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The Scholarship of Teaching: Contributing Factors to Improved Teaching Performance Among University Faculty Members

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THE SCHOLARSHIP OF TEACHING: CONTRIBUTING FACTORS TO IMPROVED
TEACHING PERFORMANCE AMONG UNIVERSITY FACULTY MEMBERS

by Whitney Ransom

A master's project submitted to the faculty of
Brigham Young University
in partial fulfillment of the requirements for the degree of
Master of Science

Department of Instructional Psychology & Technology
Brigham Young University

February 2008

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BRIGHAM YOUNG UNIVERSITY

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Abstract

THE SCHOLARSHIP OF TEACHING: CONTRIBUTING FACTORS TO IMPROVED TEACHING PERFORMANCE AMONG UNIVERSITY FACULTY MEMBERS

Whitney Ransom

Department of Instructional Psychology & Technology

Master of Science

This thesis brings a much-needed focus on the quality and scholarship of teaching as it pertains to educational and faculty development. The main purpose of this paper is to outline what more than 200 faculty members across a wide variety of disciplines have focused on over a three-year period to make significant (a 1.5 standard deviation increase or higher in online student ratings) and sustained improvements in their teaching. The top three factors of improvement include active/practical learning, teacher/student interactions, and clear expectations/learning outcomes. The researcher also discusses how institutions and faculty communities of practice, research, and faculty personality contribute to teaching performance. The findings of this research build upon the literature review on the scholarship of teaching. The researcher provides vignettes of faculty who have gone through a change process to improve their teaching, highlights important teaching areas for faculty to focus on in each college, provides practical application for change, and concludes by providing suggestions for future research. This thesis is full of hope and encouragement for all faculty and administrators, regardless of their personality, their current skill level at teaching, or the subject matter they teach.

Acknowledgements

Wow! What a fun and informative ride it has been on this journey to better understand contributing factors to improved teaching. This topic has been meaningful and of great importance to me my entire life, as many of my mentors, friends, and family members have been teachers (formally, as well as informally). Many people have helped me all along the way as I have worked on this thesis. Thank you to my committee members, Charles Graham, David Williams, and Russell Osguthorpe who are all excellent teachers, who have supported and encouraged me, and have been just as thrilled about this topic as I have been. Thank you to Carla Cattani for helping me recognize an exemplary teacher at a young age. Thank you to Jon Mott who got me started on this topic and for the Center for Teaching & Learning for allowing me to have a venue to conduct this research. Thank you to Yvette who has cheered wildly for me every step of the way and has been willing to review my paper or allow me to run an idea past her at any hour of the day. Thank you to my family members and friends who have patiently and enthusiastically listened to me talk about my thesis again and again. Finally, I must acknowledge my love and gratitude to the Master Teacher, Jesus Christ, to whom I owe everything, whose teachings are permanently written in my heart.

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Chapter 1: Introduction

Statement of Problem

No instructor grows up thinking, “I really want to be a bad teacher!” Some teachers may take great joy in being considered “hard or demanding, but never bad” (Phillips, 2001, p. iv). Rather, individuals who become teachers generally want to be the very best they can “become in their field and seek to have elevated purposes in their teaching pursuits” (Fink, 2003, p. 244). They want their students to have “significant learning experiences, grow, and progress” (p. 6).

The best thing we can do to help every student succeed is to provide good teachers, well versed in subject matter content and in how to teach it. Teachers need and want help to do their jobs well. Good training in college is important but it is not enough....Teachers want the kind of professional development that will give them the knowledge and skills to help their students meet these new academic standards. They want good diagnostic information that allows them to be better at adjusting their teaching for individual students. (Landgraf, 2003, para. 5)

However, despite these high aspirations to become the greatest teachers, oftentimes faculty consider the literature on that which makes an excellent teacher, or watch a faculty member whom they feel is an outstanding teacher and immediately shut down or give up thinking that they can improve because they believe they can never be as good of a teacher as that professor for various reasons. They may also get discouraged if they spend time on teaching activities and research that does not improve their ratings (Hattie & Marsh, 1996). Even new teachers may suffer if they do not feel they have reached excellent teacher status at the beginning of their careers.

Most new teachers enter the profession with a powerful desire to do good work. They want to teach. But they are expected to just jump in and be successful. If they don't feel effective, they can get discouraged—especially the most conscientious ones. (Boss, 2005, p. 5)

Students also have expectations for their teachers, just as teachers have expectations for their students (Hunsberger & Cavanagh, 1988). In essence, university students want and expect to be taught by excellent teachers. They pay tuition to gain an education that will enable them to gain the knowledge and learn the skills to succeed in life. Teachers are at the crux of this endeavor.

The research topic is of great interest to the researcher. Some of her greatest influences in her life have been teachers—teachers who taught with enthusiasm, love, and were concerned about their own personal progress, as well as the progress of their students. The researcher recalls how on the first day of her AP English class, her teacher taught about integrity and how a person's integrity was more important than any grade. This lesson was one of character, rather than one of syntax and was a very powerful teaching moment.

This study is one that is full of hope and encouragement for faculty who consider themselves just “average teachers.” The researcher shows by this study that all faculty can change and become better professors and learners and have a powerful impact on their students, regardless of their personality, the subject matter they teach, or their current skill level.

It is my experience and belief that nearly all faculty have deep inner dreams of what they would like their teaching to be like – and those dreams are significantly different from their ordinary, everyday experiences in the classroom. If some way could be found to encourage faculty to dream their dreams and to have a realistic hope of making these dreams a reality, they would have

the basis they need for saying, “Yes, it is worthwhile for me to invest in learning how to be a better teacher.” (Fink, 2003, p. 8)

The purpose of this study is to identify faculty who have improved significantly in their teaching over at least a three-year period and to determine what these faculty members changed in their teaching to become better. No matter how good a faculty member may be, or no matter the personality, or subject matter that the faculty member teaches, every faculty member can and should strive to become better.

Although there has been a debate regarding whether teachers are born or bred, Timpson and Bendel-Simso state that this debate is “far too simplistic to entertain and clearly begs the responsibility we all share to grow, learn and improve as professionals. Teachers can be made and any teacher can improve through openness to change, study, practice and feedback” (Timpson & Bendel-Simso, 1996, p. x).

Therefore, this study has the potential to impact every faculty member. It is one in which faculty from a variety of disciplines can gain understanding from their peers as to how they achieved performance and improved in their teaching.

A significant amount of research has been conducted on what makes an excellent teacher (Bain, 2004; Chickering & Gamson, 1991; Fink, 2003; Palmer, 1993). Further, a great deal of literature regarding feedback to improve teaching is in abundance; however, “most studies focus on the kind of information that is fed back to the instructor rather than the process by which the instructor receives the information” (Brinko, 1993, p. 574).

Therefore, research on what faculty actually do to improve their teaching is lacking. This study will contribute to the literature in the areas of development and improvement among faculty members.

Practical/Theoretical Significance

Boyer (1990) first introduced the concept of a scholarship of teaching as a process of research in which faculty gain “knowledge of effective ways to represent subjects, the ability to draw the various strands of the field together in a coherent and purposeful way, and [develop] ways that make the subject more accessible, interesting, and meaningful to students” (Kreber & Cranton, 2000, p. 477). Shulman (1987) discusses how faculty develop a scholarship of teaching when their work as teachers becomes visible to their colleagues and shared so that others can build on their research (as cited in Kreber, 2006).

One aspect that the scholarship of teaching and learning is concerned with is understanding and utilizing best practices in teaching and discovering which “teaching innovations produce the best results” (Shulman, 2006, 88).

For the purpose of this study, the scholarship of teaching and learning is “especially applicable in understanding how teachers of all levels can contribute to better or increased learning, more in depth learning, as well as learning that enables students to succeed in their jobs (Shulman, 2006, p. 88).

Brigham Young University (BYU) faculty comprise the pool of faculty used to identify contributing factors to improved teaching for this study. Each year at BYU, faculty who excel in research and scholarly activity are awarded the Maeser Research and Creative Arts Award. Of the 49 individuals who received this award in 2004, 80 percent of these individuals have teaching evaluations which are above the corresponding college average for the same period. Further, their ratings are .6 point higher, on average, on the online evaluation scale.

Moreover, each year BYU awards faculty who have excelled in teaching with the Maeser Excellence in Teaching Award. Of the 52 faculty who received this award (over a 15 year period), 49 of them (84 percent) had published in a peer reviewed journal or juried forum. The majority of these faculty members published multiple times or presented research frequently throughout the year (Webb, 2005, p. 3).

Brent Webb, Academic Vice President at BYU, stated that an excellent teacher is one who is continually learning, seeking, and teaching himself or herself new skills. In essence, the individual is engaged in the latest research and knowledge in his or her respective field of study. Webb provides a description of one faculty member whom he felt met these criteria. He said,

Even as he drew near retirement, he never stopped studying, reading, analyzing. His appetite went beyond engineering, where he found interest in astronomy, botany, and music. His personality was characterized by curiosity and fascination with everything around him. He delighted to the point of giddiness in new insights or observations. This is true even now, years after his retirement. My conclusion is that this man was a great teacher because he was himself a passionate learner. He was able to share with students both his knowledge and his enthusiasm for learning. (Webb, 2005, p. 1)

Research Questions

1. What have faculty who have been successful at improving their teaching performance done to realize that growth?
2. How do the institutional/administrative contexts (departments, colleges, Faculty Center, Center for Teaching & Learning, Administration, Students Consulting On Teaching in which faculty work influence teaching performance?

3. How much improvement in teaching performance is dependent on interactions within the faculty member's communities of practice?
4. Is there a correlation between research productivity and teaching performance among faculty who improved in their teaching?
5. Can improvement in teaching occur among a variety of different personality types?

Definition of Terms

BYU Faculty Center: The Faculty Center at BYU exists to improve teaching and learning, support faculty, and strengthen the university . The Faculty Center supports quality teaching, scholarship, citizenship, and collegiality among faculty and all who teach at Brigham Young University.

Center for Teaching & Learning: The Center for Teaching & Learning (CTL), formerly the Center for Instructional Design (CID) is a department at BYU that partners with faculty on a variety of levels to help improve teaching and learning. The CTL currently supports a broad range of large and small-scale faculty projects to maintain and improve on-campus instruction. There are 27 full-time employees and approximately 115 student employees at the CTL.

Communities of Practice: Communities of practice consist of groups of individuals who share a common interest or passion. As they interact together, they learn from each other and also gain insights pertaining to how to improve in their particular community (Wenger, 1999).

Online Student Ratings: At the end of each term or semester, BYU students are encouraged to provide feedback on their learning experiences with each of their

professors. Once grades are complete, reports of the ratings are made available to BYU faculty and administrators. Students are given the opportunity to rate their professors in the following areas: overall rating of the course and the instructor, learning, intellectual development, course organization, grading procedures, and contribution to the Mission and Aims of a BYU Education (i.e., Spiritually Strengthening, Intellectually Enlarging, Character Building, Leading to Lifelong Learning and Service).

Students Consulting on Teaching (SCOT): This program is designed to help BYU faculty improve their teaching. A student is assigned to help faculty gain a better understanding of that which is happening in his or her classroom. The student consultant (SCOT) can serve as a filmmaker, observer, or interviewer for the class.

Successful: Success never stays static. It is a “movement and an ongoing project, one pursued with intensity, flexibility, and awareness” (Hall, 2002, pp. 88-89). Success is achieving a desired result.

Chapter 2: Review of the Literature

Exemplary Teachers' Characteristics and Classroom Behaviors

The purpose of this study is to gain a better understanding of how faculty become better teachers and make improvements in their teaching. To understand how a faculty member becomes a better teacher, one must have an understanding of what makes a good teacher, or an excellent teacher.

A great deal of research has been performed showing that excellent teachers differ from average teachers in the ways that they think, in the cognitive and pedagogical skills they use (Borko & Livingston, 1989), as well as in the decisions they make (Westerman, 1991).

Further, excellent teachers actually have a more flexible and broader base of concepts of teaching effectiveness. Their concepts of self-efficacy are deeper. They employ a variety of self-evaluation measures, and also use more teaching strategies to improve in the area of student learning. These faculty members also believe their role as teachers is significant in the lives of their students and that they possess the skills and knowledge to enable their students to increase their potential (Dunkin, 1995; Dunkin & Precians, 1992).

Excellent teachers are also those who have a great understanding of their subject material. They are active in their field of study and make an effort to publish. These are individuals who treat their discussions, classroom material, and all other elements of teaching as “serious intellectual endeavors as intellectually demanding and important as their research and scholarship” (Bain, 2004, p. 17). Excellent teachers expect a lot from

their students. They use a variety of teaching methods and they treat their students with respect and trust (Bain, 2004).

