENT PERCEPTIONS OF INSTRUCTOR CHARACTERISTICS

The second research question asked: what are the student-reflected characteristics and attributes of the instructor that may be contributing to or inhibiting student learning? Five sub-categories emerged from the coded data that related to the instructor's ability to contribute or inhibit student learning. These subcategories include the perception of caring, profound negative expressions of dissatisfaction, positive attributes and characteristics, comments relating to the instructor's knowledge and competence, and student expressions of recommendation. Each of these is addressed separately below.

Caring: The idea that the instructor cared genuinely for his students was reiterated in student comments. The concept of caring was shared as a caring attitude toward how students were treated in the class and the belief by students that the instructor was genuinely committed to their success. These perceptions certainly open opportunities for further research studying the emotional connections that may lead to student performance and engagement, as well as the impact on student retention.

Negative attitudes and characteristics: During coding there were only a few students who expressed dissatisfaction. In order to not allow bias to filter these comments, they were included for the intrinsic value they had. These student perceptions were not consistent with the pervasive feedback expressed by the majority of students. Nevertheless, they underscore perceptions that are important to articulate here. Most of the feedback related to issues surrounding communication, feedback, lack of clarity pertaining to assignment instructions, and a lack of consistency relating to grading.

Positive attitudes and characteristics: Positive attitudes and characteristics were more pervasive throughout the EOCS data. It was common to read comments that illustrated a positive relationship with the instructor communicating expressions of engagement, availability, helpfulness, encouragement and understanding, approachability, and clarity in communicating expectations. Also noted was the perception that the instructor has a sense of humor in his communications or associations with students. These comments seemed to illustrate a personal connection students had with the instruc-

tor. For example, one student stated, "In this impersonal, online format, he made it easy for me to feel as though he knew me, my abilities, and pushed me to be better. I was concerned about the online format and, because of Dr. [name], am much less so."

Relating to knowledge/perception of competence: Throughout the coding process there were comments made by students that related to their perception of the competence of the instructor. This perception appeared to illustrate their view about the instructor's ability to contribute to or inhibit student learning. Coded examples appeared to highlight that the instructor was perceived as being knowledgeable, qualified, accessible, knowledgeable pertaining to the course curriculum, fluent in the curriculum, authentic, reasonable, and had the ability to help students achieve their goals. Students also equated "knowledgeable" to the ability of the instructor to teach curriculum in a way that made it "understandable to life situations." As one looks at some of the coded examples, it is evident that student perceptions were not unanimous. In at least two cases, students did not understand what the instructor was trying to communicate, which may point to an inhibitor.

Student expressions of recommendation: It became apparent that student expressions of recommendation mirrored their perceptions of whether the instructor was contributing to or inhibiting their academic experience. Comments usually illustrated a semantic descriptor that expressed the reason for their recommendation. In nearly all cases, the comments articulated characteristics and attributes. Some of these included recommendations relating to the instructor's leadership ability. For example, a student statement claiming that the instructor had "charisma." Other comments of recommendation reflected sentiments of knowledge and competence, precision, ability to support, offer of guidance, ability to teach or instruct, ability to provide useful feedback, and ability to relate the curriculum to life's experiences.

R3: STUDENT PERCEPTIONS RELATING TO INSTRUCTOR DELIVERY

The third research question asked: what are student perceptions relating to the manner in which the instructor delivers the curriculum? The answers learned from this research question were quite revealing. During the coding process, six subcategories surfaced. These include communication, discussion facilitation, grading feedback, perceived learning objectives, recognizable teaching styles, and student beliefs that the instructor was assisting them in learning the curriculum. Specific teaching styles were identified in student perceptions about how the instructor managed the online learning environment.

Communication: This subcategory addressed cross-cutting themes that also overlapped with the other subcategories. Nevertheless, there appeared to be a series of characteristics and attributes that related to the overall student perception describing how the instructor communicated. There are a number of adjectives used to describe the communication model used by the instructor. Students typically saw criticism as being constructive. The instructor was perceived as being engaging and providing feedback in helpful ways. The instructor was perceived as one who asked probing questions. Communication was perceived to be helpful, informative, and task centered. Students perceived communication to be relevant. Another interesting finding was how the students perceived their relationship or status to the instructor. Comments like "he actually treated all the students as if they were adults" were surprising, and it certainly begs for more investigation of faculty interactions as a whole. Students frequently mentioned accessibility and the willingness of the instructor to call students on the telephone as indicative. Students also mentioned that communication was clear and balanced. It was surprising to see students expressing opinions about how they felt about their communication experiences with the instructor. Comments such as "I love the personal contact" and "I enjoyed reading his feedback to other students' posts" were reflective of the communication approach perceived by students of their instructor.

