Exploring Open-Ended Responses and the Implications for Faculty Development

A thesis presented by
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Presented to
Northeastern University

In partial fulfillment of the requirement for the degree of
Doctor of Education

In the field of
Higher Education Administration

College of Professional Studies
Northeastern University
Boston, Massachusetts

March 12, 2018
Abstract

Strong faculty members, at any institution of higher education, are important because while educating the student body they represent institutional values and program goals in a diverse teaching and learning environment. The purpose of this study was to explore the areas of need for faculty development based on a secondary analysis of student perceptions in open-ended response data. The data used in the secondary analysis of qualitative data was from previously collected open-ended response Student Evaluation of Teaching (SET) data from a single site. The Seven Principles for Good Practice in Undergraduate Teaching standards were applied to frame the data into themes of teaching practice. The study’s findings revealed that secondary analysis as the student voice can have an impact on future teaching practice and allows for practitioner and scholarly significance in review and reflection.
Acknowledgements

In 2001, I took my first job in higher education at the Harvard School of Public Health’s College Alcohol Study with Dr. Henry Wechsler. The job provided a great foundation for what began a career, as well as a love for lifelong learning. I can’t imagine that Dr. Elissa Weitzman, Dr. Toben Nelson, and Mark Seibring know the impact and influence they had on me – I didn’t know quite honestly until I took a quiet moment to reflect on and acknowledge this journey. I believe the work-life-family-learning balance that they presented daily grounded me and pushed me through the many days, nights and weekends I couldn’t see me *doing it all*, and *doing it all* well. Admittedly, I certainly have not been able to do it all alone. Therefore, thank you Elissa, Toben, and Mark for making “*doing it all*” look, well, doable.

To my grandparents, John and Rose Travis and Edward and Wanda Gancarski, none of whom attended college or received what is now considered a proper education, yet they knew the true worth of education along with their quiet yet palpable love and support. Thank you for providing your children - my parents, aunts, and uncles - with opportunities and values for education and perseverance.

To my aunt, Joan Gancarski, I never needed or wanted a cheerleader during this process, but I did need someone to ask about my classes and my research, and to sporadically ask when I was going to “*done with my D*.” Thank you for being an interested listener.

To my parents, Edward and Nancy Travis. Thank you for your sacrifices, truly and deeply, thank you. My father has since passed, but I will never forget our visiting and racing to admissions interviews on the various undergraduate campuses together. His advice to me the days before my freshman year at Boston University, “do what you’re supposed to, or else” echoed in my mind as I was allowed to make my own decisions and follow my own path and at
my own pace. My mom, where do I even start? She has always given me safe space to allow me to find my way to whatever goal I hoped to achieve. This being a working, commuting, cannot-help-but-volunteer mother of a very social and active daughter lifestyle has been a long, logistical adventure. I never could have devised this whole plan of earning my Doctorate in Education if it did not include support from my mother. She has been a mom who listens, tells me I am, or we are, doing too much, then supports me with my doing too muchness. Thank you mom and dad for always being the mom and dad that I needed.

To Jeremy, thank you for always believing in me. When I met Jeremy, he was the only “boy” I had ever met who, when I told him what I wanted out of life, was willing to encourage me and allow me to take the lead in what became our dreams and our goals. At some point, Jeremy allowed me to take the wheel and hit the accelerator. He is a true partner and the best husband and father. Thank you – truly and with all I am – I acknowledge your role and your personal sacrifices, thank you.

To my Sofia. I am sure she cannot remember a time when I was not “working on a paper.” She is the one person who never really got a say in this adventure, but she has been kid cool with understanding the balance I try to bring to school/work, fun, quiet times, and family shenanigans. I am sitting here now on a Friday night, in the parent waiting room at gymnastics, “working on my paper,” keeping pace and continually striving for balance. Sof is my sun, my sand, and my tide. She amazes me every day and in so many ways. She has taught me so much about taking risks, trying new things, and things I never would have imagined for her, and I believe she’s following her own path and passions. The kid gets me – thankfully. Thank you, Sofia Rose, for being you, for being my Sof. I wish you today (and everyday) confidence,
humor, grace, love, and friendship with which you will fulfill all you could ever dream and desire.

To those I have worked for and with at the Massachusetts College of Pharmacy and Health Sciences, thank you for your support and leadership. Higher education is founded upon deep historical missions; however, we face an ever-changing student body and professoriate, as well as changing practices, practice trends, and higher education standards. I have been allowed incredible opportunities to continually learn and grow under the supervision of four incredible women at MCPHS and, to them, I owe my gratitude as well as my awe.

I am grateful and thankful for my advisor, Dr. Corliss Brown Thompson for her knowledge, contributions, and significant guidance. Thank you for knowing when I needed to be encouraged and when I needed to talk through my research and the opportunities it may lead to in my practice. Thank you to the other members of my committee who were integral in the final moments of this journey, Dr. Nancy Young and Dr. Jeanine Belcastro Went. Dr. Young guided me into further refinement of my research problem and question. Her thoughtful recommendations were considerable and deepened the study. Dr. Went, you have been a supportive and collaborative colleague, and your understanding of issues that influence faculty and higher education have enhanced my professional experiences.

To my friends, my people, I do not have one friend who is like another, and I appreciate that truth every day. All my people are fairly incredible, fabulous, and awesome, and thankfully they understand me and put up with me (and they do a fabulous job of making it look painless), and I can only hope I can repay them and be their kind of people.

I have never felt alone in this journey, and I honestly acknowledge everyone’s role, big and small, that helped me close this chapter and shelve this book. Onto the next!
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Chapter 1: Statement of the Problem

Higher education is entering a period of transition as the baby boomer faculty members on college campuses prepare to retire and a new generation of scholars joins the academy (Neurmark, Johnson, & Mejia, 2013; Snyder & Dillow, 2015; Van Ummersen, McLaughlin, & Duranleau, 2014). The student body is also becoming more diverse in a variety of dimensions (Eagan et. al, 2015). Due to complex changes in higher education, such as renewed societal concerns for the quality of teaching and learning, multiculturalism, curriculum reform, increased use of technology in education, and the expectation of increased faculty productivity, there is cause to review, analyze, and address the demands facing faculty and the needs of students (Boyden, 2000). As such, higher education institutions are attending more closely to their missions in response to public demands, market forces, and a commitment to excellence (Sorcinelli, Austin, Eddy, & Beach, 2006).

Problem of Practice

**Faculty development.** Ideally, at the time of appointment and continuously throughout the faculty’s tenure, it makes fiscal sense for an institution to invest in the development of its faculty members, who some regard as an institution’s most valuable asset (McLean, Cilliers, & VanWyk, 2008). Strong faculty members, at any institution of higher education, are important because, while educating the student body, they represent institutional values and program goals in a diverse teaching and learning environment. Being able to prepare students who can be competent, engaging, and caring professionals who think critically in a global environment is a key role of the faculty at Healthcare University (HCU)\(^1\), the research site where the researcher

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\(^1\) Organizations and names of individuals are protected through the use of pseudonyms.
was employed as the Director of Faculty Development and Academic Affairs when conducting this study.

Well-developed faculty members in higher education, as well as in healthcare education, are especially important at this time given the needs and shifting context in the healthcare field. For example, the actualization of efforts which began in part because of economic realities in state and U.S. federal government has forced “policymakers to face many challenges, not the least of which are legislative and regulatory debates on how to maximize the use of all healthcare practitioners and the debate among healthcare practitioners, regarding the continuous evolution of scopes of practice” (National Council on State Boards of Nursing [NCSBN], 2009, p. 1).

Moreover, a component of delivering effective and efficient care to patients is the education of students who aspire to be future healthcare professionals. Therefore, an integrative vision of faculty development is necessary for faculty and professional staff facing competing and compelling demands on their time and university resources.

**Institutional approach to faculty development.** Discussions among academic leadership at HCU have focused on the impact of faculty and student changes to the institution, particularly with respect to providing more shared programs, increased support for faculty to work together across the university, and greater opportunities for faculty development. Responses to the faculty, student, and program changes of the past ten years include: focusing on faculty development in areas such as: teaching diverse learners by exploring new teaching strategies, using technology to facilitate learning, collaborating on scholarship opportunities, interprofessional education initiatives, and attaining success across the academic career.

HCU has responded to current and anticipated regional and national shortages of healthcare personnel by expanding education program opportunities along with utilization of best
practices in pedagogy and state of the art technology in the delivery of education. Students have changed, and this has impacted how faculty teach and how students learn. Despite changes in the present context, literature points to key practices in undergraduate classrooms that support student learning (Chickering & Gamson, 1987). Chickering and Gamson (1987), best known for their seminal work in undergraduate education practice, stated that “the ways different institutions implement good practice depends very much on the students and their circumstances” (p. 3). Chickering and Ehrmann (1996) summarized the seven principles of good teaching when they described the features where deep learning occurred: (a) student-faculty interaction, (b) cooperation between students, (c) active learning, (d) prompt feedback, (e) time on task, (f) communication of high expectations, and (g) support for diverse talents.

Teaching and learning in higher education are not just about course content. Based on a four-year project of over 100 four-year colleges and universities, Malnarich (2008) found:

…what happens in the classroom – the quality of teaching that sparks engaged student learning – is critical. When faculty are familiar with the research about how people learn, including pedagogies that have an impact on success, they become more effective and confident teachers. Faculty members are experts in their field of study or discipline; for many teaching has not been a formal part of their training. (p. 1)

Therefore, it is evident that in this context of teaching, learning, and faculty development, as Mason (2008) suggested, it is in the dynamic interactions and adaptive orientation of a system that new phenomena, new properties and behaviors emerge, that new patterns are developed and old one’s change.

This generation of students currently enrolled in higher education are the most culturally diverse yet, and with that they “bring to the university classroom preferences for collaborating,
connecting, and creating social change” (Pinder-Gover & Groscurth, 2009, p. 1). In addition, non-traditional students may be one or more of the following: low-income, part-time, first-generation, adult, veteran, transfer, and/or international. Their needs for accessibility to academic accommodations, as well as addressing mental health needs, challenge an educational system which was designed to teach a now extinct traditional student. Knowing and fully understanding what students think about instruction will allow the faculty to teach well; it will also allow instruction practices to support student learning.

The discussion then becomes how an institution of higher education might address varying academic and non-academic factors. One answer may be an institution-wide faculty development program supported by quality data and analysis, focused on complete development of the faculty member, and which involves effective planning.

Moore and Kuol (2005) noted that, while many studies have addressed student evaluations, most often they focus on issues of validity. Very few have looked closely at how teachers themselves react to student feedback, or how they use such feedback to improve or alter their teaching behaviors. Moore and Kuol (2005) outlined the case for and against student evaluations, drawing on relevant scholarship, before proposing their framework for faculty, or feedback reaction matrix, designed to raise awareness at the individual faculty and institutional levels of the range regarding reactions to student feedback. They determined a specific strategy for faculty to manage their relations to evaluation data that includes utilizing student evaluation data that can help faculty enable their own professional development. The authors outlined various issues to leadership that institutions may face in the design of student evaluation systems, as well as features they regarded should be characterized as important in a student evaluation system. These included the feature that student evaluations of teaching should be supported by
training, mentoring, and other professional development programming. The article urged institutional leadership to not implement student evaluations of teaching for punitive use or control, but as a professional development resource.

**Healthcare context.** Like the broader field of higher education, healthcare education is also examining the needs of faculty and students within the contemporary, changing context (Baum, Resnik, Wu, & Roey, 2007; Lypson, Woolliscroft, Roll, & Spahlinger, 2016). Healthcare education as a field is faced with trends that will reshape its development, implementation, and evaluation. Towle (1998) stated that:

… a revolution in health care is occurring as a result of changes in the practice of medicine and in society. These include changing demographics and the pattern of disease; new technologies; changes in health care delivery; increasing consumerism; patient empowerment and autonomy; an emphasis on effectiveness and efficiency; and change in professional roles. (p. 301)

In other words, healthcare is changing quickly across many spectrums. These challenges, along with the cost of health professional education, accountability, competency and professional growth of faculty, have not changed in the past 20 years, and they can be expected to expand to include and encompass new trends and changes.

The massive changes in healthcare require the field of healthcare education to change. As Carnervale, Smith, Gulish, and Beach (2012) noted, “to meet growing demand for care, the number of healthcare professionals will have to expand by almost 30 percent overall by 2020—the most dramatic growth of any sector in the U.S.” (p. 6). Healthcare is in a state of high growth, and there is a need for institutions of higher education to deal with the rapid changes and shifting paradigms that are occurring in the preparation and education of future healthcare
professionals; therefore, medical educators need to demonstrate a diversity of strategic skills. Steinert (2011) addressed this issue by emphasizing

… the need for faculty development to broaden its focus and target the various roles that clinicians and basic scientists play, including that of leader and scholar; the critical role that faculty development can play in curricular and organization change; the necessity to enlarge the score of faculty development activities by moving beyond formal, structured activities and incorporating notions of self-directed learning, peer mentoring, and work-based instruction; the value of situating faculty development in a more global context. (p. 409)

Understanding and practicing the various approaches to collaboration and cooperation should be inherent in institutions of higher education, especially those deeply rooted in healthcare and programming for health professions. There is a need for well-developed faculty who can prepare healthcare professionals for this changing context.

Learner-centered education, which encourages students to be made aware and reflect on their learning, includes the expectation that students will complete end of semester student evaluations of teaching (SET), where students evaluate the instructor and the course, and they provide a student self-assessment for each course in which they are enrolled. McKeachie (1997) noted that “student evaluations are the single most valid source of data on teaching effectiveness” (p. 1219). Despite the emphasis on and the importance of the SET, this data source is currently not being used in a centralized, institutionally-focused way at HCU. As such, a need existed to examine the SET and to determine what they suggest about faculty development, especially given the growing and changing field of higher education.
Significance

Braskamp and Ory (1994) described the ever-expanding role of faculty assessment and the limitations of present practices. Increasingly, formal and structured SETs inherently became more focused and less likely to be used to assist in formative feedback for teaching development. Ory (2000) advocated an ongoing developmental use of teaching evaluations in combination with other, qualitative means of evaluating teaching so that assessments can both be more comprehensive and accurate and serve as a tool for teaching improvement, not just teaching evaluation.

The assessment of the evaluation of teaching is best when it improves the faculty’s practices and the institution. The importance of faculty development to the institution must be seen beyond the lens of a classroom. Faculty development has the ability to promote organizational change, and growth and capacity-building for educators.

Leadership decisions on how much to invest in faculty development programming should be based on needs assessment along with researched priorities. Moreover, prior to requesting and allocating resources for faculty development seminars and workshops as well as individual mentoring to assist the faculty in adapting to larger class sizes, synchronous distance education, educational technology and new programs (Association of American Colleges and Universities [AAC&U], 2002; Weimer, 2002), an attempt to research students’ perceptions of teaching practice should be investigated. Additional institutional analysis should be explored before a university identifies and assesses current resources available via campus consortiums; the prospect of future collaborations should also be understood. The current fiscal barriers faced by institutions has led to a paradigm shift in which higher education has moved away from the traditional professional development activities of sabbatical leaves and attendance at professional
conferences. Therefore, greater attention must continue to be given to non-traditional opportunities to increase teaching effectiveness and practice, as well as improved methodologies which may be delivered to a greater number of faculty in a cost and time effective way (Angelo & Cross, 1993; Selingo, 2016).

Documentation, as perceived from the student voice, of what is effective teaching practice may provide focus and direction for content useful for faculty development that may be further studied or delivered at the University. Research relating the consideration of teachers who implemented student voices and perspectives into reflection and change in practice further supports that there is a need for exploration and analysis of procedures and practice for faculty development that further supports the promotion of growth and capacity for educators.

**Purpose of the Study**

Measurement and assessment of teaching effectiveness through student evaluations have been research topics for almost a century. Using data from teaching evaluation instruments has provided a method for institutions to respond to accountability and performance reporting mandates (Campbell & Bozeman, 2007; Klemenčič & Chirikov, 2015). The acceleration of change in the delivery of teaching and learning stimulates forward thinking institutions, like HCU, to question the prevailing and emerging educational technologies and their pedagogical implications. To address varying academic and non-academic factors, faculty development must be a priority institution-wide that is supported by quality data and analysis, a focus on complete development of the faculty member as an instructor, as well as and not limited to, effective planning for the implementation of the varied modes of teaching and learning delivery.

There was an internal, institutional demand for investigation at the institution that served as the site of this study, which is why understanding student learning experiences, utilizing a
form of student voice, was worth an investigation. The purpose of the study was to explore student perspectives of course experiences through an applied thematic analysis of written responses to open-ended, evaluative questions during the SET process. The study investigated student responses to the open-ended questions in SET surveys to provide suggestions for faculty development programming and initiatives.

The aim of the study was to examine data provided by responses to open-ended questions as determined by students in undergraduate/baccalaureate courses at a private, not-for-profit university with a focus on healthcare education. This secondary analysis (Hinds, Vogel, & Clarke-Steffen, 1997; Sandelowski, 1997; Szabo & Strang, 1997; Thorne, 1990) included an investigation of the important aspects of teaching and learning from the student perspective. The results will be directed towards stimulating faculty development programming and inquiry based on the utilization of a form of the student voice (open-ended responses) in end-of-semester SETs.

The study used data from student evaluations over one academic semester, fall 2015. The responses were chosen from undergraduate, didactic courses at HCU which carry three semester hours of credit.

**Positionality Statement**

I have been working in higher education for 17 years. As the appointed Director of Faculty Development and Academic Affairs, I am a centralized office of one, and I am charged to oversee and lead faculty development initiatives at a private, not-for-profit institution which offers more than 100 unique baccalaureate, masters, and doctoral degree programs and certificates in a variety of health-related disciplines and professions on its three campuses and online. In my role, it is my hope to continue to work in partnership with faculty and administrators to promote, foster, and provide support toward a culture of excellence in learner-
centered teaching by: directing teacher-related activities for the New Adjunct Orientation program, New Faculty Orientation program, Faculty Development Committees, Faculty Mentoring Program, and the Faculty Mentoring Institute; designing and facilitating symposium, retreats, workshops, and demonstrations for faculty that foster the practice and understanding of effective teaching, classroom management strategies, and student assessment activities; and identifying and providing resources to support continuous faculty development.

I serve as the University SET and assessment manager: I coordinate and communicate policies for SETs for the University to fulfill evaluation responsibilities. In addition, I provide training, instruction, and support to academic leadership, faculty, and staff in the use of SET software and reporting. An exhaustive amount of published, peer-reviewed studies, as well as op-ed pages and posts on SETs, exists. I believe it is important to add to and expand upon the discussion regarding potential uses for SET data, in particular the open-ended responses. Therefore, this study aimed to explore if there was in fact a meaningful relationship between SET open-ended responses and a potential for faculty development, teaching, and learning programming.

I am continuously conducting needs analysis to determine what faculty see as major faculty and professional development needs, services, and resources that should be provided by a teaching and learning center the institution. I have held multiple meetings with the Faculty Senate, faculty and professional academic support staff on each campus, which began in July 2015, regarding their vision and goals for faculty and professional development. The discussions indicated a high degree of consensus among all faculty, academic leadership, and professional academic support staff for the Office of Faculty Development to establish a teaching, learning, and assessment center with the goal of maintaining a strong focus on teaching and assessment.
A more formal faculty needs analysis, which will require a review of the best practices among faculty, will be combined to form a set of recommendations for a comprehensive faculty development center that will guide teaching, learning, and assessment at the University. As I begin the process, I continually recognize and acknowledge that open-ended responses in SETs have been increasingly overlooked by academic researchers, and in turn, leadership at the University and in higher education. My experiences of the past ten years have led me to the inquiry of whether the digitally stored open-ended response data collected during the SET process might be used in place of creating, implementing, and analyzing additional surveys to respond and support faculty development needs for faculty facing competing and compelling demands on their time as well as university resources. I believe that the resources leveraged for SETs has not been fully capitalized upon. In this instance, it is expected that an analysis of SET open-ended responses will be an area where, as a new scholar, I may have the data to support questioning old practices and proposing new insights into the perceptions of students, related to teaching practice and expanded programming. I am hoping that a centralized analysis of individual course and instructor open-ended responses of SETs will allow for the development of a comprehensive institutional approach to faculty development.

Although each campus is unique, every person – from the students to the university president, parents to the provost, counselors to professors – is vested in academic student success and engagement, thereby contributing to the premise that student perspectives of the teaching in a course or by an instructor are important and impactful. With a centralized office to oversee and lead faculty development initiatives at HCU, supported and informed by data, it is possible to believe that the institution as a whole may be able to keep up with the emerging educational technology and the pedagogical possibilities afforded to it.
Research Question

1. How do students’ perceptions of instruction, as documented in open-ended responses from student evaluations of teaching (SET), reflect principles of quality undergraduate education?

Theoretical Framework

Acknowledging the literature on survey fatigue, the exploration of existing data of open-ended responses was explored in lieu of creating, implementing, and analyzing another survey for students. Open-ended responses in SETs have not been consistently analyzed by academic leadership in a centralized way due to the resources and continuous time commitment needed to accomplish such a task. An initial exploration of the potential uses of SET data led to a focused notion that an analysis of student learning experiences may inform faculty developers of key topics and themes of good practice in teaching. To allow for a robust development of an applied thematic analysis (ATA), open-ended responses to two core University SET questions for undergraduate didactic courses, during the academic semester of fall 2015, were the focus of data collection and analysis. To carry out the purpose of the study, it was necessary to define what was meant by “good practice.” Chickering and Gamson’s (1987) “Seven Principles for Good Practice in Undergraduate Education” (herein referred to as the Seven Principles or Principles) served as the framework through which student open-ended responses were be analyzed for themes and to align faculty development and learning opportunities at the institutional level.

The Seven Principles are (a) encourages contact between students and faculty; (b) develops reciprocity and cooperation among students; (c) encourages active learning; (d) gives prompt feedback; (e) emphasizes time on task; (f) communicates high expectations; and (g) respects diverse talents and ways of learning (Chickering & Gamson, 1987). McMillan and
Schumacher (2001) noted that a theory (a) should provide simple explanations of the relations observed relevant to the phenomenon, (b) should have consistency with both the observed relation and an established body of knowledge, (c) is considered a tentative explanation and should provide means for verification and revision, and (d) should provide for and stimulate new and expanded research in areas that need investigating. The active process of learner-centered teaching involves the learner as an active and self-directed participant and encourages a complete approach to learning. Faculty developers are challenged with addressing and planning for the changing roles of the academy, and for assisting in facilitating programming and forums where students can learn effectively and efficiently; this demands not only that faculty are experts in their fields but that they also have a greater understanding of how students learn (Irby, 1994; Spencer & Jordan, 1999). The Seven Principles were chosen to guide the study because of how well they align to the institution’s mission and core values, as well as the institution’s definition of learner-centered teaching.

Applied thematic analysis of Chickering and Gamson’s (1987) “Seven Principles for Good Practice in Undergraduate Education” to open-ended responses in the HCU SET dataset aimed to reveal the extent to which the Seven Principles were noteworthy as indicated by the students.

**Principle 1: Encourages contact between students and faculty.** The first principle focuses on the importance of rapport building by faculty with the student. Student-instructor interactions may mitigate negative feelings – for example, feelings of isolation or helplessness. Bangert (2004) stated that “instructor comments that are delivered in a supportive and nonthreatening manner motivate students to complete tasks resulting in higher levels of achievement” (p. 217). Student-instructor interactions should be present in the classroom and on
campus, as well as in the various technology-related modalities. The access to faculty contact is supported by large-scale corrélation studies which conclude that, students who have frequent contact with faculty members in and out of class, are better satisfied with their educational experience, less likely to drop out, and perceive themselves to have learned more than students with less faculty contact (Pascarella & Terenzini, 1991).

Moreover, a large body of evidence has consistently revealed that student success is related to engagement (Astin, 1993; Kuh, Kinzie, Buckley, Bridges, & Hayek, 2006; Kuh, Kinzie, Cruce, Shoup, & Gonyea, 2007; Pascarella & Terenzini, 2005). Kuh (2009) defined the complex term of engagement as a premise that is straightforward and universally understood: the more students study a subject, the more they know about it, and the more students practice and get feedback from faculty and staff members on their writing and collaborative problem solving, the deeper they come to understand what they are learning and the more adept they become at managing complexity, tolerating ambiguity, and working with people from different backgrounds or with different views.

**Principle 2: Develops reciprocity and cooperation among students.** Prince (2004) defined and examined terms and practices such as *collaborative learning*, *cooperative learning*, and *team-based learning* as the ultimate aim of student reciprocity and cooperation. Student success is increasingly being attributed to collaboration within and between groups. To advance an individual student’s thinking and to expand understanding of a peer’s concepts and ideas, it has been shown that working with others often increases involvement in learning (Slavin, 1983; Stahl, 1994).

Panitz (1999) has marshalled research and presented the benefits of collaborative learning paradigms and their extended descriptions which “focus on the process of learning and how
individuals function within groups and independently, but not necessarily competitively” (p.71). The various benefits are categorized into academic, social, psychological, and assessment collaborative learning methods. A few of the collaborative and social benefits of the principle in action supports a team approach to problem solving while maintaining accountability with the individual student (Cooper et al., 1984; Johnson, Johnson, & Holubec, 1984).

**Principle 3: Encourages active learning.** Good practice requires faculty to challenge their students and foster active learning. According to Hayward and Cairns (1998), the goal of faculty should be to “prepare students to become competent clinicians, clinical thinkers, critical thinkers, problem-solvers and collaborators, team players, self-directed learners and effective communicators” (p. 33). In turn, students need to adopt and take responsibility for their own learning (Bonwell & Eison, 1991). In health profession education in particular, active learning, which involves students engaging in the learning process, is effective in achieving the overall goals.

Griffiths and Ursick (2004) stated that the challenge in healthcare education is to “encourage students to have a good foundation of meaningful learning in order to move beyond standard learning in order to move beyond standard technical solutions and apply clinical reasoning” (p. 1).

Innovations in educational technologies continue to advance the delivery of instruction and provide innovative practices, opportunities, and new approaches to learner-centered, active learning activities. Active learning requires purposeful exercises fostered by faculty. Hess (1999) asserted that active learning entails:

higher-level cognitive skills that include analysis (breaking a concept into its elemental parts, explaining the interrelationships between the parts, and disguising relevant from
irrelevant material), synthesis (putting concepts together to form a scheme and solve problems creatively), and evaluation (using a set of criteria to come to a reasoned judgment). (p. 409)

Chickering and Gamson (1987) emphasized that the basis of active learning is faculty and students working together in a socially interactive and diverse environment which includes: internships, clinical experiences, independent study as well as challenging discussions and exercises structured to highlight what they are learning so they can make it part of themselves.

**Principle 4: Gives prompt feedback.** Assessment and evaluation are ever-present terms and practices in higher education (Allen, 2004; Erwin, 1991; Huba & Freed, 2000; Palomba & Banta, 1999). There are various forms of evaluation: instructor-, peer-, and self-assessment are a few that can provide almost immediate evaluative feedback (Bernstein, Jonson & Smith, 2000; Falchikov & Boud, 1989; Kulik & McKeachie, 1975; Nicol, Thomson, & Breslin, 2014). For students to benefit from a course and from their overall education, they must receive appropriate and timely feedback so they are able to self-assess and reflect on their learning (Chickering & Gamson, 1987). Fundamentally, Chickering and Ehrmann (1996) reported that

students need help in assessing their existing knowledge and competence. Then, in classes, students need frequent opportunities to perform and receive feedback on their performance. Students need chances to reflect on what they have learned, what they still need to know, and how they might assess themselves. (p. 5)

In other words, frequent feedback and guided reflection are important for student learning.

Technology provides many in and out of class opportunities for feedback. An example of a current practice to assess student understanding of content is a student response system. In this instance, Bruff (2009) explored the use of clickers, an interactive student engagement tool, that
“often increases student attendance, participation, and enjoyment of classes and provides students and instructors with useful feedback on student learning” (p. 5). In sum, students who are given real-time feedback and assessment whether from an instructor, a peer, or a self-assessment on the quality of their judgments of their own work, improve their ability to self-assess and assess others.

**Principle 5: Emphasizes time on task.** Consideration of time on task expands beyond the assumed notion that more time must be spent on the task of studying. Therefore, good practice for the fifth principle is supported by a number of studies which promote the cyclical relationship of classroom time, teaching by faculty, and learning and achieving by students. “How an institution defines time expectations for students, faculty, administration and other professional staff can establish the basis for high performance for all” (Chickering & Gamson, 1987, p. 4).

Engagement and time on task are not new constructs. A pioneer of curriculum development, Tyler (1949) inspired work to demonstrate the positive effects of time on task to learning which held its ground until it became a foundation for the College Student Experiences Questionnaire (CSEQ) which was based on the term *quality of effort* development by C. Robert Pace during the 1960s and 1970s. Pace showed that students gained more from their studies and other aspects of the college experience when they invested more time and energy in educationally purposeful tasks: studying, interacting with their peers and teachers about substantive matters, applying what they were learning to concrete situations and tasks, and so forth (Kuh, 2009; Pace, 1990).

**Principle 6: Communicates high expectation.** The time and effort required by faculty to articulate and encourage students to meet requirements should be automatic and part of
teaching methods. Principle six suggests and is supported by literature that consistently reports that expecting students to perform well becomes a “self-fulfilling prophecy when teachers and institutions hold high standards and make extra efforts” (Chickering & Gamson, 1987, p. 4).

Cashin (1988) found that items and statements related to effort and workload positively correlated to higher student ratings of teaching. Moreover, additional studies evidenced causal relationship between high expectations and student attendance, as well as a sense of student self-responsibility (Cross, 1987; Rutter, Maughan, Mortimore & Ousten, 1979).

**Principle 7: Respects diverse talents and ways of learning.** Development of faculty support programming and advances in technology for teaching and learning are conventional and progressively continual on most college campuses. However, in response to and taking responsibility for providing students with various ways of learning are the daunting components of the seventh principle challenging faculty and academic leadership.

Howard Gardner (1983) heralded the idea and the theory of multiple intelligence, which proposes that, because people have multiple levels and forms of intelligence, they can, therefore, learn from educators who accessibly present information and materials to varied intelligences and in an array of formats. Teaching with technology allows for adaption of teaching and learning activities which may include self-directed learning opportunities, student collaboration, and the enhancement and availability of lecture presentations. The principle continues to challenge the idea that learning and teaching are one-dimensional.

**Summary**

There are three main purposes of HCU’s Constitution, which continues to ground the almost two-century old institution of higher education. While the core mission of the University has not changed substantially with the addition of degree programs, certain initiatives have been
refined to incorporate emerging professional and societal needs, specifically providing for a broader understanding of scholarship and service. At the University, there are a variety of outer-context systems operating. The political system of healthcare reform has greatly influenced the need for academic programming growth and organizational change. The University has experienced a significant increase of students enrolling in undergraduate and graduate health-related degree programs. Consequently, as more graduate-level options have been developed, the University has made a substantial investment in classroom, laboratory, and clinical facilities; technology and instruction resources; student support services; and faculty. A comprehensive novel faculty development model is needed to advance the institution’s teaching to sustain a vibrant university community focused on the education of health professionals for the next generation. Therefore, embarking on this study, this researcher believed that SETs could help to inform, and perhaps reform, that model. This study aimed to bring a balanced and unique perspective to student feedback on teaching practice and the potential implications for faculty development in the modern era, for a university faculty developer.
Chapter 2: Literature Review

The foundation of an institution of higher education rests heavily on learner-centered teaching and student engagement. As Ramsden (2008) suggested, the most effective higher education environments are ones in which students are diligently involved as part of a community of learners who work together with academics to enhance teaching, assure quality, and maintain standards. The literature in this review will provide a general understanding of student perceptions in end-of-semester student evaluations of teaching (SET). The review also examines the principles of quality undergraduate education, and, as a consequence, provides insight into areas of responsive faculty development.

Algozzine et al. (2004) briefly outlined the history of research on student evaluations, noting that 1970 represented the onset of the “golden age” of inquiry into the development and use of evaluations. The authors defined common characteristics of contemporary student evaluations and noted that, although the primary use of student evaluations has shifted from formative to summative, the structure of evaluations has remained similar. Because teaching is multidimensional and because good teaching can take many forms, the authors cautioned against using evaluations to make fine distinctions between the teaching quality of individual instructors, particularly through any aggregate or general rating. However, the authors proposed that there should be further research on contextual variables and student evaluations of teaching, probing inquiries such as what written comments reveal about evaluations of teaching, providing further evidence of complexities and issues of student evaluations of pedagogy.

Moreover, Algozzine et al. (2004) suggested that faculty be “educated and then they need to be encouraged to explain to their students why the requirements they make and the procedures they use are likely to contribute to better learning” (p. 1223). There is knowledge to be gained
by administration, faculty committees, and institutional leadership toward acquiring a more sophisticated understanding of student evaluation of teaching data and its implications.

Hutchings, Huber, and Ciccone (2011) stated that the “most significant, deep transformations require action and advocacy by campus leaders—committee heads, chairs, deans, professional development leaders, assessment officers, provosts, and presidents—who understand how the scholarship of teaching and learning can strengthen life and work in their setting” (p. 116).

Therefore, SETs provide assessment information useful for the improvement of teaching effectiveness, and through which faculty development programs may be developed or enhanced to focus on teaching and learning.