The most vibrant teachers fully engage in the “intellectual flow and excitement in their fields. The worst are clueless about a rapidly changing professional conversation. We may be kind and supportive teachers, but we are still failing to fulfill our pedagogical responsibilities if we do not remain current in our fields” (Hall, 2002, pp. 34-35).

Excellent teachers focus on learning, rather than on teaching. An institutional commitment that is serious about lifelong learning “has profound implications for how we teach our students. It forces us to focus less on what we teach and more on what they learn” (Tanner, 2006, p. 2).

According to an observational study of more than 30 students in 1984, exemplary teachers excelled on one or both of the following two areas: (a) capability of producing intellectual excitement in students, and (b) ability to have a personal rapport with students (Lowman, 1996, p. 35). Results from this study showed that faculty who are exemplary teachers were enthusiastic about the subject matter and had the ability to engage the students in the classroom. Faculty who were able to build rapport with the students generally learned the names of the students, communicated with them before, during, and/or after class, and motivated the students to complete their work, rather than forcing them to complete the assignment (p. 35).

Chickering and Gamson (1991) have done significant research on effective teaching and have stated that the following seven principles should be used as guidelines for faculty: (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). Although a great deal has been learned and gained from research on teaching in higher education, “much still remains unknown, and most remains unused by practitioners themselves” (Menges, 2000, p. 5).

Importance of Improvement

To measure growth, one must understand how growth works and its importance. A program that looks toward the “cultivation of faculty growth is a necessity in every institution” (Russell, 1993, p. 1020).

Faculty who do not strive to improve in their teaching are at risk of stagnation. Faculty who do not strive to grow in their teaching performance become comfortable with a low-level performance, and also become inflexible in their teaching methods and procedures (Russell, 1993).

Faculty improvement is essential for a variety of reasons. First, faculty who experience improvement in their teaching tend to increase in their level of teaching satisfaction as well as their happiness. Second, faculty who do not strive to improve in their teaching are less likely to succeed in motivating their students to achieve additional improvement (Russell, 1993).

Characteristics of Improvement

The purpose of this study is to determine what faculty do to improve their teaching and teaching performance. The elements that involve motivation to change must also be discussed. Although a variety of resources exist to help faculty improve,

ultimately, it is the faculty member who must determine that he or she wants to change or what change is needed before lasting change can occur, and usually that change takes time. “Teacher growth is not a commodity that can be delivered to the public schools on Monday morning” (Yarbrough, 1975, p. 335). Many instructional models of improvement have been developed. A few of these models are discussed in this paper (Paulsen & Feldman, 1995).

The first example is a feedback loop explained by Robert Menges (1991). In this model, the faculty member receives some form of feedback regarding his or her teaching performance. Next, the faculty member takes this information and compares it with his or her internal standards. Finally, the faculty member makes a change in “output [teacher behavior], feedback input, or internal performance standards” (Paulsen & Feldman, 1995, p. 9). This is a natural aspect for many professors. Professors “solicit information as feedback; they reflect on their expectations, beliefs, and values; and they experiment with different ways of teaching” (Menges, 1991, p. 27).

Another model by John Centra (1993) is based upon the assumption that formative evaluation can lead to optimum performance and improvement when the following four steps are followed:

1. New knowledge. The faculty member must receive new knowledge pertaining to his or her teaching performance.
2. Value. The faculty member must find value in the new knowledge, meaning that the individual or group who solicited the information must be seen as credible or respectful.

3. Understand change. The faculty member must understand what he or she needs to do in order for positive change to occur.

4. Motivation. The faculty member must have a desire to change.

Centra (1993) clarifies that change can still occur if two of the four conditions are met, however, the changes may not be as lasting or may not have the same type of impact as when all four of the steps are followed.

Another model, outlined by Maryellen Weimer (1990) includes a detailed, five-step approach for improving performance in teaching. Weimer states that the following steps must be followed:

1. Understanding. Faculty gain an understanding of the techniques they incorporate into their teaching, as well as the assumptions they have for teaching and learning.
2. Information. Faculty obtain information from their students and peers to help them gain a greater understanding of their own understanding of their teaching; the input from them also provides feedback as to the “impact of the policy, practice, behavior, or activity on the person offering the input” (p. 34). Finally, this input provides alternate methods for a particular faculty member to consider to accomplish his or her learning and teaching objectives.
3. Change. The faculty member can then identify the changes that need to be made and possible alternatives.
4. Incorporation. The faculty member can incorporate the changes into his or her teaching.

5. Evaluation. The faculty member evaluates the impact of the changes he or she has made (Weimer, 1990).

The faculty member must also feel some sense of safety correlated with any attempt to change. In essence, the individual must be able to see that the changes that are made will still allow the individual to change his or her positive self-image without feeling a loss or a decrease in his or her integrity or identity (Schein, 1992). One important element of this feeling of safety is that we “finally see a way to work on the problem or see a direction or learning that we had not seen before” (p. 301).

Once the faculty member decides to make the change to improve his or her teaching, what elements need to be in place for that change to be sustained? Suppose a faculty member receives higher student ratings after making some changes to improve in his or her teaching performance. If this particular faculty member feels that the teaching he or she performed was meaningful, rewarding, and/or significant, then the changes are more likely to become sustained (Paulsen & Feldman, 1995). This element is important as many faculty members are motivated by intrinsic rewards (Austin & Gamsen, 1983; Olsen, 1993). In fact, it is the “need for self-determined competence that underlies intrinsic motivation” (Deci & Ryan 1985, p. 32). This central need guides individuals to “situations and activities that interest them, that provide optimal challenges that allow them to learn and achieve” (p. 28).

However, improvement in the student ratings for the following terms or semesters may also be necessary to keep that change indefinitely and to assure the faculty member that the way in which he or she teaches and the scores that he or she received were not just by chance (Paulsen & Feldman, 1995).

Research from the literature review shows that oftentimes improvement in teaching comes gradually.

Most instructional change does not comprise sweeping innovations; instead, professors recalled gradually evolving techniques within an aspect of teaching...[by] 'tinkering' with instructional strategies. (Stevens, 1988, p. 67)

Several studies from the literature also indicate that faculty do not always make use of the evaluations they receive from students. In fact, some faculty believe that student ratings are not valid (Spooren & Mortelmans, 2006) and are used as "meaningless quantification" and lead to "personality contests" (Kulik, 2001) instead of being models that can be used to effectively evaluate teachers. For example, a study conducted in 1970-1980 at Rhode Island College showed no evidence that the use of student evaluations produced improved ratings over the ten-year period (Salzberg & Schiller, 1982). In addition, a study was conducted at a major university in Canada to discover the utility of student ratings. Of the 357 faculty members who were surveyed, 84 percent gave positive responses to the usefulness of the student ratings, although they did not usually use them to improve their teaching (Beran, Violato, Kline, & Frideres, 2005).

Furthermore, a study conducted on the effects of a formal evaluation process showed that 77 percent of the 250 tenured faculty who were surveyed reported that student evaluations were not taken into consideration when faculty made changes to their teaching. Results from the study also showed that faculty would use student feedback when they wanted to make changes in their handouts, the number of assignments given, and also with the lecture pace (Spencer & Flyr, 1992).

Although some faculty do not endorse the use of student ratings, they are one of the most common methods of rating faculty effectiveness (Heckert, Latier, Ringwald, &

Silvey, 2006). While some faculty may be skeptical of the accuracy of student ratings, a great deal of research has been performed to validate the usefulness of these ratings (Aleamoni, 1999; Feldman, 1993; Marsh & Dunkin, 1997; Wachtel, 1998). However, a minimal amount of research has been conducted on how faculty perceive and use these ratings (Schmelkin-Pedhazur, Spencer, & Gellman, 1997).

Considering the research that has been done on faculty ratings, many faculty view student evaluations as useful for summative and formative research. They also believe that student ratings provide them with valid, reliable, and useful data (Penny, 2003) regarding their effectiveness as teachers.

Once faculty receive the ratings, research shows that faculty are most effective in using the ratings to change if they are assisted by a professional teaching consultant who can help the faculty member interpret the feedback from the ratings (Brinko, 1993; Cohen, 1980).

Communities of Practice

Lave and Wenger (2003) wholeheartedly embrace the concept that learning is a social experience, one in which the learner must participate to benefit and grow. To Lave and Wenger, learning isn't solely focused on cognitive processes and conceptual structures, rather greater emphasis is placed upon defining and participating in the right type of social environments that allow for learning to occur. Social learning, even among academic communities, occurs because individuals have similar interests and learn together. Their perspective is that individuals living in the community adopt or more fully embrace the characteristics of the community (Wenger, 1999). Communities of practice

are important in education because they open up the doors for faculty to address certain educational concerns and find solutions (Stein & Hurd, 2000).

The best way to improve instruction is to establish learning communities in which the professors come together to analyze and improve their practices (Schmoker, 2004). Professional learning communities are the most “promising strategy for sustained, substantive school improvement” (DuFour & Eaker, 1998, p. xi).

According to Wenger (1999), a community of practice is based upon the following three dimensions: (a) what it is about, (b) how it functions, and (c) what capability it has produced (pp. 73-84). These three dimensions play a role in the motivation of the individual to participate and be a part of a community. Within a community of practice, the individuals are committed (at different levels) to the same set of practices. In some communities, individuals may be at the center of the practice, and they are considered to be core or central members. In other communities, individuals may be considered new members, and they are located on the periphery of the community. Furthermore, some individuals may not even realize they are part of a community of practice until they have been introduced to the idea (Lave & Wenger, 2003).

Communities of practice provide a way to speak about the relations between newcomers and old-timers, and about activities, identities, artifacts, and communities of knowledge and practice. It involves the process in which an individual who is new to the community becomes part of a community of practice. (Lave & Wenger, 2003, p. 29)

Some ways communities of practice benefit faculty include the following: (a) promote communication on an intellectual basis between faculty members and students, (b) help faculty and students make connections among courses, (c) help students make a connection between their academic and social worlds, (d) increase student retention,

(e) enrich the lives of the faculty members who work with the students, (f) provide faculty with different and new perspectives, and (g) provide greater interaction between faculty, staff, and students (Stein, 2004).

For example, one professor at BYU said that he uses technology to create community. In order to help the students feel a sense of connectedness, he has set up a Blackboard site (a community in which the students can learn). Before the class begins, this faculty member encourages each student to post something about himself or herself in the discussion forum. Students are also asked to include a picture of themselves so that the students can begin to become acquainted with one another and also to have dialogue. In essence, the professor gently invites the students to become a part of the community, to embrace it, and to move toward its center.

To foster an organization that thrives in learning, the faculty member must feel a sense of belonging to his or her academic community, rather than a sense of isolation. If not, he or she runs the risk of falling into the danger of what Parker Palmer (1999) refers to as the “privatization of teaching.”

Privatization creates more than individual pain; it creates institutional incompetence as well. By privatizing teaching, we make it next to impossible for the academy to become more adept at its teaching mission. The growth of any skill depends heavily on honest dialogue among those who are doing it. Some of us grow by private trial and error, but our willingness to try and fail is severely limited when we are not supported by a community that encourages such risks. The most likely outcome when any function is privatized is that people will perform the function conservatively, refusing to stray far from the silent consensus on what “works”— even when it clearly does not. That I am afraid, too often describes the state of teaching in the privatized academy.
(p. 1)

Chapter 3: Design of the Research Study

Use of Online Student Ratings

This qualitative research study was conducted in the following way: Faculty from BYU were identified who have shown significant improvement in their teaching performance over time. This selection was done by the use of online student ratings.

Why student ratings? Although faculty members may have certain perceptions about their own teaching, ultimately the students who are in the classroom determine how they are affected by the performance of the teacher. Furthermore, student ratings have been designed and are conducted to change the behavior of the faculty members (Armstrong, 1998).

There are two main purposes for collecting data for student ratings: (1) to provide formative feedback to professors; and (2) to provide summative information to the deans of different colleges, for purposes of promotions, tenure, and salary of faculty members (Bugher, 2006).

Student ratings have been a strong motivator for faculty. One public relations professor at BYU said the following: “To me, it is very important how the students feel. It is important to me that the students understand what they are learning. I am always looking for ways to be better” (Bugher, 2006, para. 13).

An article (Bugher, 2006) regarding online student ratings included a statement from a SCOT mentor who discussed how these ratings can have a powerful effect on faculty.