Discussion facilitation: Overall, students described the instructor as engaged with meaningful feedback. This was the most frequent description. Other descriptions included the use of words or phrases such as probing questions, relevant, challenged and encouraging, and helpful and engaged. In addition to being helpful, students also felt that discussion posts included humor. Students described the discussion facilitation techniques used by the instructor as being interactive and inclusive.

Students also saw the instructor's facilitation

approach as "forcing the student to think outside the box." It was clear from responses that most of the students were responding successfully to communication and motivational approaches used by the instructor.

Grading feedback: The need for grading feedback emerged as a subcategory during coding. The course required five research papers, all of which provided an iterative learning experience as students applied what they learned toward the next assignment. The fact that grading feedback emerged as an evaluative component in their comments of instructor performance was not surprising. Comments were descriptive of the type and value of the feedback, as well as its timeliness and relevance. Students also indicated the importance of individualized feedback and feedback that helped them improve their writing skills. One student expressed frustration that the feedback, which was characterized as good, was not always clear. However, largely, the comments from students communicated approval of the instructor's grading feedback approach.

Perceived learning objectives: Another interesting discovery was the perception that interaction with the instructor helped achieve the learning objectives of the course. The idea here is that the instructor instilled a belief that what students were studying helped them achieve their learning outcomes and program goals. Frequently, students linked engagement activities to their ability to continue through the doctoral program or to pursue other scholarly activities.

Recognizable teaching styles: Throughout the coding process there were comments made by students that helped to create an emerging view of the instructor's teaching style. Key words provided this window for observation and underscore the importance and analysis of EOCS qualitative data. For example, students characterized the teaching style of the instructor as accessible, engaging, assisting students as needed, willing to help, and returning emails and phone calls in a timely manner. Frequently, students referred to the instructor as engaging, encouraging, and understanding. Students seemed to value those characteristics and attached to feedback the idea of timeliness. A few students underscored this point when they indicated that in their situation feedback was not timely or occurred after the fact. It was not enough for them to receive good feedback if it did not come in a timely manner. The issue of expertise and knowledge of the curriculum became another important point. The use of probing questions and online discussion engagement was mentioned. Students wanted to be treated like adults. The personal and emotional connections the instructor made with students were obvious in student comments. Students liked to be challenged or "pushed" by the instructor, but they also acknowledged that the instructor was not overbearing. Students also perceived that the instructor was willing to help them resolve their concerns by taking the necessary time to get them the answers they needed.

Student perceptions of classroom management: Another cross-cutting theme was how the online classroom was managed. Comments discussing instructor actions in communications, clarity of instructions, clarity on assignment requirements, feedback, grading feedback, timeliness of feedback, the feel of the classroom atmosphere, the emotional ties or relationships of students to the instructor, and the flexibility of the instructor to accept assignments past due dates. The instructor's sense of humor, engagement, and interactivity also seemed to contribute to students' perceptions of the instructor being present and engaged within the online classroom.

R4: Student Improvement Insights: The last and fourth research question asked: what can be synthesized from student comments that have the potential for improving learning strategies and that may take advantage of the strengths or help correct weaknesses discovered through qualitative analysis of student perceptive data? Like R1, this research question captured student improvement suggestions that focused on their scholarly pursuits, the difficulties associated with the use of the learning management system, the need for more education-related literature in the online library, clarity of assignments, recommendations for a more content- versus format-related grading rubric, and suggestions on how to better use the questions for the teacher public discussion forum. Some students were preoccupied with the way e-books were made available. The number and frequency of discussion posts seemed to be a burning topic for some students. The kinds of comments that were coded in this category provided insights into how students are reacting to the learning management system, the pedagogy as-

sociated with the presentation of the curriculum, and the attitudes associated with the way the doctoral program is organized and administered. Many of the comments were cross cutting.