There is no doubt that the growth of Healthcare University (HCU), as well as the introduction of faculty from new disciplines, has created a more complex academic organization and a faculty body that is in need of faculty development to bring cohesion to teaching and learning. By design, and consistent with the institution’s mission, HCU, at the time this study was conducted, was continuously enhancing its health sciences programs and was hiring a large number of faculty during the prior five years. Many of these faculty members, at the time, were transitioning to academia from clinical roles and were not entirely familiar with academic culture. Additional time and resources were being devoted to orient these faculty to the roles and responsibilities of full-time academic faculty.

Faculty development is an effort that requires collaboration and input from multiple stakeholders; therefore, implementing faculty development programs that strive to meet the needs of individuals, disciplines, and the institution can have advantageous benefits. Burke (2008) stated that the content of faculty development must incorporate purpose, mission,
strategy, values, and what the organization is all about. To that end, one component of effective faculty development is an integrative vision.

To support the exploration of open-ended responses and the possible implications for faculty development, this review of the literature includes the following sections: effective teaching, student feedback, student evaluation of teaching, survey fatigue, and faculty development for effective teaching.

“Effective” Undergraduate Teaching

Faculty development has a measurable impact on teaching (Ambrosino & Peel, 2011; Bedford, 2009; Hines, 2009; Kucsera & Svinicki, 2010; Lee et al., 2010; Nemire, 2007; Palmer, Dankosi, Smith, Brutkiewicz, & Bogdewic, 2011; Puzziferro & Shelton, 2008; Robinson, 2011; Taylor & McQuiggan, 2008; Waiwaiole & Noonan-Terry, 2008). However, providing an absolute definition of effective teaching is a considerable task.

In a review of the research, Hendry and Dean (2002) provided evidence that faculty accountability, SETs, and improvement of teaching effectiveness are related, including an explanation that a faculty development specialist may interpret and utilize SET comments to suggest interventions, instructional design, or specific teaching strategies due to a review of the feedback. They asserted:

Demands from the community and government for increased quality in higher education have led to the mass implementation of a variety of improvement procures, including increased use of student and peer evaluation processes. Academic developers are centrally involved in this. (Hendry & Dean, 2008, p. 80)

The authors called for further in-depth study of what defines good teaching, regardless of what changes and improvements may or should occur.
Watson and Grossman (1994) suggested that a causation of the fragmenting that is evident in faculty development programming is that there is not a universally agreed upon definition of good teaching. At times, faculty admit that they model the teaching styles observed throughout their time as students. Therefore, the literature to date has articulated significant concern for the lack of attention given to teaching methodology (Boyer, 1990; Chickering & Reisser, 1993; Guskin, 1994, 1997; Hendry & Dean, 2002; Hutchings & Shulman, 1999; McKeachie & Svinicki, 2006; Newman, Couturier & Scurry, 2004; Ramsden, 1992; Shulman, 1999; Watson & Grossman, 1994).

Boylan and Bonham (1998) developed a study which provided a comprehensive analysis of developmental education programs. They identified 20 characteristics of successful programs. Eight of those characteristics related directly to teaching: (a) variety of teaching methods, (b) sound cognitive theory-based courses, (c) computer-based instruction to supplement regular classroom activities, (d) classroom/laboratory integration, (e) developmental course exit standards that are consistent with entry standards for subsequent courses, (f) strategic learning that teaches students how to monitor their comprehension and think strategically about learning, (g) professional training for faculty and staff who work with developmental students, and (h) critical thinking that focuses on the types of thinking required in college-level courses.

Increased pressure exists to ensure the implementation of effective teaching practices in higher education even though a set definition of the term itself appears to be non-existent. Effective teaching in higher education can be grounded with two elements: that teaching effectiveness meets the requirements of the context in which it occurs (Devlin, 2007), and that the skills and practices are identified and supported by research (Penny, 2003). Weimer (2002) stated that the term teaching effectiveness had its heyday in the 1980s and 1990s; however, it can
be argued that the term and assessment of effective teaching practice are once again in the spotlight of higher education. Moreover, in the investigation to further define teaching effectiveness, students, instructors, and administrators agreed on (although they did not agree on the order of their importance) three important abilities for teachers to possess: cultivate thinking skills, stimulate interest in the subject, and motivate students to learn. In response, suggested strategies for effective teaching have been presented by a diverse group of authors. Weimer (2002) theorized that to effectively progress toward learner-centered teaching, instructional practices and learning need to change in five areas: the role of teacher; balance of power; function of content; responsibility for learning; and processes and purposes of evaluation. Weimer encouraged faculty to evolve beyond what one knows and the comfort of the often one-sided, lecture-based transmission of content, to foster and support the evolution of the student becoming a more independent learner. In addition, the author claimed that faculty sharing power with students helps students participate and advocate in their own learning.

**Seven principles for good practice.** Chickering and Gamson (1999) have since advanced and refined the rubric of the “Seven Principles for Good Practice in Undergraduate Education” since its original dissemination in 1987. The Seven Principles, which are directly related to the characteristics and behaviors, as well as interaction among faculty and students, offer guidelines for good practice. Good practice (a) encourages contact between faculty and students; (b) encourages reciprocity and cooperation among students; (c) encourages active learning; (d) gives prompt feedback; (e) emphasizes time on task; (f) communicates high expectations; and (g) respects diverse talents and ways of learning (Chickering & Gamson, 1987). In addition, there have been adaptations for assessment of areas including student engagement, effective teaching practice, and strategic planning.
Eggleston (2011) explained that, while it is doubtful that any single assignment, any one activity, or any one tool can achieve all seven principles, suggestions provided aim to positively support each practice. Timely feedback from faculty fosters competence because it provides information that can be helpful in modifying future performance (Chickering & Gamson, 1991). Frequent feedback that provides information specific to the task enhances students’ perceived competence given that it targets specific actions the student can take to move to higher levels of excellence (Ryan & Deci, 2000). Explaining to students at the beginning of a course the types of strategies that are likely to lead to their success also enhances students’ perceived academic control, which researchers have demonstrated is an important factor in their academic success because it is associated with greater investment of effort and increased positive affect (Perry, 2003).

**Measures of effective teaching.** Contreras-McGavin and Kezar (2007) argued that student ratings are not sufficient to evaluate the scope of instructor achievements and responsibilities, and they should therefore be augmented by qualitative sources of evaluation. Contreras-McGavin and Kezar (2007) advocated for qualitative student self-assessment and other institutional initiatives. The same may be said for teaching effectiveness and the potential for faculty development programming initiatives. The authors emphasized the importance of communication and collaboration between various constituents, beyond leadership to alumni and trustees, when presenting innovative options for qualitative self-assessment of student learning that “leaders have an opportunity to foster environments conducive to innovation that focus on creative assessments of student learning” (p. 77).

**Impact of effective teaching.** The impact good and effective teaching has on education has been widely studied and interpreted. Ramsden (1992) provided evidence indicating that
educational researchers incorrectly predict student reactions to education situations, leading to generalizations and student perceptions. According to Ramsden (1992), “the quality of learning is a function of the context of learning—otherwise known as students’ perceptions of what we do in teaching. Learning is a change in one’s conceptions—a change in one’s understanding of something” (p. 110). The author justified the validity of student perceptions regarding how much they have learned and understood.

Boyer (1990) introduced discussion and, in turn, significant research and implications for teaching related to how the “challenges on the campus and in society [had] grown” (p. 3). By identifying and coining the term, scholarship of teaching, Boyer argued that “a recognition of knowledge is acquired through research, through synthesis, through practice and through teaching” (p. 24). Scholarship of teaching is a continuous scholarly process of synthesizing, planning, evaluation, and revision; it involves teaching, as well as transmitting, transforming, and extending knowledge intended to assist students in the comprehension of information. It is, quite simply, good teaching.

The scholarship of teaching and the relation of the term to excellent teaching is not tantamount. The aim of Hutchings and Shulman (1999) analysis of the scholarship of teaching began with and expanded beyond Boyer (1990) in the hopes that a connection could be made to excellent teaching. The authors stated that an “attribute of scholarship of teaching is that it involves question-asking, inquiry and investigation not only teacher practice but the character and depth of student learning that results (or does not) from that practice” (p. 13).

Although there is not a definitive definition of effective teaching, the theme has emerged that effective teaching is more than a content expert walking to a lectern and providing
information to an audience. Table 1 summarizes what Sherman, Armistead, Fowler, Barksdale, and Reif (1987) found, that teaching excellence can be described in four stages.

Table 1.

**Description of Teaching Excellence**

<table>
<thead>
<tr>
<th>Stages of teaching</th>
<th>Schema of teaching</th>
<th>Schema of learning</th>
<th>Actions of teaching</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 1</td>
<td>Teaching is telling Instructor has little control or influence on student learning</td>
<td>Learning is the ability to repeat what is heard or read</td>
<td>Presenting information</td>
</tr>
<tr>
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</tr>
<tr>
<td>Stage 2</td>
<td>Teaching is hoping students will learn Instruction can influence learning by directing students to proper materials and information</td>
<td>Learning is the ability to repeat and relate material (comprehension)</td>
<td>Presenting information and exploring its meaning</td>
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<tr>
<td></td>
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</tr>
<tr>
<td>Stage 3</td>
<td>Teaching is transmitting knowledge Instruction can influence learning if student characteristics are considered</td>
<td>Learning is the processing of information, integrating new information with past experience and developing an understanding</td>
<td>Knowledge and conceptual bases are built through planning and organization</td>
</tr>
<tr>
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</tr>
<tr>
<td>Stage 4</td>
<td>Teaching is a complex interaction which is unique and dynamic Instruction influences learning through interactions between student, teacher, and content</td>
<td>Learning is a complex process involving intellectual, motivation, personal, emotional, and developmental variables indicated by analytic, synthetic, and evaluative thinking</td>
<td>Selecting and using means to communicate the power of ideas and a discipline</td>
</tr>
</tbody>
</table>

(Sherman, Armistead, Fowler, Barksdale, & Reif, 1987)

All of the above stages allow faculty developers to provide and present strategies to support teaching. Sherman et al. (1987) suggested: “Teaching excellence appears most likely to emerge when instructors can focus on developing as excellent instructors. However, the main
factor influencing development appears to be the availability of appropriate development interventions” (p. 72-73).

The responsibility of faculty in undergraduate higher education is to “prepare students to understand and deal intelligently with modern life” (Chickering & Gamson, 1987, p. 4). No truer were those words than in 2006 when, in that year, HCU approved the following definition of learner-centered teaching:

Our University community embraces a commitment to learner-centered teaching, an approach to education that requires the active commitment and involvement of students and faculty in the learning process. Faculty foster student learning using teaching methods that encourage students’ active engagement in acquiring new knowledge, reflecting on what they are learning, relating it to their prior experience, and applying it in their daily work and lives. Both faculty and students strive together, through mutual respect and collaboration, to achieve the learning outcomes essential for success in college and in the student’s specific academic program, while recognizing student differences in learning approaches, styles, and capabilities. Regular assessment and feedback on progress toward achieving learning outcomes is aimed at assuring that students achieve the high standards required for success. Such guidance supports the development of each student’s ability to assess learning needs, seek new learning resources and opportunities, and sustain lifelong, self-directed learning in support of professional and personal goals. (Unpublished internal document, 2006)

Organizationally, HCU, when this study was conducted, had put in place a structure that facilitated data gathering and analysis, unit-based and institution-wide planning, and assessment of outcomes. Through various university committees, HCU had been successful in engaging
representative groups of administrators, faculty, staff, and students in the process of defining institutional goals and measuring their effectiveness.

**Implications of the investigation.** The synthesis of definitions and concepts of effective undergraduate teaching will continue to be an area of study by researchers, with a substantial focus on what defines and limits effective teaching, together with the significance in the creation of faculty development ventures based on student feedback.

**Student Feedback**

Limited studies have addressed how to use the student feedback as provided in open-ended responses in student evaluations of teaching. Cook-Sather (2006) pointed out the notion that students are not passive recipients of education practice and policy. Student voice terminology is explored, as well as the positive and negative aspects of the expression of student voice, because it signals “presence, involvement, and commitment” (p. 366). Through a comparative descriptive analysis of programs, Cook-Sather (2010) looked to support student responsibility in the learning process and in engaging in meaningful assessment. The primary interest of the study for students aimed at improving student achievement, teacher preparation, and teaching. However, a corollary finding included “promising models for fostering the development of students with a sense of and capacity for taking responsibility for their own and others’ education” (p. 556). The article stipulated that students indeed seek opportunities to be responsible and accountable, and agents of support.

Hamilton, Smith, Heady, and Carson (1997) identified the strengths and weaknesses in open-ended responses by tackling common and timely questions, and they put forth new questions for further study. For example, they urged an exploration of how faculty and administration reviewing comments, both positive and negative, can improve overall teaching.
The authors systematic content analysis stated that “it is the use of the feedback, as opposed to the process of data collection, that is critical to determining the success or failure of the methodology” (p. 44). The authors suggested that the inclusion of listening to students is necessary; therefore, creating forums for listening, hearing, and understanding students were included as goals. In other words, Hamilton et al. (1997) asserted, the analysis of student feedback is important for creating an active environment for the scholarship of teaching and learning, whether it be free text, in a survey or open forum.

According to Poulos and Mahoney (2008), research has tended to focus only on the effectiveness of student feedback, but not on the perceptions of the meaning of the feedback. In this study, the authors found three key dimensions in this area: perceptions of feedback, impact of feedback, and credibility of feedback. Notable is the significance of the feedback from the point of the individual, in addition to “the differing perceptions by students in regard to what feedback is (how they recognize something as feedback, (e.g. most recognizable if it is in written form)” (p. 145). As one might expect, the results revealed a wide range of views regarding the what’s and how’s of feedback, which is similar to various studies on student feedback seemingly indicating a need for further study and reflection and examining the possible implications of feedback.

**Impact of student feedback.** Research and innovation using student feedback data for improvements to teaching practice in higher education is not lacking. Despite in depth methodology of student feedback data, research by Spiller and Harris (2013) focused on the concern that “students could become cynical and disaffected should they feel that their voices were not being heard” (p. 258). Therefore, analysis of student learning experiences, they asserted, should be integrated back into teaching and learning. The study included three
institutions of higher education in New Zealand where the majority of instructors were using the evaluation results in isolation and not as part of a larger assessment. The study was hindered because, without a central and collaborative plan to respond to the feedback, it was determined impractical for academic administration to interpret and therefore prompt suggestions for faculty development.

The literature supports various ways in which student feedback is used by faculty. A project of two institutions, funded by the Andrew W. Mellon Foundation grant and written by Cook-Sather (2008), engaged in the notions of reflective practice. Profound findings included the “points these professors make about sight, insight, and perspective, about their vision – literal and more figurative – of the students and their students’ vision of them, which have implications for how faculty members conceptualize and enact their roles as teachers” (p. 478).

The student voice has been driving change in student, as well as academic affairs. French, Bickett and Iacono (2013) qualitatively analyzed student comments from end-of-course evaluations in order to assess the curricular changes made over the years, which directly related to student feedback at the University of Kentucky, College of Medicine. The authors found that communication to the students at the beginning of each rotation explaining curricular changes do inform, reinforce, and empower the student voice. Moreover, the study not only supported past practice, it also emphasized the belief of the authors that “instructors must overcome their anxieties about student comments so as to give a voice to the students” (p. 372). In addition, course alterations were actively implemented and built on three guiding categories of discovery.

**Credibility of student feedback.** Accountability in higher education has forced colleges and universities to proliferate efforts to improve the reliability of student surveys, in every aspect and for every practice on campus (Kwak & Radler, 2002; Sax, Gilmartin & Bryant, 2003;
Accreditors and legislators, as well as internal administrative and academic departments, are demanding reports on institutional effectiveness and assessment (Porter, 2011). Surveys developed, both commercially and internally, are rapidly being deployed. Umbach (2005) noted that “web surveys in particular are attractive because in a matter of weeks a researcher can have data” (p. 99). The ability for the student voice to be heard, especially in this age of technology, is evident.

Levin (2000) drew a connection from student involvement in the late 1960s and early 1970s to today, when student participation in education, whether it is in institutional governance or SETs, has fast become common practice. The article tackled issues regarding the role of direct involvement by students and proposed strategies for meaningful student participation. Levin (2000) asserted that “students have unique knowledge and perspectives that can improve our approach to implementation … and how improvement can be fostered, whether or not students are committed to a particular reform” (p. 158).

A review of the literature supports the premise that universities should make significant efforts to enhance the use of student feedback for teaching effectiveness. Agreement by faculty evaluation experts has reiterated that student feedback, in the form of both formative and summative evidence, is an essential source of teaching effectiveness data (Arreola, 2000; Braskamp & Ory, 1994; Cashin, 1990; Centra, 1999; Marsh, 2007; Marsh & Roche, 1997; Seldin, 1999). Williams (2014) argued for the current significance and importance of collected student feedback data by asserting that it is no longer … acceptable simply to collect survey data and ignore them. Four questions still need to be kept firmly in focus: 1) What is the purpose in collecting feedback from students? 2)
How are the results of student feedback surveys used? 3) What can student feedback surveys really show? 4) Have they really changed anything?” (p.67)

One suggestion is to make student feedback an expected, normal exercise which is able to be carried out without any expenditure of effort.

**Student evaluation of teaching.** During the 1970s, as student evaluations of faculty were being popularized in the United States, so too were new approaches to and the professionalization of faculty development (Algozzine et al., 2004). The literature identifying and then measuring effective teaching characteristics can be found in abundance (Centra, 1979; Centra, 1993; Feldman, 1988; Grant & Drafal, 1991). Innovations in faculty development have included varied methods of evaluating teaching efforts. Mohrman and Lawler (2012) proposed that “in a rapidly changing environment, the knowledge that is most useful to organizations is knowledge that helps them change and adapt to perform effectively” (p. 41).

Meaningful stories of student evaluation of teaching exist on colleges across the country. “Some of the most common evaluation measures used at institutional, program and course levels in universities are the end of course and program questionnaires that ask students for feedback on their views and experiences of courses and programs” (Bovill, 2011, p. 98).

Schmelkin et al. (1997) noted that there is a seemingly endless amount of anecdotal evidence that suggests faculty are resistant to the use of student course evaluations. The evidence provided, which supports the significance of the problem and which may account for this resistance, includes: invalidity and unreliability of evaluation; the high correlation between grades and ratings; the impact of extraneous factors (course, student and instructor characteristics); the qualifications of students as evaluators; and the potential threat to academic freedom. The authors noted that the empirical evidence does not generally support any of these
claims; however, there is still a sense that faculty are resistant to the use of evaluations for any or all of the reasons cited. Schmelkin et al. (1997) surveyed faculty (n=400) at a private American institution and found that overall, faculty found course evaluation data useful for both formative and summative purposes. The study also found that faculty viewed some questions as more useful than others.

Schmelkin et al. (1997) stated a genuine concern over abuses and misuses of course evaluation ratings by administration. They specifically referenced abuses by administrative leadership, their overreliance on the ratings data, and the potential for improper application. Additionally, the perception by faculty members as to how the data ratings are actually used by leadership in decision making processes has been explored.

Donovan, Mader and Shinskyl (2006) surveyed 22 sections of graduate and undergraduate education courses at a large midwestern public university. Thirty instructors were identified who fit the study's primary criteria: teaching two sections of the same course during the same semester. Of these 30 instructors, 11 were identified who fit the criteria and were willing to administer the online evaluation to one section and the traditional paper evaluation to the other section. At the end of the course, one section of the instructor's classes filled out the course evaluation in class in the traditional manner, while the instructor's other section of the same course completed the evaluation online in electronic format. First, the researchers analyzed return rates and quantitative rankings. Second, they analyzed open-ended comments to determine length, number, and proportion of respondents making such comments. Finally, working in pairs, the researchers analyzed each open-ended comment and categorized it as positive or negative and formative or summative. Researchers found no significant difference in numerical rankings between the two evaluation formats. However, differences were found in
number and length of comments, the ratio of positive to negative comments, and the ratio of formative to summative comments. Students completing faculty evaluations online wrote more comments, and the comments were more often formative (defined as a comment that gave specific reasons for judgment so that the instructor knew that the student was suggesting be kept or changed) in nature.

The article continued to support the importance of course evaluations and surmised that detailed, thoughtful student input into the class experience continues with “administrative convenience, instructor desire for timely feedback, and course improvement though formative evaluation” (p. 291) which allows for online evaluations as a proven format.

Ardalan, Ardalan, Coppage, and Crouch (2007) provided a summary of research in online vs. paper evaluations as well as results from a student to compare the feedback results. The online response rate was 31% (392 out of 1,276 possible responses) and the paper was 69% (972 out of 1,415). No significant difference was found in the quantitative ratings between the two methods. They examined the differences on an "overall effectiveness" question in rating for faculty who were above the college average and then for faculty below the college average. Faculty who were above the average scored slightly lower online and the faculty who were below the average were scored higher online. There was no significant increase in the length of open-ended feedback online. The authors hypothesized “that the ratios of qualified constructive and constructive comments in each study response are the same in the two methods.” They asserted that the “purpose of this hypothesis was to test the quality of the clarity and mindfulness of student comments in the two methods. The results registered as follows:

A chi-square test showed a significant difference between the number of qualified constructive comments and constructive comments between the two methods. Students
provided more qualified constructive comments in the web-based method than in the paper-based method. This confirmed the prediction by some authors that students will provide more meaningful feedback in the web-based method. (Ardalan et al., pp. 1098-99)

The authors maintained that their results provided information to academic leadership, as well as faculty, on potential differences in paper versus online evaluations of teaching.

O’Cathain and Thomas (2004), meanwhile, drew on expert opinion in key texts and examples of the use of open-ended questions in predominantly closed-question questionnaires. In addition, the authors considered whether there was value in including such questions, and if so, how best to optimize the quality of the data and analysis. The authors discussed different types of open questions in surveys, potential benefits of general open questions, problems in general with open questions, and responses to general open questions for qualitative or quantitative data. The article suggested that “an explicit strategy for generating qualitative data will encourage attention to depth of data and issues important to the analysis of qualitative data such as reflexivity” (p. 6). The authors acknowledged the various obstacles of open-ended response of student evaluation of teaching data analysis. However, consideration must be provided on whether or not open-ended questions should be asked if the responses will not be analyzed.

Despite the continuous debate about the response rates and quality of data between paper and online course evaluation surveys, there are reports, including one by Hmieleski and Champagne, (2000) which supported the assertion that, when students are allowed to provide feedback at their leisure, in an online atmosphere, comments tend to be more plentiful and insightful. Their study of graduate management courses “found that students typed an average of
four times as many comments (62 words/student) as students completing a paper-based version of the same evaluation form at the end of class (15.4 words/student)” (Hmieleski & Champagne, 2000). At times, open-ended responses “give us valuable insight into intellectual challenges common to novice learners in our field, ones that are likely to recur from semester to semester” (Hodges & Stanton, 2007, p. 280). However, limited tools appear available for analyzing qualitative feedback despite the vast amount of open-ended responses in evaluation instruments. A challenge of paper-based, open-ended responses is that the input, coding and compiling of response data can be particularly time consuming (Granello & Wheaton, 2004; Ilieva et al., 2002).

**Survey fatigue.** A potential problem associated with obtaining student feedback is a degree of survey fatigue (Groves, Cialdini, & Couper, 1992; Schleifer, 1986). In a review of the literature of several studies on survey fatigue, and in their own studies, Porter, Whitcomb, and Weitzer (2004) concluded that multiple surveys may reduce response rates; respondents often state time constraints as a hindrance and a reason for not participating; the importance of survey contact may also play a role in survey fatigue; and although the evidence is not in agreement, it appears that the number of surveys previously deployed may have an impact on survey response. The authors aimed to understand further the effect of survey fatigue on college students. The findings supported previous studies on non-students, as well as how appealing the effective cost and data analysis features were regarded by administrators in higher education. The feeling of fatigue for survey participation was determined to be real, and “institutional researchers must be careful not to evoke such a feeling among students; otherwise, survey fatigue may become more of a problem and negatively affect future research efforts” (p. 72). Evaluation and assessment efforts, at the onset of this study, had not been meeting the full needs of the institution; therefore,
at HCU, further exploration of survey data needed to be investigated. Surprisingly, response rates to surveys were decreasing at the time, which was being attributed to overexposure to the survey process or *survey fatigue* as defined by Porter, Whitcomb, & Weitzer (2004).

**Survey fatigue implications for student feedback.** The feedback of a student attends to what Biemer and Lyberg (2003) acknowledged, which is that accuracy, timeliness, and accessibility are the three characteristics of high-quality data. Therefore, an understanding of the research of survey fatigue is required to allow for availability of quality data. Adams and Umbach (2012) examined over 22,000 undergraduates at a university that had administered about 135,000 evaluations, to analyze variables of survey nonresponse. One finding of the study was related to fatigue “as measured by the number of evaluations requested for completion, is related to propensity to respond to SETs … we notice a nonlinear relationship with number of evaluations students are asked to compete and likelihood of response” (p. 583). The authors advised that the findings supported the belief that survey fatigue is on the rise due to the far-reaching advances in survey design and administration.

An attempt to answer the question regarding what causes a student to participate in a survey was made in an article by Porter and Whitcomb (2005) who administered four different surveys during an academic year. The authors used the series of surveys to measure survey cooperation and found:

Only 14% of students participated in all four surveys, even though the response rate for each individual survey was at least 38%. Fifty-seven percent participated in some but not all surveys, while 29% of the students were hard-core non-responders and did not participate in any survey. (p. 137)
The article by Porter and Whitcomb (2005) examined campus survey research policies at four institutions of higher education in part because higher education had begun to implement investigations and policies in response to concerns of “survey fatigue and growing cynicism among students, and institutions are beginning to view student cooperation with surveys as a scarce and valuable resource that should be used wisely” (p. 5). A result of the study was that smaller institutions may have increased concern with survey fatigue; therefore, it was suggested that surveys be thoughtfully designed and implemented to produce reliable data and valid results.

Collecting, organizing, creating, and absorbing information are important parts of the learning process. Beran, Violato, and Kline (2007) conducted research that “showed that administrators use the student ratings to a moderate or high extent for a variety of administrative decisions” (p. 35). Chen and Hoshower (2003) conducted a study where the results showed that students generally consider an improvement in teaching to be the most attractive outcome of a teaching evaluation system. The second most attractive outcome was using teaching evaluations to improve course content and format. In addition, Hamilton et al. (1997) stated that “regardless of the method or methods of faculty evaluation adopted by universities, there seems to be a consensus that the voice of the student, perhaps the most important figure in the academic setting, must be given greater weight” (p. 24). Leadership decisions on how best to invest in faculty development programming should be based on needs assessment along with researched approved priorities. Therefore, an effort can and must be made to initiate effective faculty development programs that engage and complement faculty and students in mutually beneficial ways.

**Implications of inquiry.** Based on the review of the literature, student participation, which is representative by their stored SET student feedback, was used to gain and further an in-
depth understanding of student open-ended responses, to timely address the knowledge and understanding of what students perceive as good teaching practice in undergraduate education. In addition, the study addressed if the collected open-ended response data can present proven, logical and effective information which may be applied to improve teaching and learning at HCU.

**Faculty Development for Effective Teaching**

Academic leaders in higher education have assigned importance to the SET in the past 40 years because of the attempt to find an impartial basis on which to appraise faculty performance and programming (Williams & Ceci, 1997). The exploration of open-ended responses of SETs and the implications for faculty development is one trend among many in current faculty development issues in higher education. Swanwick (2008) stated that faculty development should be an institution-wide pursuit with the intent of professionalizing the educational activities of teachers, enhancing educational infrastructure, and building education capacity for the future. Moreover, the market system affects faculty development change. As there are professionals needed to provide healthcare, the need to have seats in classrooms available to accommodate them is real, and this requires faculty to teach them, which has evolved into utilizing a variety of educational teaching tools and technologies.

Felton, Kalesh, Pingree, and Plank (2007) expanded upon the terms faculty development, professional development, and/or teaching and learning centers by defining these in combination as *educational development*, or: “the profession dedicated to helping colleges and universities function effectively as teaching and learning communities in all areas for which we often name it: faculty development; TA development; instructional, academic, and organizational development” (pp. 93-94). Collecting, organizing, creating, and absorbing information are
important parts of the learning process. In today’s classroom portable, mobile, and wireless technologies are changing teaching and learning. However, it must be understood that just because, in 2018, technology and the access to instant knowledge existed it did not mean faculty and students knew everything.

Consequently, individuals will exhibit greater commitment to an organization when they feel supported and rewarded (Rhodes, Eisenberger, & Armeli, 2001). Therefore, it is important to provide all faculty with development programs to support student learning. Benton (2001) purposed to present an argument that “information collected be for formative purpose. The student voice, while impacted by any number of variables does say something regarding the instruction they have received and it ought not be ignored” (p. 42). It has been suggested that factor analysis can help administrators analyze student course evaluations and identify problem areas that can be targeted by faculty developers. The initial data set included two years of course evaluations yielding 701 classes and 20,877 evaluations of forms from undergraduate and graduate programs and all departments. Listwise deletion of variables was employed in the analysis, and the final sample size was 3017 student evaluations. Questionnaires consisted of 18 ungrouped statements. Eighteen items were followed by two general overall evaluation questions, one regarding the instructors and one regarding the courses. Quartile scores for each of the two overall ratings were calculated, and only those courses that were in the fourth quartile on both the overall evaluation of the instructor and the overall evaluation of the course were selected for analysis. The author attempted to make sense of what faculty received and perceived as their evaluation; they also analyzed that implications may have been made to suggest that administrators used the information already collected, by way of student course
evaluations, to help plan and design faculty development activities and workshops that would actually help improve scores on student course evaluations.

Hodges and Stanton (2007) asserted that, although qualitative responses on course evaluations can be confusing or even conflicting, this confusion can be a source of valuable information about course content and teaching strategies. The authors suggested that negative written comments often result from a lack of student awareness about their own learning processes. Written comments can help identify portions of the learning process about which students require additional information and can thereby improve teaching effectiveness. Based on findings, Hodges and Stanton (2007) suggested that “evaluations may become a source of conversation with peers, adding substance to department assessment endeavors and curricular planning. Evaluations may be seen less as judgments of performance and more as insight into students’ intellectual growth” (p. 285). They proposed alternative approaches to the open-ended question and suggested instructors “read student evaluations for insight into learning challenges and stages of students’ epistemological and intellectual development” (p. 285). Such an approach can be further transformed into an inquiry and discussions with faculty peers and departmental leadership for curricular planning and outcomes assessment.

While Gruppen et al. (2006) identified three driving forces (public accountability, the changing nature of healthcare delivery, and the need to sustain academic vitality) of faculty development, a few others, internal and external to the organization, were explored. The internal factors for consideration of the importance of the continuous focus of faculty development included the high economic cost and commitment to the recruitment of qualified individuals with academic experience.
At the time of this study, a national shortage of practicing professionals, as well as faculty, existed in all healthcare disciplines offered by HCU. Salaries and benefits in academia are not often competitive with clinical/service sector salaries. An additional challenge experienced at HCU was the hiring of individuals with extensive clinical but little to no higher education teaching experience.

Hagner (2004) penned an essay explaining the pressures faculty face from: (a) their institutional leaders who believe that technology-enhanced education results in more students and more dollars; (b) a corporate sector that is demanding more technologically-literate graduates; and (c) a growing percentage of students who have been exposed to new forms of teaching and learning during their high school years and expect them to be part of their higher education experience.

Steinert (2000) reported that to keep pace with changes, faculty development needs to broaden its focus by using diverse learning methods; it must also foster partnerships and collaboration and rigorously evaluate the interventions. Shroeder, Blumberg, & Chism (2010), building upon previous findings from a research grant, stated that faculty developers “should be prepared to function in partnership, leadership, and collaboration-prepared to impact beyond the workshop, individual faculty, or department levels” (p. 12). The authors continually questioned the role of and direction for faculty development in the next decade. Therefore, an interdisciplinary approach for teaching and learning is significantly needed, one through which effective teaching methods in higher education can be paired with current uses.

Penny and Coe (2004) recommended future research by stating that

… the use of expert faculty developers and one-to-one consultation is no longer pragmatic or in line with the current thinking in higher education which urges collegiality
and collaboration. Peer consultation and group-based consultation may be effective alternatives, but they have not received much attention from researchers. More research into the use of peers as consultations and group-based consultation is needed. (p. 248)

Moreover, information presented shows that feedback should be diagnostic in order to direct faulty developers to particular course or instructor areas that may need attention. The article suggested that faculty development leaders provide structured “consultation, collaborative, problem-solving process that uses information about teaching performance as a basis for discussion about improving teaching practice” (p. 221). Further implications for leadership included that there may not be feasible and sufficient, human and financial resources available for faculty development; therefore, models that go beyond individual consulting should be explored.

Arenas where change and development could likely happen are in teaching- and learning-facilitated collaborations and workshops.

Interactions with others serve to sharpen or broaden the design of their study, but it also puts additional teaching practice and resources into the mix. That is scholars of teaching and learning get ideas and inspiration from one another about teaching itself: how they might recast an assignment to make it more diagnostic, what they might read to enrich their thinking, how such-and-such a tool or technique might support their goals for student learning. (Hutchings, Huber & Ciccone, 2011, p. 29)

Therefore, continued research must learn how to best integrate the data to aid in faculty development and provide enhancement of teaching and learning experiences, thus deepening levels of faculty engagement and continued collaboration on the college campus.
Toma (2010) proposed that at any institution, determining policies is connected to the mission and aspirations as well as to various infrastructure needs. The academic units, as well as the student support units at HCU, had strategic plans in place derived from the institutional plan when this study was conducted. HCU’s current institutional plan at the time consisted of the Mission, Core Values, and four Strategic Initiatives.