I met with one particular professor who handed me all of his student ratings, nearly in tears, and had me read over them. Every kid tore him to shreds. That semester, I realized the impact that

those student ratings really have on a professor, for good and for bad. (para. 11)

Online student ratings provide faculty with feedback on their teaching methods and also provide a form of evidence for excellent teaching. According to Trav Johnson Assistant Director of the BYU Faculty Center (Ricks, 2004), the BYU campus-wide response rate for online student 60 percent. This number shows that many faculty and students support the online rating system.

Identification of Faculty Sample

The Center for Teaching & Learning currently has a database containing online student ratings for every class each faculty member has taught. The database was queried by the Center for Teaching & Learning to identify faculty who have taught the same course (faculty course pair) over a three-year period. Scores were obtained from each faculty member, starting with their most recent score and working back. The database was programmed to begin with scores from Winter 2007. If faculty taught several sections of a course during the same semester, their scores were averaged. Next, the database was queried to show faculty who had improved at least 1.5 points in a specific class, over the three-year period, for three consecutive semesters or terms. Scores were obtained for each faculty member based on their overall course and overall semester score. With the online student ratings system, faculty are rated on a scale of 1-8.

One of the committee members for this research study who has served on the Rank and Status Committee at BYU reported that he had viewed more than 200 dossiers of faculty. He said that negative comments from students are usually accompanied with

scores that range from 0-5. Negativity from students tends to diminish with scores that are in the high six range on the eight-point scale.

Once the faculty were identified, they were sent an email survey, in which they were asked to answer four questions about what they have done to improve in their teaching. They were also asked if they were willing to discuss their experiences in further depth by participating in an interview.

The survey was sent on August 24, 2007 to 308 faculty members using a survey program called Qualtrics (see Appendix F). This email was sent by the Academic Vice President at BYU. The faculty had one month to complete the survey. A reminder email was sent to each faculty member who had not completed the survey one week after they had received the survey. At the beginning of the fourth week of the survey, a final reminder was sent to each faculty member who had not completed the survey.

Selection of Faculty Interviews

Next, a purposeful sample was drawn in which 27 faculty were selected for an interview. The researcher attempted to interview faculty from a wide variety of disciplines, and also interview faculty who taught large and small-scale classes. For the purpose of this study, a large-scale class was considered as one that had 40 students or more. The second survey question was the following: "I would be willing to participate in a follow-up interview regarding teaching performance." There were 170 faculty (84 percent) who said they would be willing to participate in a follow-up interview. Thirty-two faculty (16 percent) declined the interview request.

The researcher used a systematic process to select the faculty to be interviewed. First all of the names of the faculty members, along with their responses, were placed in

an Excel spreadsheet. Next, the faculty members who said they were not willing to participate in an interview were removed (32 faculty). Then the remaining 170 faculty members were alphabetized according to their course title.

The researcher then read through each response that the faculty members had provided regarding what they did to improve their teaching in their courses. If the faculty members provided useful information (meaning they mentioned something specific they did to improve in their teaching), or if the paragraph(s) they wrote seemed like an interesting case, the researcher contacted the faculty member by phone to request an interview. The researcher went through the entire list and contacted each faculty member who provided useful information. If the faculty member answered the phone, the researcher set up an appointment. If the faculty member did not answer, the researcher called the next faculty member on the list. If the faculty members commented they had not changed anything or had no idea of what they have done to improve their teaching, they were not contacted (13 faculty).

Once the researcher had gone through the entire list of faculty (contacting each one who met the criteria), she went through it again. This time, if she had already set up an appointment with a faculty member who improved in a specific course, and she came upon another faculty member who taught the same course, she skipped over him or her. This approach was taken to ensure that faculty across a variety of disciplines were interviewed. For example, if five faculty taught Biology 200 and were included in the list of faculty who improved and all provided good responses, only one of these faculty were interviewed (the first faculty member from that course who consented to an interview).

The faculty were informed they had been selected to participate in a research study on improvement in faculty teaching. They were informed that the interview was going to be based upon this topic and would contain questions pertaining to their personal growth and improvement in their teaching over the past three years. They were also informed of their rights as a participant and of the confidentiality of the data. The researcher also asked for permission from the faculty members to view their student comments (see Appendix B).

Twenty-seven faculty members were interviewed consisting of 10 of the 12 colleges. The number 27 does not signify that there were only 27 faculty members who provided interesting data and were interviewed. There were still faculty from the list who could have been interviewed. However, the researcher decided to stop at 27 interviews because of the following reasons.

1. Broad sample. The researcher had interviewed several faculty members from each college.
2. Repetition. After 27 interviews, the researcher felt that she was hearing repetition in the responses.
3. Time constraints. The researcher needed to conduct all of the interviews within a few months.

The breakdown of the number of faculty members from each college is shown in Figure 1. Faculty from the College of Nursing and the Law School were not interviewed. Only one faculty member from the College of Nursing responded to the survey and said she would be willing to be interviewed. However, she said she was a course coordinator and did not work directly with the students. This faculty member did not provide

anything she did to improve the course and therefore did not meet the criteria to be interviewed.

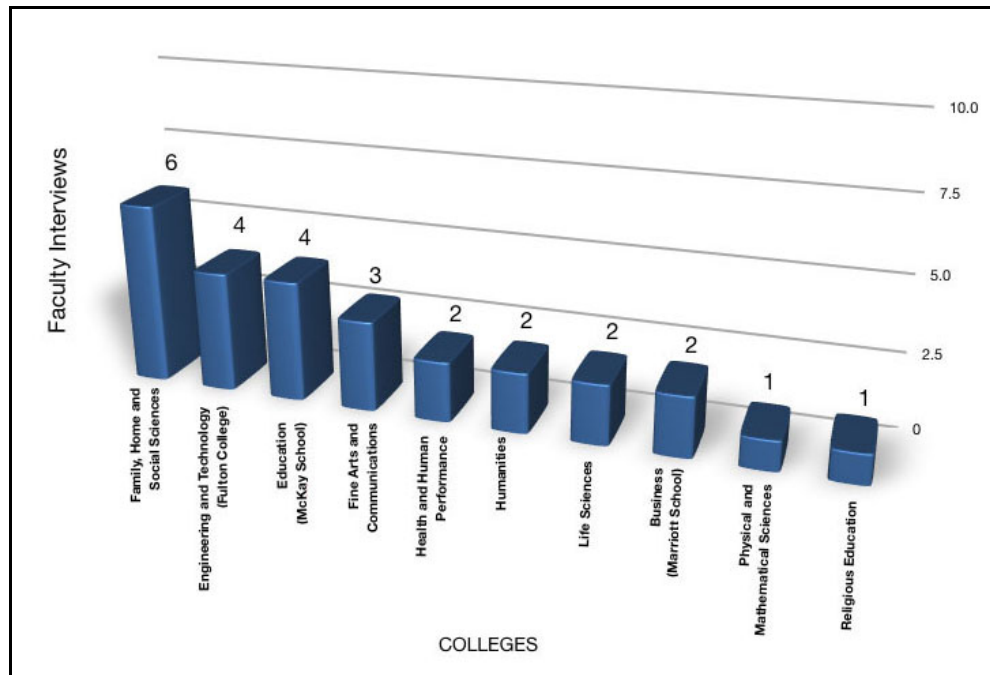


Figure 1. Number of faculty represented from each college (n=27).

Faculty members from the Law School made up approximately two percent of the faculty who participated in the survey and consented to be interviewed. Several of these law professors received phone calls, but the researcher was unable to speak directly with them through these phone contacts.

Next, faculty participated in a 30-40 minute semi-structured interview. Faculty were interviewed on an individual basis and were asked a variety of questions (see Appendix C). Each interview was recorded and converted to a mp3 file, where it was stored on a CTL server and also on the primary investigator's computer. Whitney Ransom, the primary investigator, conducted all of the interviews.

Analysis of Transcripts

After the faculty were interviewed, the interviews were transcribed and analyzed. The researcher took the following approach to analyze the data to learn more about what faculty have done to improve in their teaching. First, all of the interviews were placed in NVivo (qualitative data analysis and research software). Next, the researcher read the first transcript. As she read, she looked for emerging themes and information that was “interesting, potentially relevant, or important to the study” (Merriam, 1998, p. 181). This process seemed to “isolate the initially most striking, if not ultimately most important, aspects of the data” (LeCompte, Preissle, & Tesch, 1993, p. 236).

Next, the researcher proceeded with the second transcript. She kept in mind the themes that were identified in the first transcript, as well as the themes that emerged from the survey data to see if these same themes emerged in the second transcript. She highlighted information that seemed to be important to the study in the same manner that the first transcript was conducted. Then she began to combine the themes from the transcripts and make a list. This list was used to code the rest of the transcripts and additional themes were added as they emerged from the remaining transcripts (Merriam, 1998).

Naming of Categories

Next, the researcher began a process of naming the categories. There are a variety of ways that categories can be named and usually are derived from several sources, such

as the “researcher, the participants, or sources outside of the study” (Merriam, 1998, p. 182). One of the primary purposes of language is to tell us “what is important by giving it a name and therefore separating it from other things with other names” (Patton, 1990, p. 393).

For the purpose of this study, the researcher named the categories, keeping in mind that the categories would be correlated with the purpose of this research study and would follow general category guidelines such as: (a) exhaustive—meaning all of the data is relevant to the category or subcategory, (b) mutually exclusive—meaning that the data belongs in only one category, (c) sensitizing—meaning that an individual who is not familiar with the study should be able to read the categories and have a general understanding of the content that lies therein, and (d) conceptually congruent—meaning that the categories should make sense together and be on the same level (Merriam, 1998). The researcher made an effort to keep the number of categories at a manageable level.

The researcher used Lincoln and Guba’s (1985) guidelines for keeping categories at a comprehensive level. These guidelines were adapted as follows:

1. Frequency. The number of times a respondent mentions a particular theme denotes importance.
2. Importance. Faculty members and students determine that which is important from their interviews, survey data, and student comments from online student ratings database.
3. Uniqueness. Some categories may stand out from the rest of the categories because of their uniqueness and will be kept in the study.

4. New areas. Some categories may “reveal areas of inquiry not otherwise recognized” or “provide a unique leverage on an otherwise common problem” (p. 95).

NVivo contains functionality that allows researchers to create categories. Once the researcher desires to place certain content in the category, the area simply has to be highlighted and then placed into the category folder. Individuals can go into each category and find the paragraphs that were highlighted. Each paragraph is also documented with the document name, as well as paragraph number for future reference.

Features of Disciplined Inquiry

The standards that were used for this study were taken from Lincoln and Guba’s (1985) four ways of establishing trustworthiness in qualitative studies, which include credibility, transferability, dependability, and confirmability.

Credibility

To establish credibility, the researcher used the following techniques: (a) prolonged engagement, (b) triangulation, and (c) member checking. Although the length of the interviews was not prolonged, the time period analyzed by the researcher to see if there was improvement in teaching covered a three-year period. Analyzing the data within this interval helped to ensure that the improvements in teaching did not occur just by chance over one or two semesters. Using an improvement scale of 1.5 increase in standard deviation in the online ratings over this time period also shows sustainability in improvement.

Triangulation was also a part of this study, as the researcher used a variety of data-gathering methods such as using the results from the online student ratings database, faculty open-ended surveys, and personal interviews.

Transferability

Transferability is an important standard that was addressed as part of this study. To make transferability possible, the researcher provided a description of the setting of the study, the faculty and their circumstances, as well as rich details from the interviews. Direct quotes from the interviews, as well as comments from the students were also used. The researcher carefully applied the methods of triangulation mentioned above to increase the believability of the results. Individuals seeking to transfer the results may also desire to test the theories mentioned in this study for accuracy of the interpretation.

Dependability

Lincoln and Guba (1985) suggest that dependability can be established through an inquiry audit. To allow for this process to happen, the researcher would discuss her project and findings with one of her professors on a weekly basis and kept notes on the discussion and learnings. She also discussed decisions that were made as part of the study, reflections from the interviews, coding structures, and learnings that occurred while coding the data.

Confirmability

To establish confirmability, copies of the recorded interviews and transcripts, as well as notes from the researcher were available upon request from the researcher. The researcher is aware that sometimes the investigator in a qualitative study is often referred

to as the research instrument. Therefore, she tried to be cognizant of researcher bias and made efforts to reduce the amount of researcher bias in this study by discussing her ideas with others and allowing them to comment and express their opinions.