DISCUSSION

The most aligned study from the literature that seemed to mirror this case study was that of Getzlaf et al. (2009). Getzlaf et al. (2009) looked deeply into online graduate students' perceptions about what constituted effective instructor feedback. The study found five recurring themes that seemed to resonate with the coding completed in this study. The themes pointed to instructor efforts to engage students in the curriculum. There seemed to be an interaction between the student and the instructor that gave the impression of individualization and emotional ties and concerns for the success of the student. In this study, students expressed the notion that they were receptive to feedback when the instructor was not overbearing. Getzlaf et al. (2009) indicated that feedback was tied to "gentle guidance."

The notion of timeliness associated with feedback was also evident in the Getzlaf et al. (2009) study, and this finding was validated in this study as students expressed appreciation when feedback was given quickly and when, in a few cases, feedback was not given in time for student use while preparing for an assignment. When we look closely at the Getzlaf et al. (2009) study, we can also see a correlation between the increase in student frequency in the use of the word "feedback" and the emotional expressions related to the student-instructor interaction associated with feedback. This ties nicely with Getzlaf et al.'s (2009) discovery that feedback is perceived as a mutual relationship, and, from this study, how feedback plays a key role in how students perceive the interaction between their style of learning and the instructor's teaching style.

CONCLUSIONS

There are a number of lessons or implications to improving online learning that can be ascertained from this study. One of the most powerful implications relates to the efficacy of the qualitative research model to guide instructors through a thorough and meaningful review of their EOCS data. The model provided another approach to analyze the rich narrative captured from student perceptions through the use of open-ended questions. There should be consideration and further study given to modifying EOCSs to include additional semi-structured, open-ended survey questions that can be analyzed using a qualitative research design. These questions should address the relevance of coursework content within a program of study, usefulness of content to a student's profession, and student perceptions on how the instructor delivers the curriculum. The use of meta-studies conducted at the department level, or by program or course, could yield valuable pedagogical best practices, as well as types of practices that should be avoided.

Although this study focused on one instructor and his relationship to a particular course taught over time, the use of this qualitative research design should be considered in examining one course taught by all instructors within a term or semester, as well as over a predetermined period. The outcomes may yield a more generalized result capturing common applications to all faculty engaged in teaching the same course. The methodology may also be used to examine all courses taught within a department, providing a departmental view that can be translated into performance indicators and developmental curriculum.

Coded responses revealed student perceptions about the character and attributes of the instructor and student feelings expressed in likes and dislikes about the instructor's competence and teaching style. The instructor's ability, as perceived by students, to deliver the curriculum was the most revealing. Again, there were cross-cutting themes revealing student perceptions on the mechanics of how the curriculum was delivered. This included the way the instructor communicated, the student's perception of instructor competence, the positive and negative perceptions occurring in discussion facilitation, insights into the magnitude in which students developed personal relationships with the instructor, the perceived value of receiving grading feedback, and the employment of classroom management techniques. The research also revealed when students recognized that they were learning and the characteristics associated with the instructor's teaching style that was most influential in the enhancement of instructor curriculum delivery.

Another surprise was the richness and depth associated with the data gathered from one nar-

rative question on the EOCS. Clearly, the use of EOCS data can provide valuable feedback when analysis includes a longitudinal viewpoint. Institutions who use EOCS data may wish to expand the use of open-ended questions to target qualitative data of concern.

Several limitations surfaced during the study. The study did not examine the motivation that lead students to complete their EOCS at the end of the course. Clearly, more participation would lead to more data from which to triangulate an analysis. However, there was enough participation from the dataset used to get meaningful answers to the research questions.

Another limitation in the study was the potential for researcher bias during coding and analysis. Researcher bias can enter into the coding and analysis process by instructor-researchers when data is encountered that reflects poorly on the instructor. If coding was done by someone other than the instructor, the potential for bias will be minimized. Another limitation centered on the student population, which exclusively consisted of doctoral students. The efficacy of this methodology will need to be replicated studying both undergraduate and graduate students. Can the results from this study be extrapolated to other populations? Possibly. However, the purpose of the study centered on the efficacy and use of the EOCS results for self-reflection by a doctoral instructor. Can this research design help online instructors gain a better understanding of how their teaching styles are serving students? Certainly.

Inferences leading to changes in how EOCS are promulgated and used by the university should be considered for future study. Additional research is needed to confirm the findings of this study and the use of qualitative research methods to evaluate EOCS data from a longitudinal viewpoint.

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