HCU, when this study began, was embracing a set of core values that reflected commitment to preparing competent, caring, ethical health professionals and scientists to meet the need for quality healthcare and cutting-edge knowledge. As members of HCU and the broader community, the University had made a commitment to the following core values which pertained to faculty development: learner-centered teaching and student engagement that fosters intellectual vitality, critical thinking and lifelong responsibility for learning, and continuing professional development; adaptability and flexibility in response to the ever-changing external environment; and scholarship that contributes to developing knowledge, improving health sciences education, and improving healthcare and health outcomes. In order to support HCU, the study findings aimed to support the notion that “an ideal faculty development program would be a multidimensional process that develops the needed and desired abilities throughout faculty members’ careers using standardized and individualized activities” (Bryce et al., 2008, p. 247).

As Morrissey (1996) stated:

[T]he long-range planning process is a blend of intuition and analysis. Part of the purpose of long-range planning is to take some of the dreams generated through strategic thinking and translate them into desired future positions. This dreaming will be tempered by some analysis what will help focus on the areas and issues that will have the greatest impact on creating an organization’s future. (p. 101)
Austin (2002), meanwhile, addressed the future of higher education for faculty offering recommendations for next-generation faculty preparation. Austin suggested that an essential skill for faculty is understanding teaching and learning processes, as well as having knowledge in the various uses of technology in education. The author asserted: “The increasing diversity of students, the possibilities and challenges raised by technology-mediated instruction, and the trend toward emphasizing learning outcomes over teaching techniques all required that faculty members develop knowledge and skills as effective teachers.” Austin (2002) continued by affirming: “The next generation of faculty members will be expected to know how to use technology in their teaching, even if technical specialists are employed to support curriculum development and teaching processes” (p. 125).

Implications of inquiry. The analysis conducted through this study has implications for professional initiatives which may successfully enable HCU in developing interventions for improving instructional practices, teaching effectiveness, and an expansion of teaching and learning programing. The inquiry, in this sense, aimed to frame a vision and goals of teaching and learning to assist in establishing support for faculty in their efforts to: apply the principles of learning-centered teaching; share successful teaching methodologies, classroom management strategies, and learning assessment activities; and network with colleagues across disciplines and campuses to find, form, and utilize campus teaching and learning resources.

Summary

The understanding of practices of teaching and learning, supported by the student voice, has been revealed to serve as a resource for faculty developers and faculty, which is essential. Sorcinelli et al. (2006) stated that institutions have been increasingly aiming to provide a variety of academic support initiatives. Rapid technological advances have beckoned to faculty
members to provide responsive, low-cost educational opportunities and interventions, and to develop educational delivery in new formats-through websites, short modules, and other programming. Many faculty members have not been trained to teach in these new contexts, and although their specific needs may vary, they require support and training to function optimally in a rapidly changing technological environment. Technology and its distractions have continuously forced faculty to find ways to get the learning information to the student. Therefore, it is a natural instinct to then want to use technology to capture students’ attention, which can allow and encourage students to use various technological tools when completing assignments and during class. Technology can also assist in structuring course activities into logical blocks of time and breaking up the standard lectures and pre-/post-class assignments, to further innovative learner-centered teaching and learning opportunities.

Lancaster, Stein, MacLean, Van Amburgh, and Persky (2014) responded to the call by higher education leaders to increase and improve faculty development across all levels of the faculty experience by reviewing the current landscape for faculty development in relation to teaching effectiveness. They presented recommendations, stating the importance for leadership to understand the potential outcomes for “ineffective or minimally effective teaching” (p. 1), which are important to identify so that support initiatives and program can be created to offer enhancement strategies. Many questions remain to be addressed, including those “regarding faculty and administrative support, finances, physical space, recognition systems for faculty participation, and timeframe for changes” (p. 3).

Faculty development programs should be investigated in various phases of a faculty member’s career. There are many transition points extending beyond the faculty initial appointment, including: promotion, tenure, academic leadership ascension, and retirement, as
well as roles in student support services and perhaps adjunct teaching. Additionally: “A critical incident in the life of an academic, such as the requirement to become more digitally competent may also present a crossroad” (McLean et al., 2008, p. 571). Faculty are left questioning what they know and what they must learn about supporting today’s learners in a variety of information-rich environments, particularly in the comprehensible one of the internet/web (Neuman, 2011, p. 59)?

Diamond (2005) addressed the potential factors for institutional change and explained that “the area that will be most directly affected by suggested changes is the one least often discussed—the design and delivery of instruction” (p. 24). The author listed various forces for change and possible responses by institutional leadership. The underlying message of the article was that, independent of the force for change, leadership at every level must realize the impact on academic affairs and the possible institutional responses. Consequently, understanding the institutional priorities and the common goals, all individual leaders should possess the knowledge and skills to implement the change, and they must expect that all units, along with their leaders, are willing to work together toward the change goal. It is suggested that leadership survey the gaps in programs and knowledge in teaching to best build a plan for faculty development, particularly given that student and faculty needs will have to be fulfilled with potentially limited resources.

At the time this study was conducted, HCU was continually assessing the resources available for such initiatives, including participation in campus consortiums and exploration of the possibility for further collaborations. Additional funds had been allocated in prior years for faculty development seminars and workshops as well as individual mentoring, to assist the faculty in adapting to larger class sizes, synchronous distance education, educational technology,
and new programs. Overall in higher education, leadership decisions on how much to invest in faculty development programming should be based on needs assessment along with researched approved priorities. The current fiscal barriers faced by institutions have led to a paradigm shift in which higher education has moved away from the traditional professional development activities of sabbatical leaves and attendance at professional conferences to embrace a myriad of alternatives. Greater attention must continue to be given to non-traditional opportunities to increase teaching effectiveness and to improve methodologies which may be delivered to a greater number of faculty in a cost- and time- effective way.

This analysis began with the purpose of providing an initial exploration of the areas of need for faculty development as well as best practices for delivery to faculty at HCU and in higher education, based upon student perceptions of effective teaching. The literature provided evidence that faculty have a need for continual faculty development due to their role on a college campus. Faculty development has the ability to promote organizational change, accompanied by an analysis of the student voice, and to promote growth and capacity for future educators. To improve the quality of teaching and learning on campus, utilization of a variety of assessments and analyses to meet unique needs beckons for further exploration and documentation of what faculty needs are in terms of faculty development and what are the best ways to deliver that content at HCU.
Chapter 3: Methodology

This study examined student perspectives, as evidenced by the end of semester, open-ended responses of the student evaluations of teaching (SET), on teaching practice. Formal, centralized analysis of open-ended responses in the SETs have been previously overlooked by academic leadership in the organization. Therefore, the results of this study will be used to explore the areas of need for faculty development by analyzing and accordingly turning student open-ended responses into actionable information through analysis, reflection, and programming at Healthcare University (HCU). Through the approach of a secondary analysis of qualitative data, the information used is from previously collected open-ended response data from a single site. The design of the research question, which directs the analysis of the open responses, did not allow for structured response. Therefore, in order to frame the data, Chickering and Gamson’s (1987) Seven Principles structured the applied thematic analysis. The research question for this doctoral project was as follows: How do students’ perceptions of instruction, as documented in open-ended responses from student evaluations of teaching (SET), reflect principles of quality undergraduate education?

Research Design

The research was conducted using qualitative research design. The knowledge and understanding of effective and good teaching practice will enable educational institutions, such as HCU, to properly support current initiatives and to develop interventions for continued improvement in teaching practices and learning. The approach of a secondary analysis of qualitative data was chosen for this study for several compelling reasons. Qualitative research provides the most demonstrative opportunities to explore the themes of “teaching effectiveness,” defined by Chickering and Gamson’s (1987) “Seven Principles for Good Practice in
Undergraduate Education.” Secondary analysis of qualitative data is an approach that investigates the increasingly available and accessible stores of qualitative data. Actively applied in education, secondary analysis grants researchers what Hakim (1982) referred to as “further analysis of an existing data set which presents interpretations, conclusions, or knowledge additional to, or different from, presented in the first report on the inquiry as a whole and its main results” (p. 2). The secondary data analysis, as defined by Glass (1976), aims at providing “answers to new questions with old data” (p. 3). Secondary analysis of qualitative data allowed for the pursuit of an understanding of how students are using the two open-ended response questions during the SET process to communicate perceptions about the practice of undergraduate education. In addition, the reflective process of action research will support the secondary analysis findings’ and implications for practice, applying them to the real questions of how best to provide faculty development at HCU to improve the practice of instruction and increase student achievement. As Ferrance (2000) observed:

Although there are many types of research that may be undertaken, action research specifically refers to a disciplined inquiry done by a teacher with the intent that the research will inform and change his or her practices in the future. This research is carried out within the context of the teacher’s environment—that is, with the students and at the school in which the teacher works—on questions that deal with educational matters at hand. (Ferrance, 2000, p.7)

Furthermore, secondary analysis allowed for maximization and exploration of previously collected and stored data for future, as well as current, additional use and in-depth analysis.
Research Tradition

Qualitative secondary analysis was chosen for one compelling reason: it is an approach that can be used to generate new knowledge and support a new hypothesis by using existing data, thereby reducing the undue burden to students to complete additional surveys or questions; it simultaneously fully utilizes vast stores of data.

Researchers argue that students are the best evaluators because they have a unique vantage point from which to offer commentaries and suggestions to instructors and some basic assurances to administrators (Wallace & Wallace, 1998). “It is manifestly true that only direct, daily observances of a professor’s classroom teaching performance are the students in the classroom” (Seldin, 1980, p. 36). Marsh (1998) agreed and asserted that, as higher education is organized today, student raters have spent more time observing the instructor than anyone else. Students as evaluators of instruction appear to be an obvious and pragmatic choice for data collection and analysis (Feldman, 1997).

Abedin, Taib, and Jamil (2014) examined faculty and student perceptions about the evaluation of faculty process at one institution. They found that most of the faculty agreed that students evaluate faculty seriously (69.8%). In addition, most faculty concurred that students’ evaluative comments were taken seriously (69.8%). Moreover, in both instances, the students reported that they evaluated the faculty seriously and that they believed the faculty would use the results of the evaluation tool to improve their teaching.

Secondary data analysis contrasts with primary data analysis, during which the data is used to examine research question(s) rather than being the primary reason for the initial collection and design, as well as for the data analysis. Secondary data may come from many data sources and can possess what appears to be unlimited stores of subject areas. Secondary
data may be quantitative or qualitative, and it may involve either direct or indirect observation. The focus of this study was qualitative, with an indirect use of a university dataset.

**Weaknesses of secondary analysis.** Secondary analysis is not without its weaknesses. One weakness is that some datasets were not created with the intention for secondary data analysis. Therefore, care should be taken when choosing archived data and when establishing the procedure for the primary data, informed consent, and the process by which the data was collected, stored, as well as the research methods of the initial study (Boslaugh, 2007; Doolan & Froelicher, 2009; Johnston, 2014). Another disadvantage of employing secondary data analysis is that the available data may not forward a particular research question and/or it may involve a perceived latent and insufficient dimension, allowing others to place less value on the study, results, and implications (Hinds et al., 1997; Szabo & Strang, 1997).

Moreover, the design and results of the secondary analysis of qualitative open-ended response data of SETs should not be generalized for all open-ended responses in all surveys, evaluations, or assessments at higher education institutions. This model does not allow for general transfer to all open-ended prompts.

**Strengths of secondary analysis.** Secondary data analysis, however, also has its strengths. A proliferation of available qualitative datasets is credited to the expansion of data archiving and advancement of data sharing at the research site (Hinds et al., 1997). In this instance, HCU has been collecting and archiving SET data for years. Therefore, the capacity for analysis is voluminous and thereby warranted. Completed data collection, as well as availability and access to data, saves time and resources, making secondary data analysis ideal. At HCU, the open-ended response data in the SETs can be used to unobtrusively elevate and/or verify trends in understanding student perceptions in a survey fatigued-student population. In addition, data
may contain an appreciable expanse of variables which may be more representative of a target population. For example, secondary data analysis of open-ended responses of a SET archive can result in description context, therefore initiating prescriptive policy and programming.

The proposed study may contribute to the literature on how to conduct secondary data analysis when knowledge is deficient. Beginning with the research questions, the study was designed and guided by both an inductive and a deductive applied thematic analysis approach to end-of-semester open-ended response in the SETs for HCU, a private non-profit university. The methods of inductive and deductive applied themed analysis of secondary data was chosen because of the many advantages of the data stores and the need for studying best practices, which can be relayed to effectively shape faculty development programming.

The research in the proposed study used the existing theory and prior research of Chickering and Gamson’s (1987) Seven Principles to develop and define the initial thematic coding scheme and initiate the data analysis.

**Participants**

The research setting is in a single site, HCU. During academic year 2015/16, HCU enrolled just over 3,900 undergraduate and 3,100 graduate students. Females represented 70% of the undergraduates in attendance. Moreover, 94% of the undergraduates were full-time students. At the time of the study, enrollment at HCU was over 7,000 students, and more than 100 degree and certificate programs were being offered.

Open-ended responses in SETs have been continuously underutilized by academic leadership at HCU. This study was designed as an initial exploration of one institutional resource which the researcher considered could provide data for areas of need for faculty
development through analyzing open-ended responses to the questions: (a) Please provide written comments on this instructor; and (b) Please provide written comments on this course.

**Criterion sampling.** Criterion sampling was utilized as the sampling strategy whereas all responses were read and chosen because they met a predetermined criterion (Creswell, 2007). For this research, the criterion was constituted of a completed answer to at least one of the two open-ended prompts to identify possible, information-rich responses for analysis. Each participant reply was chosen based on a response about the practice of teaching.

Responses utilized in this study were selected from end of semester SETs from fall 2015 and chosen from undergraduate, three-credit-hour didactic courses at HCU. Undergraduate student status was defined by the HCU 2015-2016 Graduate and Undergraduate Course Catalog. The credit hour policy applied to all courses that awarded academic credit at HCU. The credit hours for each course at HCU at the time was based on the Carnegie Unit system (Silvia, White, & Toch, 2015). The credit hour represented the actual, calculated, amount of academic work applicable for a single semester. HCU was defining one academic credit hour as a lecture period of 50 minutes per week, regardless of the mode of delivery, including, but not limited to, self-paced, online, hybrid, lecture, research, clinical, and laboratory. Most undergraduate, didactic courses at HCU were based on awarding three credit hours. The courses at the time the study was conducted represented the undergraduate course offerings across the university and its programs. Using these criteria, 3,235 responses for instructor and 1,921 responses for course together totaled 5,156 open-ended responses which had text attributed, and which were available for further analysis. There were 239 individual faculty represented in fall 2015 in 382 of the evaluated courses. The three main academic areas of study represented included liberal arts (n=268), health sciences (n=57), and pharmacy (n=57) on three campuses and online.
Recruitment and Access

The analysis of open-ended responses was explored as if the data was usable in place of creating, implementing, and analyzing additional surveys which contribute to survey fatigue. The purpose of this study began as an initial exploration of areas possibly vital to professional development by utilizing currently stored data resources.

In 2005, and analogous with HCU’s strategic planning initiative, the institution sought to more widely adopt a learner-centered teaching model and to begin appraising instruction via an online student evaluation of the teaching system. Historically, course and instructor evaluation forms were completed by students enrolled in each course, toward the end of each semester in the classroom setting, using Scantron™ forms. Beginning in the fall 2005 semester, HCU began utilizing the online course evaluation software tool, CoursEval™. In pursuance of institutional effectiveness, during the 2007-08 academic year, a Course Evaluation Task Force, comprised of faculty from the faculty governance structure at HCU was formed. At that time, the faculty governance structure membership was comprised of full-time faculty from each school, as well as the faculty from the library. As the Task Force composed their agenda, HCU had more than 20 unique sets of questions in use for student course evaluation ratings, causing inconsistency and ineffectiveness for reporting across the institution. Therefore, the Task Force was charged with developing a universal set of questions to use as the student course evaluation tool, anchored in the belief that a set of core questions, which would be required institution-wide, would allow for a more standardized and cohesive course rating process. HCU faculty approved a set of 11 core questions in the areas of student self-assessment, instruction, and the course. Two of the 11 questions allowed for an open-ended response.
Access to data, for the current study, commenced following Institutional Review Board (IRB) approvals at Northeastern University and HCU. The researcher conducted secondary analysis of qualitative data. Therefore, the study qualified for an exemption because of the following conditions as published by Northeastern University Office of Human Subjects research Protection (HSRP): the data is existing, i.e. the data has already been collected and is “on the shelf” at the time the protocol was written, and the data is recorded by the investigator in such a way that they subject cannot be identified either directly or indirectly through identifiers linked to the subject. Exempt research review was requested of the Institutional IRBs based on the Categories of Exempt Human Subjects Research criteria listed in 45 CFR 46 101(b). The sample for this study was drawn from open-ended responses completed by students who participated in the fall 2015 end-of-semester SET.

In the study, the open-ended responses were analyzed using the applied thematic analysis approach whereby the coder selects a text fragment and assigns a theme(s) to one or more of the Seven Principles. The text analysis assisted the researcher with the presentation of any relationship between the open-ended responses and education practices.

Data Collection

SETs are conducted for every course at HCU at the end of each semester. The data collected from the eight-year period from 2008-2016 consisted of 169,583 responses. Not all SETs had responses to open-ended questions. However, 20,182 SETs had at least one open-ended question with a response. Therefore, the sampling and data collection potential was exponential. In fall 2015, before editing for criteria, 872 SETs had at least one open-ended question answered, which totaled 13,824 open-ended response.
Open-ended questions from undergraduate, didactic courses in fall 2015 with at least one response were analyzed to answer the research question. HCU, where the researcher is employed, was the site of data collection. The data being collected and studied was “on the digital shelf.” Beginning in fall 2005, the University began using the CoursEval™ software tool from Invoke™ Higher Education for end of semester SETs. CoursEval™ was developed with two portals, one for administrators and one for faculty and students. The administrator portal was being used to manage people and course records, to conduct communications, and to report configuration and create surveys. The faculty/student portal provided faculty and academic leadership with survey results, whereas the students were able to access and complete their scheduled surveys. Data, at the time of the study, was available from fall 2008 through fall 2016 and was able to be accessed and assessed by the University’s CoursEval/SET administrator, the author and researcher of this study.

Data Storage

SETs were being conducted for every course at the end of semester at the University. The data were being stored on a hosted server through Amazon Web Services (AWS) and were accessible through any major browser and secure site. The data collected from the eight-year period from 2008-2016 was available in the administrator portal, which was web-based and accessed through a browser with a unique login and password.

The surveys were regularly conducted anonymously, and no personally identifiable student information was presented in the stored data. The open-ended responses were exported into a Microsoft Excel document to be saved for analysis. The data was collected and stored on a password-protected network drive at the University. The network was fully encrypted and required active directory login and password to access the drive while on campus; when off-
campus, the researcher provided a two-factor authentication to the University network. All physical information collected was maintained in a secure, locked, and protected file cabinet on the HCU campus.

In addition, all requirements of the Northeastern University IRB and the HCU IRB were strictly adhered to as required by laws and institutional policies.

**Data Analysis**

The data analysis phase was predicated by a systematic analysis of student open-ended responses to provide a foundation for interpretation and schema for faculty development. Chin and Benne (1985) stated that difficulties arise in getting knowledge effectively into practice which may be seen as lying primarily in the lack of fitness of persons occupying positions with job responsibilities for improving practice. There is a need to centralize and institutionalize faculty development efforts to disseminate the knowledge of the generally accepted practice of the ever-changing roles and responsibilities of faculty. Therefore, for HCU to continually support faculty in their efforts, establishing additional uses of secondary data and its applications were paramount tasks.

Applied thematic analysis was appropriate for the proposed study because it allows for interpretation supported by data in large datasets to find solutions to real problems. Moreover, thematic analysis is not bound to any pre-existing theoretic framework.

Data sources had been previously identified. However, after data collection and before secondary analysis of qualitative data, thought and structure were explored, culminating in an organized and effective database. Both Yin (1994) and Stake (1994) recognized the advantage of using a database to store readily available raw data. Baxter and Jack (2008) further described that using a database allows a researcher flexibility and reliability because it enables an
organized data store for easy retrieval at a later date. Data analysis included the archived open-ended response data for SETs in fall 2015, which began with 13,824 possible responses.

As expected, the advantage of secondary analysis of qualitative SET data from prior academic years involved the potential use of a large sample of previously stored and unused data for use by centralized administration. Data analysis was inherent during every state of qualitative analysis, and in this instance, during the applied thematic analysis approach to the qualitative secondary analysis, which included the hybrid approach of both inductive and deductive reasoning.

In the initial and exploratory stages of analysis, inductive reasoning helped the researcher to avoid imposing an a priori framework and to move the analysis from the specific framework of the Seven Principles to broader generalizations and theories. Meaningful themes, categorized during an inductive stage, emerged through specific observations from the aggregated response data. The inductive process of coding involved reading each individual response and encoding it as referring to instruction/teaching practice or un-related to instruction/teaching practice, as defined by Chickering & Gamson and the Seven Principles, and encoding it prior to the interpretation process (Boyatzis, 1998). The theme of Un-related to instruction/teaching practice as defined by Chickering & Gamson and the Seven Principles was applied to comments that had no direct relationship to instruction and that did not provide information specific to teaching practice. Encoding the responses in this manner allowed the data relevant to the research to be organized and identified as a Principle (theme) or Un-related to instruction/teaching practice as defined by Chickering & Gamson and the Seven Principles; it also permitted the researcher to determine whether or not the statements reflected positive, neutral, or negative perceptions. The inductive approach supported the research question by
allowing students’ perceptions beyond the Seven Principles to emerge. The inductive stage preceded the deductive stage, with the intention of producing well-defined classifications based on data, along with transitional hypotheses formulated for exploration, and revelation of conclusions or theories of students’ perceptions as documented in open-ended responses from SETs.

Following the inductive approach by Boyatzis (1998), a template approach, as outlined by Crabtree and Miller (1999), assisted in building a codebook. The codebook was compiled based on peer-reviewed research and the inductive process. In this study, the codebook was developed a priori based on the theoretical framework of the Seven Principles of Good Undergraduate Teaching, as well as from the pilot study. The codebook served as the data management tool.

Because the data archives were extensive, deductive reasoning assisted in creating a manageable database with actionable analysis (Braun & Clark, 2006; Jansen, 2010; Neuman, 2006). The research sought to collect data specifically about student perceptions of teaching practice. Specifically, the research aimed to understand student voice from the assemblage of open-ended responses of SETs. Any information available in open-ended responses that demonstrated comments of teaching practice were collected for further analysis. The data collection was appropriate to secondary analysis within qualitative methodology given that the purpose was to validate and possibly extend the conceptual framework/theory and its potential relationship to faculty development initiatives.

The data was coded by hand. The first round of coding was completed using initial coding (Saldaña, 2009). The researcher coded 300 responses at a time. Each response (n=5,156) was read with the goal to review content in order to identify key words and/or reflections on instruction/teaching practice. Of the 5,156 undergraduate, didactic, three-credit open-ended
responses which had text attributed for analysis, 4,016 of responses referenced key words or reflections on instruction/teaching practice and 1,140 did not and were categorized as the theme *Un-related to instruction/teaching practice as defined by Chickering & Gamson and the Seven Principles* but kept in the data set. Out of the initial coding, eight possible categories of themes emerged. Axial coding was the second round of coding employed whereas all the initial codes that were divided and fractured during the first round of coding (Charmaz, 2006; Saldaña, 2009; Strauss & Corbin, 1998) were searched and reviewed for themes within each category. The researcher read the codebook prior to each wave of response coding immersion. Each response was coded using in vivo coding which was informed from the participants’ own open-response language, and the codebook was revised and/or added to as needed while staying as close as possible to the students’ own words.

Throughout the axial coding process, 64 possible codes emerged relating to the Seven Principles and in addition four codes could be attributed to *Un-related*. In addition, during the axial coding stage, initial codes were examined for positive, neutral and/or negative expressions. The Seven Principles were then attributed.

A theoretical hybrid of inductive and deductive thematic analysis drove the analytic interest of this study (Boyatzis, 1998; Bradley, Curry, & Devers, 2007; Fereday & Muir-Cochrane, 2006). Themes were expressed in various ways. Therefore, the research primarily looked for the expression of an idea as the theme and for coding unity (Minichiello, Aroni, Timewell, & Alexander, 1990). The following are the steps that systemized the data analysis processes during the iterative and reflexive process (Boyatzis, 1998; Braun & Clark, 2006; Crabtree & Miller, 1999):
### Table 2.

**Phases of Secondary Thematic Analysis of Student Evaluation of Teaching Open-Response Data**

<table>
<thead>
<tr>
<th>Phase</th>
<th>Description of the process</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Familiarized self with the Seven Principles</td>
<td>Researched various studies utilizing the Seven Principles.</td>
</tr>
<tr>
<td>2. Developed a codebook</td>
<td>Create a data management tool for organizing the response segments.</td>
</tr>
<tr>
<td>3. Familiarized self with the data</td>
<td>Read and re-read the data, noting down initial ideas.</td>
</tr>
<tr>
<td>4. Generated initial (and additional) codes</td>
<td>Coded interesting features of the data in a systematic fashion across the entire data set, collating data relevant to each code. Built upon codebook to include samples of <em>un-related to instruction/teaching practice as defined by Chickering &amp; Gamson and the Seven Principles</em> additional code.</td>
</tr>
<tr>
<td>5. Tested the reliability of the codes</td>
<td>Determined the applicability of a Principle (code) to the raw response data</td>
</tr>
<tr>
<td>6. Additional code analysis</td>
<td>Coded the <em>un-related to instruction/teaching practice as defined by Chickering &amp; Gamson and the Seven Principles</em> theme as positive, neutral, or negative.</td>
</tr>
<tr>
<td>7. Searched for themes</td>
<td>Collated codes into potential themes; gathered all data relevant to each potential theme.</td>
</tr>
<tr>
<td>8. Applied template of codes and additional coding</td>
<td>Used the axial coding technique; framework codes were applied from the codebook to identify meaningful text.</td>
</tr>
<tr>
<td>9. Reviewing</td>
<td>Checked that the themes worked in relation to the coded extracts and the entire data set; generated a thematic “map” of the analysis.</td>
</tr>
<tr>
<td>10. Defining and naming themes</td>
<td>Ongoing analysis refined the specifics of each theme, and the overall story the analysis told; generated clear definitions and names for each theme.</td>
</tr>
<tr>
<td>11. Producing the report</td>
<td>As the final opportunity for analysis, selected vivid, compelling extract samples; conducted final analysis of selected extracts, relating the analysis back to the research question and literature, producing a scholarly report of the analysis.</td>
</tr>
</tbody>
</table>
The search for themes that emerged as important to the description of good teaching was demonstrated through thematic analysis (Daly, Kellehear, & Gilksman, 1997). The process involved the identification of the Seven Principles through “careful reading and re-reading of the data” (Rice & Ezzy, 1999, p. 258). In addition, prior to each coding session, the codebook was read and the author became familiarized with the Seven Principles. “Great care must be taken to avoid forcing data into categories because a code exists for them, therefore an integrated approach employs both inductive development of codes as well as a deductive organizing framework for code types” (Bradley et al., 2007, p. 1763).

Using the Seven Principles as the initial coding diagram, the framework and the text analysis took a representational approach where the coder selected a text fragment and assigned a theme to the fragment. Responses were not removed from the dataset if they had no applicable content; they were put in an additional category in the codebook as Un-related to instruction/teaching practice as defined by Chickering & Gamson and the Seven Principles for further analysis. Responses were graded for positive, neutral, and/or negative values of the response.

**Trustworthiness**

The deductive and theory-driven process of applied thematic analysis required the data set to be analyzed and interpreted using templates from an explicit theoretical framework, thereby increasing the trustworthiness of the data analysis. To ascertain validity, the focus was on the statements and/or words found in the responses, and the researcher refrained from personal projection and interpretation. Interpretative validity was ascertained by using the Seven Principles as themes as defined in the Seven Principles. Moreover, to support rigor, a personal research journal was maintained.
Providing trustworthiness of the findings from a secondary dataset was decidedly essential to this study because the data was not initially and purposely collected for the research question and analysis. Stringer (1999) advised researchers that substantiating “that the procedure and process of the inquiry have minimized the possibility that the investigation was superficial, biased or insubstantial” (p. 176) is necessary. The author, is a faculty development and academic affairs higher education administrator and an EdD doctoral student who has completed research course work at the baccalaureate, master and doctoral level, as well as in previous and current positions in university settings. To achieve trustworthiness, the author first coded, interpreted, and analyzed a pilot dataset of \( n = 299 \) open-ended responses. The author then waited two weeks and followed the same protocol and coded, interpreted, and analyzed the same \( n = 299 \) dataset. Coding sample text, checking coding consistency, and revising coding rules was an iterative process and continued until sufficient coding consistency was achieved (Weber, 1990). The differences in coding and interpretations to the framework were explored. A discussion with the committee chair further strengthened the codebook, as well as proved the insignificance of the coding differences, therefore deeming the applied thematic analysis of the secondary data as trustworthy.
Chapter 4: Results

With the purpose of exploring open-ended course responses and their implications for faculty development, a qualitative secondary analysis was conducted with stored data from end-of-semester student evaluations of teaching (SET). The analysis of students’ perceptions of instruction, as documented in open-ended responses, is reviewed in the present chapter.

This study aimed to answer the research question: How do students’ perceptions of instruction, as documented in open-ended responses from student evaluations of teaching (SET), reflect principles of quality undergraduate education? To accomplish this, a secondary analysis of qualitative data was conducted on previously collected open-ended responses from a single site during the fall 2015 semester. All open-ended responses were coded, and, through the process, the researcher gleaned an understanding of what the students considered good practices in the course and by the instructor. The following analysis of student open-ended responses revealed that, in lieu of creating, implementing, and analyzing an additional survey, SET data can be used by the University to explore student perceptions of good teaching practice.

The data set was comprised of 5,156 open-ended responses, all selected from fall 2015 SETs. The responses were chosen from undergraduate, three-credit hour, didactic courses at Healthcare University (HCU). The courses represented face-to-face, online, and hybrid undergraduate course offerings across the university and its programs. Using these criteria, 3,235 responses for the instructors and 1,921 responses for courses totaled 5,156 open-ended responses with text attributed.

Each individual response was read and attributed to the categories of either Instruction/teaching practice or Un-related to instruction/teaching practice as defined by Chickering & Gamson and the Seven Principles. In the initial coding, 4,016 responses
referenced keywords or reflections on *Instruction/teaching practice* and 1,140 could not be attributed and therefore were coded as *Un-related to instruction/teaching practice as defined by Chickering & Gamson and the Seven Principles* and kept in the data set. Eight categories emerged: one for each of the “Seven Principles for Good Practice in Undergraduate Education” and the eighth for *Un-related to instruction/teaching practice as defined by Chickering & Gamson and the Seven Principles*.

Table 3 presents overall data regarding the number of responses attributed to each principle, as well as the number of themes represented from the responses. Analysis in the study used the existing theory and prior research of Chickering and Gamson’s (1987) Seven Principles to develop and define the themes and initiate the data analysis. There can be multiple themes to an open-response because there may be more than one principle and/or more than one theme, concept, or sentence providing content to a response.

Table 3.

*Overall Data*

<table>
<thead>
<tr>
<th>Principle 1</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Encourages contact between students and faculty</td>
<td>1,093 Responses, 14 Themes, 1,888 Codes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Principle 2</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develops reciprocity and cooperation among students</td>
<td>221 Responses, 10 Themes, 381 Codes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Principle 3</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Encourages active learning</td>
<td>1,061 Responses, 8 Themes, 1,647 Codes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Principle 4</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gives prompt feedback</td>
<td>1,120 Responses, 6 Themes, 1,509 Codes</td>
</tr>
</tbody>
</table>
Principle 5  Emphasizes time on task  2,598 Responses  7 Themes  4,412 Codes

Principle 6  Communicates high expectations  2,247 Responses  10 Themes  3,068 Codes

Principle 7  Respects diverse talents and ways of learning  1,980 Responses  9 Themes  3,231 Codes

Un-related to instruction/teaching practice as defined by Chickering & Gamson and the Seven Principles  1,140 Responses  4 Themes  1,382 Codes

“Seven Principles for Good Practice in Undergraduate Education”

In the analysis, 3,817 open-ended responses were related to instruction/education practice reflective of the “Seven Principles for Good Practice” in Undergraduate Education (Chickering and Gamson, 1987):

- Encourages contact between students and faculty
- Develops reciprocity and cooperation among students
- Encourages active learning
- Gives prompt feedback
- Emphasizes time on task
- Communicates high expectations
- Respects diverse talents and ways of learning

The path of the applied thematic analysis in the study is shown in the representation created by the author in Figure 1.
Figure 1. Path of applied thematic analysis (Irish, 2018)

The literature and open response data were significant in development of the themes. In-depth analysis of literature supporting and research on adaption of the Seven Principles, as well as careful analysis of the data, generated the emergent codes from themes. Themes were further analyzed to develop codes. The themes and codes that occurred from the secondary analysis of open-ended response data can be found in the codebook.