A researcher's background and position will affect what they choose to investigate, the angle of investigation, the methods judged most adequate for this purpose, the findings considered most appropriate, and the framing and communication of conclusions. (Malterud, 2001, p. 483-484)

The researcher also included references to any similar research studies as part of the literature review. Considering the budget, scope, and purpose of this project, an external audit did seem necessary, but the information that an auditor would need will still be available as part of this study. In place of an external audit, the primary researcher presented the results to her committee members, explained decisions, the reasons for the decisions as well as conclusions, and worked with them until everyone was in agreement on the consistency and accuracy of the results of the study and how the research was carried out.

Validation of Faculty Sample

The faculty sample was further validated by a comparison of the research pool to the entire faculty population. Table 1 shows the class size, number of courses, percentage of course size, number of students impacted, and the percentage of impact for both the faculty in this research study, as well as all of the faculty at BYU. The purpose of creating this table was to discover if the faculty sample from this study was comparable to the BYU faculty population. The results show that the sample size was nearly reflective of the broader population.

Table 1

Comparison of Faculty Sample to BYU Population on Demographics

Class Size	Number of Courses		Percentage of course size		Number of Students Impacted		Percentage of Impact	
	Sample	Population	Sample	Population	Sample	Population	Sample	Population
Less than 10 students	81	4301	36%	28%	495	17719	12%	5%
11 to 35 students	123	8338	55%	55%	2293	170944	55%	45%
36 to 50 students	11	1278	5%	8%	481	53712	11%	14%
51 to 100 students	5	967	2%	6%	394	63004	9%	16%
over 100 students	3	405	1%	3%	540	77389	13%	20%
Total	223	15289	100%	100%	4204	382768	100%	100%

Methods of Answering Research Questions

The research questions were answered by using data from the survey questions and also from analyzing data from the interview questions. Table 2 identifies each research question and shows the method used to answer it.

Table 2

Identification of Each Research Question and the Method Used to Answer it

Research Question	Corresponding Data
What have faculty who have been successful at improving their teaching performance done to realize that growth?	Survey Question 1 Interview Question 1
How do the institutional/administrative contexts (departments, colleges, Faculty Center, CTL, ASB Admin, SCOT) in which faculty work influence teaching performance?	Interview Question 3
How much improvement in teaching performance is dependent on interactions within the faculty communities of practice?	Interview Question 4
Is there a correlation between research productivity and teaching performance among faculty who improved in their teaching?	Survey Questions 2 & 3 Interview Question 5
Can improvement in teaching occur among a variety of different personality types?	Interview Question 2

Chapter 4: Case Vignettes

The following section highlights three vignettes of faculty who have improved in their teaching and learning. The faculty in these vignettes participated in the survey and were also interviewed. The faculty were chosen based upon Pattons' purposive sampling ideas (Patton, 1990). The interviews were selected because they met the criteria of what Patton (1990) describes as *intensity*, meaning "information-rich cases that manifest the phenomenon intensely, but not extremely, such as good students/poor students, above average/below average or deviant case (Patton, *Purposive Sampling*, 1990, para. 2). The faculty members were also chosen from three different disciplines: (a) education, (b) music, (c) and biology. Each faculty member had an average semester course enrollment of 32, 23, and 6 students respectively.

All of the vignettes are written in first-person format. The majority of each vignette is derived from the faculty members' own words. The researcher compiled the vignettes from the interviews and survey responses. She added some words that are not the words of the faculty members to help with the readability of the vignettes.

Pseudonyms were used to preserve anonymity of the faculty members. The order the faculty member made the statements has also been changed in some instances to improve the structure, and flow of the vignette. The researcher performed member checking on all of the vignettes. Each professor had the opportunity to review the entire document and make changes. The professor in the McKay School of Education of Education suggested a few grammatical changes, which the researcher made. The professor in the School of

Music thought that he was more concise in his interview and thought the vignette could be shorter. The researcher decided not to revise this vignette, as the vignette is from his own words. The biology professor had a few wording changes, which the researcher made.

Case Vignette 1: McKay School of Education of Education Professor

Here's my story of what I did to improve in my teaching. My three-year review came back and at the bottom of the report, there was this subtle little comment that said, "Pay more attention to student comments."

I was a little shocked by the feedback from my review because I felt like I was listening to students, and I did receive feedback from others. I got feedback from students, and for the most part, they said they liked me. I also had a SCOT come in and evaluate my teaching. One thing that was hard with this course is that the whole first three years it was constantly evolving. For me it was hard to know what to really change, if it was something big across the semesters. I tried to make changes and it didn't always go really smoothly.

For example, one semester I tried to provide a practical learning experience by allowing the students to work with some teachers for their practicum. I was really thinking that this new approach in the class would really be good and that the ratings would go up because I was providing them with a practical learning experience. My ratings actually dropped half of a point that semester, which was confusing and discouraging to me. So I have been trying to analyze why that happened. I don't know if there was something wrong with the assignment, or the overall idea. I have tried to avoid being really reactionary and abandoning the project just because it didn't work out really

well, but it was still pretty discouraging because when I did make some changes, my scores didn't go up.

Before I received my three-year review I would listen to the students and try to make a lot of changes all at once. This was really difficult to manage. One of the mistakes I made during the semester I received my very lowest ratings was when I tried to introduce too many things at once. It was the semester that my college wanted us to use Live Text for the first time, and it turned out to be a very non-user friendly tool. That same semester we also introduced new technological tools and it was a big mess. There were too many things for the students to grasp onto, and I overestimated what the students could do.

After I received my three-year review, I cried on my own, in my office because it was really, really hard. And the reason it was hard with the comments is because everyone wants to be a good teacher, at least 99 percent of us. I felt I wasn't showing that I was a good teacher because of the ratings I received.

I guess in a way I was demanding more of the students than was really reasonable for a one to two hour-credit course. What happened with me is, well honestly, I had to decide to be humble about my teaching and my ratings. When I got that review back, that's when I said, "I have to make a decision here. I have to either decide that I'm going to say there is not a problem here and try to hide it, or I'm going to have to admit there is a problem and be proactive and try to fix it."

At this point, I realized I needed to get help from some of the faculty members in my department. That was really the most humbling part of the experience—actually going to some of the faculty and going to my peers, and saying, "I'm struggling with

this!” So, I took the report to Mark, the chair of my department. During that meeting, we identified two of the most experienced faculty in the department. One of the faculty members, Scott, always got good ratings. He was a former chair with many years of experience teaching and reviewing Continuing Faculty Status submissions. Another faculty member, James, was a senior faculty assigned to be the peer reviewer of my teaching for that school year. After my chair and I identified these individuals, I gave them my student ratings and asked them to read them and also set up a meeting time to discuss patterns and possible plans of action.

Scott and James actually read all of my student ratings, including the comments from students. Now after 3.5 years of teaching, that was a lot of student ratings. When I met with Scott and James they said they had noticed three main themes from student comments: (a) Too much busywork, particularly referring to written reflections, (b) too high workload in the course for the amount of credit hours, and (c) not enough direct instruction and explanation of tool skills.

So let’s start with the topic of busywork. Scott told me that one of my students claimed in the online ratings that there was a lot of busy work. Another student kept saying that my class was way too much work for a one-credit hour course.

Too Much Busywork

As I said before, I always read my student comments and I always tried to change certain things. When I say certain things, I mean there was one thing I never changed. I was never willing to admit that I had set the bar and the expectations way too high for my students.

At the time, I had my students do a lot of written reflection and I guess the students felt that it was busy work. So, I was unwilling to admit that it actually was busywork until the comments from my continuing status review forced me to make a decision. Listening to someone like Scott say that he could understand why the students thought the writing stuff I was having them do was like busy work was helpful because he helped me to make changes that initially were kind of hard for me to swallow.

Another reason why making this change was difficult was because I felt like the reflection component for the readings was important, even if the students didn't like it. Before I made the changes, I had students do their readings that we had in the class. Then instead of just trusting they did their readings, I would tell them that I wanted them to demonstrate that they actually did do their readings, and that they got out of the readings what I wanted them to. So, I had them do a little write up or reflection from what they got from the learnings, which is a perfectly good educational strategy, but from the student prospective it takes a lot of time. It is okay in the big scheme of things if that is a top priority, but for me there were a lot of other things that were more important, like the hands-on projects, so I had to think about my priorities.

The thing that was the hardest for me was that I wanted to cover lots of areas during my class, and after talking to Scott I realized that I had to look at all of my class content and say, "What is all of this stuff? If I have to eliminate half of it, what are the things that are absolutely the most essential?" In the whole scheme of things maybe you want to cover 20 of your goals in this class, but you have to focus on the five most important. I picked those things and focused on them and eliminated everything else.

After Scott made these comments about busy work, he gave me a few suggestions. He said something like, “This is what I do. When I have them do readings, I don’t have them do lots and lots of reflection because they perceive that as busy work.” So, I built something in Blackboard, our course management system, and had the students do a self report on the readings. Of course we continued to talk about the readings in class, but I didn’t have them do endless reflection on the readings. The students liked it a lot better, and it actually saved me a lot of time too.

Too High Workload

Concerning the workload of the class, at the time I struggled with students complaining that the course was taking way too much time. When I looked at my student ratings on how much time students said they were spending on the course there was a fluctuation between the students. I was kind of saying to myself, “If someone takes the class who has less skill and less knowledge in this area, then naturally it is going to take them little bit longer.” On average, students were spending two hours outside of class for every hour in class, and I thought, “Well, that is the university norm.” Then as I talked with other faculty, they would tell me there was no way that was the norm. From my standard, if students were taking 15 hours of course work they would be doing 45 hours outside of class. Many were also trying to hold down a 20-hour per week job. Even though that is the written norm it is not really what students are expecting. Part of what Scott helped me to see was that I have to see my class from the perspectives of the students. I can’t be so focused on my course and not realize they are taking eight other courses, and some are even taking 18 credit hours!

When I really picture my class at the time, I guess many of my students were struggling. It was hard because the class was very complex. I had students who knew nothing about technology, and some who knew lots about technology. Part of my inexperience as a teacher was knowing what I could reasonably expect of the students. I was quite idealistic about what I could expect them to do.

I think another issue is that my expectations were on target for the students that came the most prepared. My expectations were off for the students who were in the middle and bottom parts of the course. I told myself that if I kept my expectations high, the whole group would flow upward. What happened was that I didn't provide enough help and frankly the course wasn't important enough to a lot of them to take advantage of my help. A lot of my students' comments said that I was there when they needed help, but the percentage of students willing to come and take advantage of my help was very small, even though I was willing to do that for all of them. So I kind of realized what was going on in my class was the same thing that happens at home. You set your expectations high and beyond what people can develop and it becomes frustrating instead of helpful.

For example, if I am asking my child to play a certain performance piece that is way too difficult, he is going to get frustrated pretty easily because it is outside his zone of proximal development. It was the same thing with my students. I realized that it would be unproductive to try to get them to move to a certain level in 14 weeks when they were not prepared for it. Really I was asking them to play a symphony piece, when they were still learning how to play chopsticks. So one of the things that I ended up thinking, perhaps one of the compromises I made, was that maybe the students weren't ready right then for the level I was trying to put them in.

But part of the thing that was hard, idealistically, was that I didn't feel like I wanted to give up my own high ideals for where I thought they should be. I guess the reason I say that was because part of changing was not giving up the vision. I thought that my vision was a vision of integrity, and I kind of felt like if I just said, "Okay, I am going to give up the way I teach, and the amount I teach my students, then I wouldn't have my own integrity." I really had to change the way I was thinking about students.

What I did in the shift was decide that I was going to view teaching this course as a long term prospect. I set a goal to try to get this course organized in a way so that five years down the road or whatever, I could gradually inch up where the students are when they are coming into my course and when they are going out.

To try to reach this goal, I worked with the McKay School of Education to develop a technology prerequisite. This means that the students had to have a certain baseline exposure to technology before they could take my class. I have also been trying to work with some of the professors who teach methods classes, as well as classes on technology. Eventually, I hope that they will be getting multiple exposures to technology before they take my class, instead of having a first exposure to technology, which can be very overwhelming because they don't have a connection anywhere else, when they start taking my course.

Another thing that I got better at was helping students pace themselves with their own projects. When I first started teaching this class, I gave students a lot of flexibility and many of them didn't have very good time management skills. What happened was right at the end of the semester when the project is due the students were frantically trying to put in 20 hours on the project. If they would have spread it out over five or six

weeks then it would have been three or four hours per week. Because I wasn't giving them milestones when certain parts of the project had to be done, it seemed to them like a ton of work at the end. So I have become better at pacing the students too.

Not Enough Direct Instruction

I guess the last thing I haven't mentioned is the theme that the students felt frustrated that there wasn't more direct instruction and explanation of tool skills. I still do not plan to do a step-by-step tutorial of tools used in the class. Part of the goal of the class is to help students learn how to use a variety of tools and not be afraid to explore new tools on their own. I feel strongly that the step-by-step tutorial approach that was used prior works against that goal. I have scheduled tutorials for the class where I will provide an overview to the tools and some guided exploration of the tools. Online tutorials will be provided for students who want to use them, but the tutorials will be specific to the tool, and not to the task they are trying to complete.

Overall, I am glad I went to talk to those professors and showed them my student ratings. They gave me great feedback which I have incorporated into my class, and it really has improved my teaching.

Case Vignette 2: School of Music Faculty

Need for Change

I have taught private vocal instruction for upper division vocal performance majors for many years. However, I was not good at having balance at the beginning of my career. I just had too much on my plate. Before I came to BYU, not only was I a voice teacher but I was also an opera director. So I had all of that creative work to do.

The amount of time I had left to work on my own singing was nothing, so gradually my own singing deteriorated to the point where no one wanted to hear me sing and I didn't want to hear me sing. I lost the freshness in my abilities. I had this freshness in my head, but not in my body anymore because I never spent anytime on it, and that became totally unacceptable to me. So I had to make time to fight myself into competency, get my skills back, and come to a place where I could be an exemplar of the things I was teaching. I saw that as I was not an exemplar and my students watched each other and saw me not doing the principles that I was teaching them. It became essential for me to get to the place that I was able to exemplify the things that I was asking them to do, and that consisted of rehabilitating myself, becoming confident and continuing to grow as a performer.

Engender Anxiety in Students

So those were the first changes I made to improve my teaching. What else did I do to improve my teaching? Now, I have to confess that I don't find very much meaning in the detailed questions that are asked in the online student ratings. Oh, I look at the punctuality question. I also look at the question that talks about whether my course is spiritual enriching. Looking at the written responses that the students have shared about the class have also been useful to me because they indicated that some changes needed to be made in my teaching. I had a conscious desire to change and become better as a teacher. I saw, unfortunately in my own family, when I looked at my children, I saw the anxiety that I seemed to engender in them for fear of displeasing me. I feared that these same feelings of anxiety were also occurring with my vocal students. So I knew that I needed to find a way to do things differently.

In a teaching setting, before I made some changes, I used to use clarity as a whip that drove people to do the things I wanted them to do. This clarity in the feedback I provided tended to remove whatever emotional contact might have been there with me and my students. Really, I became more like a reflective mirror to my students, reflecting the reality that I saw.

Love Unfeigned and Acceptance

The discovery change in learning how to improve in my teaching is easily 25 or 30 years of observation. The learning how to teach and how to do it right is a much more gradual curve in my evolution. One of the reasons for this was because the one-on-one relationship that I have with my vocal students in that course makes standardization very difficult. When I entered my eighteenth year at BYU, I was already in the process of perceiving my weaknesses, but I couldn't perceive exactly how to resolve the issue. I needed to learn how to speak with a different voice, and with a different language that didn't include criticism. This change process was bred out of a gospel-driven principle, and that is having love unfeigned. So, since I have been at BYU, I have said to students, "If you come to study with me I will never reject you. You will never leave this studio because I sent you out of the studio. You may leave because you chose to leave, but you need to know that you can be safe enough to run the risks necessary to learn without being fearful that I will be disappointed in you."

Move Toward Mentored Teaching

Most musical disciplines have the image of the piano teacher that whacks his or her students' knuckles if they play the wrong note, which is kind of punitive, harsh, and

picky. I feel that type of discipline inhibits the growth of an artist. There is nothing like fear of criticism to inhibit someone. If you are working in a discipline that you have to learn how to be openly expressive, there has to be an environment that will permit open expressiveness even if it doesn't always go very well. Then if your comments do come out wrong, you can return and say, "That didn't come out the way I wanted it to." In time I became more of a mentor and less of a teacher in terms of regimenting the students. In fact, as the years have passed, I have continued to move away from a didactic teaching method and more toward an empirical teaching method. I find more success being a mentor than from being an instructor. I try to set up discovery moments and help the student find meaning in the things they are discovering about their singing, rather than dictating what they learn. Not surprisingly, I have heard my students voice comments to other students about what they have learned, rather than what I have "taught" them. I seem to disappear in the process.

Balance Between Rigor and Safety

I wish I could be really specific about the cognitive things I did to improve my teaching. One thing I must say is that I had to establish a relationship with the students that was so binding they knew I had unbending good will toward them. When I would give them straight forward and blunt assessment, they would see it as a blunt assessment and not as punishment, a personal attack, or me trying to find fault. Then I would always reassure them and say, "I care enormously about you. You have a beautiful voice, but you do not perform this aspect very well in your singing. It is your choice, you don't have to do this but you would reap the benefits of it if you changed this thing with your singing."

It has been profoundly saddening to me to watch how many individuals suffer from the anxiety that they need reassurance from me that they are doing okay with their music. In order for me to be a reflective judge I can neither be overly encouraging or overly destructive. I have to remain neutral, or else my criticism takes on new meanings. Both encouraging the positive things they do can come out as manipulations to the students, and focusing on the negative things they do can come out as punishments. Neither one of those are accurate. It has been an ongoing process and it continues to be an ongoing process of evaluation for me. It has swung back and forth between the desire to be accepting and making them feel safe. I had observed that over a period of semesters those that felt overly safe in their learning lost rigor in their work. So, without violating the acceptance part of the relationship, I had to find other ways to identify steps to improve their rigor, report on their practicing and to evaluate and assess their progress. I had to try one specific thing to change, then try another way, and continue to explore to find the right balance between rigor and safety.

For example, I had a grad student who was anxious when he sang. Over the years, and especially with this particular student, I found one way to establish an environment of safety was through touching. I have discovered the further I am away from my students, the more isolated they feel. So, I touch their arm or take their hand and reassure them. Often in their singing, if they do something nice, I reach out and take their hand. Without interrupting their flow of thought, I let them know that they did something well. If it is something really bold I will stop them, and they will think, "What have I done?" And I will just give them a big hug and say, "You did great!" Well, that is on the border line of inappropriate behavior, and I have recognized that dilemma to insure that the

boundaries are personally normal, and nothing more. That close proximity doesn't give them any place that they can go and hide. That barrier to musicians—that fear of rejection is the greatest inhibitor of all. So I continue to look for ways to attack that boundary. So the difficulty they face is not their fear, but their desire to be better than they were. Being in this state makes them confirm their weakness, which takes me into realms of discovery that are not part of my discipline. So I find myself in a place that I have to use my intuition to lead myself on so I can, in turn, put them in a place where they need to be.

Agency in Learning

The second part of evolution in my thinking was in the way I disciplined my students. I had to have a clear understanding in my mind that it is agency that causes learning. That if I superimpose rigor on them, they will adopt that rigor when I am present, provided the motivation, but the minute my rigor is withdrawn, it won't be there. So I have continually looked for ways to place my students in situations where they have to choose the better part. That has led me away from deductive teaching. My discipline is all about memorization and for some people, they think that is the end. Once you have the song memorized, then you are done. From this point, it is my job to say, "Now you are at the beginning. Here is where the learning starts." You take those marks on the page and you have to decode them and turn them into some sort of meaning, and then you have to figure out how to use the tools in your body and say what you intend to say. That is nothing but just self exploration. It is digging inside oneself to uncover emotional blockages, fear, and anxieties.

So judging from my online student evaluations, perhaps I have got it right these last few semesters. In my ongoing evolution, I will be going down paths that may cause

my scores to drop, as I continue to weigh back and forth the issues of rigor, safety, and acceptance. The pendulum for me is moving toward greater rigor, but I have to be careful that it isn't a rigor that I superimpose on them. Rather, it is a rigor that they discover and come to on their own. So I seek to appeal to their desire of excellence instead of their fear of failure, and most people that come to work with me have a fear of failure. All I can do is reassure those individuals that are fearing failure that it is their fear that is bottling them up and so that love unfeigned issue is really at the heart of it.

Although I have said over the last little while that I have been successful in my teaching, I recognize that I could have different sets of students in the future for whom my strategies could be threatening to them and unrewarding. I try to put my students in a place where they have to make choices. For example, instead of telling them what is right and wrong, I set up situations where they can hear the result of doing it one way or the other way. I also get them to see what they did differently to get one way compared to the other, and then leave it to them if they want to be expressive or not. They can choose to put that barrier up and not really confront that weakness in their voice, but if they really want to say what they are going to say they have to confront that weakness.

Individuality in Teaching

I know that in a lot of departments, faculty can have success in their teaching, and then they quickly run and tell their colleagues. However, it isn't as if I normally have these breakthroughs when teaching my private voice lessons and run to my colleagues and say, "Look what I learned how to do," and they say "I want to do that too. Let us come and watch you." There is something artificial about that. It violates their own pathway to discovery. In the music department we do talk with one another, but there is

no compulsion to say we are now all going to do this thing because it was successful for me. There is too much individuality in the musical process.

Learning From Other Professors

To make sure that the exploration that I am involved in is not a self-indulgent exploration, we have set a lab for our students who take vocal lessons. My students have the opportunity to visit other music teachers and learn whatever is valuable from them, and that becomes part of the fabric of learning for them. The students see these other faculty members as interested extra parties.

The model we use is similar to that of a medical clinician, one in which the primary physician is like the students' music teacher. We don't have any hesitancy referring students to someone else who has more expertise or a different point of view. When someone finds an insolvable problem, he or she will come and we will talk to see if my perspective can shed some light that he or she can't see and vice versa. So that medical clinic model is one we use to keep ourselves honest because ultimately what our students need to do is not just need to sing to impress me but to successfully impress all of the jury panel. We do our very best to not squelch anyone's point of view. This jury system allows the students to confront different points of view and find a way to leave a good impression across a broad population, not just to set up a spirit of antagonism between one teacher's philosophy and another teacher's philosophy.

The musical traditions are generally not compatible with the traditional academic requirement. The growth that a person has to go through of incompetence to confidence to consistence to habitual confidence to artistic can't really be measured in the terms or semesters. My colleagues and I have different pathways we follow in terms of teaching.

Hopefully we end at the same result, but sometimes we end at different results, which is fine within our environment. We foster that sense of celebrating that which is unique about each student and teacher, rather than seeking homogeneity.

We use the image of architecture to say if you go into a neighborhood and every house is painted the same color and has the same floor plans, that isn't a very good neighborhood. You want to see a variety of floor plans, different floor designs, different veneers, even different fabrics in the texture of the walls. You can go from Ivory Homes to a different set of homes and they are both really good, but they are different. It is the differences that make the community so interesting. I feel as a department, we have moved mountains to open dialogue between the teachers. Students come back to class and say, "I was told to solve this problem like this and you are saying to do it like this." That situation is really a wonderful place for the students to be in because they get to exercise their agency, and they are at a place that they have to make choices and they have to experiment on things. I guess in that place and in that way of interfacing with each other there is an open dialogue in our program and truly I have never found that anywhere else in the world. It truly is a unique situation.

Overall, I am happy with the way that my teaching has improved. I am committed to continue to find the right balance between rigor, safety, and acceptance with my new students, while showing love unfeigned for them.

Case Vignette 3: Biology Faculty Member

Change Process

Most of the changes that I have made to improve my teaching are simple, but they make a big difference to the students. A while ago, I discovered that I wasn't getting the

kind of feedback that I wanted to improve my class from the online student ratings. The student ratings are important, but in the area where the students can provide a comment about the class, they were either putting, “I really enjoyed the class,” or “The class really stunk.” The students were telling me the things that they didn’t like about the course, but they weren’t telling me specific things I could do to make it better. It was just feedback without anything to change or improve. So I decided I needed a way to get the students to provide me with specific feedback. I began to have exit interviews with my students, and during those interviews I would ask questions like, “What did you specifically like about the class or didn’t like about the course?” Then I would say, “Tell me what you think would make the class better.”

I also asked the students to tell me if there were any assignments they thought seemed like busy work, and also to tell me which assignments were the most beneficial. I would take this feedback that I received from the students and tweak my classes a little bit each semester, based on what I learned.

Redundancy in Workload

I found that during the interviews, a few of the students told me that they thought some of the reading was too redundant for them. That one was a struggle for me because I was trying to teach the same ideas in different ways, and I didn’t think they understood that there were nuances that I wanted them to understand. I guess the fact that they could understand the nuance told me that there didn’t need to be repetition.