Of the responses, 805 reflected one theme within one principle, whereas 4,351 responses reflected multiple themes and principles. For example, “the syllabus was very clear in what was expected and this helped me to keep track of what is due when” (Response #4577) would only would be categorized as reflective of Principle 6, theme of Detailed syllabus. However, “[Professor] is a very good teacher, and effectively communicates the information in an enthusiastic manner and lets students know what is important to know on the test” which included “[The Professor] will also repeat [themselves] when a student ask a question and would
take class time to explain the whole concept again. [The Professor] also has a review class before the exam” (Response #3950) reflects 11 themes across six Principles: Principle 1: *Discussions:* Views and participate, Enthusiastic, Review sessions, and Respectful of student learning; Principle 3: *Out of class/lecture work and help*; Principle 4: *Question and answer session and Prompt response*; Principle 5: *Realistic expectations*; Principle 6: *Enthusiastic, cares*; and Principle 7: *Teaching style to learning style and Test review, recitation, study guide*.

**Themes within Principles**

There was a systemized process for open-ended response analysis. A codebook was formed from the original publication of the Seven Principles (Chickering and Gamson, 1987) as well as other peer-reviewed articles. Each Principle had a number of potential themes which could be attributed to it. Each open-ended response was read, and each expression of an idea was attributed to a Principle; then, each response within a Principle was read, and each expression of an idea was attributed to a theme and/or multiple themes within the Principle. This technique allowed the researcher to apply the codebook in identifying and framing text for meaning. This step was repeated seven times.

**Themes within the Principles Coded as Positive, Neutral, or Negative**

During the next step in the process, each reflective open-ended response within the Principle dataset and their subsequent themes were coded as positive, neutral, or negative to further guide student perception of the “effectiveness” of practice. For example, “professor teaches the material well and provides helpful and effective study methods. The powerpoint slides [the professor] posts on Blackboard and the study guides [the professor] constructs for [the] exams are amazing” (Response #604) can be found in three data sets of Principles: Principle 5, Principle 6, and Principle 7. Four themes were applied within the three Principles:
Principle 5: *Instructor facilitated effectively (+)*; Principle 6: *Study guides (+)*; Principle 7: *Diverse teaching activities (+)*; and Principle 7: *Teaching style to learning style (+)*.

The impact of the meaning of student response as positive, neutral, or negative, is supported by useful examples, such as Response #301:

…we are reading the textbook/taking notes. Although [s/he] teaches pretty fast, there are narrated lectures on Blackboard to go through [the] lectures again if something is unclear. Something that might have helped would be visuals. For example, since this was an [subject] course, [the professor] could have had more interaction with the class by demonstrating [subject matter] that [s/he] was verbally explaining.

Open-ended responses were attributed to five data sets of Principles (Principle 3, Principle 4, Principle 5, Principle 6, and Principle 7). Fifteen themes were applied within the five Principles:


**Spread of Data**

The Principles with the most responses were Principle 5, *Emphasizes time on task* (4,412); Principle 7, *Respects diverse talents and ways of learning* (3,231); and Principle 6, *Communicates high expectations* (3,068). Figure 2 depicts the researcher’s representation of how the percentage of codes attributed to the Seven Principles.
Figure 2. Seven Principles: Percentage of codes

Table 4 further shows the themes with the highest percentage of responses. Interesting to note, the six highest themes (greater than 4% of the responses) were distributed between three of the Seven Principles (Principle 5, Principle 6 and Principle 7) with each Principle having two themes represented.

Table 4.

*Themes with the Highest Percentage of Responses (Codes)*

<table>
<thead>
<tr>
<th>Principle</th>
<th>Theme</th>
<th>Number of Responses (Codes)</th>
<th>Percentage of Responses (Codes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5: Emphasize time on task</td>
<td>Instructor facilitated effectively</td>
<td>1,985</td>
<td>12%</td>
</tr>
<tr>
<td>7: Respect diverse talents and ways of learning</td>
<td>Teaching style to learning style</td>
<td>1,145</td>
<td>7%</td>
</tr>
<tr>
<td>5: Emphasize time on task</td>
<td>Time on task is real learning</td>
<td>1,010</td>
<td>6%</td>
</tr>
<tr>
<td>6: Communicate high expectations</td>
<td>Enthusiastic, cares (interesting/ fun)</td>
<td>937</td>
<td>6%</td>
</tr>
<tr>
<td>7: Respect diverse talents and ways of learning</td>
<td>Diverse teaching activities</td>
<td>595</td>
<td>4%</td>
</tr>
<tr>
<td>6: Communicate high expectations</td>
<td>Knowledgeable</td>
<td>576</td>
<td>4%</td>
</tr>
</tbody>
</table>
The following section describes each of the data collected from HCU’s end of semester SET as categorized by the “Seven Principles for Good Practice in Undergraduate Education” (Chickering and Gamson, 1987). To support the presentation of findings in the current study, past research is used throughout to support the students’ perceptions and the implications of open-ended responses for faculty development in higher education.

**Principle 1 – Encourages contact between students and faculty.** Good practice of Principle 1 is guided by the belief of Chickering and Gamson (1987) that

… frequent student-faculty contact in and out of classes is the most important factor in student motivation and involvement. Faculty concern helps students get through rough times and keep on working. Knowing a few faculty members well enhances students' intellectual commitment and encourages them to think about their own values and future plans. (p. 3)

Based on this guidance from Chickering and Gamson (1987), possible evidence of Principle 1 may include but is not limited to: knew student name and encouraged students to present their views and participate in class discussions; treated students like human beings; and instructor was generally respectful of student learning.

The analysis of Principle 1 yielded 14 themes: *Discussion: views and participates, Enthusiastic, Friendly and/or approachable, Office hours, Humor and fun, Review sessions, Respectful of student learning, Helpful, Human beings, Talked individually, Personal experiences, Exam feedback, Opinions and feedback, and Knew name.* Student perceptions expressed in open-ended responses and categorized as Principle 1: *Encourages contact between students and faculty,* are presented in the discussions and tables below.
Discussions: Views and participation. The theme Discussions: Views and participation had 252 codes attributed of which 171 were perceived to be positive, 9 neutral, and 72 negative. Table 5 lists a key phrase found within the theme of Discussions: Views and participation as well as the frequency of positive, negative, and neutral responses.

Table 5.

Theme: Discussions: Views and Participation

<table>
<thead>
<tr>
<th>Key Phrases</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Encouraged students to present their views and participate in class discussions</td>
<td>171 Positive, 9 Neutral, 72 Negative</td>
</tr>
</tbody>
</table>

Response #3866 is representative of a key phrase from the codebook that was used to guide the coding. “Very respectful of people’s opinions and always emphasizes that [their] own opinion is not the right or definite answer but does add more perspective to the discussion” (Response #3866). Based on the analysis, the coded response was attributed to: encouraged students to present their views and participate in class discussions. A significant influence of good practice of encouraging student-faculty contact is when faculty members encourage students to share in the classroom.

Enthusiastic. The theme Enthusiastic had 228 codes attributed of which 196 were perceived to be positive, 2 neutral, and 30 were negative. Table 6 lists a key phrase found within the theme of Enthusiastic as well as the frequency of positive, negative, and neutral responses.

Table 6.

Theme: Enthusiastic

<table>
<thead>
<tr>
<th>Key Phrases</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructor was enthusiastic about teaching</td>
<td>196 Positive, 2 Neutral, 30 Negative</td>
</tr>
</tbody>
</table>

Response #1849 is representative of a key phrase from the codebook that was used to guide the coding: “You could see [s/he] enjoys [the subject] which is key to students who
potentially want to specialize in [subject], seeing [the professor] excited about and my own will to learn made the class better” (Response #1849). Based on the analysis, the coded response was attributed to: instructor was enthusiastic about teaching. Chickering and Reisser (1993) similarly asserted:

while students may ultimately bear the responsibility for involving themselves in academic pursuits, the faculty member who speaks with passion and invites active learning, who adapts the structure of the class to the interests and abilities of the students, and who articulate dynamisms has students looking forward to every class does much to awaken cognitive skills.” (p. 318)

**Friendly and/or approachable.** The theme *Friendly and/or approachable* had 203 codes attributed of which 148 were perceived to be positive, 2 neutral, and 53 negative. Table 7 lists a key phrase found within the theme of *Friendly and/or approachable* as well as the frequency of positive, negative, and neutral responses.

Table 7.

<table>
<thead>
<tr>
<th>Key Phrases</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructor was accessible to students outside of the course</td>
<td>148 Positive</td>
</tr>
<tr>
<td></td>
<td>2 Neutral</td>
</tr>
<tr>
<td></td>
<td>53 Negative</td>
</tr>
</tbody>
</table>

Response #624 is representative of a key phrase from the codebook that was used to guide the coding: “[The professor] was very approachable and always willing to answer questions” (Response #624). Based on the analysis, the coded response was attributed to: instructor was accessible to students outside of the course. Contact with faculty, inside or outside of the lecture hall adds to the impact of engagement and involvement at an institution.
**Humor and fun.** The theme *Humor and fun* had 200 codes attributed of which 176 were perceived to be positive, 1 neutral, and 23 negative. Table 8 lists a key phrase found within the theme of *Humor and fun* as well as the frequency of positive, negative, and neutral responses.

Table 8.

**Theme: Humor and Fun**

<table>
<thead>
<tr>
<th>Key Phrases</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brought humor and/or fun to the classroom for a welcoming and disarming environment</td>
<td>176 Positive 1 Neutral 23 Negative</td>
</tr>
</tbody>
</table>

The direct relationship between positive student-faculty interactions supports using fun in the classroom. Response #1551 is representative of a key phrase from the codebook that was used to guide the coding: “Your morning jokes makes 8AMs tolerable and I do really enjoy them” (Response #1551). Based on the analysis, the coded response was attributed to: brought humor and/or fun to the classroom for a welcoming and disarming environment.

**Office hours.** The theme *Office hours* had 191 codes attributed of which 147 were perceived to be positive, 6 neutral, and 38 negative. Table 9 lists key phrases found within the theme of *Office hours* as well as the frequency of positive, negative, and neutral responses.

Table 9.

**Theme: Office Hours**

<table>
<thead>
<tr>
<th>Key Phrases</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have regular office hours</td>
<td>147 Positive</td>
</tr>
<tr>
<td>Invited to visit outside of class</td>
<td>6 Neutral</td>
</tr>
<tr>
<td></td>
<td>38 Negative</td>
</tr>
</tbody>
</table>

Response #4103 is representative of a key phrase from the codebook that was used to guide the coding. “Has gone the extra measure to review during office hours after each class” (Response #4130). Based on the analysis, the coded response was positively attributed to: office hours.
Review sessions. The theme Review sessions had 149 codes attributed of which 105 were perceived to be positive, 20 neutral, and 24 negative. Table 10 lists a key phrase found within the theme of Review sessions as well as the frequency of positive, negative, and neutral responses.

Table 10.

<table>
<thead>
<tr>
<th>Theme: Review Sessions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Key Phrases</strong></td>
</tr>
<tr>
<td>Held out of class review sessions</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

Response #316 is representative of a key phrase from the codebook that was used to guide the coding:

I enjoyed the review sessions that were offered throughout the week and the amount of office hours you had available throughout the week was very beneficial! I like that a lot! I like that you always made sure we were not falling behind and completing learn smart on time. (Response #316)

Based on the analysis, the coded response was attributed to: held out of class review sessions.

Respectful of student learning. The theme Respectful of student learning had 141 codes attributed of which 89 were perceived to be positive, 1 neutral, and 51 negative. Table 11 lists a key phrase found within the theme of Respectful of student learning as well as the frequency of positive, negative, and neutral responses.

Table 11.

<table>
<thead>
<tr>
<th>Theme: Respectful of Student Learning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Key Phrases</strong></td>
</tr>
<tr>
<td>Instructor was generally respectful of student learning</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

Response #3291 is representative of a key phrase from the codebook that was used to guide the coding:
Professor is a great professor. [S/he] was very easy to listen to, communicated complicated information clearly and concisely, and always got through the necessary material. … Also, [s/he] was always willing to meet with students, and my friends and I often visited [the] office to talk about how we were doing, the [healthcare] profession in general, and our aspiring future careers. [S/he] is an amazing resource and I really appreciated [the] level of commitment to us. (Response #3291)

Based on the analysis, the coded response was attributed to: instructor was generally respectful of student learning. Chickering and Gamson (1987) summarized Principle 1, Encourages contacts between students and faculty by asserting that “knowing a few faculty members well enhances students’ intellectual commitment and encourages them to think about their own values and future plans” (p.3).

Helpful. The theme Helpful had 115 codes attributed of which 109 were perceived to be positive, 2 neutral, and 4 negative. Table 12 lists key phrases found within the theme of helpful as well as the frequency of positive, negative, and neutral responses.

Table 12.

<table>
<thead>
<tr>
<th>Theme: Helpful</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Key Phrases</strong></td>
<td><strong>Frequency</strong></td>
</tr>
<tr>
<td>Helped in and out of class</td>
<td>109 Positive</td>
</tr>
<tr>
<td>Helped connect students with other faculty and/or students</td>
<td>2 Neutral</td>
</tr>
<tr>
<td></td>
<td>4 Negative</td>
</tr>
</tbody>
</table>

Response #3223 is representative of a key phrase from the codebook that was used to guide the coding: “Always so kind and willing to help us students in any way [they] could, both inside the classroom and out” (Response #3223). Based on the analysis, the coded response was attributed to: Helped in and out of class.
**Human beings.** The theme *Human beings* had 103 codes attributed of which 74 were perceived to be positive and 29 negative. Table 13 lists key phrases found within the theme of human beings as well as the frequency of positive, negative, and neutral responses.

Table 13.

*Theme: Human Beings*

<table>
<thead>
<tr>
<th>Key Phrases</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treated students like human beings with full real lives</td>
<td>74 Positive</td>
</tr>
<tr>
<td>Asked students how they were doing from time to time</td>
<td>0 Neutral</td>
</tr>
<tr>
<td></td>
<td>29 Negative</td>
</tr>
</tbody>
</table>

Response #1126 is representative of a key phrase from the codebook that was used to guide the coding: “Truly seems to care about our academic and professional careers – going out of [the] way to obtain reports and information that not anyone can access” (Response #1126). Based on the analysis, the coded response was attributed to: human beings with full real lives.

When a faculty member provides opportunity and real-world experiences, the gesture supports “frequent student-faculty contact in and out of classes as the most important factor in student motivation and involvement” (Chickering and Gamson, 1987, p. 3).

Moreover, Response #2980 is representative of a key phrase from the codebook that was used to guide the coding: “Gave me help whenever I need it. Not one time, couple of times when I had questions after the class [s/he] stayed extra with me. Encouraged me to work hard and appreciated me on my hard working” (Response #2980).

**Talked individually.** The theme *Talked individually* had 98 codes attributed of which 67 were perceived to be positive, 2 neutral, and 29 negative. Table 14 lists key phrases found within the theme of *Talked individually* as well as the frequency of positive, negative, and neutral responses.
Table 14.

**Theme: Talked Individually**

<table>
<thead>
<tr>
<th>Key Phrases</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Talked to students individually during and after class and labs</td>
<td>67 Positive</td>
</tr>
<tr>
<td>Sought out students with problems in the course or who are frequently absent</td>
<td>2 Neutral</td>
</tr>
<tr>
<td></td>
<td>29 Negative</td>
</tr>
</tbody>
</table>

Response #743 is representative of a key phrase from the codebook that was used to guide the coding: “Helped me as both an advisor when I thought about switching to [another major] and as a professor” (Response #743). Based on the analysis, the coded response was attributed to: talked to students individually.

**Personal experiences.** The theme *Personal experiences* had 84 codes attributed of which 72 were perceived to be positive, 1 neutral, and 11 negative. Table 15 lists a key phrase found within the theme of personal experiences as well as the frequency of positive, negative, and neutral responses.

Table 15.

**Theme: Personal Experiences**

<table>
<thead>
<tr>
<th>Key Phrases</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shared personal experiences, attitudes, and values</td>
<td>72 Positive</td>
</tr>
<tr>
<td></td>
<td>1 Neutral</td>
</tr>
<tr>
<td></td>
<td>11 Negative</td>
</tr>
</tbody>
</table>

Response #4077 is representative of a key phrase from the codebook that was used to guide the coding: “Love all [the] stories about the [healthcare] industry because they somehow related to every lecture and in turn helped me remember the material and learn even better” (Response #4077). Based on the analysis, the coded response was attributed to: shared personal experiences, attributed, and values. The encouragement a student receives regarding the application of the subject matter furthers the good practice of stimulating contact between student and faculty.
Exam feedback. The theme Exam feedback had 62 codes attributed of which 33 were perceived to be positive, 2 neutral, and 27 negative. Table 16 lists a key phrase found within the theme of Exam feedback as well as the frequency of positive, negative, and neutral responses.

Table 16.

Theme: Exam Feedback

<table>
<thead>
<tr>
<th>Key Phrases</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Encouraged students to come in for feedback and evaluations of their exams</td>
<td>33 Positive</td>
</tr>
<tr>
<td></td>
<td>2 Neutral</td>
</tr>
<tr>
<td></td>
<td>27 Negative</td>
</tr>
</tbody>
</table>

Response #542 is representative of a key phrase from the codebook that was used to guide the coding: “Makes time after each exam for students to come to [their] office and see which questions they missed as well as asking general questions about the material” (Response #542). Based on the analysis, the coded response was attributed to: encouraged students to come in for feedback and evaluations of their exams.

Opinions and feedback. The theme Opinions and feedback had 50 codes attributed of which 26 were perceived to be positive and 24 negative. Table 17 lists a key phrase found within the theme of Opinions and feedback as well as the frequency of positive, negative, and neutral responses.

Table 17.

Theme: Opinions and Feedback

<table>
<thead>
<tr>
<th>Key Phrases</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asked student opinions about what is being presented or class procedures</td>
<td>26 Positive</td>
</tr>
<tr>
<td></td>
<td>0 Neutral</td>
</tr>
<tr>
<td></td>
<td>24 Negative</td>
</tr>
</tbody>
</table>

Response #4229 is representative of a key phrase from the codebook that was used to guide the coding: “You can tell [s/he] cares what [the] students think of [the] class, and [s/he] is a great professor looking for feedback, and open to suggestions while sharing [the] knowledge” (Response #4229). Based on the analysis, the coded response was attributed to: asked student
opinions about what is being presented or class procedures. The response addresses the importance of a mutually respectful and outcome-oriented relationship between faculty and students.

Knew name. The theme Knew name had 12 codes attributed of which 10 were perceived to be positive, 2 negative. Table 18 lists a key phrase found within the theme of Knew name as well as the frequency of positive, negative, and neutral responses.

Table 18.

<table>
<thead>
<tr>
<th>Theme: Knew Name</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Key Phrases</strong></td>
</tr>
<tr>
<td>Knew student name</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

Response #2926 is representative of a key phrase from the codebook that was used to guide the coding: “The only professor I have that actually knows most of our names which shows [they] care about us” (Response #2926). Based on the analysis, the coded response was attributed to: knew student name. Morganett (1991) suggested that if a student perceives that a faculty member cares for them they are more apt to perform for and cooperate with the faculty member.

Response #2192 is representative of Knew student name from the codebook that was used to guide the coding. “Treats each student as an individual and knows names and attempts to get to know each student” (Response #2192).

Creating a foundation of communication between students and faculty is essential. Faculty have numerous ways to put the principle into action whereby they can encourage opportunities in and out of the classroom. Faculty-student contact was found to be the best predictor of performance
in a number of studies (Braxton, Sullivan & Johnson, 1997; Pascarella & Terenzini, 1991; Stage & Hossler, 2000). The following response further illustrates this point:

Professor was very nice and able to maintain [their] positive attitude and energetic teaching style throughout the semester. [The professor] obviously loves what [s/he] does and loves bringing other people in and helping them understand not only the topics but the materials as well. [The professor] responds very positively to criticism! Initially the course load was huge and very demanding, especially for an elective. In the middle of the semester [the professor] asked for feedback and was very understanding and open to lessening the amount of out of class work while still giving enough for the course to be useful and the exams to require having payed attention and put in the effort. [The professor] really met us halfway. [The professor’s] willingness and ability to adapt was very impressive and appreciated. I’ve recommended [the professor] to all of my friends who have to take this course! (Response #23)

It is interesting to note that “there is evidence that faculty who are most accessible to students in the classroom also encourage high levels of interaction with students outside of class” (Sorcinelli, 1991, p.15). The following student response succinctly exhibits the significance of constructive student-faculty relationships:

Not only is [Professor] a great professor, but [the professor] is a great mentor as well. I meet with [the professor] almost every week during office hours and [the professor] is always willing to help me out with anything (usually pertaining to what I’m going to do with my life – graduate schools, etc.) and always remains professional. [The professor] goes above and beyond as a professor. (Response #239)
Important evidence of the themes defined in Principle 1 that emerged through the open-responses support the abundance of evidence that good practice of Principle 1 requires “command and organization of the subject matter, expressiveness and enthusiasm, and interaction and rapport with students” (Sorcinelli, 1991, P. 14). The following student response emphasizes these aspects of Principle 1:

Always had an upbeat attitude when it came for teaching the subject. In addition, [the professor] made the concepts more relatable by drawing pictures and giving simple analogies. [The professor] was very willing to help and constantly encouraged help sessions, in which [the professor] would go over what material was on the test and answered any questions you had. [The professor] was even willing to have help sessions during lab time, in which I sat with [the professor] for an hour and a half as [the professor] explained a concept to me. I ended up understanding the information way more in depth because of the constant effort [the professor] encouraged me to put in. [The professor] even learned my name which was nice because more of the large lecture halls are not personalized. (Response #1545)

Student response data supports that good practice encourages contact between student and faculty in a number of campus settings.

…went above and beyond for this class, providing incredibly detailed study guides and even providing after school test prep. [The professor] gave us many different ways to learn, even helping us apply our knowledge by teaching us [their] own work on the subject matter. [The professor] has a fantastic teaching style, one of the best professors I have had at this school. (Response #818)
Positive responses like the previous response, as well as the following response, clearly articulate student perceptions of teaching practices for potential exploration, as well as insights into topics for faculty development initiatives:

I am somewhat conflicted as to how I feel about [the professor] as an instructor. Professor clearly cares that [the] students understand the concepts that [s/he] teaches. … While it is admirable that [s/he] is attempting to make sure every single student is understanding everything, lecture is not the place to do this. I think this course would be much more successful if the main focus was to simply present the covered topics thoroughly and completely without caveats. Students that do not understand should seek extra help.

(Response #1372)

**Principle 2 – Develops reciprocity and cooperation among students.** Good practice of Principle 2 is guided by the belief of Chickering and Gamson (1987) that:

> learning is enhanced when it is more like a team effort than a solo race. Good learning, like good work, is collaborative and social, not competitive and isolated. Working with others often increases involvement in learning. Sharing one's own ideas and responding to others' reactions sharpens thinking and deepens understanding. (p. 3)

Based on this guidance from Chickering and Gamson (1987), possible evidence of Principle 2 may include but is not limited to: assigned group projects and presentations; encouraged students to participate in groups when preparing for exams and working on assignments; case study analysis followed by group presentations; and created a climate wherein students felt safe and free to attempt answers to questions or solutions to problems.

The analysis of Principle 2 yielded 10 themes: group discussion, group work and group preparation, safe climate, case study, team teach, discussion, self-test, technology team
interaction, peer critique, and peer tutoring. Student perceptions expressed in open-ended responses and categorized as Principle 2: Develops reciprocity and cooperation among students are presented in the discussions and tables below.

Group discussions. The theme Group discussions had 115 codes attributed of which 77 were perceived to be positive, 15 neutral, and 23 negative. Table 19 lists a key phrase found within the theme of Group discussions as well as the frequency of positive, negative, and neutral responses.

Table 19.

Theme: Group Discussion

<table>
<thead>
<tr>
<th>Key Phrases</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Used small group discussions to prepare students for whole group discussions</td>
<td>77 Positive</td>
</tr>
<tr>
<td></td>
<td>15 Neutral</td>
</tr>
<tr>
<td></td>
<td>23 Negative</td>
</tr>
</tbody>
</table>

Response #842 is representative of a key phrase from the codebook that was used to guide the coding:

I enjoyed the fact that for some readings we would discuss them in class for a few minutes, I felt that we could reinforce important topics during that time. … I would like the professors to offer to the students if any want to elect themselves to create their own groups with people they know or if they prefer to be placed in a group by the professor. So, if John, Mary, Kyle, and Megan all want to form groups themselves, then they could do so and if Jared, Mike, Amanda, and Emily don't care or don't mind being placed in random groups, they can elect to do just that. (Response #842)

Based on the analysis, the coded response was attributed to: used small group discussions to prepare students for whole group discussions.
**Group work and group preparation.** The theme *Group work and group preparation* had 91 codes attributed of which 40 were perceived to be positive, 21 neutral, and 30 were negative.

Table 20 lists key phrases found within the theme of *Group work and group preparation* as well as the frequency of positive, negative, and neutral responses.

Table 20.

*Theme: Group Work and Group Preparation*

<table>
<thead>
<tr>
<th>Key Phrases</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assigned group projects and presentation</td>
<td>40 Positive</td>
</tr>
<tr>
<td>Encouraged students to do projects together</td>
<td>21 Neutral</td>
</tr>
<tr>
<td>Encouraged students to prepare together for classes or exams</td>
<td>30 Negative</td>
</tr>
<tr>
<td>Encouraged students to participate in groups when preparing for exams/working on assignments</td>
<td></td>
</tr>
</tbody>
</table>

An example of a comment that represents *Group work and group preparation* is as follows:

I liked the way the course was designed… The way that the professor changed discussion group for each unit was nice, because when you do not like your group, you do not have to worry about it. Since the group will be changed for the next unit. The only thing I suggest is that to add an online timed-quizzes for the course, so the professor make sure that students know the material and not only depend on their group members to answer the questions. (Response #1003)

Response #1003 demonstrates two of the key phrases from the codebook that were used to guide the coding. Based on the analysis, the coded response was attributed to: assigned group projects and presentations and encouraged students to do projects together.

Another example of a response within the theme *Group work and group preparation* is as follows: “I liked that there was a mix between being taught at and also encouragement for class participation. It was good to be able to break up into small groups and communicate and work
together as well” (Response #2046). This response was attributed to encouraging students to participate in groups when preparing for exams and working on assignments. Encouraging students through group work is one way to support “reciprocity and cooperation among students” (Chickering & Gamson, 1987).

An example of a specific method or activity for Group work and group preparation as evidenced in a student response is:

The only thing that I didn't like about this course (but not the instructor) is the case studies. I found it more helpful when the instructor took time during the case study class to explain something than having the discussion with classmates. Some of my group members came to class not prepared, some just shared their views with their friends, and some were basically doing nothing. The actual case study is interesting, but I just wish it has been learned differently. Maybe, if the group had to submit one paper for the whole group, then everybody in the group would have to contribute and talk. (Response #810)

Based on the analysis, the coded response was attributed to: encouraged students to prepare together. Providing support for an environment that encourages group preparation demonstrates good practice of reciprocity and cooperation among students as directed by Chickering and Gamson (1987).

**Safe climate.** The theme Safe climate had 41 codes attributed of which 37 were perceived to be positive, 1 neutral, and 13 negative. Table 21 lists a key phrase found within the theme of safe climate as well as the frequency of positive, negative, and neutral responses.
Table 21.

*Theme: Safe Climate*

<table>
<thead>
<tr>
<th>Key Phrases</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Created a climate wherein students felt safe and free to attempt answers to</td>
<td>37 Positive</td>
</tr>
<tr>
<td>questions or solutions to problems</td>
<td>1 Neutral</td>
</tr>
<tr>
<td>13 Negative</td>
<td></td>
</tr>
</tbody>
</table>

Response #1921 is representative of a key phrase from the codebook that was used to guide the coding:

Professor is a very enthusiastic teacher which makes learning about [the subject] easier and interesting. [The] class is very structured and allowed students to actively participate. I felt comfortable expressing myself in the class. [Professor] pushes students to think about all sorts of ideas constantly and structures the course in a reasonable and tactical way, with each story connecting to one another. (Response #1921)

Based on the analysis, the coded response was attributed to: create a climate wherein students felt safe and free to attempt answers to questions or solutions to problems.

*Case study.* The theme *Case study* had 38 codes attributed of which 30 were perceived to be positive, 5 neutral, and 3 negative. Table 22 lists a key phrase found within the theme of case study as well as the frequency of positive, negative, and neutral responses.

Table 22.

*Theme: Case Study*

<table>
<thead>
<tr>
<th>Key Phrases</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case study analysis by groups followed by group presentations</td>
<td>30 Positive</td>
</tr>
<tr>
<td></td>
<td>5 Neutral</td>
</tr>
<tr>
<td></td>
<td>3 Negative</td>
</tr>
</tbody>
</table>

Response #440 is representative of a key phrase from the codebook that was used to guide the coding: “I loved the case studies we did in class because it was an interesting alternative way of learning! Overall I loved [the] class and [the] teaching!” (Response #440).
Based on the analysis, the coded response was attributed to: case study analysis by groups followed by group presentations.

Student responses allow for multi-dimensional reflections such as Response #1965 and Response #4329:

… feel as though the main points of the course were well covered and understood before the end of the semester though so perhaps there can be an additional aspect added such as expanding on student experiences, finding our own case studies/stories that pertain to the topic or maybe even expanding into music since we talked about literature as well as TV/film. (Response #1965)

Students can learn from one another, as Chickering and Gamson (1987) asserted: “sharing one’s own ideas and responding to others’ reactions sharpens thinking and deepens understanding” (p.3). This student response further supported Chickering and Gamson’s (1987) assertion:

I found it extremely hard to stay focused for all three hours of class. I think it would have been helpful for me if we had done some group work or something more engaging than the power points. I would have really liked to work on patient scenarios based of the information you were providing. I think the information form this course will be extremely important moving forward but I am not sure I retained much of what we learned. (Response #4329)

Both responses provide constructive feedback as well as specific examples of teaching practice for future consideration and possible implementation.

Team teach. The theme Team teach had 26 codes attributed of which 12 were perceived to be positive, 7 neutral, and 7 negative. Table 23 lists a key phrase found within the theme of team teach as well as the frequency of positive, negative, and neutral responses.
Response #4872 demonstrates the key phrase from the codebook that was used to guide the coding:

I liked the [course] event where we were able to interact with other students from other programs (I really learned a lot of things about the other professions). That will be very beneficial down the road when I get the opportunity to team up with different health care providers in other fields. (Response #4872)

Based on the analysis, the coded response was attributed to: team taught courses.

An example of a comment that represents team teaching and group preparation is as follows:

It really required independent learning and depending on your classmates to do lessons. Something that is often used in grad school programs. The catch is, other classmates must be willing to put in the work, and if they don't put in the work it detrimentally affects the rest of the class. For that reason, everyone needs to work hard for the success of the group, which I think are important skills. (Response #1084)

As a result, Response #1084 references a student response to teaching which may be useful for the instructor to present and explore with students in future courses.

**Discussion.** The theme *Discussion* had 17 codes attributed of which 7 were perceived to be positive, 3 neutral, and 7 negative. Table 24 lists a key phrase found within the theme of *Discussion* as well as the frequency of positive, negative, and neutral responses.
Table 24.

**Theme: Discussion**

<table>
<thead>
<tr>
<th>Key Phrases</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Used chat sites and discussion forums for student-to student communication</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7 Positive</td>
</tr>
<tr>
<td></td>
<td>3 Neutral</td>
</tr>
<tr>
<td></td>
<td>7 Negative</td>
</tr>
</tbody>
</table>

Response #1061 demonstrates the key phrase from the codebook that was used to guide the coding: “There is nothing better than have something to test someone's understanding of the material. Weekly discussions were helpful as well because it tests to see how much we got from the classes ...” (Response #1061). Based on the analysis, the coded response was attributed to:

Used discussion forums for student-to-student communication.

**Self-test.** The theme *Self-test* had 15 codes attributed of which 9 were perceived as positive, 3 neutral, and 3 negative. Table 25 lists key phrases found within the theme of self-test as well as the frequency of positive, negative, and neutral responses.

Table 25.

**Theme: Self-test**

<table>
<thead>
<tr>
<th>Key Phrases</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students learn how to self-test to identify what has been learned and what has not been learned before an exam is given when they can still do something about it</td>
<td></td>
</tr>
<tr>
<td></td>
<td>9 Positive</td>
</tr>
<tr>
<td></td>
<td>3 Neutral</td>
</tr>
<tr>
<td></td>
<td>3 Negative</td>
</tr>
</tbody>
</table>

The following response demonstrates the key phrase from the codebook.

I am not a student that absorbs an optimal amount of knowledge via online resources. I really appreciate the lecture style of teaching and felt like I learned the most in the lecture part of the course as opposed to the learn smart online assignments … I enjoyed taking the tests when I felt ready after and at times that fit in with my work schedule. I would suggest having more hands on learning inside the classroom vs. learn smart time at the end of class. I feel that learn smarts were most valuable at home when I could spread out with my notes, lab manual, and online text book. Otherwise I think this was a very
interesting course and was definitely very valuable. Studying for the online tests and lab quizzes was challenging but I also know that I truly absorbed the material. (Response #868)

The response indicates that pace and application of knowledge are important to students. However, it is suggested that working in a classroom collaborating and socially are at times preferable to isolation.