Lack of Understanding in Assignment

Another thing the students would comment on during the interviews was an assignment I gave them where I would have them choose a topic, find articles on this topic and then write about the pros and cons of the topic, and also their opinion. The students told me that they felt the assignment was too broad and that the students felt that they didn't have enough understanding to be able to sift through the topics. To fix this problem, I chose 20 topics and asked the students to pick from one of them and that was helpful. During the interviews, I also found out that the students wanted me to provide them with written feedback every time they taught in the class, instead of me just telling them the things they did well and the things they did to improve. They wanted a written record to return to and also to be able to view the feedback from the rest of the students in the class.

High Expectations for Students

There were other things I did to improve in my teaching. An important part of my teaching is my personality. I have really high expectations for my students. I tell them that my standards are very high and I will assess them as if they were a teacher for my children because I am invested in education. The kind of teachers who go out to the schools is every important to me. It is not just BYU standards that they have to meet but my standards. When I critique my students I am very strict and I am very blunt. I do not sugar coat my criticism but at the same time I am very generous with my praise. When I see them doing something well I compliment them, and I make sure they know that they are doing well. I think they know that I love them, every one of them, and I think that goes a long way.

Love and Care for Students

Having a good relationship with my students is also important to me. I always learn the names of my students, even if there are 90 students in the course. I think my students would also say that I am generally concerned about them and love each of them and those are the things that I am most proud of. So, those are a few of the things I did and a few things about who I am that helped me improve my teaching.

Chapter 5: Thematic Analysis

In this section, the researcher will describe the thematic analysis that was performed to answer the five primary research questions regarding how faculty improved their teaching, how institutional/administrative contexts and faculty communities of practice influence teaching, and whether improvement can occur among a variety of different personality types.

Research Question 1: Faculty Improvement

The primary purpose of this research question was to discover what faculty have done to be successful at improving their teaching performance. This section will highlight contributing factors to improved teaching among BYU faculty at the university, as well as the individual college level.

University Level Results

Faculty from all of the colleges were included in the initial survey. Overall, 203 faculty members (66 percent response rate) started the survey and 200 faculty members (65 percent response rate) completed it.

Survey comments (515) were received from 203 faculty in each of the following 12 colleges: (1) Business (Marriott School), (2) Education (McKay School of Education), (3) Engineering and Technology (Fulton College), (4) Family, Home and Social Sciences, (5) Fine Arts and Communications, (6) Health and Human Performance, (7) Humanities, (8) Law School, (9) Life Sciences, (10) Nursing, (11) Physical and Mathematical Sciences, and (12) Religious Education.

The survey consisted of four questions. The first question was the following open-ended question: “Your student ratings have increased for at least three consecutive semesters during the last three years in your ____class. What factors led to this change in your teaching performance?” Responses included 25 pages of data. The data was imported into an Excel spreadsheet for analysis.

Then the researcher read all of the responses from the faculty. Next, the comments from the faculty members were grouped into 45 detailed categories, such as faculty who said they improved by using hands-on activities, by increasing their use of technology, by learning the names of the students, or by changing the text book they were using for the course (see Table 3).

After receiving the survey data, the researcher grouped these 45 categories into 13 main themes, which included the following: (1) Active/Practical Learning, (2) Administrative Factors, (3) Clear Expectations/Learning Outcomes, (4) Curriculum Changes, (5) Curriculum Enhancements, (6) Evaluation, (7) Faculty Preparation, (8) Gospel Principles, (9) Non-Relevant Data, (10) Personality of Faculty Member, (11) Teacher Student Interactions, (12) Teaching Format, and (13) Teaching Support (see Table 4).

Table 3

A List of the 45 Subcategories Identified in Teaching Improvement Performance and Number of Responses from Each Category

Ranking of Subcategories	
Subcategory	# of Responses
High/clear expectations	34
Real life application and practical examples	28
Hands-on activities (active learning)	27
Experience	24
Spend more time/communication with students/doing more work myself	20
Revising section of course/syllabus	20
Evaluation of student feedback	20
Bring in gospel principles and practices	20
More in-class discussion/group work	19
Focus on learning outcomes	19
Increased knowledge of subject matter	18
Use of technology	17
Love/care about students	17
Being a mentor/less teaching, more student teaching	17
Different/innovative teaching methods/formats	14
Did not change anything	13
Feedback on assignments	12
Listen to students	11
Received help from faculty resource centers/ books	10
Received help from faculty members	10
Good/better students	10
Decrease in workload	10
Relaxed teaching (no fear – more comfortable)	9
Organization/structure	9
Getting to know students/engaged in students' lives	9
Student self evaluations	8
Passion/enthusiasm for subject	7
No response/no idea	7
Changed text/materials	7
Teacher evaluation	6
Small/reduced class size	6
Not applicable	6

Ranking of Subcategories

Subcategory	# of Responses
More work/quizzes/writing/assessment/demonstrations	5
Knowing needs of students	6
Students really like material/recognize importance	5
Preparation	5
Learning names	5
Believing in /encouraging students	5
Training/utilizing TA	4
Visuals	3
Simplified personal life	3
Humor	3
Time of day/year class was taught	2
More open to students	2
Better facilities	2
Total Responses	515

Table 4

Thirteen Main Themes Used to Identify Contributing Factors to Teaching With 45

Subcategories in the Right-Hand Column

Theme	Subcategory
Active/Practical Learning	<ol style="list-style-type: none"> 1. Real life application and practical example 2. Hands-on activities (active learning) 3. More in-class discussion/group work 4. Being a mentor/less teaching, more student teaching 5. Students really like material/recognize importance
Administrative Factors	<ol style="list-style-type: none"> 1. Time of day/year class was taught 2. Small/reduced class size/better facilities 3. Good/better students 4. Simplified personal life
Clear expectations/outcomes/focus	<ol style="list-style-type: none"> 1. High/clear expectations 2. Focus on learning outcomes 3. Decrease in workload
Curriculum Changes	<ol style="list-style-type: none"> 1. Revising section of course/syllabus 2. Changed text/materials 3. More work/quizzes writing /assessment/demonstrations
Curriculum Enhancements	<ol style="list-style-type: none"> 1. Visuals 2. Use of technology
Evaluation	<ol style="list-style-type: none"> 1. Student self evaluations 2. Teacher evaluation 3. Evaluation of student feedback 4. Feedback on assignments

Theme	Subcategory
Faculty Preparation	<ol style="list-style-type: none"> 1. Experience 2. Increased knowledge of subject matter 3. Relaxed teaching (no fear – more comfortable) 4. Preparation
Gospel Principles	<ol style="list-style-type: none"> 1. Bring in gospel principles and practices
Non-relevant Data	<ol style="list-style-type: none"> 1. No response/no idea 2. Did not change anything 3. Not applicable
Personality of Faculty Member	<ol style="list-style-type: none"> 1. Passion/enthusiasm for subject 2. Humor
Teacher/Student Interactions	<ol style="list-style-type: none"> 1. Getting to know students/ students' lives 2. More open to students/listen to students 3. Believing in/encouraging students 4. Learning names 5. Spend more time/communication with students/doing more work myself 6. Love/care about students 7. Knowing needs of students
Teaching Format	<ol style="list-style-type: none"> 1. Organization/structure 2. Different/innovative teaching methods/formats
Teaching Support	<ol style="list-style-type: none"> 1. Received help from faculty members 2. Received help from faculty resource centers/ books 3. Training/utilizing TA

The category that received the most responses regarding what faculty did to improve their teaching was active/practical learning, receiving 96 of the 489 responses (20 percent). To separate the category of active/practical learning, practical learning received 34 responses (35 percent), and active learning constituted 62 responses (65 percent). The following top five categories consisted of more than two-thirds of the responses of what faculty did to improve in their teaching: (1) Active/Practical Learning (2) Teacher/Student Interactions (3) Clear Expectations/Learning Outcomes, (4) Faculty Preparation, and (5) Evaluation. A complete list of the ranking of the categories, and their percentages is included in this paper (see Table 5). The first three categories listed consist of nearly half of the responses (48 percent). The category of non-relevant data was not included in this category, as the faculty did not list anything they did to improve in their teaching (26 responses, 5 percent).

In the 45 categories, the top three responses were (1) high/clear expectations, (2) real-life application and practical examples, and (3) hands-on activities (active learning) (see Table 3). These three categories are included in the top two overall themes (active/practical learning and clear expectations/learning outcomes).

Overall, faculty provided 515 survey ideas from the 203 faculty members. The percentages of response for all of the colleges below do not include the category of non-relevant data. Thus the percentages provided are out of 489 responses, rather than 515 (see Figure 2). Faculty in the College of Fine Arts and Communications provided the most responses (106 responses, 22 percent), followed by the College of Family, Home and Social Sciences (75 responses, 15 percent), and the College of Humanities (72

responses, 15 percent). The fewest number of responses came from the College of Nursing (1 response, less than 1 percent) and the College of Religious Education (4 responses, 1 percent).

Table 5

Contributing Factors to Improved Teaching with Number of Responses from Faculty and Percent

Category	Responses	Percent
Active/Practical Learning	96	20 percent
Teacher/Student Interactions	75	15 percent
Clear expectations/learning outcomes	63	13 percent
Faculty Preparation	57	12 percent
Evaluation	46	9 percent
Curriculum Changes	32	7 percent
Teaching Support	24	5 percent
Teaching Format	23	5 percent
Administrative Factors	23	5 percent
Gospel Principles	20	4 percent
Curriculum Enhancements	20	4 percent
Personality of Faculty Member	10	2 percent

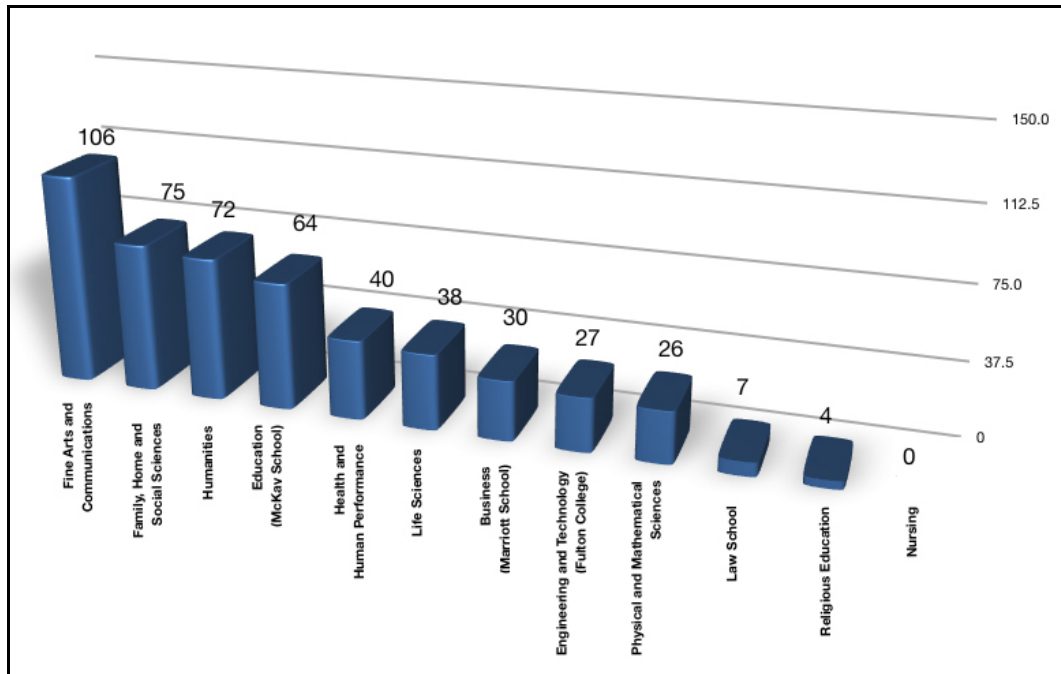


Figure 2. Number of survey responses provided by faculty in each college (n=489).

College Level Results

This section takes the same data from the survey results and disaggregates by each of the colleges across campus.

Marriott School of Management. Forty percent of the responses from Marriott School of Management faculty pertaining to what they did to improve in their teaching was in the categories of clear expectations (20 percent) and active practical learning (20 percent). The categories including personality of faculty member, curriculum enhancements, and administrative factors did not receive any responses from faculty in this college. One faculty member in the Marriott School of Management demonstrated his use of clear expectations and active/practical learning when he said the following:

I know that we get good students here and I would say that about 10-15 percent of our students are the best that I have seen in the world. There are some cream of the crop here. All of them had an easy time in school to get here. Typically they have really high GPAs and didn't have to work too hard to get them because if you have to work really hard you usually get a sinker somewhere in there. So I don't think they had to work too hard in school. Then, all of the sudden they get into one of my classes and I want to challenge them where they are. I don't want them to get an A because they have always received an A. I want them to stretch their minds and think. They keep telling me they are sending me the brightest students, and if that is the case I should be able to take them to greater heights. Some students would say that I bring real world experience and practical stuff. I don't lecture on theory nearly as much, even though we cover the basic foundation of theory, but I illustrate it all with practical stuff. Even though we cover the theory, I cover it in a hands on, very meaningful, practical way. The students can take what I teach in class and actually apply it.

McKay School of Education. In the McKay School of Education of Education, the greatest number of responses came from the following three categories: Active practical learning (15 responses, 23 percent), evaluation (15 responses, 23 percent), and teacher/student interactions (11 responses, 17 percent), totaling 63 percent of the responses from faculty in this college.

There were many examples of active/practical learning that faculty in the McKay School of Education of Education discussed in their interviews. For example, one faculty member in this college discussed how students spend time in her class engaged in interactive and group learning activities.

I think my expectations are pretty high and I think you can establish those pretty easy. In terms of my teaching, my actual course material, I think that I am reasonably demanding. I think they work for their two hours of credit, but I think that it is a valuable class and there isn't too much time that it is busywork. Fifty percent of the time, I put them into small groups and I do a lot of interactive learning, mostly because the class is talking about

four different learning styles. I try not to do too much of me standing up in the class regurgitating what they have read in the book. We do a lot of applicable work, like, “How does this actually apply to you? Now that you know all of these principles, are you going to make things different for you as a student?”

Another professor in the McKay School of Education of Education demonstrated the teacher/student interactions aspect of improvement by explaining how she forms relationships with her students to help improve teaching.

I think ultimately teaching is about building relationships, and you have to build relationships with your students, and they have to want to relate to you as a human being because without that really anything that is going on in that room isn't going to happen. I try to do things that help build those relationships. I always learn their names the first day; usually within the first 15 minutes of class I know their names. Doing things like that that aren't necessarily related to the content of the class, but they can say that “She really cares about us. She is funny, smart, she has high expectations, and you are going to learn something.”

Another faculty member in the McKay School of Education of Education demonstrated how he used the SCOT program at BYU to evaluate his teaching and learn ways in which he could improve.

I think the SCOT program is awesome; it is an awesome, terrific resource. I am thankful and grateful that we have it, and please keep funding it. It is terrific because students are more likely to tell other students how they are feeling. Even if it is me and I say, “Give it to me anonymously,” or say “Leave it with the secretary, I don't care who it is from, I just want to improve,” even then maybe one person every other year will do that. Rather, when SCOT comes in you are kind of forcing the issue; you are now at a position where you need to give feedback, give feedback and because it is another student there are no barriers they say what they want to say and it is awesome and wonderful and I do get good feedback.

Nearly one-fourth of the McKay School of Education of Education faculty (23 percent) commented that they used some form of evaluation to improve their teaching.

During the interviews, one faculty member in this college commented on the importance of being willing to change some aspect of teaching as a result of student feedback.

I think asking for feedback is a scary thing to do. On their midterms I give them points for giving feedback, and I am pretty specific about how I want them to be honest and they do have their name on it, but I find that they are just as honest if their names are on them. I think one of the hardest things is asking for feedback, but it is one of the most helpful. If you ask for it you have to be willing to take what they offer. If 10 students out of 20 said they hated group work maybe I need to push back on that a bit. I think we get into a pattern of teaching and we teach the same material over and over again and that can get pretty boring, and finding new ways and changing it is sometimes hard because it is easier to always give the same quiz on chapter one. Sometimes changing it up a little is the hardest part, but being willing to change is important too.

College of Engineering and Technology. In the College of Engineering and Technology, the most common response to what faculty did to improve their teaching and learning was to involve the students in active/practical learning (37 percent of the responses from faculty in this college). The second highest factor was teacher/student interactions (19 percent of College of Engineering and Technology faculty).

A faculty member in the College of Engineering and Technology discussed how students from his course have a very active and practical experience through participating in a study abroad program for ten days in Mexico.

Some of the high teacher ratings are because it is a very involved active class. I think that the fact that it involves a study abroad experience makes the students excited about it. It has caused my students to be more prepared and has elevated the experience. The benefits I see from the students make the extra effort worth it. They are learning leadership skills, collaborating, making great friends amongst themselves as they work together here and in Mexico. They are providing service which adds to their experience at BYU. The whole experience is very rewarding. That is why I think that they rate the class so high because it combines a lot of things that they know are important to learn but you don't get them

in a textbook or in a traditional classroom environment. They value that and are able to see the value of engineering, and that is very rewarding for them. It is the whole experience that they rate the class high instead of a teaching method.

Another faculty member in the College of Engineering and Technology commented on how his online student ratings dropped when he neglected the teacher/student interaction aspect of teaching. His scores improved again once he began to involve himself more in the lives of his students.

I have been teaching the same class for a long time. I noticed there were a couple of semesters where I just got busy and didn't take the time to learn the students' names. My expectations were high, and I didn't let them know that, and I probably got too caught up in the content and preoccupied with taking care of the task and not the students. So I thought, "I need to change this. I need to get back to taking more time for the students; learning their names, getting to know them and to talk to them personally, and do more of the grading instead of letting the TAs do all the grading." Mainly those were the things I felt like I need to touch base with them.

College of Family, Home, and Social Sciences. In the College of Family, Home, and Social Sciences 40 percent of the responses regarding what faculty did to improve in their teaching and learning involved active/practical learning experiences (17 responses, 23 percent) and faculty preparation (13 responses, 17 percent).

One faculty member in the College of Family Home, and Social Sciences exemplified excellent faculty preparation, having taught at BYU for more than 25 years and having increased his teacher preparation by reading a wide variety of books, attending conferences, communicating with colleagues, and looking for new ways to be innovative with his teaching. In fact, he claims his personal policy is to never offer the same course twice. Some of the innovations he has added in the past three years have been team-based learning, personal response system (TurningPoint and iClicker), and the

in-class Q/A conversation. This professor said that excellent teaching is demonstrated many years after the student has been in class. He commented:

The mark of good teaching is told 10 years later when you visit the students and say, “What made a difference to you?” They are looking back and saying something you said. What is so interesting is that a student will come up and say, “Are you, Professor Jones? I had your class many years ago and I always remember something you said.” Then they will quote something and I don’t have the slightest recollection of what I said and it doesn’t sound like something that I would say, but something about it made an impression. The smile that they were wearing and the genuine way in which they said it says, “That was good teaching.”

College of Fine Arts and Communications. In the College of Fine Arts and Communications, the categories with the highest number of response from faculty in this college were clear expectations (21 responses, 20 percent), active/practical learning (18 responses, 17 percent), and teacher/student interactions (17 responses, 16 percent), totaling 53 percent of the responses from faculty in this college.

One professor in this college demonstrated all three of these aspects including clear expectations, active/practical learning, and teacher/student interactions. On the first day of the semester he would have a discussion with his students on his expectations. He would have them discuss their responsibilities, and job descriptions as students and then they would list these characteristics on the board. Next, he would define his responsibility as a professor, as well as their expectations for him and say, “So now we understand each other, if you do this, I will do this.” He felt this was an unspoken contract with the students that communicated to them his expectations. This professor gradually improved with his teaching. In fact, a few years ago he said his scores were so low, he knew that he needed to do something different with his teaching. At the time, he was teaching a gospel doctrine class for his church. After each religion class, individuals would approach him

and tell him what an excellent teacher he was and also how lucky they were to have him as a teacher.

Obviously, my student ratings didn't reflect that excellent teaching. So I thought what was it about how I taught the gospel that seemed to work compared to how I taught my subject. The thing that I kind of zoomed in on was about being “a guide on the side instead of a sage on a stage.” What I realized in my gospel doctrine class is that if I could get my students to come prepared for class then all I had to do was get them talking about what they had learned and get an interchange of ideas that way instead of me being the one to disseminate the information and to give them the ideas. So I felt like the students were motivated enough that they wanted to be there to learn and they wanted to be in the class. I found the discussions got to be so invigorating that they didn't want to miss the class...so they would always show up prepared and ready to talk about it. You just had to get them talking and then we would have great discussions.

In addition to using active/practical learning, this professor also spent time with his students and respected their opinions. He commented,

Well, I try to be personable. We know each other. I start out class with “What did you do this weekend?” I try to have the personality that I am more of a colleague than someone higher up than them. I tell them that I need students that are brighter and more talented than I am; I am only here because I am more experienced and older and we have those kinds of discussions, and I try to be honest and have a conversation with the students.

College of Health and Human Performance. Nearly one-third of the responses from faculty in the College of Health and Human Performance came from the category of teacher/student interaction (12 responses, 30 percent), followed by evaluation (7 responses, 18 percent) and clear expectations/outcomes (6 responses, 15 percent), totaling 63 percent of the responses from faculty in this category.

One professor in the College of Health and Human Performance focused on getting to know his students. At the beginning of the semester he invited every student to set up a 15-minute appointment with him.

It helps me because when I see them in class I know their name and a little bit about them, and it helps them because they can ask me any questions about me so they know me. I hope what that accomplishes is that it breaks the ice....I have had students comment that out of all of their years at BYU this was the first time a professor has tried to get to know them personally, instead of just as a member of a class. Now granted they took a lot of classes that were large but if I am the only one, then at least in my class they know that I did care. I think, it is a time consuming process, but it is very rewarding for me because my students know that I look at them as a person and not just as a name or a picture on a roster.

Furthermore, this professor had conducted evaluation on his course by utilizing the resources through the Faculty Center as well as through the SCOT program. These resources helped the professor conduct a class where the students felt they learned and accomplished a great deal and were loved.

I really got a lot of good feedback and it is because of those two tools, the student evaluations, and the connections with the students in the class that made me want to improve the way the students saw the class.

College of Humanities. Faculty from the College of Humanities provided nearly the same amount of responses in the categories of faculty preparation (14 responses, 19 percent), clear expectations (10 responses, 14 percent), and active/practical learning (9 responses, 13 percent), followed by curriculum changes (7 responses, 10 percent) and curriculum enhancements (7 responses, 10 percent).

Law School. Faculty from the Law School only provided seven responses, three of which related to teacher/student interactions (43 percent). The second highest category

for the Law School faculty was faculty preparation (29 percent). Teacher /student interactions and faculty preparation account for 72 percent of the responses.

College of Life Sciences. The highest number of responses for the faculty in the College of Life Sciences was in the category of active/practical learning (8 responses, 21 percent), followed by teacher/student interaction (6 responses, 16 percent).

One professor in the College of Life Sciences discussed her feelings about engaging students in active/practical learning experiences and also the importance of having interactions with her students. She said,

Teaching wise I don't like doing straight lecture. I try to incorporate active learning in class. I like going and asking students while they are working on their project, "How's it going? Do you have any questions?" If everything is fine, I ask them how their day was and try to get them to be more at ease to talk to me. I always advise them to come and talk to me in my office.

College of Physical and Mathematical Sciences. In the College of Physical and Mathematical Sciences, the category of active/practical learning (8 responses, 31 percent) received nearly three times as many responses as the second highest category. Three of the factors, which included, curriculum changes, evaluation, student/teacher interaction received the same amount of responses in the college (3 responses, 12 percent).

One professor in the College of Physical and Mathematical Sciences incorporated each element active/practical learning, curriculum changes, evaluation, and student/teacher interaction into his teaching and learning. In his course, he gives his students programming assignments. These assignments are challenging, but they are practical and are similar to assignments they may receive once they graduate from the university. Some of the curriculum changes this professor made was to decrease the

number of programming assignments, and use that time instead to have the students write a term paper to improve their technical writing skills. He made this change because he felt that the students had completed many programming assignments in the past, but their technical writing skills needed improvement. This professor decided to make these changes after evaluating the comments from his online student ratings, as well as performing self evaluations of the course after each semester.

During his interview he said he gets to know his students better by grading the term papers himself and providing specific feedback (many of which require 1.5 hours per students) and being available to assist his students, who visit him on a weekly basis outside of class, while they are working on their assignments. He loves teaching his students and during the interview commented, “I guess my students feel like I motivate them to learn, and I care about their learning. If I feel like I teach my students like I teach my children then I feel like I am on the right track.”

College of Religious Education. The College of Religious Education received four responses (25 percent for each response) from faculty. Each response was placed into a different category: Faculty preparation, clear expectations, evaluation, and curriculum enhancements.

The faculty member who was interviewed in the College of Religious Education definitely met the faculty preparation requirement. He had been teaching the same course since 1990 (17 years) and felt that over time he had refined his course and was better able to explain the concepts to the students. Over time this professor designed a clearer syllabus and also incorporated more visual materials in his class, coupled with explanations at a pace better suited to learning. He also spent time observing other faculty

members teach the same course and incorporated ideas and concepts they taught into this course.