*Technology team interaction.* The theme *Technology team interaction* had 14 codes attributed of which 6 were perceived to be positive, 3 neutral, and 5 negative. Table 26 lists a key phrase found within the theme of *Technology team interaction* as well as the frequency of positive, negative, and neutral responses.

Table 26.

<table>
<thead>
<tr>
<th>Theme: Technology Team Interaction</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Key Phrases</strong></td>
<td><strong>Frequency</strong></td>
</tr>
<tr>
<td>Set up teams to interact through email or web-based, synchronized meeting technology</td>
<td>6 Positive</td>
</tr>
<tr>
<td></td>
<td>3 Neutral</td>
</tr>
<tr>
<td></td>
<td>5 Negative</td>
</tr>
</tbody>
</table>

Response #5114 demonstrates the key phrase from the codebook that was used to guide the coding: “More instructors should follow [Professor’s] idea with the ‘Discussion’ aspect of Blackboard. It gives us a way to ask questions (outside of class) and get help from the instructor or our peers. That was well thought-out” (Response #5114). Based on the analysis, the coded response was attributed to: set up teams to interact through email or web-based, synchronized meeting technology.

Technology continually provides opportunities for students to build relationships and knowledge sharing; however, careful planning and structure on the part of the faculty member must be communicated and understood by the students, as the following response reveals:
The collaborative essays in this course were a bit difficult to work with seeing as the class is online and no one really knows each other, it made it difficult only being able to communicate through emails and such. Single person essay submission or online quizzes may be something to consider also. (Response #4551)

It is important to note that, although a student response may be perceived as negative, such as Response #4551, faculty and faculty development professionals may take these opportunities to address these type of concerns accordingly.

_**Peer critique.**_ The theme _Peer critique_ had 11 codes attributed of which 3 were perceived to be positive, 1 neutral, and 7 negative. Table 27 lists key phrases found within the theme of _Peer critique_ as well as the frequency of positive, negative, and neutral responses.

Table 27.

<table>
<thead>
<tr>
<th>Theme: Peer Critique</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Key Phrases</strong></td>
</tr>
<tr>
<td>Used peer critique and editing</td>
</tr>
<tr>
<td>Asked students to evaluate each other’s work</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

Response #2079 demonstrates the key phrase from the codebook that was used to guide the coding:

My only complaint is that the class is split into groups and completes group essays for the final essay; essay, at least in my opinion, are much easier and coherent when written by a single person and is then critiqued in a group. (Response #2079)

Based on the analysis, the coded response was attributed to: used peer critique and editing, as well as, asked students to evaluate each other’s work.
Peer tutoring. The theme Peer tutoring had 3 codes attributed of which 2 were perceived to be neutral and 1 negative. Table 28 lists a key phrase found within the theme of Peer tutoring preparation as well as the frequency of positive, negative, and neutral responses.

Table 28.

<table>
<thead>
<tr>
<th>Theme: Peer Tutoring</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Key Phrases</strong></td>
</tr>
<tr>
<td>Utilized and promoted peer tutoring</td>
</tr>
<tr>
<td><strong>Frequency</strong></td>
</tr>
<tr>
<td>0 Positive</td>
</tr>
<tr>
<td>2 Neutral</td>
</tr>
<tr>
<td>1 Negative</td>
</tr>
</tbody>
</table>

Response #1588 demonstrates the key phrase from the codebook that was used to guide the coding: “My time was more valuable invested in outside resources such as private tutoring, group tutoring, reading the textbook again, etc.” (Response #1588). Based on the analysis, the coded response was attributed to: utilized and promoted peer tutoring.

Good learning involves collaboration and cooperation of a group and/or classroom, as Light (1992) outlined: “Students’ academic performance and satisfaction at college are tied closely to involvement with faculty and other students around substantive work” (p. 18). It is interesting to note that students have articulated that principle by providing actionable items worth considering, as the following response illustrates:

I feel this course was very helpful. I think it could be set up differently. I have discussed with a few other students and we thought it should be a more interactive class. We should go through the powerpoint but then break up into groups. Each group should be given a situation then work together to see how we would care for the patient. This would allow us to take what we are learning and apply it. Then the groups should share their plan and give feedback to other groups. It would allow us to work together and collaborate more, just like we will be doing in the clinical setting. We learn so much in this class about
situations that can occur with the [health profession] process, spirituality, culture, etc. If we were given situations to analyze it would help apply the material we are learning.

(Response #4328)

After graduation the future healthcare professionals will be expected to work with others. Cooperative learning environments should provide learning experiences that students to hone real world skills.

In this context, however, an example of a specific challenge that students encountered regarding collaboration and cooperation was physical classroom space which is not just unique to HCU. Learning to take the social risk of getting to know one’s peers is a legitimate skill. Therefore, using cooperative strategies in the classroom can help maximize student learning outcomes, especially if students are encouraged to work together in creating meaning (Smith, Sheppard, Johnson & Johnson, 2005). As one student responded:

This course I know has improved a lot from past years, but I think it can improve more. To begin with I don’t think this class should be in a lecture room as big as [lecture hall], it needs to be in a smaller setting classroom and I think students will be able to focus more. Also, there is a lot of lecturing going on and I think this course needs to be more about small group discussions and more about actual journal clubs and dissecting the information from clinical trials. Everyone says it is one of the most important courses we will be taking, but the way this class is presented it does not seem as such which is a shame. I think more journal clubs and small group setting discussions are favorable for this class. (Response #3633)

Sorcinell (1991), analyzing the Seven Principles, observed: “The connections between this second principle and the third—Good Practice Encourages Active Learning—are
unmistakable” (p. 16). Furthermore, the author noted, “In many ways, the cooperative learning practices described in the second principle can be seen as a large and important subset of the active learning practices described in the third” (p. 16). The following student response is representative of safe learning environments where ideas and dialogues can be exchanged to strengthen the base of knowledge of the individual student and the class:

The course was set up in such a manner that involved the whole class in a passionate by guided discussion about really important topics based on the material. Personally, this is my favorite way to learn and it also helps the overall feeling of trust and acceptance in the class. (Response #71)

The data suggests that students are most interested in group discussions, including small to large groups. Positive responses like “this class was very interesting as I expected it to be. It has opened my vision to many things that I will need to be aware of in order to make me the best health care provider that I can be” illustrate this point. The student elaborated, “The course allowed us to use personal experiences to help us learn about the current material. I liked that we could be discussion leader for a week” (Response #4475). Even negative responses like the following provide insight into the what students perceive are their expectations which can frame themes for faculty development programming:

I think that the case studies are very interesting and provide a nice break from constant lectures, however I don't think the group aspect is very beneficial as most just work on their own. Maybe a section of class to discuss questions on the case study in place of “case study days” would be better? (Response #807)
**Principle 3 – Encourages active learning.** Good practice of Principle 3 is guided by the belief of Chickering and Gamson (1987) that:

… learning is not a spectator sport. Students do not learn much just by sitting in classes listening to teachers, memorizing pre-packaged assignments, and spitting out answers. They must talk about what they are learning, write about it, relate it to past experiences, and apply it to their daily lives. They must make what they learn part of themselves. (p. 4)

Based on this guidance from Chickering and Gamson (1987), possible evidence of Principle 3 may include but is not limited to: practice role modeling and used web-based case studies to concrete, real life situations to analyze or asked students to relate what they are learning to something in real life; asked students to demonstrate problem-solving strategies during class; and allowed flexibility choosing material so that it is more meaningful to the learner (e.g. students choose their own topic, project format, etc.).

The analysis of Principle 3 yielded eight themes: Encouragse active learning, Out of class/lecture work and help, Real life Simulation software/clicker, Problem solving activities, Challenge ideas, Lab/clinical work, and Presentation. Student perceptions expressed in open-ended responses and categorized as Principle 3: Use active learning techniques are presented in the discussions and tables below.

**Encourages active learning.** The theme Encourages active learning had 505 codes attributed of which 306 were perceived to be positive and 195 neutral. Table 29 lists a key phrase found within the theme of Encourages active learning as well as the frequency of positive, negative, and neutral responses.
Table 29.

Theme: Encourages Active Learning

<table>
<thead>
<tr>
<th>Key Phrases</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Journaling, problem solving activities, students to challenge instructor or peer ideas</td>
<td>306 Positive 195 Neutral 0 Negative</td>
</tr>
</tbody>
</table>

Response #474 is representative of a key phrase from the codebook that was used to guide the coding: “Professor is very knowledgeable about the topics [s/he] was talking about and the clicker questions in the presentations were very helpful in engaging all the students in the large lecture hall” (Response #474). Based on the analysis, the coded response was attributed to: encouraging active learning to solve problems which supports “uses active learning techniques” (Chickering and Gamson, 1987).

Out of class/lecture work and help. The theme Out of class/lecture work and help had 271 codes attributed of which 164 were perceived to be positive, 33 neutral, and 74 negative. Table 30 lists key phrases found within the theme of Out of class/lecture work and help as well as the frequency of positive, negative, and neutral responses.

Table 30.

Theme: Out of Class/Lecture Work and Help

<table>
<thead>
<tr>
<th>Key Phrases</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty and students use out of class time to supplement instruction Stimulate students to think about how and what they are learning and to take more responsibility for own education</td>
<td>164 Positive 33 Neutral 74 Negative</td>
</tr>
</tbody>
</table>

Response #813 is representative of a key phrase from the codebook that was used to guide the coding:

[Course] was very well structured and provided lots of different sources to study from. The structure of the class was a mix of lecture and problem solving, which made the material easy to retain and applicable! We had lectures on tuesdays and problem sets to cover on thursdays so that the material we learned actually stuck well, and the homework
sets were extremely helpful in preparation for the exams because they showed weaknesses that existed (and sometimes we were too proud/shy to acknowledge and address). Special exam preparation sessions were offered before every exam and they were a wonderful way to spend two hours asking all the questions that might seem too simple, and Professor always made the atmosphere comfortable in those sessions. Having Blogs be a part of the course connected outside research and new technology to the topics we were covering, which was very cool! Furthermore, having to watch TED talks for homework was a lot more fun! I really enjoyed the mix of media in which the material was presented to the class. I defineltly learned a lot, and hope to further pursue studying [subject] and its development. Its an awesome field that's growing so fast! (Response #813)

Based on the analysis, the coded response was attributed to: supplemental instruction.

**Real life.** The theme *Real life* had 245 codes attributed of which 209 were perceived to be positive, 12 neutral, and 24 negative. Table 31 lists key phrases found within the theme of *Real life* as well as the frequency of positive, negative, and neutral responses.

Table 31.

<table>
<thead>
<tr>
<th>Theme: Real Life</th>
<th>Key Phrases</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Asked students to relate what they are learning to something in real life</td>
<td>209 Positive</td>
</tr>
<tr>
<td></td>
<td>Gave students concreate, real life situations to analyze</td>
<td>12 Neutral</td>
</tr>
<tr>
<td></td>
<td>Used simulations, role playing, or labs in classes</td>
<td>24 Negative</td>
</tr>
</tbody>
</table>

Response #1015 is representative of a key phrase from the codebook that was used to guide the coding:

The structure of watching lectures at home and then going to class to apply the material in the videos to real world papers helped me immensely in understanding the material. I
feel as if I've actually learned how the [anatomical] system works instead of just memorizing facts to regurgitate for a test and then forget. (Response #1015)

Based on the analysis, the coded response was attributed to: Chickering and Gamson’s (1987) assertion that “active learning is encouraged in classes that use structured exercises, challenging discussions, team projects and peer critques” (p. 4).

**Simulation software/clicker.** The theme *Simulation software/clicker* had 210 codes attributed of which 139 were perceived to be positive, 34 neutral, and 37 negative. Table 32 lists key phrases found within the theme of *Simulation software/clicker* as well as the frequency of positive, negative, and neutral responses.

<table>
<thead>
<tr>
<th>Key Phrases</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Used simulation software to run ‘what-if’ scenarios allows students to manipulate variables and circumstances</td>
<td>139 Positive</td>
</tr>
<tr>
<td>Practiced role modeling and used web-based case studies to practice new thinking skills</td>
<td>34 Neutral</td>
</tr>
<tr>
<td>Technology increased interest in course</td>
<td>37 Negative</td>
</tr>
</tbody>
</table>

Response #106 is representative of a key phrase from the codebook that was used to guide the coding: “Lectures were kind of boring. I would recommend maybe using videos, pictures, etc. as examples because taking notes the whole class, every class hurt my brain and hand” (Response #106). Based on the analysis, the coded response was negatively attributed to: technology increased interest in course.

**Problem solving activities.** The theme *Problem solving activities* had 191 codes attributed of which 124 were perceived to be positive, 28 neutral, and 39 negative. Table 33 lists key phrases found within the theme of *Problem solving activities* as well as the frequency of positive, negative, and neutral responses.
Table 33.

**Theme: Problem Solving Activities**

<table>
<thead>
<tr>
<th>Key Phrases</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set up problem solving activities in small groups and had each group discuss their solutions with the class</td>
<td>124 Positive</td>
</tr>
<tr>
<td>Asked students to demonstrate problem solving strategies during class</td>
<td>28 Neutral</td>
</tr>
<tr>
<td></td>
<td>39 Negative</td>
</tr>
</tbody>
</table>

Response #1457 is representative of a key phrase from the codebook that was used to guide the coding: “The instructor is very interactive with the class. I like the fact that [the Professor] lets us work out some of the examples in order for us to know where our mistakes are” (Response #1457). Based on the analysis, the coded response was attributed to: asked students to demonstrate problem solving strategies during class. Active learning is best achieved when students participate in their learning process. The instructor allowing students to work through problems or scenarios in class, together with peers and faculty, supports Chickering and Gamson’s (1987) idea that a principle of good practice is using and encouraging active learning techniques.

**Challenges ideas.** The theme Challenges ideas had 120 codes attributed of which 72 were perceived to be positive, 3 neutral, and 45 negative. Table 34 lists key phrases found within the theme of Challenges ideas as well as the frequency of positive, negative, and neutral responses.

Table 34.

**Theme: Challenging Ideas**

<table>
<thead>
<tr>
<th>Key Phrases</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Encouraged students to challenge instructor and/or student ideas or those presented in readings or other materials</td>
<td>72 Positive</td>
</tr>
<tr>
<td>Allowed flexibility in choosing material so that it is more meaningful to the learner</td>
<td>3 Neutral</td>
</tr>
<tr>
<td></td>
<td>45 Negative</td>
</tr>
</tbody>
</table>

Response #136 is representative of a key phrase from the codebook that was used to guide the coding:
This course was extremely interesting and I loved how it was laid out. We were expected to read chapters on our own time and instead of being lectured, it was set up as more of a discussion and debate. We got to actively learn the material and apply it to different scenarios and see how different individuals think and act because of how they were brought up and developed over the years. This is definitely one of my favorite courses I've taken here. (Response #136)

Based on the analysis, the coded response was attributed to allowed flexibility.

**Lab/clinical work.** The theme *Lab/clinical work* had 73 codes attributed of which 35 were perceived to be positive, 24 neutral, and 14 negative. Table 35 lists a key phrase found within the theme of *Lab/clinical work* as well as the frequency of positive, negative, and neutral responses.

Table 35.

<table>
<thead>
<tr>
<th>Theme: Lab/Clinical Work</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Key Phrases</strong></td>
</tr>
<tr>
<td>Used lab work and clinical opportunities</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

Response #2199 is representative of a key phrase from the codebook that was used to guide the coding:

Professor made the course interesting by sending us to places like the BPL [Boston Public Library] or the MFA [Museum of Fine Arts] to base papers off of. It was great to get out of the classroom every now and then. (Response #2199)

Based on the analysis, the coded response was attributed to: not allowing learning to be a spectator sport or passive experience. Chickering and Gamson (1987) asserted that “students do
not learn much just by sitting in classes listening to teachers, memorizing pre-packaged assignments and spitting out answers” (p. 4).

**Presentation.** The theme *Presentation* had 32 codes attributed of which 18 were perceived to be positive, 9 neutral, and 5 negative. Table 36 lists a key phrase found within the theme of *Presentation* as well as the frequency of positive, negative, and neutral responses.

Table 36.

*Theme: Presentation*

<table>
<thead>
<tr>
<th>Key Phrases</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asked students to present their work to the class</td>
<td>18 Positive</td>
</tr>
<tr>
<td></td>
<td>9 Neutral</td>
</tr>
<tr>
<td></td>
<td>5 Negative</td>
</tr>
</tbody>
</table>

Response #3327 is representative of a key phrase from the codebook that was used to guide the coding: “Structure of the course is wonderful. Having us students present the material is good practice for those entering the professional world” (Response #3327). Based on the analysis, the coded response was attributed to: asked students to present work to the class.

Teaching and learning should not be thought of as a passive activity. Learning, regardless of the setting of instruction, should be interactive and applicable, as the following response delineates:

I think the structure of this course could be improved. Three hours is a really long time to just sit and listen. I think we could have benefitted from group work. If we had split into groups and worked on different patient scenarios applying the [health profession] process or dealing with different cultural situations, I think would have learned much more from this course. (Response #4325)
Active learning may be an individual or cooperative activity which is simply defined as the ability of a student to learn new subject matter, then think critically about a problem and solve it without the assistance of an instructor.

Professor is great, [professor] explains complicated concepts in class often more than once and in more than one way. [Professor] always answers our questions in a way that we understand an [the professor’s] methods really help to reinforce the material, such as asking us what we think will happen before giving us the answer. It feels less like a lecture and more like an open dialogue between [the professor] and us. The exams are fair, and [the professor] was always willing to help in office hours if I didn’t understand something. (Response #3418)

As Sorcinelli (1991) noted, “research indicates that teaching methods that encourage student activity and involvement, especially student-to-student interaction, are highly likely to be superior to more passive methods when higher-level cognitive or active learning is the goal” (p. 18). The student response below provides evidence that students are encouraging faculty to challenge them to engage in collaboration and critical examination in the learning environment. As the student stated:

This course is missing the point. I think the point is not to become [healthcare specialist] in a couple of months. I think we should have learned half what we did. The idea should've been to tell us “hey, there is a whole world of [subject], here is what it is ...” I think at this point, as seniors, we're done with this idea of memorizing a lot of informations just for the sake of it, we're more about understanding what is there and the interactions between things. For example, know i'm also taking [special topics course] with Professor. We could've learned 10X more mechanisms and pathways on … but it
wouldn't have done us any more good than when learning the handful of mechanisms we did learn. I would've just taken more time, energy, and made it so boring. I think the class could've been so much more fun and less dry (the driest course I'm taking now) if we were to less memorizing and more understanding and interactions. Some ideas for future classes: (after getting rid of half the material): 1. Each week students learn about 1-2 [special topics] (Monday), then break into groups in the next class (Wed) and discuss something about the parasites they've learned (new study, news article, case study, ..etc) 2. Doing presentations only one time per student, instead of 2. you know, just spending more time thinking, analyzing, talking and sharing ideas, applying what we're learning.. that is real knowledge, it's not about memorizing a lot and then forget everything after the course (that's what's going to happen BTW). (Response #1079)

Astin (1993) suggested that the term active implies more involved and engaged styles of learning as opposed to passive styles such as large hall lecturing and text book reading. Therefore, the goal of active learning is to involve students in diverse activities that encourage their involvement in course content or require that they initiate the formation and development of their own learning. Access to multimedia materials outside of class helps students feel less besieged by course content, and they learn the material better (Krygier, Reeves, DiBiase, Cupp, 1997). Technology supports the ability for students to cover material at their own pace, to skip material they already know, or to explore topics they are interested in (Cates, 1992).

The student response below, meanwhile, emphasizes that technology provides faculty and student opportunities to interact with content during teaching and learning activities, as well as to conduct self-evaluation and peer review. “[The professor] was good at explaining the processes to allow students to follow the lecture. [The professor] used videos that recapped the complex
information and clicker questions that allowed students to reflect on previously learned information” (Response #4472).

Student response addressing Principle 3 attributed overwhelmingly that students perceive active learning as an important element of good practice. Positive responses like the instructor is very helpful, and available to reach by email and office hours, or by appointments illustrate this, as in the following answer:

[The Professor] explains things very well to the class, and provide the class with various videos, personal life experience, research papers, and class activities to help us learn the material (Response #16) and negative responses like not all that participatory. [The Professor] got the information across but entirely through solely powerpoints. (Response #2341)

This example provides a view of the perceptions of student expectations, as well as insights into topics for faculty development initiatives. Assessment of student active learning can be evidenced by their level of analyzing problems, as well as the level and measurement of engagement in learning activities.

**Principle 4 – Give prompt feedback.** Good practice of Principle 4 is guided by the assertions of Chickering and Gamson (1987) that

… knowing what you know and don’t know focuses learning. Students need appropriate feedback on performance to benefit from courses. When getting started, students need help in assessing existing knowledge and competence. In classes, students need frequent opportunities to perform and receive suggestions for improvement. At various points during college, and at the end, students need chances to reflect on what they have learned, what they still need to know, and how to assess themselves. (p. 4)
Based on this guidance from Chickering and Gamson (1987), possible evidence of Principle 4 may include but is not limited to: varied assessment techniques (tests, papers journaling, quizzes); provided informative comments that show the students’ errors and give suggestions on how one can improve; returned grades for assignments, projects, and tests within one week; and instructor responded promptly to student questions.

The analysis of Principle 4 yielded six themes: *Question and answer session, Varied techniques, Prompt response, Informative comments, Prompt return, and Post answers*. Student perceptions expressed in open-ended responses and categorized as Principle 4: Give Prompt Feedback are presented in the discussions and tables below.

*Question and answer session.* The theme *Question and answer session* had 537 codes attributed of which 381 were perceived to be positive, 17 neutral, and 139 negative. Table 37 lists a key phrase found within the theme of *Question and answer session* as well as the frequency of positive, negative, and neutral responses.

Table 37.

<table>
<thead>
<tr>
<th>Theme: Question and Answer Session</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Key Phrases</strong></td>
</tr>
<tr>
<td>Had question and answer sessions (in-person or online)</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

Response #2440 is representative of a key phrase from the codebook that was used to guide the coding: “I liked how you would ask for feedback or opinions from the students to help further develop what was being learned that day in class” (Response #2440). Based on the analysis, the coded response supports Chickering and Gamson’s (1987) claim that giving prompt feedback is good practice. Student and faculty who participate in and are receptive to timely feedback can enhance and accelerate teaching and learning.
Varied techniques. The theme Varied techniques had 466 codes attributed of which 151 were perceived to be positive, 35 neutral, and 280 negative. Table 38 lists key phrases found within the theme of Varied techniques as well as the frequency of positive, negative, and neutral responses.

Table 38.

**Theme: Varied Techniques**

<table>
<thead>
<tr>
<th>Key Phrases</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Varied assessment techniques (tests, papers, journaling, quizzes)</td>
<td>151 Positive</td>
</tr>
<tr>
<td>Offered online testing, software simulations, and web-based programs for</td>
<td>35 Neutral</td>
</tr>
<tr>
<td>instantaneous feedback</td>
<td>280 Negative</td>
</tr>
</tbody>
</table>

Response #5153 is representative of a key phrase from the codebook that was used to guide the coding: “Very knowledgeable of the material. The in-class clicker questions and the self-test quizzes on blackboard were helpful for gaining a deeper understanding of the material” (Response #5153). Based on the analysis, the coded response was attributed to: offered online testing, software simulations, and web-based programs for instantaneous feedback.

Response #4710 is representative of a key phrase from the codebook that was used to guide the coding: “I enjoyed this course, I learned a lot about the history of [the subject] and various [subject] theories that help guide our practice. The presentations and papers enhanced my learning and made me think outside the box” (Response #4710). Based on the analysis, the coded response was attributed to: varied assessment techniques.

Prompt response. The theme Prompt response had 239 codes attributed of which 168 were perceived to be positive, 3 neutral, and 68 negative. Table 39 lists a key phrase found within the theme of Prompt response as well as the frequency of positive, negative, and neutral responses.
Table 39.

*Theme: Prompt Response*

<table>
<thead>
<tr>
<th>Key Phrases</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructor responded promptly to questions</td>
<td>168 Positive</td>
</tr>
<tr>
<td></td>
<td>3 Neutral</td>
</tr>
<tr>
<td></td>
<td>68 Negative</td>
</tr>
</tbody>
</table>

Response #4208 is representative of a key phrase from the codebook that was used to guide the coding

Professor is a true delight! I honestly wish [they] taught the classes for the major. [The Professor] is so encouraging and you can tell [s/he] wants every single student that [s/he] has to succeed. Seeing professors permanent smile plastered on [their] face made it hard for me not to smile, be happy, and enjoy my time in his class. As a new professor to the university [s/he] was always looking for feedback and in constant contact with us via email and blackboard. Professor is a great addition to HCU and it was a pleasure having [them] as a professor! (Response #4208)

Based on the analysis, the coded response was attributed to: instructor responded promptly to questions. Chickering and Gamson (1987) stated that students need appropriate feedback in order to benefit from instruction.

*Informative comments.* The theme *Informative comments* had 171 codes attributed of which 114 were perceived to be positive, 4 neutral, and 53 negative. Table 40 lists key phrases found within the theme of *Informative comments* as well as the frequency of positive, negative, and neutral responses.
Table 40.

**Theme: Informative Comments**

<table>
<thead>
<tr>
<th>Key Phrases</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provided informative comments that show students’ errors and give suggestions for improvement</td>
<td>114 Positive</td>
</tr>
<tr>
<td>Comments student work, for example: on lecture notes, reading journals and lab assignments</td>
<td>4 Neutral</td>
</tr>
<tr>
<td></td>
<td>53 Negative</td>
</tr>
</tbody>
</table>

Response #2022 is representative of a key phrase from the codebook that was used to guide the coding:

Professor was a good instructor. Some of the topics took a long time to go over which I feel could have been shorten. [Professor] was quick to get back to emails and offers options to gain extra points on your essay. A good grader, [s/he] adds a lot of feed back on essay which is very helpful when it comes to writing the final paper. (Response #2022)

The response supports the belief “when getting started, students need help in assessing existing knowledge and competence” (Chickering and Gamson, 1987, p. 4).

**Prompt return.** The theme *Prompt return* had 57 codes attributed of which 14 were perceived to be positive, 2 neutral, and 41 negative. Table 41 lists a key phrase found within the theme of prompt return as well as the frequency of positive, negative, and neutral responses.

Table 41.

**Theme: Prompt Return**

<table>
<thead>
<tr>
<th>Key Phrases</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Returned grades, examinations, projects, papers and any other assignments within one week</td>
<td>14 Positive</td>
</tr>
<tr>
<td></td>
<td>2 Neutral</td>
</tr>
<tr>
<td></td>
<td>41 Negative</td>
</tr>
</tbody>
</table>

Response #2253 is representative of a key phrase from the codebook that was used to guide the coding: “I have not yet received a single final graded assignment at all since the beginning of the year. I have no idea what my grade in the class is” (Response #2253). Based on
the analysis, the coded response was negatively attributed to: returned grades, examinations, projects, papers and any other assignments within one week.

*Post answers.* The theme *Post answers* had 39 codes attributed of which 11 were perceived to be positive, 5 neutral, and 23 negative. Table 42 lists a key phrase found within the theme of *Post answers* as well as the frequency of positive, negative, and neutral responses.

Table 42.

*Theme: Post Answers*

<table>
<thead>
<tr>
<th>Key Phrases</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Posted answer keys after receiving assignments from all students</td>
<td>11 Positive</td>
</tr>
<tr>
<td></td>
<td>5 Neutral</td>
</tr>
<tr>
<td></td>
<td>23 Negative</td>
</tr>
</tbody>
</table>

Response #4950 is representative of a key phrase from the codebook that was used to guide the coding:

A lot of your slides had fill ins that were to be completed in class, however, at times it was hard to read your written comments. You should always post the fill ins after the lectures, in case some of us want to double check our write ins. I haven't seen your typed fill ins yet. (Response #4950)

Based on the analysis, the coded response was negatively attributed to: posted answer keys after receiving assignments from all students.

Feedback, whether it be from group or classroom interaction or in the form of oral or written (by hand or on a screen), is powerful but at times overlooked. “Never got to see grades so was always unsure on how I was doing” (Response #2075).

Sorcinelli (1991) found that “the most significant conclusion to be reached from research on innovative teaching methods is that the immediate, corrective, and supportive feedback is central to learning” (p. 19). This response illustrates effective practice of posting answers:
[Professor] took time to communicate with individual students through [the professor’s] office hours on Tuesdays and Thursdays from 1:45-2:45. I went to [the professor’s] office hours and [the professor] pointed out the strong points and the weak points of my essays which helped me develop a stronger essay. In class, [the professor] made an open environment for students to participate in various class discussion topics. I like how [the professor] accepted all of the ideas brought up by the students which encouraged more students to share their thoughts during class. Overall, Professor is a very friendly teacher who is passionate about the [subject] and I enjoyed taking [Subject]. (Response #2298)

Frequent assessments that include immediate feedback, as well as evidence that students have mastered the subject matter before moving forward, constitute the basis for good practice of Principle 4, as this response reveals:

It is obvious that Professor is passionate about [subject] which makes a class that many may be initially turned off by so worth staying in. [Professor] is an excellent source of information and [the professor’s] knowledge on the subject really adds to class discussions and helps to clarify any questions we may come across while reading. The books [the professor] choose were very interesting and definitely helped me to be more aware of world cultures and how they view love now and throughout history. [The professor] is very helpful when it comes to writing essays, and is very timely when responding to emails. Professor is great and really knows [the professor’s] stuff. (Response #1920)

Student response data supports that giving prompt and appropriate feedback is attributed to good teaching practice. Positive responses like “[the professor] makes [themselves] available to discuss course work and offers constructive criticism making success very attainable” (Response #2257) and negative responses like “students should be allowed to see their [exam] or
a substitute version so we can know exactly what we are doing wrong instead of just guessing he
mistake we’ve made” (Response #1436) provide some perceptions of student expectations, as
well as insights into topics for faculty development initiatives.

**Principle 5 – Emphasize time on task.** Good practice of Principle 5 is guided by the
belief of Chickering and Gamson (1987) that:

… time plus energy equals learning. There is no substitute for time on task learning to
use one's time well is critical for students and professionals alike. Students need help in
learning effective time management. Allocating realistic amounts of time means effective
learning for students and effective teaching for faculty. How an institution defines time
expectations for students, faculty, administrators, and other professional staff can
establish the basis for high performance for all. (p. 4)

Based on this guidance from Chickering and Gamson (1987), possible evidence of Principle 5
may include but is not limited to: had realistic expectations; attendance policy; taught and
modeled time management; and course was well organized.

The analysis of Principle 5 yielded seven themes: Instructor facilitated effectively, Time
on task is real learning, Pace, Realistic expectations, Organized, Modeled time management,
and Policies for attendance and late work. Student perceptions expressed in open-ended
responses and categorized as Principle 5: Emphasizes time on task are presented in the
discussions and tables below.

**Instructor facilitated effectively.** The theme Instructor facilitated effectively had 1,985
codes attributed of which 994 were perceived to be positive, 90 neutral, and 901 negative. Table
43 lists a key phrase found within the theme of Instructor facilitated effectively as well as the
frequency of positive, negative, and neutral responses.
Table 43.

**Theme: Instructor Facilitated Effectively**

<table>
<thead>
<tr>
<th>Key Phrases</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructor facilitated the course effectively</td>
<td>994 Positive</td>
</tr>
<tr>
<td></td>
<td>90 Neutral</td>
</tr>
<tr>
<td></td>
<td>901 Negative</td>
</tr>
</tbody>
</table>

Response #1167 is representative of a key phrase from the codebook that was used to guide the coding:

> Our professor clearly states our expectations within the syllabus, and [s/he] communicates the subject well with lots of in class examples and explanations. When we do clicker questions [the Professor] walks around the room in case anyone is confused or needs help. In addition, when it comes to our exams [the Professor] provides practice tests which usually help! (Response #1167)

Based on the analysis, the coded response was attributed to: instructor facilitated the course effectively. Effective facilitation of teaching and learning for students supports Chickering and Gamson’s (1987) Principle 5: *Emphasizes time on task.*

*Time on task is real learning.* The theme *Time on task is real learning* had 1,010 codes attributed of which 582 were perceived to be positive, 36 neutral, and 392 negative. Table 44 lists key phrases found within the theme of *Time on task is real learning* as well as the frequency of positive, negative, and neutral responses.

Table 44.

**Theme: Time on Task is Real Learning**

<table>
<thead>
<tr>
<th>Key Phrases</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expected students to complete their assignments promptly</td>
<td>582 Positive</td>
</tr>
<tr>
<td>Clearly communicated to students the minimum amount of time they should spend preparing for class and working on assignments</td>
<td>36 Neutral</td>
</tr>
<tr>
<td>Careful and mindful that time on task is real learning, not busy work</td>
<td>392 Negative</td>
</tr>
</tbody>
</table>
Response #4495 is representative of a key phrase from the codebook that was used to guide the coding: “[The Professor] showed [s/he] is passionate about [the subject] by sending us relevant news articles and videos about the topics we were reading about. I found these really helpful for connecting the textbook to the real world” (Response #4495). Based on the analysis, the coded response was attributed to: careful and mindful.

**Pace.** The theme *Pace* had 493 codes attributed of which 138 were perceived to be positive, 8 neutral, and 347 negative. Table 45 lists key phrases found within the theme of *Pace* as well as the frequency of positive, negative, and neutral responses.

Table 45.

*Theme: Pace*

<table>
<thead>
<tr>
<th>Key Phrases</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture too fast or too slowly</td>
<td>138 Positive</td>
</tr>
<tr>
<td>Clear and efficient interactions</td>
<td>8 Neutral</td>
</tr>
<tr>
<td></td>
<td>347 Negative</td>
</tr>
</tbody>
</table>

Response #689 is representative of a key phrase from the codebook that was used to guide the coding:

I love the way [the professor] teaches. Pauses to give time to take notes, and is very clear on the material. [The Professor] does not just read off the presentation, which makes it easy to learn because [the Professor] teaches as though [we are] having a normal conversation, which makes the concepts easier to understand. (Response #689)

Based on the analysis, the coded response was attributed to: pace.

**Realistic expectations.** The theme *Realistic expectations* had 462 codes attributed of which 212 were perceived to be positive, 14 neutral, and 236 negative. Table 46 lists key phrases found within the theme of *Realistic expectations* as well as the frequency of positive, negative, and neutral responses.
Table 46.

**Theme: Realistic Expectations**

<table>
<thead>
<tr>
<th>Key Phrases</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Had realistic expectations</td>
<td>212 Positive</td>
</tr>
<tr>
<td>Understand that there may be problems with classroom and distance technology</td>
<td>236 Negative</td>
</tr>
<tr>
<td>Instructor knowing what goals of the course are and that the learners understand them as well</td>
<td>14 Neutral</td>
</tr>
</tbody>
</table>

Response #2035 is representative of a key phrase from the codebook that was used to guide the coding: “Course has a good amount of assignments, and an excellent structure for due-dates. The week to revise the first draft really allows students to take time with their writing” (Response #2035). Based on the analysis, the coded response was attributed to: had realistic expectations. The response supports the statement by Chickering and Gamson (1987) that “allocating realistic amounts of time means effective learning for student and effective teaching for faculty” (p.4).

**Organized.** The theme Organized had 345 codes attributed of which 127 were perceived to be positive and 218 negative. Table 47 lists key phrases found within the theme of Organized as well as the frequency of positive, negative, and neutral responses.

Table 47.

**Theme: Organized**

<table>
<thead>
<tr>
<th>Key Phrases</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course was well organized</td>
<td>127 Positive</td>
</tr>
<tr>
<td>Detailed and efficient learning environment</td>
<td>0 Neutral</td>
</tr>
<tr>
<td></td>
<td>218 Negative</td>
</tr>
</tbody>
</table>

Response #2553 is representative of a key phrase from the codebook that was used to guide the coding:

Professor structured the notes and lectures for this class in such a way that it was very clear and organized. I found that very likable because organization helps the student be
organized as well. The lectures, documents, and videos were categorized by topic in blackboard and it was wonderful to see an organized professor.” (Response #2553)

Based on the analysis, the coded response was attributed to: course was well organized and detailed and efficient learning environment.

**Modeled time management.** The theme *Modeled time management* had 93 codes attributed of which 23 were perceived to be positive, 2 neutral, and 68 negative. Table 48 lists a key phrase found within the theme of *Modeled time management* as well as the frequency of positive, negative, and neutral responses.

Table 48.

*Theme: Modeled Time Management*

<table>
<thead>
<tr>
<th>Key Phrases</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taught and modeled time management</td>
<td>23 Positive</td>
</tr>
<tr>
<td></td>
<td>2 Neutral</td>
</tr>
<tr>
<td></td>
<td>68 Negative</td>
</tr>
</tbody>
</table>

Response #1076 is representative of a key phrase from the codebook that was used to guide the coding:

Even though we covered a lot of material, [the Professor] explained everything really well. Even during class when [the Professor] couldn't finish a lecture on time, [s/he] always posted the rest of the lecture online in a very timely manner (which can't be said for all professors!). Besides that, [the Professor] was very patient in explaining the material, which was great for me because there was a lot to learn. I truly enjoyed being [a] student. (Response #1076)

Based on the analysis, the coded response was attributed to: taught and modeled time management. This comment allows for understanding of and practical implications for how technology may aid in the effective use of time for instruction and enhanced learning.
Policies for attendance and late work. The theme Policies for attendance and late work had 24 codes attributed of which 4 were perceived to be positive, 4 neutral, and 16 negative.

Table 49 lists key phrases found within the theme of Policies for attendance and late work as well as the frequency of positive, negative, and neutral responses.

Table 49.

*Theme: Policies for Attendance and Late Work*

<table>
<thead>
<tr>
<th>Key Phrases</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attendance policies</td>
<td>4 Positive</td>
</tr>
<tr>
<td>Policies for late work</td>
<td>4 Neutral</td>
</tr>
<tr>
<td></td>
<td>16 Negative</td>
</tr>
</tbody>
</table>

Response #4597 is representative of a key phrase from the codebook that was used to guide the coding:

Professor was extremely helpful in all situations that I needed it. [The Professor] allows small extensions on the homework/quiz in case of emergency. [S/he] also checks in with you to make sure everything is ok if [they] notices you received a bad grade on a homework or quiz. (Response #4597)

Based on the analysis, the coded response was attributed to attendance policies and policies for late work.

Advising a student to read more and study more is not effective if the time spent on the task is not real learning and if the appropriate study and time management skills are not available to the students. The following response illustrates this:

I truly enjoyed the way the course was taught with a combination of recorded videos from the professor, in class lectures, and case studies to apply the material we learned. This combination forced you to review often in which when the exams were coming up, you would not be stressed because you were preparing for this. It also helps that
Professor is a very knowledgeable and helpful so when in need, [the professor] will always be there for you, unlike some teachers who will not have the time of day for you. I recommend every student to take this class, because for one-the material was astonishing; and two-Professor is a great teacher. (Response # 975)

Sorcinelli (1991) commented that the research regarding this principle includes:

The myriad decisions teachers must make in this arena - time allocation, time management, time on task - all affect student learning. The general consensus of research is that the more time students are engaged in learning, the greater the amount of their learning” (pp. 19-20).

This response aligns with Sorcinelli’s (1991) assertions:

Professor is, without doubt, one of the most passionate and knowledgeable professors at this University. [The professor] brings and enthusiasm to the subjects that I haven’t seen matched by any other instructor. [The professor] structures [the professor’s] enthusiasm into insightful, captivating, and engaging lectures that, I fell, I have learned a great deal from as as student, as a future healthcare provider, and as a person). When students are struggling, [the professor] slows down and helps he class to break the problem down and parallels it to easier-to-understand examples. Professor creates a very safe, fun, and welcoming environment to learn and engage in discussion-and [the professor’s] door is always open. [The professor’s] class has not only expanding my knowledge of the principles and problems of [healthcare subject], but I feel it has also prepared me for my career as a healthcare provider ahead and has encouraged me to think differently on a multitude of topics. (Response #2679)

Student response data support that good practice of undergraduate teaching emphasizes time on task and defined time expectations.
Positive and negative responses like the two outlined below provide some perceptions of student expectations, as well as insights into topics for faculty development initiatives. As a student described in their positive response:

this was my first time experiencing the flipped classroom, and I actually really liked it, and felt that it was beneficial for [the subject]. Watching the pre-lecture videos and then doing problems and discussing in class really helped me grasp the concept. The course was structured well, and I enjoyed it.” (Response #1608)

And, the negative response also revealed important information: “I found that going to lecture made me more confused because the Professor would go on long tangents that did not relate to the reading and I was completely lost” (Response #1664).

**Principle 6 – Communicates high expectations.** Good practice of Principle 6 is guided by the belief of Chickering and Gamson (1987) that if you “expect more and you will get more” (p. 4). Indeed, the authors clearly indicated:

High expectations are important for everyone—for the poorly prepared, for those unwilling to exert themselves, and for the bright and well-motivated. Expecting students to perform well becomes a self-fulfilling prophecy when teachers and institutions hold high expectations of themselves and make extra efforts. (pp. 4-5)

Based on this guidance from Chickering and Gamson (1987), possible evidence of Principle 6 may include but is not limited to: detailed syllabus with assignments, due dates, and a grading rubric; extra credit activities; set up study guidelines; instructor is knowledgeable; and suggested extra resources.

The analysis of Principle 6 yielded ten themes: *Enthusiastic/cares, Knowledgeable, Organized/structured, Suggested extra resources, Readings and examples, Detailed syllabus,*...
**Consistent, Study guides, Levels of challenge, Extra credit, and Assessment.** Student perceptions expressed in open-ended responses and categorized as Principle 6: *Communicates high expectations* are presented in the discussions and tables below.

*Enthusiastic/cares.* The theme *Enthusiastic/cares* had 937 codes attributed of which 796 were perceived to be positive, 6 neutral, and 135 negative. Table 50 lists key phrases found within the theme of *Enthusiastic/cares* as well as the frequency of positive, negative, and neutral responses.

**Table 50.**

**Theme: Enthusiastic/Cares**

<table>
<thead>
<tr>
<th>Key Phrases</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Encouraged students to excel at the work they do</td>
<td>796 Positive</td>
</tr>
<tr>
<td>Helped students set challenging goals for their own learning</td>
<td>6 Neutral</td>
</tr>
<tr>
<td>Explained to students that everyone works at different levels and they should strive to put forth their best effort, regardless of what level it is</td>
<td>135 Negative</td>
</tr>
</tbody>
</table>

Response #84 is representative of a key phrase from the codebook that was used to guide the coding:

I enjoyed this class mostly because Professor really cares about [their] students.

[Professor] was willing to help me find sources for my research paper from other databases if i did not have / couldn't find access. I appreciate [the] honesty in class and [the] enthusiasm for [the subject]. I think this class taught me more than i have learned in other [like] classes and how to apply this course to future patients as a health care [professional]. I frankly do not see why this class is not a pre-req. I think this class is very valuable to all students at HCU. it helps us understand … how we can understand patients not only through science but through their emotions and sympathy. I loved this class and [the professor] taught me a lot about [the subject] but life as well. this is course i will never forget! (Response #84)
Based on the analysis, the coded response was attributed to: encouraged students to excel at the work they do through faculty enthusiasm and caring.

Response #28 is representative of a key phrase from the codebook that was used to guide the coding:

Professor is the only professor I've had at HCU who genuinely cares for students as people, not just as pupils. Multiple times during the semester, [the Professor] offered [themselves] to us on a more personal level in an effort to actually get to know us, and it really made this class special. [S/he] even had a mid semester evaluation of the course to allow us to tell [them] what we wanted to do more of in class in order to help us feel more engaged in the material. [The] assignments are creative and [s/he] has more enthusiasm for [the] subject than any other professor has had for their respective subject. Professor is hands down the BEST professor I've had out of the four years I've been in college, at HCU or otherwise. (Response #28)

Based on the analysis, the coded response was attributed to: explained to students that everyone works at different levels and they should strive to put forth their best effort, regardless of what level it is. The response supports the notion of “expect more and you will get more” (Chickering and Gamson 1987, p.4).

Knowledgeable. The theme Knowledgeable had 576 codes attributed of which 489 were perceived to be positive, 8 neutral, and 79 negative. Table 51 lists a key phrase found within the theme of Knowledgeable as well as the frequency of positive, negative, and neutral responses.
Table 51.

Theme: Knowledgeable

<table>
<thead>
<tr>
<th>Key Phrases</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exhibit and model academic performance and behavior</td>
<td>489 Positive</td>
</tr>
<tr>
<td></td>
<td>8 Neutral</td>
</tr>
<tr>
<td></td>
<td>79 Negative</td>
</tr>
</tbody>
</table>

Response #1974 is representative of a key phrase from the codebook that was used to guide the coding:

Hands down one of the most influential professors I have had this far in my college career. I appreciated so much having such an inspirational professor with the knowledge and passion that [s/he] does. [The Professor] made this course extremely interesting and I truly do not think I would have enjoyed it so much with someone else. I think that a lot of students at this school dread classes like this. Many people believe that because it isn't a science it will not mean anything to them in their careers long term. I think that professor proved to the people of this class that we will use the concepts taught in this course throughout our lives. Truly appreciated this course all because of [this professor]!!!

(Response #1974)

Based on the analysis, the coded response was attributed to: exhibit and model academic performance and behavior. Students perform when faculty successfully exhibit knowledge and positively communicate high expectations for the course and of the student.

Organized/structured. The theme Organized/structured had 539 codes attributed of which 252 were perceived to be positive, 9 neutral, and 278 negative. Table 52 lists a key phrase found within the theme of Organized/structured as well as the frequency of positive, negative, and neutral responses.
Table 52.

**Theme: Organized/Structured**

<table>
<thead>
<tr>
<th>Key Phrases</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understandable technology design and instructional materials (well-thought-</td>
<td>252 Positive</td>
</tr>
<tr>
<td>out, systematized)</td>
<td>9 Neutral</td>
</tr>
<tr>
<td></td>
<td>278 Negative</td>
</tr>
</tbody>
</table>

Response #992 is representative of a key phrase from the codebook that was used to guide the coding:

I loved the way this course was structured. Professor went through all of the mechanisms that can bring about [disease] slowly and thoroughly and provided lots of visual representations which helped me learn the material better. I also enjoyed doing case studies in which I could apply what I have learned. (Response #992)

Based on the analysis, the coded response was attributed to well-thought-out, systemized course design.

**Suggested extra resources, readings and examples.** The theme *Suggested extra resources, readings and examples* had 296 codes attributed of which 182 were perceived to be positive, 26 neutral, and 88 negative. Table 53 lists key phrases found within the theme of *Suggested extra resources, readings and examples* as well as the frequency of positive, negative, and neutral responses.

Table 53.

**Theme: Suggested Extra Resources, Readings and Examples**

<table>
<thead>
<tr>
<th>Key Phrases</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suggested extra resources that support key points</td>
<td>182 Positive</td>
</tr>
<tr>
<td>Suggested extra reading or writing tasks</td>
<td>26 Neutral</td>
</tr>
<tr>
<td>Instructor used good examples to explain concepts</td>
<td>88 Negative</td>
</tr>
</tbody>
</table>

Response #4081 is representative of a key phrase from the codebook that was used to guide the coding:
Professor was very knowledgeable in the subject. [S/he] was also very helpful with all aspects of the material. I would take another class with [them] and feel confident with the help I would receive. [Professor] has also helped to show me more options that I have when I graduate and appreciate [the] help greatly. (Response #4081)

Based on the analysis, the coded response was attributed to: suggested extra resources on the students post graduate opportunities.

**Detailed syllabus.** The theme *Detailed syllabus* had 296 codes attributed of which 97 were perceived to be positive, 25 neutral, and 174 negative. Table 54 lists a key phrase found within the theme of *Detailed syllabus* as well as the frequency of positive, negative, and neutral responses.

Table 54

<table>
<thead>
<tr>
<th>Theme: Detailed Syllabus</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Key Phrases</strong></td>
<td></td>
</tr>
</tbody>
</table>
| Gave detailed syllabus with assignments, due dates, and a grading rubric | 97 Positive  
25 Neutral  
174 Negative |

Response #948 is representative of a key phrase from the codebook that was used to guide the coding:

While the material was applicable and relevant to modern society and our career paths, I felt like the course needed slightly more guidance. At times it felt like I had no idea what we were supposed to be covering and the syllabus and BlackBoard documents would be somewhat confusing. For future classes I would recommend grouping topics under a specific topic and making it more clear on the syllabus what we were covering and when.

(Response #948)
Based on the analysis, the coded response was negatively attributed to: gave detailed syllabus with assignments, due dates, and a grading rubric. However, the student response above provides constructive feedback for modifying so future courses may provide the course detail desired.

**Consistent.** The theme *Consistent* had 132 codes attributed of which 38 were perceived to be positive, 3 neutral, and 91 negative. Table 55 lists a key phrase found within the theme of *Consistent* as well as the frequency of positive, negative, and neutral responses.

Table 55.

*Theme: Consistent*

<table>
<thead>
<tr>
<th><strong>Key Phrases</strong></th>
<th><strong>Frequency</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Stable and reliable instruction and materials</td>
<td>38 Positive</td>
</tr>
<tr>
<td></td>
<td>3 Neutral</td>
</tr>
<tr>
<td></td>
<td>91 Negative</td>
</tr>
</tbody>
</table>

Response #4535 is representative of a key phrase from the codebook that was used to guide the coding:

Professor has always been consistent with style of online teaching which makes everything easier, having had [this professor] for the past 3 semesters. Very clear and concise and I like the weekly feedbacks [the professor] sends to us. (Response #4535)

Based on the analysis, the coded response was attributed to stable and reliable instruction and materials.

**Study guides.** The theme *Study guides* had 116 codes attributed of which 59 were perceived to be positive, 12 neutral, and 45 negative. Table 56 lists a key phrase found within the theme of *Study guides* as well as the frequency of positive, negative, and neutral responses.
Table 56.

**Theme: Study Guides**

<table>
<thead>
<tr>
<th>Key Phrases</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set up study guides</td>
<td></td>
</tr>
<tr>
<td></td>
<td>59 Positive</td>
</tr>
<tr>
<td></td>
<td>12 Neutral</td>
</tr>
<tr>
<td></td>
<td>45 Negative</td>
</tr>
</tbody>
</table>

Response #4351 is representative of a key phrase from the codebook that was used to guide the coding:

Knowledgeable professor. Has great experience to offer and is passionate about the field of [health profession]. However, I feel that [the Professor] did not provide us with all the opportunities to be successful. Study guides and power points were helpful but they were the basic concepts in the material. The exams were very in depth. The practice questions we were provided were not like the questions we were asked on the exam. There was no place we could go to practice questions that were similar to the ones on her exam. I studied the powerpoint, I studied the book and I did the questions that were available. I spent a great deal of time studying for this class and still struggled on the exams. I did enjoy this class however, I learned a lot about finding different ways to study. I just feel that the course would be better if there was a place for us to practice questions that are similar to questions that will be on the exam. We have this opportunity in the other study guides. (Response #4351)

Although the student appreciated the idea of a study guide, the student nonetheless provided feedback to provide deeper learning opportunities and higher level of self-assessment opportunities.

Response #420 is representative of a key phrase from the codebook that was used to guide the coding:
Great and helpful teacher! Love how the material is presented and the powerpoint slides are so helpful for notes! Also, echo recordings help a lot along with the study guides provided online! Thanks for being a great teacher! Much appreciated! (Response #420)

Based on the analysis, the coded response was attributed to: study guides.

**Levels of challenge.** The theme *Levels of challenge* had 100 codes attributed of which 35 were perceived to be positive and 65 negative. Table 57 lists key phrases found within the theme of *Levels of challenge* as well as the frequency of positive, negative, and neutral responses.

Table 57.

<table>
<thead>
<tr>
<th>Theme: Levels of Challenge</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key Phrases</td>
<td></td>
</tr>
<tr>
<td>Course, instructor, and/or material is easy</td>
<td>35 Positive</td>
</tr>
<tr>
<td>Course, instructor, and/or material is difficult</td>
<td>0 Neutral</td>
</tr>
<tr>
<td>Revised course when need for students to remain challenged</td>
<td>65 Negative</td>
</tr>
</tbody>
</table>

The following response demonstrates a student perception representative of a key phrase from the codebook: “The course is hard, the students that are doing well have taken AP [subject]” (Response #1313). Based on the analysis, the code that the response was attributed to: course is difficult through levels of challenge. However, of the 5,935 of negative responses in the Seven Principles dataset, there were instances where students did not provide information to faculty and administration as to the questioning or requiring more from the respondent – what, why and how – allowing for further analysis and reflection. Notable is that although the student perceived the course to be difficult, they provided evidence as to why they perceived the course was difficult.

**Extra credit.** The theme *Extra credit* had 47 codes attributed of which 23 were perceived to be positive, 7 neutral, and 17 negative. Table 58 lists a key phrase found within the theme of *Extra credit* as well as the frequency of positive, negative, and neutral responses.
Table 58.

**Theme: Extra Credit**

<table>
<thead>
<tr>
<th>Key Phrases</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extra credit activities</td>
<td>23 Positive</td>
</tr>
<tr>
<td></td>
<td>7 Neutral</td>
</tr>
<tr>
<td></td>
<td>17 Negative</td>
</tr>
</tbody>
</table>

Response #2865 is representative of a key phrase from the codebook that was used to guide the coding: “The course is well structured in the chapter sequence, however the most learning I do is from the homework. The extra credit is a good idea and study tool for quizzes and tests” (Response #2865). Based on the analysis, the coded response was attributed to: extra credit.

**Assessment.** The theme *Assessment* had 29 codes attributed of which 10 were perceived to be positive and 19 negative. Table 59 lists key phrases found within the theme of *Assessment* as well as the frequency of positive, negative, and neutral responses.

Table 59.

**Theme: Assessment**

<table>
<thead>
<tr>
<th>Key Phrases</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Make clear expectations orally or in writing</td>
<td>10 Positive</td>
</tr>
<tr>
<td>Encouraged students to do their best instead of focusing on grades</td>
<td>0 Neutral</td>
</tr>
<tr>
<td></td>
<td>19 Negative</td>
</tr>
</tbody>
</table>

Scott and Tobe (1995) suggested that students may perceive high faculty expectations and strive toward student success if they perceive that they have a clear understanding of the criteria used to evaluate their work. Response #617, “Professor is a great lecturer, [the Professor] exams are tough but [the Professor] prepared us for them,” demonstrates a positive relationship between student and faculty in high expectation for the monitoring of progress in student learning, and for the faculty to be allowed to make revisions in teaching practice or learning objectives.
Colleges and universities have lofty expectations for student performance in the classroom, in the community, socially and in the experiential setting, as this response exemplifies:

I really enjoyed this course. I felt like there were a lot of really smooth transitions from my general knowledge about a topic to the nitty-gritty details, which was good because it helped me ease into the more difficult, in-depth topics. One of the things that helped me the most was doing the Connect questions, and I loved that those online questions were extremely consistent with the exam questions because it was a great study tool. It also helped a lot that the Connect questions were extra credit as opposed to required, because then I was able to get some extra points but study at the same time. Besides that, I really enjoy learning about [subject] in general, so this was actually my favorite class this semester. (Response #1065)

The National Survey of Student Engagement (2015) reported that 71% of health profession majors reported being highly challenged to do their best work, ranking them first among all majors. This response supports the importance of students’ being constantly challenged:

Professor is extremely motivational and engaging. I find that [the professor’s] teaching style helps me remember the material more. Relating the information visually or in a metaphor solidifies the information. Professor is passionate about [their] material and the exams are based on what [the professor] teaches. Professor challenges me mentally but also provides the tools to tackle those problems; in that sense I respect [the professor] and the approach because [the professor’s] intentions are for the benefit of all of our future patients. (Response #4116)
Working hard and at a high level of difficulty, as quantified by students, was found to correlate positively with student ratings (Cashin, 1988), for example:

I enjoyed this class. It was difficult material but Professor was extremely helpful during office hours. It was up to the students to visit [the professor] or not but [the professor] always updated us on when office hours were. The structure of the class was nice, I liked how the lectures were online and pre recorded and that in class case studies were used to apply our knowledge from lecture to real life situations. The online study guides was awesome, I liked how everyone and anyone from class was able to edit the study guides. Professor was always open to any question whether it be simple silly or complex. This is one of my favorite course I have taken at HCU. (Response #1048)

Sorcinelli (1991) documented that research generally shows that if instructors set high but attainable goals for academic performance, academic achievement increases. The practice of faculty exhibiting and expecting high expectations suggests that it is effective in improving student learning.

The data suggests that students are most interested in knowledgeable, enthusiastic, and caring instructors. Positive responses like the one below, as well as the subsequent negative response, provide some student perceptions of teaching practice, as well as insights into topics for faculty development initiatives. The negative response stated:

the Professor] teaches this course so well. It is actually a very intense and important topic for anyone who wants to practice clinically but the way it is taught it is so simple and I really appreciate that. I like how the material is taught like a story and just flows together. (Response #4109)
The negative response, which also provided insights, claimed the teacher and course were “disorganized tended to ramble or go on tangents not relating to the material. Knowledge seemed outdated and biased at times” (Response #111).

**Principle 7 – Respect diverse talents and ways of learning.** Good practice of Principle 7 is guided by the assertion from Chickering and Gamson (1987) that:

> there are many roads to learning. People bring different talents and styles of learning to college. Brilliant students in the seminar room may be all thumbs in the lab or art studio. Students rich in hands-on experience may not do so well with theory. Students need the opportunity to show their talents and learn in ways that work for them. Then they can be pushed to learning in new ways that do not come so easily. (p. 5)

Based on this guidance from Chickering and Gamson (1987), possible evidence of Principle 7 may include but is not limited to: used diverse teaching activities and techniques to address a broad range of students; provided extra material or activities for students who lack essential background knowledge or skills; created earing activities filled with real life examples and diverse perspectives; and instructor adapted to students’ instructional needs.

The analysis of Principle 7 yielded nine themes: *Teaching style to learning style, Diverse teaching activities, Pace, Test review/recitation/study guide, Real life learning activity, Extra material/reading/activity, Diverse discussion, Rules for respectful classroom, and Collaborative teaching/case study.* Student perceptions expressed in open-ended responses and categorized as Principle 7: *Respect diverse talents and ways of learning* are presented in the discussions and tables below:

**Teaching style to learning style.** The theme *Teaching style to learning style* had 1,145 codes attributed of which 537 were perceived to be positive, 78 neutral, and 530 negative.
Table 60 lists key phrases found within the theme of *Teaching style to learning style* as well as the frequency of positive, negative, and neutral responses.

Table 60.

*Theme: Teaching Style to Learning Style*

<table>
<thead>
<tr>
<th>Key Phrases</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attempted to find out about students’ learning styles, interest, or backgrounds</td>
<td>537 Positive</td>
</tr>
<tr>
<td>Instructor adapted to students’ instructional needs</td>
<td>78 Neutral</td>
</tr>
<tr>
<td></td>
<td>530 Negative</td>
</tr>
</tbody>
</table>

Response #154 is representative of a key phrase from the codebook that was used to guide the coding:

Professor is one of my favorite professors I've had. [The professor] doesn't just lecture about the chapters which is really refreshing. [The professor] engages us in discussion and asks open ended questions to get us thinking about why certain people think and act in certain ways in certain situations. [The] tests were also very clear and [s/he] was very helpful when it came to answering any questions anyone had. (Response #154)

Based on the analysis, the coded response was attributed to the good practice to: respect diverse talents and ways of learning. Faculty vary in teaching styles and students vary in learning styles. Chickering and Reisser (1993) suggested bridging diversity by engaging in teaching practices that encourage a variety of cognitive strategies to develop intellectual competence.

**Diverse teaching activities.** The theme *Diverse teaching activities* had 595 codes attributed of which 350 were perceived to be positive, 55 neutral, and 190 negative. Table 61 lists a key phrase found within the theme of *Diverse teaching activities* as well as the frequency of positive, negative, and neutral responses.
Response #3663 is representative of a key phrase from the codebook that was used to guide the coding:

I really liked using team-based learning throughout the semester. I think learning the material on my own by listening to the posted lectures and reading the assigned readings was much better than sitting through another powerpoint based lecture. The class discussion and [subject] quizzes really helped me to focus what I learned on my own and apply it to “real-life” scenarios. The subjects we were taught were interesting and things I know I will use in my career in the future. (Response #3663)

Based on the analysis, the coded response was attributed to: used diverse teaching activities and techniques to address a broad range of students. The response supports Principle 7: *Respects diverse talents and ways of learning* whereby “there are many roads to learning. People bringing different talents and styles to learning” (Chickering and Gamson, 1987, p. 5).

**Pace.** The theme *Pace* had 488 codes attributed of which 131 were perceived to be positive, 8 neutral, and 349 negative. Table 62 lists a key phrase found within the theme of *Pace* as well as the frequency of positive, negative, and neutral responses.

Table 62.

**Theme: Pace**

<table>
<thead>
<tr>
<th>Key Phrases</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching and activities relevant to the pacing and diversity of the students</td>
<td>131 Positive</td>
</tr>
<tr>
<td></td>
<td>8 Neutral</td>
</tr>
<tr>
<td></td>
<td>349 Negative</td>
</tr>
</tbody>
</table>

Table 61.

**Theme: Diverse Teaching Activities**

<table>
<thead>
<tr>
<th>Key Phrases</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Used diverse teaching activities and techniques to address a broad range of students</td>
<td>350 Positive</td>
</tr>
<tr>
<td></td>
<td>55 Neutral</td>
</tr>
<tr>
<td></td>
<td>190 Negative</td>
</tr>
</tbody>
</table>

Table 62.
Response #4151 is representative of a key phrase from the codebook that was used to guide the coding:

[The professor] is a very nice [person], but its hard to understand [the professor] and [s/he] scribbles on the board sometimes so it is hard to read. [The professor] will not allow recording [the] lectures which I can understand, but when going to office hours, it’s almost like going to a whole extra class because there is so much more information given/explained or at least in more detail than in class... (Response #4151)

Based on the analysis, the coded response was negatively attributed to: teaching and activities relevant to the pacing and diversity of the students. The response provides insight into a possible support to teaching and learning for a faculty member who may not successfully communicate their instruction in the classroom. In this instance, allowing for recorded lectures and/or in addition providing textual notes via technology prior to or shortly after class can facilitate pacing constancy.

**Test review, recitation, study guide.** The theme Test review, recitation, study guide had 294 codes attributed of which 172 were perceived to be positive, 27 neutral, and 95 negative.

Table 63 lists a key phrase found within the theme of Test review, recitation, study guide as well as the frequency of positive, negative, and neutral responses.

Table 63.

<table>
<thead>
<tr>
<th>Theme: Test Review, Recitation, Study Guide</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Key Phrases</strong></td>
</tr>
<tr>
<td>Used various outside of class learning activities or materials for instructional needs</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

Response #932 is representative of a key phrase from the codebook that was used to guide the coding:
The professor was very enthusiastic to teach this material and I would give [the professor] props for the job [the professor] did as it is [their] first year teaching this material, so if [s/he] were to improve on how [s/he] teaches [the] course and improves [the] powerpoints, that would create a better teaching environment for students. … One last thing I want to say is that, if there is a review class prior to the test/final or maybe an after class type deal, that would be beneficial to the course. (Response #932)

Based on the analysis, the coded response was attributed to: various outside of class learning activities or materials for instructional needs.

**Real life learning activity.** The theme Real life learning activity had 231 codes attributed of which 163 were perceived to be positive, 21 neutral, and 47 negative. Table 64 lists a key phrase found within the theme of Real life learning activity as well as the frequency of positive, negative, and neutral responses.

Table 64.

*Theme: Real-life Learning Activity*

<table>
<thead>
<tr>
<th>Key Phrases</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Created learning activities filled with real-life examples and diverse perspectives</td>
<td>163 Positive</td>
</tr>
<tr>
<td>21 Neutral</td>
<td></td>
</tr>
<tr>
<td>47 Negative</td>
<td></td>
</tr>
</tbody>
</table>

Response #3681 is representative of a key phrase from the codebook that was used to guide the coding: “I liked how when [the professor] teaches us on topics, [s/he] tells us about her own personal experience on the topic which makes the topic stick in my head and I know it better that way” (Response #3681). Based on the analysis, the coded response was attributed to: created learning activities filled with real-life examples and diverse perspectives.

Moreover, planning for effective teaching and assessments prior to understanding the student enrolling in a course is difficult. However, providing diverse opportunities and
perspectives whenever possible may fill various needs. Response #4506 is representative of a key phrase from the codebook that was used to guide the coding: “Service project was a great way to get out into the community and work on our networking abilities” (Response #4506).

Based on the analysis, the coded response was attributed to: created learning activities.

**Extra material, reading, activity.** The theme *Extra material, reading, activity* had 201 codes attributed of which 109 were perceived to be positive, 20 neutral, and 72 negative. Table 65 lists a key phrase found within the theme of *Extra material, reading, activity* as well as the frequency of positive, negative, and neutral responses.

Table 65.

**Theme: Extra Material, Reading, Activity**

<table>
<thead>
<tr>
<th>Key Phrases</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provided extra material or activities for students who lack essential</td>
<td>109 Positive</td>
</tr>
<tr>
<td>background knowledge or skills</td>
<td>20 Neutral</td>
</tr>
<tr>
<td></td>
<td>72 Negative</td>
</tr>
</tbody>
</table>

Response #1019 is representative of a key phrase from the codebook that was used to guide the coding:

> Though I understand the reason for the online videos, I think some subjects would have been better taught in an in-class lecture. The case studies were enjoyable and engaging. Maybe some more homework assignments for more opportunities for credit and more practice would be helpful/would force students to practice more with the material.

(Response #1019)

Based on the analysis, the coded response was attributed to: the suggestion and/or request for extra material or activities. In this instance, technology allowed for a way for faculty to proactively or reactively provide a variety of information sources or activities.
**Diverse discussion.** The theme *Diverse discussion* had 151 codes attributed of which 91 were perceived to be positive, 13 neutral, and 47 negative. Table 66 lists a key phrase found within the theme of *Diverse discussion* as well as the frequency of positive, negative, and neutral responses.

Table 66.

*Theme: Diverse Discussion*

<table>
<thead>
<tr>
<th>Key Phrases</th>
<th>Frequency</th>
</tr>
</thead>
</table>
| Encouraged students to express diverse points of view in discussions | 91 Positive  
13 Neutral  
47 Negative |

Response #2236 is representative of a key phrase from the codebook that was used to guide the coding:

Professor makes every class interesting, and always encourages us to speak our minds and ask questions about the articles and pieces that we read throughout the semester. I enjoyed the topics we discussed and the articles we read. We looked into issues that, if not for this class, I probably wouldn't have given much thought to. I definitely think I have learned a lot from Professor. One of my favorite classes so far. (Response #2236)

Based on the analysis, the coded response was attributed to: encouraged students to express diverse points of view in discussions.

**Rules for respectful classroom.** The theme *Rules for respectful classroom* had 92 codes attributed of which 22 were perceived to be positive, 7 neutral, and 63 negative. Table 67 lists key phrases found within the theme of *Rules for respectful classroom* as well as the frequency of positive, negative, and neutral responses.
Table 67.

**Theme: Rules for Respectful Classroom**

<table>
<thead>
<tr>
<th>Key Phrases</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Encouraged students to speak up when they do not understand</td>
<td>22 Positive</td>
</tr>
<tr>
<td>Instructor was tolerant of others’ ideas and views</td>
<td>7 Neutral</td>
</tr>
<tr>
<td></td>
<td>63 Negative</td>
</tr>
</tbody>
</table>

Response #2283 is representative of a key phrase from the codebook that was used to guide the coding:

Professor was very fair when it came to following exactly what was on [the] syllabus, and if we were behind he would be very informative about it. The course was set up in a way that was very interactive, therefore, it made the materials fun to learn and helpful to use in the future. Even though it was very interactive, we all respected each other’s opinion and statement as a group. [The professor] always made sure that everyone was comfortable with what we discussed in class. (Response #2283)

Based on the analysis, the coded response was attributed to: encouraged students to speak up when they do not understand.

*Collaborative teaching, case study.* The theme *Collaborative teaching, case study* had 34 codes attributed of which 24 were perceived to be positive, 4 neutral, and 6 negative. Table 68 lists key phrases found within the theme of *Collaborative teaching, case study* as well as the frequency of positive, negative, and neutral responses.

Table 68.

**Theme: Collaborative Teaching, Case Study**

<table>
<thead>
<tr>
<th>Key Phrases</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Used collaborative teaching and learning techniques and pair students so they complement each other’s abilities</td>
<td>24 Positive</td>
</tr>
<tr>
<td>Gave students a problem to solve that has multiple solutions (guided with clues and examples)</td>
<td>4 Neutral</td>
</tr>
<tr>
<td></td>
<td>6 Negative</td>
</tr>
</tbody>
</table>
Response #2642 is representative of a key phrase from the codebook that was used to guide the coding:

I believe this course could have been taught in a different way. Although notes were presented on a weekly basis, they were not helpful. Many of the note packets contained a lot of excerpts which were not relevant to the class discussion or exams. Also, I would have liked to discuss topics we are currently facing in healthcare. With the healthcare system constantly changing, there are more important topics to discuss such as the cost of healthcare and who should pay, doctor shortage, antibiotic resistance and caregivers for the growing elderly population. (Response #2642)

Based on the analysis, the coded response was suggestive and was attributed to: used collaborative teaching and learning techniques, as well as guided problems to solve.

Sorcinelli (1991) explored research noting that the practice of Principle 7:

… emphasizes the need to recognize the different talents and styles of learning that students bring to college. In effect, this principle defines a way of viewing the world … holding the Seven Principles together, for knowledge about the learning styles helps faculty to transmit their course content with greater sensitivity to the differences that students bring to the classroom. Moreover, faculty who show regard for their students’ unique interests and talents are likely to facilitate student growth and development in every sphere-academic, social, personal, and vocational. (p. 21)

The following response from the data also supports the theme:

Professor is all about active learning! [The professor] gives the reins to the students and primarily lets u decide what topics are confusing enough to cover further. [The professor] is incredibly organized and provides students with many opportunities to improve and
succeed. The ‘Flipped Classroom’ methods was beneficial to me as it forced me to view the material on a regular basis and retain more information. I very much enjoy Professor as an instructor and look forward to having [the professor] again. (Response #4663)

Continual attention to create teaching and learning environments for a diverse student audience is an important task for faculty. Adjusting curriculum, instruction, and assessment is an attribute that supports respect for diverse talents and learning:

Really good professor I how [the professor] has eh main points on each slide and keeps it concise. I love how [the professor] appeals to both types of learns by also adding visuals and diagrams that are extremely helpful for a visual learner like myself. (Response #5146)

Weimer (2003) stated that faculty members need to help students to develop awareness of their own learning strengths and weaknesses. However, this study suggests that there is an opportunity for students to provide a multi-dimensional view of teaching practice, as this response reveals:

Professor did not provide any opportunities for active learning. Most of the class [the professor] would sit and lecture about the material. I would try to ask insightful questions to possibly begin some sort of conversation, and then [the professor] would just answer it and move on. While I enjoyed learning about the subject material and found the movies we watched to be very interesting. But I wish Professor would change up the teaching methods, possibly try some class activities. Maybe socratic seminars to allows students to who want to discuss the subject matter. A lot of kids in my class would love to discuss things but just don’t see an opportunity when the material is being lectured on. I also felt that the class did not promote anyone bringing in any outside knowledge in to the class, and only followed what the textbook said. (Response #4266)
Responses addressing teaching style to student learning style were by far the overwhelming revelation presented by students in their open-ended responses. Positive and negative responses like those that follow provided some perception of student expectations of faculty practice, as well as insights into topics for faculty development initiatives:

Professors tried multiple ways to approach the material that worked for the class. They both asked for feedback on how to improve the class and themselves. These professors never gave up on us. ... I have never had professors who are so concerned about their students, and how well they are doing and how much they are learning. I have learned so much from this course and although it took a lot of hard work on my end, I felt like I didn't have as much work to do because the professors did such an incredible job teaching. The tests were completely fair. There were never trick questions, they were all back up by the book and proven by a specific page. The professors even provided us with a quiz outline per quiz, telling us how many questions from each topic. This is not required, nor expected, but the professors did it otherwise. I am forever grateful for these professors. (Response #3256)

Negative responses like “reading off slide in a monotone voice makes it hard to understand certain materials that I needed more clarification on. Could use analogies or rephrase in own words in simpler terms at certain points (Response #4188)” were also informative.

Not Applicable Responses

The responses coded as not applicable to the study totaled 1,140. Not applicable was defined and coded as Un-related to instruction/teaching practice as defined by Chickering & Gamson and the Seven Principles (UR) or the response did not provide purposeful detail reflective of the Seven Principles. However, although the data is un-related to instruction and/or
teaching practice as defined by Chickering & Gamson and the Seven Principles and thereby the study, the responses as a form of the student voice are applicable and worthy of analysis. The analysis yielded four themes from 1,140 responses with a total of 1,382 codes within the response data set. Student perceptions were expressed in open-ended responses and categorized as one of the following four themes: (a) No comment; (b) Nonsensical comment; (c) Questioning or requiring more from the response-instructor/course; and (d) Statement for instructor, administration or on course. Student perceptions expressed in open-ended responses and categorized as UR are presented in the discussions and tables below.

**Theme: No Comment**

The theme *No comment* had 158 codes attributed. Phrases from open-ended responses which may have guided the coding were: no comment and N/A. Response #401 N/A is representative of a key phrase that was used to guide the coding of the un-related to instruction/teaching practice data as defined by Chickering & Gamson and the Seven Principles. The analysis shows that 3% of student open-ended responses were coded as having no comment. Responses like “undecided” (Response #1271) and “unsure of who this is” (Response #3481) are examples of the non-response responses which could not provide any applicable or actionable information to any other theme.

**Theme: Nonsensical Comment**

The theme *Nonsensical comment* had 38 codes attributed. Phrases from open-ended responses which may have guided the coding were: too lazy to write one and/or cool hair. Response #2981 is representative of a key phrase that was used while coding the un-related to instruction/teaching practice data as defined by Chickering & Gamson and the Seven Principles. “I’m too lazy to type” (Response #2981). Based on the analysis, the coded response was
attributed to nonsensical comment because it was a response which could not be attributed to any other category and was not worthy of a theme on its own.

The data suggests that in lieu of not responding, they still took the time to respond albeit with information that could not yield further action. Responses like “don’t understand” (Response #1216) and responses like “I’m a naturally tired person” (Response #754) provide some examples of student response that didn’t have a basis for further coding or exploration. It should be noted that there was less than 1% (.76%) of nonsensical responses in the overall dataset of 5,156 responses.

**Theme: Questioning or Requiring More from the Response-Instructor/Course**

The theme *Questioning or requiring more from the response-instructor/course* had 951 codes attributed. Phrases from open-ended responses which may have guided the coding were: very good course, provides great learning experiences, great instructor, and/or liked/disliked teaching style. Response #3617 is representative of the responses that were used to guide the coding of the un-related to instruction/teaching practice as defined by Chickering & Gamson and the Seven Principles data:

> [Professor] is too awesome, I love the way [s/he] teaches, the way [s/he] behaves with students. [Professor] is too perfect to evaluate a professor. Hopefully, I will meet [them] again in another course … Thank you so much [Professor]. (Response #3617)

Based on the analysis, the coded response was attributed to questioning or requiring more from the response on the instructor because, although it is a positive response, the researcher and administration may be left with a lingering question or desire for more information. For example, in the prior response (Response #3617) the researcher found themselves asking: What
about the way the instructor teaches does the student love? How does this instructor behave with the students, in or out of the classroom that elicits such a positive response?

Response #4427 is representative of a key phrase that was used to guide the coding of the un-related to instruction/teaching practice as defined by Chickering & Gamson and the Seven Principles data: “Probably one of the best professors of the semester [s/he] was awesome” (Response #4427). Based on the analysis, the coded response was attributed to questioning or requiring more (on the instructor) from the response because there was not sufficient information provided to be categorized as a Principle, however the student provided a response for an instructor.

The data suggests that students are interested in providing feedback, even if it isn’t a comprehensive or contextual evaluation of teaching practice. A response like “very nice professor. Super happy that I am in [their] class and good teacher, made [subject] more bearable” (Response #1180) provides an example of student responses which exhibits their willingness to respond to end of semester SETs; however, the level of detail provided may not allow for faculty and administration insights or exploration.

The data from this theme suggests that students are noting perceptions of instructor teaching style or classroom management style; however, they are not providing information that could provide actionable evidence. Absent from the responses are keywords or declarations which would answer the most basic questions of how, why, when, what, or where which may provide faculty or administration with areas of attention, need, priority and possibly further assessment. Responses like “this professor is an amazing young woman that would do anything to see her students succeed” (Response #915) and “Amazing!!! I wish all teachers were as good!
[S/he] has to teach a course on how to teach!?" (Response #1800) provide what may be an obstruction to a faculty member or an administrator who are reading the SETs for action.

Based on the analysis, Response #3563 was attributed to questioning or requiring more (on the course) from the response because there was not sufficient information provided to be categorized as a Principle, however the student provided a response which left the researcher questioning what about the subject (course) was bad as perceived by the student.

Once again, the data suggests that students are interested in providing feedback, even if it is not comprehensive or contextual evaluation of teaching practice. A response like “it was just a bad subject” (Response #3563) is an example of a student response which exhibits their willingness to respond to end of semester SETs; however, the level of detail provided may not allow for faculty and administration insights or further exploration. Nevertheless, these responses, especially if there is a trend of responses by instructor, by course, or within curricula, cannot be ignored.

**Theme: Statement for Instructor, Administration, or on a Course**

The theme *Statement for instructor, administration or on a course* had 235 codes attributed. Of those, 145 responses were delivering messaging on the course, 55 for the instructor, and 35 responses on topics that would be actionable at the academic administrative level of a university. Phrases from open-ended responses which may have guided the coding were: direct statements being addressed directly to the instructor or a general statement for academic or operational administration such as thank you for everything and/or change time of the class. Response #2646 is representative of a key response that was used to guide the coding of the un-related to instruction/teaching practice as defined by Chickering & Gamson and the Seven Principles data for the theme statement for instructor, administration or on a course.
“Should be earlier in the curriculum. The material in this class would have been more helpful in first or second year” (Response #2646). Based on the analysis, the coded response was attributed to this theme because the student is providing information that would be useful for administration, such as the Office of the Registrar or for the Dean or Director of a degree program.

The data suggests that students are most interested in providing feedback that may yield perceived positive change to future students, as well as to their current programs. Responses like the following one provide some perceptions of student expectations and needs:

… this course was long and tough ... The class was often difficult to focus since it was friday at 8am and after a long week of school often found myself exhausted … Only complaint was having less than 10 min to get from this class [in one building to another building on the other side of] campus. There was 120 of us going across [campus]. The same students were in both classes. … this is out of the control of the professors but the school or who ever is in charge of classroom assignments should look into this better.

(Response #3187)

After analysis, if there is a perception that a University or faculty response could inform how and why policies and procedures are communicated to the students, then students may not only have a response to questions or concerns but feel that the student voice is heard.

Summary

This chapter provided results of the secondary data analysis for the question: How do students’ perceptions of instruction as documented in open-ended responses, reflect principles of quality undergraduate education in undergraduate, didactic courses for fall 2015? From the analysis of the data, it is evident that the prompts “Please provide written comments on this
instructor” and “Please provide written comments on this course,” which are included in the HCU SET tool, allow students a private place to discuss, question, react, clarify, and articulate their thoughts and ideas regarding their instructor and a given course. Regardless if student responses are positive, neutral, or negative in tone, they provide a rich store of instructor and course expressions for study. The results indicated that analysis using the Seven Principles as a framework may have programming implications for faculty development. The analysis of the survey data showed that secondary analysis of the student voice can have an impact on future teaching practice. For example, one response showed that the student perceived that the instructor lectured too quickly, however, the student noted further that providing PowerPoint slides from the lecture, as well as posting the video of the lecture, allowed students prompt review and further understanding of the lecture. For this reason, it is believed that, in addition to faculty development implications, there is also an opportunity to communicate to students not only how important feedback is for teaching evaluation and in the SET, but also how to provide constructive feedback.
Chapter 5: Discussion

The study was conducted to explore if the institutional resource, the student evaluation of teaching (SET), provides actionable data in areas of need for faculty development through analyzing open-ended responses to the questions: “Please provide written comments on this instructor” and “Please provide written comments on this course.” Acknowledging the literature on survey fatigue, the secondary analysis of qualitative SET data was explored in lieu of creating, implementing, and analyzing another student distributed survey and provides significant insight into student perceptions of effective teaching practice.

An integrative vision of faculty development is necessary at HCU to prepare learner-centered practices to address competent, engaging, and caring healthcare professionals who think critically, all in an environment where faculty, professional staff, and students are facing competing and compelling demands on their time and of university resources. This chapter discusses how the findings of the present study validate prior research, and how they were synthesized to support a secondary analysis and an action research model for analyzing open-ended responses for student perceptions of effective teaching practices. The reflective process in action research allowed for inquiry and implications for practice to answer a real-world question experienced at HCU, and to improve the practice of instruction and increase student achievement. Furthermore, practical implications, presented as informed actions of the reported findings for the targeted institution, as well as higher education institutions in general, are discussed in terms of faculty development – all of this with the ultimate goal of enhancing effective teaching and student learning.
Findings

Four informed actions have been derived from the action research findings: (a) students’ perceptions of instruction reflect effective teaching principles; therefore, open-ended responses should be utilized; (b) analysis and reflection of open-ended responses supports faculty development program planning; (c) there needs to be greater effort made to provide education to students based on constructive feedback in the end-of-semester SETs; and (d) there needs to be a greater effort made to provide education to faculty on how to use student feedback in the end-of-semester SETs. Informed actions were derived from interpretation of the data.

**Informed Action 1: Students’ perceptions of instruction reflect effective teaching principles; therefore, open-ended responses should be utilized.** The first informed action based on the research is that academic leadership decisions on how best to invest in faculty development programming can be based on needs assessment and researched priorities. In this secondary analysis of qualitative data, the research question: How do students’ perceptions of instruction, as documented in open-ended responses from student evaluations of teaching (SET), reflect principles of quality undergraduate education? was addressed using secondary open-ended response data which was structured by Chickering and Gamson’s (1987) “Seven Principles for Good Practice in Undergraduate Education.”

Less than 4% (3.8%) of the 5,156 open-ended responses were considered un-related to the study, thereby allowing for a substantive secondary data set of the student voice remaining to analyze. It is clear from the findings that institutions of higher education, like HCU, can use general open-ended response question text from end-of-semester SETs to conduct secondary analysis to address and support student perceptions of teaching practice. New faculty development initiatives, as well as revisions to proven established programs at HCU, can provide
faculty with essential knowledge, skills, and practice opportunities based on the findings of this study. Student perceptions as framed by Chickering and Gamson’s (1987) Seven Principles are evident in the secondary analysis of open-ended response data. This can allow the Office of Faculty Development to plan initiatives based on student perceptions of teaching practice along with and in support of HCU needs assessment evaluations.

The “Seven Principles for Good Practice in Undergraduate Education” are a simply presented list of findings founded upon decades of research. Since the original publication of the Seven Principles in 1987, these guidelines have supported and directed practice allowing for decades of adaptations and applications for timely implementation. The Seven Principles allowed for adaptation and collaboration from their beginning. The literature provides extensive support of the Seven Principles, as well as substantive research-based advice for the practice of teaching and learning in higher education (Sorcinelli, 1991). Moreover, findings and applications of the Seven Principles vary. One study by Poulsen (1991) reported that respondents to the Seven Principles and subsequently to the Faculty and Institutional Inventories, which were derived from the original research, indicated a need for clearer information about potential and actual use for the most effective application of the Seven Principles. The data confirmed that the Seven Principles and the related inventories can be used and applied by institutions to appropriately address and program faculty/teaching workshops and to improve instruction based on student reflection.

Student evaluations of teaching and student learning outcomes are rooted in the administrative structures on college campuses to measure and report on student experiences. McCabe and Meuter (2011) conducted a study to determine whether teaching with technology creates a more effective learning environment. They found that, even if students rated certain
learning environments or teaching practices low, the faculty may use the opportunity of evaluations to strongly highlight the value of the item, activity, or practice. Chickering and Gamson (1999) indicated that, in the decade since the Seven Principles were adopted, an exponential number of studies and investigations have taken place. The Seven Principles were incorporated into a 1995 report “Making Quality Count in Undergraduate Education” by the Education Commission of the States which refers to twelve attributes of quality in undergraduate education. Consequently, the National Survey of Student Engagement (n.d.) was created and is still used today to present outcomes that inform higher education institutions, external reporting bodies, as well as parents and students. In the same time period leading up to the Millennium, the Seven Principles provided applications for new faculty orientations and faculty development seminars, symposiums, and workshops. Findings included student responses that referenced attributes of practice like bringing humor and fun into the classroom that can be addressed early in an instructor’s career in new faculty orientation programs. Ultimately, discussion of the findings at HCU will respond not only to perceptions of practice for student learning, but it will provide continued opportunities for faculty to learn what students report as effective, as well as ineffective, teaching practice.

Informed Action 2: Analysis and reflection of open-ended responses supports faculty development program planning. The second informed action based on this research is that recorded perceptions of the student voice provide focus and direction which can align faculty development programming and learning opportunities. Formal evaluations have been identified as a significant contributor to faculty stress (Boice, 1991). In this study, the findings can serve current HCU supports for faculty. The findings of the present study support prior research which has stated that, by providing responses to the open-ended portion of SETs,
students are using the opportunity to be responsible, involved, and accountable agents of support and change.

Fink (2012) offered four perspectives that represent fundamental tasks of teaching: knowledge of subject matter, course design, interactions with students, and course management. The study findings included student responses that reference the three themes with the highest percentages of response. The findings from the previously collected open-ended response data set present effective information which will be applied to improve teaching and learning at HCU. The major themes that emerged from the study were found in the following three Principles:

Principle 5: Emphasize time on task; Principle 7; Respect diverse talents and ways of learning; and Principle 6; Communicate high expectations. Statements from students reflected these principles that are described by Chickering and Gamson (1987) and that are reflected broadly in teaching practice, and also discussed by other scholars of teaching and learning in the college classroom.

**Principle 5: Emphasize time on task.** Chickering and Gamson (1987) made the following observations:

Time plus energy equals learning. There is no substitute for time on task learning to use one's time well is critical for students and professionals alike. Students need help in learning effective time management. Allocating realistic amounts of time means effective learning for students and effective teaching for faculty. How an institution defines time expectations for students, faculty, administrators, and other professional staff can establish the basis for high performance for all. (p.4)

In other words, the literature supports that there is no substitute for time on task, especially with millennials who are currently on our campuses and many who intend to pursue graduate degrees
(Howe & Strauss, 2003; Kuh, 2003). Efforts to understand time on task by faculty should be a goal “to assist students in developing realistic expectations of the amount and quality of effort required to be successful” (Wilson, 2004, p.63).

The findings from student perceptions presented in the study support the literature on Chickering and Gamson’s (1987) Principle 5 as well as the various adaptations to the Seven Principles and provide evidence that if faculty development and instructors invest their time in faculty development initiatives, there will be a significant impact on student learning, particularly through the teaching practice of effective emphasis of time on task. Ewell and Jones (1996) built upon the Seven Principles and suggested “more directive approaches shaping students' use of out-of-class time to achieve educational objectives” (p. 27). They argued that “faculty should themselves devote significant time to the task of undergraduate instruction including (in addition to classroom instruction and preparation) substantial office hours, out-of-class contact with students, and scholarship related to teaching in their disciplines” (p. 27). Therefore, responding to student feedback through faculty development initiatives at HCU will be framed by findings of this study and supported by literature on the best practices in teaching strategies.

Additionally, the findings support that students perceive that, by allotting realistic amounts of time to teaching and student learning, faculty can create a more effective learning environment for students. Respondent #1366 shared:

[The professor] has this course set up in a great way. [The Professor] doesn't talk for so long that people become disinterested and [s/he] gives everyone the chance to try problems and ask questions if they don't understand. [The Professor] goes over every problem showing multiple ways in order to make sure everyone is understanding it.
Continued discussion with faculty based on these findings will allow for the development of practices that can be addressed immediately and implemented over time to facilitate instruction, including real learning.

**Principle 7: Respects diverse talents and ways of learning.** Chickering and Gamson (1987) stated:

There are many roads to learning. People bring different talents and styles of learning to college. Brilliant students in the seminar room may be all thumbs in the lab or art studio. Students rich in hands-on experience may not do so well with theory. Students need the opportunity to show their talents and learn in ways that work for them. Then they can be pushed to learning in new ways that do not come so easily. (p. 5)

The findings presented reinforce Chickering and Gamson’s (1987) Principle 7 to respect diverse talents and ways of learning in an ever-changing pedagogical landscape. McCabe and Meuter (2011) observed that:

… given the rapid change in the capabilities of classroom technologies, the continually increasing skill level of college students in relation to new technologies, and the monetary expense and investment of energy to use new technologies, it is important that the enhancements to student learning are verified. (p. 150)

Students are coming to college with varying academic abilities (Monaco & Martin, 2007). Faculty, student and academic support staff need to acknowledge and act on the knowledge that not all students learn the same and that some students have diverse instructional needs (Farrell, 2003; National Council on Disability, 2003). Therefore, it is essential for faculty to have access to current methods as well as proven teaching experiences which may be
institution, campus or field of study specific to address the differing student needs as well as their various learning styles. Response #1039 aligns research supported with student perception:

[the professor] is very helpful when it comes to teaching. [The] recorded online lectures were the best idea, and I think every science professor should record their lectures online because you have the ability to learn in your own pace. [The professor] is also very helpful in answering questions and discussions. Also, as I mentioned in the course section, bringing those case studies and discussing them helps a lot in learning the material more. (Response #1039)

The presence of Principle 5 through Principle 7 in the prior response and throughout the findings is found to be important in the student learning experience. The literature reveals that there are technologies that can be employed to obtain an emphasis of time on task (Fang & Dvorak, 2003). Student response systems enable faculty to increase attendance and student participation, for example time on task. In addition, if student response systems can increase interest and engagement with the course content, students may increase time on task beyond the scheduled course time. Moreover, taking time in class for using student response systems typically reduces coverage of content (Dangel & Wang, 2008). HCU must continue to redefine the faculty development program that supports and informs teaching in higher education.

**Principle 6: Communicates high expectations.** Chickering and Gamson (1987) stated that if faculty members…

…[e]xpect more and [they] will get more. High expectations are important for everyone – for the poorly prepared, for those unwilling to exert themselves, and for the bright and well-motivated. Expecting students to perform well becomes a self-fulfilling prophecy
when teachers and institutions hold high expectations of themselves and make extra efforts. (pp. 4-5)

The findings of this study revealed that students overwhelmingly took time and effort to provide focused comments on instructors’ high expectations either explicitly communicated or by being enthusiastic, caring, or knowledgeable.

Fair assessment processes are transparent, providing students with clear expectations on what, how, and why they are being assessed, and with quality information regarding their progress and status of their learning (Biggs & Tang, 2001; Brown & Race, 2013; Evans, 2013; Luth, 2010; Nicol, 2010; Richardson & Coates, 2014). Regardless of the mode of faculty development, programming communicated to the faculty must provide an explanation of the practice. For example, rubrics are particularly important for guiding specific feedback to students. Programming for faculty can assist in explaining the rationale for assessment strategies used and how they are designed to support, as well as determine, learning. Faculty must then describe the expectations for assessment tasks, for example, by providing a rubric to help students understand the elements of, and expectations for, a task (Lindstrom, Taylor & Weleschuk, 2017). An example of Principle 6 is found in the explanation from Response #735 regarding the importance of communicating high expectations in practice by the instructor:

Professor was excellent in teaching me this subject this semester. Not only did [they] very effectively communicate this material to me, [s/he] is a very fun and entertaining instructor. [Professor] cares a lot about the subject, is enthusiastic, and makes learning about the information really fun and exciting. (Response #735)

The literature revealed that interpreting written comments can be difficult because they appear to be a series of random unconnected statements on instructors, their teaching, and the education
environment (Brock, Van Roy & Mortelmans, 2012; Hodges & Stanton, 2007). The data confirmed that framing the secondary data using the Seven Principles was necessary and useful.

**Informed Action 3: There needs to be a greater effort to provide education to students on constructive feedback in the end-of-semester SETs.** The third informed action based on the research is that faculty need to communicate to the students that their open-ended responses, regardless if they are positive, negative or neutral, can be used to support course outcomes and support curriculum objectives. In SETs, student comments can yield more and useful information on important education issues and provide better insights in order to improve instructional practice (Alhija & Fresko, 2008; Hodges & Stanton, 2007; Smith & Welicker-Pollack, 2008).

The analysis of student open-ended response in this study strongly indicated that there is tremendous potential for confirmation of effective teaching practice for some and the potential for changing each practice for others. The findings show that students appear to know good teaching practice when they experience it. However, communicating to students the responsibility they have, as well as the impact created when constructive and actionable student feedback is provided in open-ended responses, is necessary. Cohen (2011) provided evidence that students’ perceptions of course effectiveness are correlated with student learning, whereby anchoring the idea that students’ perceptions are a worthwhile source of information. How faculty and administration review the comments, both positive and negative, can improve overall teaching. Respondent #259 explained how the approach used by their instructor did not result in perceived good practice:

this course was really taxing on me. It ended up being my hardest course. There was nothing personal or interactive about it and that messed with me. Im not an auditory
learner, i need to be immersed in the class in order to get anything from it. I did a lot of learning on my own with online games and what have you. This class helps only one or two kinda of learners and i think that needs to evolve.

Students tend to feel that evaluations have no effect on teacher performance, and they don’t seem to know if anyone other than the instructor sees the evaluations (Marlin, 1987). Surveys of students typically indicate that students believe faculty and administrators don’t take their evaluations seriously (Spencer & Schmelkin, 2002). Students are more likely to complete course evaluations if they see value in them understand how they are being used and believe that their opinions have an effect (Gaillard, Mitchell, & Kavota, 2006). Berk (2006) stated that most faculty agree that students’ views should not be ignored.

In this context, faculty and academic administration need to carefully consider how SETs and their open-ended responses as feedback are used, and they must then communicate that back to the students to emphasize the need for and importance of constructive and actionable feedback, regardless of the tone of the response. “Faculty look at the written comments for anecdotal insights and, as often as not, for confirmation of their own great performance” (Benton, 2011, p. 44). However, the findings prove the belief by Hodges and Stanton (2007) that, at times, negative written comments may result from a lack of student awareness about their own learning processes. Brock, Van Roy and Mortelmans (2012) found that “positive comments are almost always more specific…findings in the current study show that students seem to take SETs seriously…they almost always give valuable specific improvement aspects” (p. 1131). Written comments can help identify portions of the learning process about which students require additional information; the comments can thereby improve teaching effectiveness.
In addition, it is possible, regardless of the tone of student response, to not solely focus on positive or negative aspects of a response to practice but to focus on the reflection of a theme or themes within a response. Theall and Franklin (1990) offered that, although student evaluations of teaching are not direct measures of teaching performance or learned content, there is a substantial research base linking student satisfaction, as reported in SETs, to effective teaching and learning. This response provides an analytical example of this linkage:

It was easy to see that Professor really knows what [s/he] is talking about and has a lot of knowledge and experience surrounding the material [s/he] teaches. However, I think [s/he] should work on communicating that information in a way that is more efficient and easier for students to understand. I would say probably almost none of the students have learned [the] material before and sometimes things that [s/he] talks about go way over our heads. (Response #4439)

One way to address the above perception is to require subject matter experts or clinicians who may not have an EdD or PhD with training in teaching in higher education to participate in an institution-led faculty development program. The program could enable new faculty a foundation and community to work with to develop skills in teaching, and a place to exchange ideas and experiences based on real classroom situations.

**Informed Action 4: There needs to be a greater effort to provide education to faculty on how to use student feedback from the end-of-semester SETs.** The final informed action based on the research is that faculty must be provided with tools and development on how to use student open-ended response feedback. Nicholls (2005) demonstrated that even the best-intentioned faculty members still hold preconceived notions of teaching and practices that are resistant to change, even in the face of widely accepted better teaching practices. Moreover, this
study’s findings begin to support Levin (2000) who emphasized the importance of the student voice when stating that “students have unique knowledge and perspectives that can improve our approach to implementation … and how improvement can be fostered” (p. 158).

Faculty need to be exposed to education research that addresses everyday classroom issues to be motivated to change their teaching practices (Weimer, 2003). Along with previous studies referencing student feedback, the findings of this study of secondary analysis of qualitative open-ended response data can be used to improve course content and format. Yao & Grady (2006) explored the use of SETs by faculty and found that faculty:

… paid attention to student evaluation feedback and tried to make use of the feedback to improve their teaching…Junior faculty members tended to spend more time looking at the feedback and find the feedback more useful than senior faculty members. For the later, the feedback was primarily used to confirm their teaching approach. (p. 122)

Faculty can use student feedback to make revisions during the term or in planning for future courses. Indeed, “as the importance of teaching evaluation rises, we must examine means of evaluation to ensure that we are furthering-not hindering-teaching excellence” (Miller & Seldin, 2017, p. 1). Based on student perceptions of good teaching practice, evidence exists that students are providing actionable feedback. Response #23 provides a viable example:

Professor … responds very positively to criticism! Initially the course load was huge and very demanding, especially for an elective. In the middle of the semester [the professor] asked for feedback and was very understanding and open to lessening the amount of out of class work while still giving enough for the course to be useful and the exams to require having payed attention and put in the effort. [Professor] really met us halfway. [The] willingness and ability to adapt was very impressive and appreciated…
Moreover, Response #28 offered the following observations:

…multiple times during the semester, [the Professor] offered [themselves] to us on a more personal level in an effort to actually get to know us, and it really made this class special. [The Professor] even had a mid-semester evaluation of the course to allow us to tell her what we wanted to do more of in class in order to help us feel more engaged in the material. [The] assignments are creative and [the professor] has more enthusiasm for [the] subject than any other professor has had for their respective subject. Professor is hands down the BEST professor I've had out of the four years I've been in college, at HCU or otherwise.

Access to effective programming, supported from the findings, will allow faculty to create positive change in their courses, in their teaching practice, and in the best interests of the students. The responses above clearly emphasize reasons for applying evidenced-based teaching practices, as suggested or commented on by the students, and as documented in the literature.

Summary

The findings suggest that faculty developers can use secondary student feedback data to design programs for effective teaching, particularly in the areas found in the analysis. Change to teaching practice and improvement of student learning must be founded upon evidence-based teaching practices. Institutions that support faculty development centers are themselves communicating their high expectations for good faculty teaching. Faculty development as programming is most successful when it’s responsive to campus needs. Through secondary analysis of qualitative open-ended response data, four conclusions of findings led to four informed actions which will inform the implications for faculty development programming practice at HCU.
Faculty Development Implications for Practice

Interpreting student open-ended responses is a challenge but not an insurmountable task. Open-ended responses in surveys allow for an expansive store of student expression and information. Linse (2017) reported on the accurate interpretation of student ratings data and provided advice for faculty and administration, including:

[I]t is in the faculty member’s best interest to learn how to use these data to benefit his/her teaching and the learning environment for students...Campus teaching and learning centers have many resources and strategies to help faculty with these attributes of effective teaching. (p. 98)

To support faculty and provide principles of good teaching practice, the Office of Faculty Development at HCU can aim to enhance current program offerings and build capacity for new programs and initiatives in the various areas of effective and good teaching practice. The guiding ideas that were formed from the data can be implemented in a number of forums at HCU. The Office of Faculty Development would benefit from planning and distributing a summary of findings to provide opportunities to integrate application into current practice based on experience and expertise. Moreover, remarkable examples of practice should be presented and adapted to the various disciplines and program models. The study findings can be referenced in order to explain the rationale for the various teaching strategies and practices.

Several possible avenues for faculty development include but are not limited to the following selection of findings that align with and can improve current efforts in faculty mentoring, seminars and workshops, faculty learning communities, webinars and new faculty orientations: (a) classroom management, including learning styles, teaching techniques, examination writing, instructional resources, course design, course objectives, and use of
feedback from course evaluations; (b) assessment of teaching effectiveness, including formative assessments; peer observation and feedback; review of syllabi, course reference materials, presentation slides, and exam questions before administration; and course coordination expectations; and (c) examination skills development, including academic honesty policy, examination development, test item writing (multiple choice and essay), item analysis and data interpretation, constructive feedback on exam questions before and after administration, strategies for grading essays, and tying the testing process to course objectives and student learning outcomes.

**Faculty Mentoring Program (FMP).** This initiative supports the teaching practices highlighted by students in the study. An annual goal of the program at HCU is to build a database through surveys and questionnaires to better understand and respond to the needs of new faculty and mentors in order to evaluate and refine the program. The current study can help support their goals, as well as the goals of the University. To meet the evolving needs of HCU’s goals of providing teaching, learning, research, and practice development opportunities for junior faculty, the FMP was designed to facilitate faculty mentoring goals, including the pairing of junior faculty members (protégé) with senior faculty members (mentor). The FMP aims to engage new and junior faculty members in a number of professional activities over the course of an academic year to support professional development goals. The FMP protégé/mentor pairing may be interdisciplinary in an effort to engage connections and to further promote a collaborative excellence across disciplines at the University. The information provided in this study will support the efforts of the FMP mentors to serve as a resource person or facilitator who ensures that appropriate and focused best practices are available.
What appears to be needed are a number of formalized and constant areas of focus by the Office of Faculty Development at HCU and programming supporting the practices of: (a) encouraging contact between student and faculty, including motivation of the presentation of student views and participation in class discussions, enthusiasm in teaching, accessibility and approachability, shared personal experiences; and (b) team based learning and cooperation among students, including safe climates for group discussions, work and preparation, and peer critiques and peer tutoring. This research has attempted to correctly identify perceived effective practices as well as what is needed so HCU can become responsive to what the students revealed through the open-ended response data, which provided evidence for the issues that concern students.

**Faculty development seminars and workshops.** These can be created to explore successful efforts by HCU faculty who have discovered and implemented effective practices. For example, the Office of Faculty Development could host seminars or workshops for faculty on how to manage time on course teaching, learning, and assessment beyond the syllabus. The seminars could be led by a knowledgeable faculty member who is also a proven facilitator familiar with the campus environment and who can build upon ideas, assist in resolving known challenges, and further discuss operational implementation. Workshops and seminars became one of the most common forms of faculty development beginning in the 1960s because they reportedly foster strong collaboration and trust between faculty members who share similar development needs (Bouwma-Gearhart, 2012a, 2012b).

Currently, all faculty at HCU are offered opportunities to participate in many faculty development workshops and seminars on each campus at the University throughout the year, covering a broad range of topics pertaining to teaching and scholarly activity. Faculty
developers may find that the open-ended responses from the students provide information on
effective teaching practices that will allow faculty developers to directly contact faculty,
supported by the findings, to further investigate activities and practices which HCU faculty may
find of interest and which respond effectively to their needs.

The literature revealed that effective instruction can be taught. Workshops are a typical
way in which institutions, including HCU, conduct faculty development programming. Under
this model, faculty request a workshop topic, or a department like instructional design, the
library, or information technology suggest a topic, based on faculty support requests. Typical
workshops feature instruction on teaching approaches and technology and provide an array of
interesting information. Benton (2011) discussed the extent to which the common approach to
faculty development workshops effectively improves student satisfaction in courses; the author
suggested, after analyzing the rating scales in SETs, that the next step would be “clearly to
provide faculty with the opportunity to take a targeted faculty development workshop on or
series of workshops and then monitor future student course evaluation to determine if the
workshops have the desired impact and outcome” (p.51). The utilization of secondary open-
ended response data analyzed in this study confirms that a similar approach to the one applied by
this researcher can be used for program planning, focusing future research on program evaluation
and student learning assessment. The workshop and seminar format can readily accommodate
presentations and discussion of active learning techniques. When this study was conducted, most
of these development initiatives were being presented by HCU faculty and professional staff to
all campuses in person and/or via teleconferencing equipment. Recordings and supporting
materials can be made available to faculty who cannot attend the workshops and seminars by
utilizing the online teaching and learning portal.
The goal of these workshops and seminars presented by faculty and staff should be to offer topics useful for both new and continuing faculty. In general, topics will be chosen annually to fit the requests of faculty, will supplement the findings of this study, and will further SET secondary analysis. Outside consultants have been and may continue to be invited to conduct workshops and seminars on varied topics.

**Faculty learning communities.** This approach to professional development represents another available new initiative for the Office of Faculty Development at HCU to implement in response to the findings of the study. Faculty learning communities could meet periodically as an ongoing interest group. When applying the Seven Principles to practice, Principle 7 encourages the use of collaborative teaching and learning techniques and pairing students so they compliment each other’s abilities. The same can be applied to faculty with faculty development implications. The 2017 American Council on Education report, “Institutional Commitment to Teaching Excellence: Assessing the Impacts and Outcomes of Faculty Development,” suggested that:

departments with so called gateway courses-required, lower division courses featuring multiple sections-might view these less than discrete units than as an opportunity to work with colleagues to vertically and horizontally align, integrate, and deliver a master course with shared outcomes for better learning. What is good for students is also effective for faculty; faculty understanding of collaboration also has important implications for student learning. Relative to individual work, cooperation also improves student learning outcomes. Creating an effective learning environment means devising ways to reach the new majority of students within a new paradigm of collaboration and inclusion. (p. 59)
In this context, faculty learning communities where small groups of 8-12 faculty members meet, according to their own group dynamic and needs, engage teaching faculty effectively.

Communities of practice, such as faculty learning communities and teaching circles, research has revealed, have very positive effects on teaching development, including course redesign activity, satisfaction with teaching, and instructors’ understanding how students learn (Van Note Chism, Holley, & Harris, 2012; Cox, 2004). Faculty development is not a standardized curriculum or a repertoire of mandated requirements; instead, small colleague-to-colleague engagements that take the form of learning communities that utilize faculty who have evidenced practices that move beyond subject knowledge and detailed syllabi. These communities are capable of clearly setting and communicating high but attainable goals and expectations for students.

**Synchronous online webinars.** This modality can be incorporated for faculty exploring how to use the various tools of HCU’s Learning Management System (LMS). Supporting faculty in the application of pedagogy to actual tools within the institution’s LMS system offers them an opportunity to easily provide students examples of exemplary work done by students in previous classes. The assignments tool can be used to provide details on what should be done to complete an assignment and, at the same time, show examples of past student work and what is expected from current students. (McCabe & Meuter, 2011, p.152) These approaches have proven highly effective.

Another strategy a faculty member may use toward getting to know and understand students is to survey them. A webinar may be useful if a faculty member is considering surveying their students to get an understanding of some experience, for example technology experience, as well as their knowledge of and/or their preferred learning style. Many LMS have
allowed for the creation of surveys. Tests and surveys to measure study knowledge, gauge progress, and gather information from students are also effective. Webinars allow the faculty to learn the actual steps for creating a test or survey, as well as the pedagogy and effective practice for implementation. In addition, webinars can be recorded and or purchased and stored to create a library of traditional teaching practices. Wilkerson and Irby (1998) linked strategies of teaching to theories of student learning and proposed a comprehensive approach to faculty development, grounded in literature of what works.

**New Faculty Orientation (NFO).** This program at HCU will be supported by review of secondary analysis of qualitative SET data. The response findings will support revisions to the HCU NFO program to implement a required, yet flexible, program for new full-time faculty who have less than two years of post-secondary teaching experience. The program was founded and designated to support the transition of all new faculty at the university. Based on the findings of this study, resources and presentations will be revised to best assist faculty in their teaching, scholarship, and service. Originally the NFO program was designed to mentor new faculty in understanding their responsibilities for teaching, scholarship, and service at HCU; however, sessions will be revised to address and discuss issues of practice and to connect the faculty to resources and faculty mentors, leading to multiple-session programming and follow-up supported by skilled facilitators. Programs with more extended impact have a deeper impact on teaching (Condon, Iverson, Manduca, Rutz & Willet, 2016; Stes, Min-Leliveld, Gijbels & Petegem, 2010; Van Note et al., 2012).

Assisted by this study’s findings, HCU is well positioned to continue its long history of faculty development support. The various programs offered at HCU, which include but may not be limited to, the New Faculty Orientations, the Faculty Mentoring Program, and Faculty
Learning Communities, now have a foundation to strengthen analysis in areas of data extraction and practice inquiry into what students perceive about teaching and anything else they as students want to voice. The Office of Faculty Development will feature an environment for faculty to work in collaboration with faculty developers to enhance faculty teaching and student learning whenever possible, grounded in campus data analysis. This researcher’s role at HCU, through careful consideration of programming, will be to support teaching and learning, but not to extemporaneously set their parameters.

**Limitations**

The design and results of the secondary analysis of qualitative open-ended response data of SETs should not be generalized to apply to all open-ended responses in all surveys, evaluations, or assessments at higher education institutions. This model does not allow for general transfer to all open-ended prompts.

Because the study was blind in identifying faculty names and limited to open-ended responses, it is not possible for the researcher to possibly assess individual trends in instructor teaching effectiveness or engage with faculty directly to ask the what, when, how, and why of a statement or set of statements. To better facilitate faculty development, if the faculty name and the open-ended responses were consistent in a particular course or over a program, the researcher/faculty developer could reach out to the instructor for insight into their methods, presentation of their materials, and conduct further discussion and sharing of a particular teaching practice style.

**Recommendations for Future Research**

**Faculty development and effective teaching.** The proposed study model can be used by researchers to understand effective teaching as perceived by the secondary analysis of student
voice. Therefore, research implies that what faculty and students are already saying about academic and campus matters should be further explored. Utilizing innovative approaches to faculty development requires the innovative utilization and application of data collection and needs assessment. This study’s results and implications for faculty development programming have the potential to provide a model for higher education administration to frame the student voice and to plot perceptions of teaching practice.

Subsequent research can be implemented over the entirety of a program’s curriculum by year of graduation, in graduate programs as well as at other universities, to fully understand student voice. Based upon the findings, new inquires emerged. At this time, four specific areas of inquiry should be prioritized and targeted. At minimum, replication of the study with secondary open-ended response data of the academic year 2017/18 would provide a foundation for future inquiry. A model, as well as policies and procedures, can be designed based on the study findings. In addition, one question for further investigation is: What are the various faculty development efforts underway at HCU at the department, school, campus, and institutional levels? Compiling what is being offered and analyzing it in light of the findings of this study would provide important insights into priorities for the development of teaching and mentoring practices. An additional area for future research would be to compare a cohort of students’ SET data up to and through their graduate exit survey to assess changes in perceptions over time in their open-ended responses. Lastly, it would be useful to follow a cohort of new faculty and create specific programming and initiatives in response to their faculty development and effective teaching practices.

American Council on Education report, “Institutional Commitment to Teaching Excellence: Assessing the Impacts and Outcomes of Faculty Development,” (2017) asserted that,
to increase the influence of an Office of Faculty Development as an institutional player on campus, it is important to position the faculty development professional staff as campus collaborators in accreditation, program review, and related campus changes in assessment efforts. Future research at HCU needs to explore other secondary data open-ended sources. The current study only evaluated the open-ended response in the end-of-semester SET; however, a number of existing longitudinal and continuous surveys and assessments could provide data worthy of secondary qualitative analysis. This type of research is significant given that institutions and accrediting bodies are interested in assessment models that include the utilization of student evaluation data to help faculty enable their own development of teaching practices. Research in the future can explore the relationship between faculty perceptions of good teaching practice and their actual implementation of instructional methods.

**Beyond the scope of faculty development and effective teaching.** Findings from the category *Un-related to instruction/teaching practice, statement for instructor, administration or on a course* uncovered that students use open-ended responses in SET to directly address and provided statements that did not correlate to teaching, but that contained actionable information reported for the instructor or a general statement for academic or operational administration. Research in the future can explore the secondary analysis of the student voice in open-ended responses for academic administration in the various university surveys and evaluations.

**Conclusion**

The integration of student voice, principles of good teaching, and practice is an interactive plain. Rowland (1999) described that particular active space as hosting a three-way interaction among the “personal” practice, the “public” principles, and a “shared” network of practice where ideas about principles and practice can be discussed and tested. The purpose of
this secondary analysis of qualitative open-ended response data study was to explore how an understanding of practices of teaching, supported by the student voice, may serve as a resource for faculty development and faculty teaching practice. The integration of teaching principles and teaching practice improves and guides faculty development. The research question for this study was: How do students’ perceptions of instruction, as documented in open-ended responses from student evaluations of teaching (SET), reflect principles of quality undergraduate education? Provided answers regarding student perceptions of instruction. It is hoped that this study has implications for faculty development that include leveraging collaborations and consortium partnerships.

Reference materials abound support why faculty should allow the Seven Principles to guide their teaching practice. The term “learner-centered teaching” has been and is the cornerstone of many decisions at HCU and was the basis for this investigation. In addition, this study provided a glimpse into what students’ perceptions of instruction look like at HCU. Now it is time to provide the how to guide faculty in using the student voice and the Seven Principles, which were found to be supported, in the real world of higher education. Probably the biggest challenge for effectively implementing changes in teaching practice is the time and effort needed to restructure curriculum and develop suitable course revisions, accompanied by the inclusion of diverse ways of teaching for learning.

Faculty development practices that are robust and flexible need to reach as many faculty learners as possible. Open-ended responses in end-of-semester student evaluations of teaching allowed for gains towards this goal; they simultaneously furthered an in-depth analysis and understanding of what students perceive as good teaching practice that will inform faculty development programming and initiatives. Faculty developers in general have been utilizing the
Seven Principles to frame and adapt programming for decades. Student responsibility of learner-centered education, which encourages students to be made aware of and reflect on their learning, includes the expectation that students complete end-of-semester student evaluations of teaching, where students self-assess, as well as evaluate the instructor and course.

This study promoted practitioner and scholarly significance in review and reflection. There exists a clear need for the Office of Faculty Development at HCU to develop a strategic plan to identify both short-term immediate goals and long-term goals to provide direction to the office, the university, faculty, and students. The plan would allow the Office of Faculty Development to define its mission to carefully choose programming, activities, and support as well as to communicate more effectively to faculty, staff and administrators. Moreover, the mission of the office in the future will include demonstrating sound pedagogical use of new technologies to enhance student learning.

As part of faculty development implications and the findings translate into practice, faculty development assessment and goal setting will be incorporated into the various activities supporting and influencing future planning. Assessment will be a continuous process embedded into the culture of the Office of Faculty Development, as well as into the institution and curriculum (at the program and initiative levels). Moving beyond secondary analysis of SET data, action research requires reflection on assessment results that can contribute to a critical analysis identifying gaps in perceptions of the student voice, to enhance program experiences.

Furthermore, this study concludes that SETs do in fact provide assessment information useful for the improvement of teaching effectiveness through which faculty development programs can be developed or enhanced to focus on the teaching and learning objectives of
HCU. Lastly, and in conclusion, this study revealed viable possibilities for targeted programming based on student perception and the student voice.
References


Kuh, G. D., Kinzie, J., Cruce, T., Shoup, R., & Gonyea, R. M. (2007). *Connecting the dots: multifaceted analyses of the relationships between student engagement results from the NSSE, and the institutional practices and conditions that foster student success* (Final
report prepared for Lumina Foundation for Education). Bloomington, IN: Center for Postsecondary Research.


Codebook References


Appendix

Codebook for Exploring Open-Ended Responses and Implications for Faculty Development

The codebook was compiled based on peer-reviewed research and the inductive process. In this study the codebook was developed a priori based on the theoretical framework of the “Seven Principles of Good Undergraduate Teaching,” as well as the pilot study and served as the data management tool.

Using the Seven Principles as the initial coding diagram, the framework and the text analysis took a representational approach where the coder selected a text fragment and assigned a theme to the fragment. Responses were not removed from the dataset if they had no applicable content; they were put in an additional category in the codebook as Un-related to instruction/teaching practice as defined by Chickering & Gamson and the Seven Principles for further analysis.

Principle 1.
Encourage contact between students and faculty.

Principle 2.
Develop reciprocity and cooperation among students.

Principle 3.
Encourage active learning.

Principle 4.
Give prompt feedback.

Principle 5.
Emphasize time on task.

Principle 6.
Communicate high expectations.

Principle 7.
Respect diverse talents and ways of learning.

Un-related.
Statements that are not able to be attributed to teaching/instruction/educational practice as defined by Chickering and Gamson and the Seven Principles and/or the Principles
Theme: Principle 1
Encourage contact between students and faculty.


- Advised students regarding academic courses and career opportunities
- Student dropped by office just to visit
- Shared personal experiences and values, as well as past experiences and attitudes
- Attended student events sponsored by student groups
- Worked with student affairs staff on issues related to student extracurricular life and life outside of school

http://www.utc.edu/walker-center-teaching-learning/teaching-resources/7-principles.php
- Invited to visit outside of class
- Helped with problems in their extracurricular activities
- Helped connect students with other faculty
- Personalized feedback on assignments
- Sought out students with problems in the course or a frequently absent
- Encouraged students to present their views and participate in class discussions
- Computer conferencing or “chat” online scheduled with faculty
- Email encouraged


- Knew student name
- Made special effort to be available to students of culture or race different from own
- Instructor served as a mentor or informal advisor to students
- Took students to professional meetings or other events in a chosen field
- Whenever there is a conflict on campus involving students, attempted or tried to help its resolution

http://www.slideserve.com/anahid/documenting-instructional-excellence
- Have regular office hours
- Provided knowledge regarding options, research, etc. of other faculty

http://home.capecod.net/~tpanitz/7ideas.htm
- Student orientations with faculty, academic and social groups
- Sent a welcome letter to your students prior to class each semester
- Talked to students individually during and after class and labs
- Asked student how they are doing from time to time
- Treated students like human beings with full real lives
- Had the student introduce themselves to the class or used other warmup techniques
- Used free standing furniture to reconfigure the class for accessibility
- Brought humor to the classroom
- Asked student opinions about what is being presented or class procedures
- Encouraged students to come in for feedback and evaluations on their exams
- Walked between classes with students
- Held out of class review sessions, including supplemental instruction
- Encourage students to join clubs and organizations in one's major and where there are faculty advisors and faculty participation
- Utilized communication technologies that increase access and helped share useful resources, and provided for joint problem solving and shared learning


- The instructor communicated effectively
- The instructor was enthusiastic about teaching
- The instructor was concerned about student learning
- The instructor was generally respectful of student learning
- The instructor was accessible outside of the course
- The instructor used technology to create a comfortable learning space
- The instructor personalized interactions whenever necessary

**Codes**

<table>
<thead>
<tr>
<th>Helpful</th>
<th>Human beings</th>
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<tbody>
<tr>
<td>Humor and fun</td>
<td>Opinions and feedback</td>
</tr>
<tr>
<td>Knew name</td>
<td>Exam feedback</td>
</tr>
<tr>
<td>Discussions: views and participation</td>
<td>Review sessions</td>
</tr>
<tr>
<td>Office hours</td>
<td>Enthusiastic</td>
</tr>
<tr>
<td>Personal experiences</td>
<td>Friendly and/or approachable</td>
</tr>
<tr>
<td>Talked individually</td>
<td>Respectful of student learning</td>
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</table>

**Theme: Principle 2**

Develop reciprocity and cooperation among students.


- Asked students to tell each other about their interests and backgrounds
- Encouraged students to prepare together for classes or exams
- Encouraged students to do projects together
- Asked students to evaluate each other's work
- Asked students to explain difficult ideas to each other
- Encouraged students to praise each other for their accomplishments
- Asked students to discuss key concepts with other students whose backgrounds and viewpoints are different from their own
- Created "learning communities", study groups. or project teams within your courses
- Encouraged students to join at least one campus organization
- Distributed performance criteria to students so that each person’s grade is independent of those achieved by others
http://www.utc.edu/walker-center-teaching-learning/teaching-resources/7-principles.php
- Created cooperative learning groups
- Participated in activities that encourage them to get to know one another
- Encouraged students to join at least one organization on campus
- Assigned group projects and presentations
- Utilized and promoted peer tutoring
- Encouraged students to participate in groups when preparing for exams and working on assignments
- Encouraged students from different races and cultures to share their viewpoints on topics shared in class
- Used chat sites and discussion forums for student-to-student communication
- Set up teams to interact through e-mail or web-based, synchronized meeting technology
- Encouraged students to respond to each other's work by posting it on the internet
- Had a question and answer time online
- Used technology for idea sharing
- Encouraged online discussion groups that require interaction
- Worked on group projects through technology
- Team-taught courses

http://home.capecod.net/~tpanitz/7ideas.htm
- Used peer critique and editing
- Had students refer to each other by name
- Students learned how to self-test to identify what has been learned and what has not been learned before an exam is given when they can still do something about it
- Created a climate wherein students felt safe and free to attempt answers to questions or solutions to problems

http://www.slideserve.com/anahid/documenting-instructional-excellence
- Used small group discussions to prepare students for whole group discussions
- Rotated students when working in pairs or small groups
- Blackboard discussion board groups
- Case study analysis by groups followed by group presentations

- The instructor used technology to promote cooperative learning activities
- The instructor used technology to encourage students to interact with one another
- The course was structured so that I could discuss my assignments with other students

**Codes**

- Group work and group preparation
- Peer tutoring
- Discussion
- Technology team interaction
- Team teach
- Peer critique
Group discussions  
Case study  
Self-test  
Safe climate

**Theme: Principle 3**  
Encourage active learning.


- Asked students to present their work to the class
- Asked students to summarize similarities and differences among different theorists, research findings, or artistic works
- Asked students to relate outside events or activities to the subjects in the course
- Asked students to undertake research or independent study
- Encouraged students to challenge instructor ideas, the ideas of other students, or those presented in readings or other materials
- Gave students concrete, real life situations to analyze
- Used simulations, role playing, or labs in your classes
- Encouraged students to suggest new readings, research projects, field trips, or other activities
- Arranged field trips, volunteer activities, or internships related to the course with students
- Carried out research projects with students

http://www.utc.edu/walker-center-teaching-learning/teaching-resources/7-principles.php

- Asked students to relate what they are learning to something in real life
- Used journaling
- Used simulation software to run "what-if" scenarios allows students to manipulate variables and circumstances
- Practiced role modeling and use web-based case studies to practice new thinking skills
- Encouraged students to challenge your ideas, the ideas of other students, or those ideas presented in readings or other course materials in a respectful matter
- Set up problem solving activities in small groups and had each group discuss their solutions with the class
- Allowed flexibility in choosing material so that it is more meaningful to the learner (e.g. students choose their own topic, project format, etc.).
- Had an interactive web page
- Debated on-line
- Presented students work for other students to review
- Talked about what students are learning by creating a learning group through technology
- Used technology for group problem solving

http://www.slideserve.com/anahid/documenting-instructional-excellence

- Used lab work and clinical opportunities
- Instructions and strategies for note taking
- Time for reflection and questions in lecture/class
- Research assignments
- Portfolio projects
- Journaling (self-reflective learning)

http://home.capecod.net/~tpantz/7ideas.htm
- Encouraged students to suggest new reading, projects, or course activities
- Used in class free writing
- Had students use journals on assignments
- Asked students to demonstrate problem solving strategies during class

- The technology increased my interest in course topic.
- The instructor used technology to facilitate thoughtful discussions.
- The course was designed to allow me to take responsibility for my own learning.

<table>
<thead>
<tr>
<th>Codes</th>
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<tbody>
<tr>
<td>Encourage active learning</td>
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<tr>
<td>Out of class/lecture work and help</td>
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<tr>
<td>Real life</td>
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<td>Simulation software/clicker</td>
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<td>Problem solving activities</td>
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<tr>
<td>Presentation</td>
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<tr>
<td>Lab/clinical work</td>
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<tr>
<td>Challenge ideas</td>
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</table>

**Theme: Principle 4**
Give prompt feedback.

- Gives quizzes and homework assignments
- Prepared classroom exercises and problems which give student immediate feedback on how well they do
- Returned examinations, assignments, projects and papers within a week if not sooner
- Give students detailed evaluations of their work early in the term
- Asked students to schedule conference with instructor to discuss progress

http://www.slideserve.com/anahid/documenting-instructional-excellence
- Progress reports
- Schedule of graded work
- Grading RUBRICS for various assignments
- Comments on lecture notes, reading journals and lab assignments
- Comments on students work
- Activities for self-evaluation

- Gave students a pretest at the beginning of each course
- Asked students to keep logs or records of their progress
- Provided informative comments that show the students' errors and give suggestions on how they can improve
- Was available to discuss the results of the final exam with students at the end of the semester
- Called or wrote a note or emailed students who miss classes

http://www.utc.edu/walker-center-teaching-learning/teaching-resources/7-principles.php

- Used pre-class and post-class assessments
- Discussed the results of class assignments and exams with the class and individual students
- Followed-up presentations with a five minute period for students to write down what they have learned in class
- Varied assessment techniques (tests, papers, journaling, quizzes)
- Offered on-line testing, software simulations, and web-based programs that provided instantaneous feedback
- Had question and answer sessions
- Used audio and/or video recordings to assess performances
- Used technology (email, Turnitin, Bb) giving instant feedback instead of waiting for the next lesson
- Used on-line testing, software simulations, and web-based programs that provide instantaneous feedback
- Scheduled a chat group where you, the instructor are present. Use it as a question and answer session when appropriate
- Sent acknowledgment e-mails when you receive a students work
- Posted answer keys after receiving assignment from all students
- Used hyperlinks within text to provide feedback to questions raised within the text


- The instructor responded promptly to my questions
- The instructor motivated me to do my best

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<th>Codes</th>
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<tr>
<td>Informative comments</td>
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<td>Varied techniques</td>
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<td>Question and answer session</td>
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<tr>
<td>Prompt return</td>
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<tr>
<td>Prompt response</td>
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<tr>
<td>Post answers</td>
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</table>
Theme: Principle 5
Emphasize time on task.

- Expected students to complete their assignments promptly.
- Clearly communicated to students the minimum amount of time they should spend preparing for class and working on assignments.
- Made clear to students the amount of time that is required to understand complex material.

http://home.capecod.net/~tpanitz/7ideas.htm
- Clearly communicated to students the minimum amount of time they should spend preparing for classes.

- Helped students set challenging goals for their own learning.
- Underscored the importance of regular work, steady application, sound self-pacing, and scheduling.
- Explained to your students the consequences of non-attendance.
- Made clear that full-time study is a full-time job that requires forty or more hours a week.
- Met with students who fall behind to discuss their study habits, schedules, and other commitments.
- If students missed classes, required them to make up the work.

http://www.slideserve.com/anahid/documenting-instructional-excellence
- Attendance policies.
- Detailed course calendar.
- Time-management activities-weekly schedules for students.
- Policies on late work.

http://www.utc.edu/walker-center-teaching-learning/teaching-resources/7-principles.php
- Had realistic expectations (don't expect 10 papers in 10 weeks).
- Encouraged students to prepare in advance for oral presentations.
- Was careful and mindful that time on task is real learning, not busy work.
- Did not use technology for technology's sake. It must be relevant and useful to the topic.
- Had progressive deadlines for projects and assignments.
- Taught and modeled time management.
- Discussion topics from class posted in a discussion group on the web.

- The course was well organized.
The course was designed to allow assignments to be completed across different learning environments

- The instructor facilitated the course effectively
- Technology was used to create an efficient learning environment
- Technology helped me to learn course topics more quickly

### Codes
- Organized
- Realistic expectations
- Policies for attendance and late work
- Modeled time management
- Instructor facilitated effectively
- Time on task is real learning
- Pace

### Theme: Principle 6
Communicate high expectations.


- Encouraged students to excel at the work they do
- Emphasized the importance of holding high standards for academic achievement

http://www.utc.edu/walker-center-teaching-learning/teaching-resources/7-principles.php

- Encouraged students to work hard in class
- Gave a detailed syllabus with assignments, due dates, and a grading rubric
- Gave students positive reinforcement for doing outstanding work
- Revised courses when needed so students remain challenged
- Explained to students that everyone works at different levels and they should strive to put forth their best effort, regardless of what level it is
- Worked individually with students who are struggling to encourage them to stay motivated
- Encouraged students to do their best instead of focusing on grades
- Shown examples of your expectations with previous students' work
- Published student work
- Provided corrective feedback. State what you did and did not like


- Make clear expectations orally and in writing at the beginning of the course
- Helped students set challenging goals for their own learning
- Student feels challenged or unchallenged by material, instructor or course
- Explained to students what will happen if the work is not completed on time
- Suggested extra reading or writing tasks
- Encouraged students to write a lot
- Publicly acknowledged excellent student performance
- Revised course
- Periodically discussed how well both the instructor and the class is doing during the course of the semester

http://home.capecod.net/~tpanitz/7ideas.htm
- Expected students to participate
- Attempted to make assignments interesting and relevant to create interest
- Suggested extra resources that support key points
- Publicly called attention to excellent performance by your students
- Gave many problems worth small amounts each
- Set up study guidelines

- The instructor used good examples to explain concepts
- The assignments for this course were of appropriate difficulty level
- The instructor used technology design instructional materials that were understandable
- The instructor provided models that clearly communicated expectations for assignments

http://www.slideserve.com/anahid/documenting-instructional-excellence
- Course goals and requirements
- Visits from former successful students and leaders in the field
- Extra credit activities

**Codes**

- Extra credit
- Detailed syllabus
- Study guides
- Organized, structured
- Consistent
- Suggested extra resources, readings and examples
- Enthusiastic, cares
- Knowledgeable
- Levels of challenge
- Assessment

**Theme: Principle 7**
Respect diverse talents and ways of learning.

- Encouraged students to speak up when they do not understand
- Discouraged snide remarks, sarcasm, kidding, and other class behaviors that may embarrass students’
- Used diverse teaching activities and techniques to address a broad range of students
- Selected readings and design activities related to the background of students
- Provided extra material or activities for students who lack essential background knowledge or skills
- Integrated new knowledge about women, minorities, and other under-represented populations into your courses
- Make explicit provisions for students who wish to carry out independent studies within course or as a separate course
- Used learning contracts and other activities to provide students with learning alternatives for courses
- Attempted to find out about students’ learning styles, interests, or backgrounds at the beginning of each course

http://www.utc.edu/walker-center-teaching-learning/teaching-resources/7-principles.php
- Used Web technologies to allow students to pick and choose learning experiences that fits the way they learn
- Encouraged students from different races and cultures to share their viewpoints on topic discussed in class
- Used collaborative teaching and learning techniques and pair students so they complement each other’s abilities
- Gave students a problem to solve that has multiple solutions. Guide them with clues and examples
- Considered field trips
- Encouraged students to express diverse points of view in discussions
- Created learning activities filled with real-life examples and diverse perspectives
- Balanced classroom activities for all styles (some books, some hands on, some visual)
- Explained theory from a practical approach first then add the structural approach

http://home.capecod.net/~tpanitz/7ideas.htm
- Selected reading and design activities that relate to the backgrounds of your students

- The instructor adapted to students’ instructional needs
- The instructor was tolerant of others’ ideas and views
- The instructor designed the course so that technology would minimally interfere with learning
- The instructor was flexible regarding the completion of assignments
- The instructor provided several ways for students to demonstrate understanding of important course concepts

http://www.slideserve.com/anahid/documenting-instructional-excellence
- Rules for respectful classroom
- Different testing options
- Assignments that test different skills
- Use of visual, audio and written materials
- Activities relevant to the diversity of the students
- Policy on students with disabilities
- Integrated new knowledge about culture and diversity (women and other under-represented populations) into course
- Used diverse teaching activities to address a broad spectrum of students

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<td>Diverse teaching activities</td>
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<tr>
<td>Extra material, reading, activity</td>
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<td>Pace</td>
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<tr>
<td>Diverse discussion</td>
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<tr>
<td>Real life learning activity</td>
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<tr>
<td>Collaborative teaching, case study</td>
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<tr>
<td>Teaching style to learning style</td>
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<tr>
<td>Test review, recitation, study guide</td>
</tr>
<tr>
<td>Rules for respectful classroom</td>
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**Theme: Un-related (UR)**

Un-related to instruction/teaching practice.

The theme *un-related to instruction/teaching practice* applies to comments that had no direct relationship to instruction nor did it provide information specific to teaching practice or content of a course.

Statements that are not able to be attributed to teaching/instruction/educational practice and/or the **Principles**
- This course was valuable.
- This course improved my understanding of subject.
- Instructor taught material well.
- I learned a lot.
- Informative course/subject.
- *If had to ask how or what or why*

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<tr>
<td>No comment</td>
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<tr>
<td>Nonsensical comment</td>
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<tr>
<td>Statement for instructor or administrative office or academic department</td>
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