I have been sitting in on other people's classes and I find myself throwing stuff in my classes from their's and it has made me a better person...I am always changing these PowerPoint's, adding stuff and taking things out...I think the more well-rounded you are the better your teaching should be.

Negative Case Analyses

As mentioned earlier, all of the colleges, except for the College of Humanities, mentioned active/practical learning, teacher/student interactions, or clear expectations/learning outcomes as the number one thing they did to improve their teaching. The researcher wanted to understand why this college was not the same as the first. She conducted negative case analyses with three faculty members in the College of Humanities. The researcher selected these three faculty by conducting a random sample from the pool of College of Humanities faculty who responded to the survey and also said they would be willing to do a follow up interview. The faculty were chosen from the following three departments: (1) Humanities, Classics, and Comparative Literature, (2) Linguistics and English Language, and (3) Spanish and Portuguese. The researcher conducted 15-30 minute interviews with these three individuals to understand if their college really was different from all of the rest of the colleges and to better understand why their number one response for improvement was different from everyone else.

Overall, the three faculty said that the areas of active practical learning, teacher/student interactions, and clear expectations/learning outcomes were important to them and their colleagues and that they were being practiced in the classroom. All three faculty members also demonstrated that faculty preparation was a significant part of their

teaching. However, the faculty members provided several reasons why they felt faculty preparation was the number one category for faculty in the College of Humanities. The main points of each interview will be discussed below.

Humanities, Classics, and Comparative Literature faculty. The faculty member in the Humanities, Classics, and Comparative Literature department said one of the reasons the faculty may have said faculty preparation was the most important teaching aspect to them was because many of the faculty members are assigned to teach large survey courses for which they do not have direct experience. For example, one faculty member may have a PhD in Classics with a specialty in Roman history, but may be asked to teach a course in Greek history. For example,

The point is that I almost never teach what I have any specialization in. For example, most every winter I teach a classical civilization course. Pretty much from the time that we teach the Roman unit on, we are into areas that I have no formal education training through an undergraduate or graduate program. So I have had to do, as all my colleagues have had to do, an enormous amount of work because we are boning up of this stuff because we are teaching these massive survey courses. So I think in the College of Humanities, I am guessing you encounter that a fair amount and that may explain it.

This faculty member also commented on her viewpoint of active practical learning, teacher/student interactions, and clear expectations/learning outcomes. She said active/practical learning may not have received a high ranking in the College of Humanities because helping the students gain real-world application is not always a possibility in her subject matter. Further, she said the category of active/practical learning may be her weakest area in terms of practical learning, but not in active learning. She commented,

In Latin it is easy to say that there is no real-world application and I don't do a lot of that sort of thing. On the other hand, we spend most of our time in active interaction and student participation where they are actively translating the Latin language. They are actively analyzing the grammar and talking about the style and rhetoric and parsing sentences. That is how we spend every hour of almost every class period. So the entire course is made up of active practical learning on a daily basis. On the other hand when you talk about some quote "real world" experiences, you take someone in the business class who goes out and tries to start a business...and we don't have a lot of that sort of thing.

In terms of student/teacher interaction, this faculty member said this category was an important part of her teaching. In fact each year, she invites her students to come over to her home for dinner to meet her family and to get better acquainted with one another. The professor places the students in groups of 4-10 and has each group come to her home on a different day. The category of clear expectations/ learning outcomes is also important to this professor. During her interview, she said that her class is quite demanding and the expectations she has for her students are high. She has also rewritten her syllabi to reflect the learning outcomes that have been determined by her department.

Linguistics and English Language faculty. The faculty member was asked why he thought faculty preparation was the number one category of improvement for faculty in the College of Humanities. He said on a personal level, he felt he was focusing on the top three areas of improvement just as much as the rest of the faculty across all of the colleges. Preparation was a natural part of his teaching, but not necessarily a category that was more important for him than the top three categories.

I think preparation is kind of a base line item; it is something that we all do. What I teach is shifting and I need to stay up with it. So preparation is very important, but I see that as a given. The three things that you mentioned before are in a completely different category. They talk specifically about interaction we have with the

students, where preparation comes before the interactions with the students and there is so much that comes before the interaction with students. I put into that just having good facilities and a good classroom and being able to sample sounds of the language.

This professor said that he has high expectations for his students. He includes active/practical learning by involving his students in a lot of group work. Learning the names of the students in his class is important to this professor. He also has the students learn each other's names to help build a feeling of community.

Spanish and Portuguese faculty. The faculty member in the Spanish and Portuguese department said he felt the reason why faculty in the College of Humanities reported faculty preparation as the number one category to improve was because the faculty were already proficient in the three areas the rest of the faculty mentioned. In essence, he said these faculty were engaging their students in active/practical learning experiences, had good interactions with their students and also focused on learning outcomes. This faculty was actively engaged in faculty preparation and mentioned he subscribes to and reads many journals and catalogs on research on teaching, and also buys summaries of research studies that interest him. However, he felt students needed to see faculty engaging in these three areas before they focused on the preparation of the faculty member.

I am guessing that these other factors are the huge factors—being interested in students and learning their names and involving the students—those things make such a huge difference. I am guessing in this college maybe more faculty members have already reached that threshold in those areas and there are some other areas you would expect to show up like faculty preparation. The extent to which you keep up with what is going on in your field has a huge impact on your ability to teach, and again I think students may not pick up on that until the faculty have reached that threshold where they know that this professor cares about me and is interested in

me and has interesting classes. I think once students perceive that, they start looking at what is being taught more by the professor's qualifications.

Summary of University and College-Level Results

In summarizing the data, overall faculty from all of the colleges, except for faculty from the College of Humanities, mentioned active/practical learning, teacher/student interactions, or clear expectations/learning outcomes as the number one thing they did to improve their teaching. Five colleges listed active/practical learning as the number one explanation faculty improved in their teaching. These colleges include the following: (1) Education (McKay School of Education), (2) Engineering and Technology (Fulton College), (3) Family, Home and Social Sciences, (4) Life Sciences, and (5) Physical and Mathematical Sciences. Two colleges listed teacher/student interactions as the number one explanation faculty improved in their teaching. These colleges include the following: (1) Health and Human Performance, and (2) Law School. Two colleges listed clear expectations/learning outcomes as the number one explanation faculty improved in their teaching. These colleges include the following: (1) Fine Arts and Communications, and (2) Religious Education (this college actually had a 4-way tie for listing why faculty improved). The College of Humanities listed faculty preparation as the number one reason faculty improved in their teaching. Faculty preparation was the fifth most common response overall faculty listed as a contributing factor to improved teaching, whereas active/practical learning, teacher/student interactions, or clear expectations/learning outcomes were the top three responses.

Faculty preparation includes the following subcategories:

1. Lesson preparation. Faculty who spent extra time preparing their lectures and/or presentation materials.
2. Experience with course. Faculty who taught the course over a period of time and felt their teaching gradually improved by making small course changes, or because they started a new course that took several years to gain experience in how to teach it.
3. Less fear. Faculty who became more comfortable with their students and less fearful teaching them over time.
4. Faculty development. Faculty who tried to stay current on their material by reading books to gain a greater understanding of their subject matter, attending presentations, knowing their current curriculum, etc.

Research Question 2: Instructional Contexts and Teaching Performance

In this section, the following research question will be addressed: How do the institutional/administrative contexts (departments, colleges, Faculty Center, CTL, ASB Admin, SCOT) in which faculty work influence teaching performance?

From the survey data in which faculty were asked what they did to improve in their teaching, faculty made 10 comments (approximately two percent of the total survey comments) in which they said they used support from institutional/administrative contexts to improve their teaching. Of these ten responses, three of the faculty mentioned using services offered at BYU to improve their writing performance. Three faculty members mentioned books that had been recommended to them that provided teaching techniques and fresh approaches to teaching. Three faculty commented on how they

attended a seminar or talk offered by BYU that focused on improving teaching. One faculty member mentioned how he had focused on evaluation services offered through BYU to improve his teaching, including the use of the SCOT program.

During the interviews, 18 of the 27 faculty discussed using resources and services offered at BYU. Nine faculty members used evaluation services offered at BYU to improve their teaching. Six individuals specifically mentioned using the SCOT program for the following three reasons:

SCOT Evaluation

Several faculty members felt they would receive more accurate evaluation data if they had a SCOT ask the students in their classes to evaluate the course rather than having them ask. These faculty members said using the SCOT program helped because it communicated to the students that they was serious about trying to improve the class.

One faculty member even said:

The SCOT program is terrific because students are more likely to tell other students how they are feeling. Even if it is me and I say, "Give it to me anonymously," or I say "Leave it with the secretary. I don't care who it is from, I just want to improve," even then maybe one every other year will do that. Rather, when SCOT come in...there are no barriers. The students say what they want to say, and it is awesome and wonderful, and I do get good feedback.

Course Changes

Faculty members were using the SCOT program because they were making changes in their courses and wanted to assure these changes were improving the course.

Seminars

One faculty member was new to BYU, learned about the service and thought it was a good place to start with evaluating her class. Four faculty members mentioned they took advantage of some of the seminars offered at BYU to improve their teaching. These seminars focused on team-based learning, improving writing skills and learning teaching methods. For example, one faculty member who attended a seminar stated:

I have also participated in the seminar that they had and watched the teaching style that was used there and is was very discussion based. Seeing that was very helpful to me in trying to model how I thought that my lectures should go. I was interested in the topic and what it was all about and how others were teaching. I hoped to learn more about teaching a class, but I wanted to learn about that method of study. I thought it was very useful and fun.

Two faculty members specifically mentioned the use of books offered through the Faculty Center to gain insights on how to teach better, and one faculty member mentioned using the Center for Teaching & Learning to have them build a simulation for one of his classes to improve his teaching.

Five faculty members specifically stated they had never used services and resources offered at BYU to improve teaching and learning because of the following two reasons: (a) lack of time, and (b) not feeling need to use services because personal evaluation methods of teaching were sufficient. One example of lack of time includes the following statement from a faculty member.

I am on a professional track and so I teach 8-10 courses each year. I don't have time to mess around over there [at the Center for Teaching & Learning]. I don't have time to walk over there on campus and spend a couple of hours. I have one class that doesn't take a lot of development. There are a lot of areas that if I could come up with some good graphics and animations and stuff like that it will be really helpful and enrich the content. I think I could go over there [at the Center for Teaching & Learning] but again, I

don't have the time to get over there and do it and develop a rapport with the people over there.

The following example represents the second reason faculty do not feel a need to use the services offered at BYU:

I guess I have always been able to figure out my teaching for myself and how I wanted to improve things. I am sure that if I did the SCOT program or video taped my classroom I would see small things, but I guess I feel like there were things that were already clear and visible to me that I could control and that I could use to improve my teaching and I haven't really seen the need.

Overall, faculty have mentioned that using the services and resources offered at BYU to improve teaching have been very helpful, have positively impacted the way in which they teach. The following two examples represent the appreciation faculty feel for these resources and the effort administration puts in at BYU to help faculty succeed in teaching.

I have been at previous institutions and BYU does an incredible job of helping new faculty launch and succeed. It is not an easy thing coming into a new institution, learning new hurdles, and learning the continuing faculty status process. That is not always an easy thing, but I think that BYU bends over backwards to make sure you get a good start and whether that is through instructional design or workshops; those are huge for helping folks getting a good start.

One thing that I think is important to me and has been a great help is the Faculty Center. They have been very supportive and have wanted to make themselves available. I have found that to be a critical part to improvement in teaching. I think one thing that the Faculty Center does very well is that they put themselves out there. They host these workshops, they host seminars, they do whatever they can to get faculty, especially new faculty, to come and be aware of what they are doing. They are not just taking the, "Here we are. Call me if you need anything approach." Chances are they aren't going to call. You have to get out there and drum up the interest and ability to serve. I think the Faculty Center is very good at that. They expose themselves and get us involved in the workshops. We know what they are all about and that they are

available. So if we need help, we know exactly where to go because they told us and made it very clear that they are there to help.

Research Question 3: Faculty Communities of Practice

The following research question regarding faculty and communities of practice will be addressed: How much improvement in teaching performance is dependent on interactions within the faculty communities of practice?

From the survey data, 14 of the 489 comments faculty made regarding what they did to improve their teaching pertained to comments in which faculty said they communicated with other faculty members. This number represents only two percent of the responses—meaning only a few faculty considered their teaching success to be related to other faculty. Ten of these 14 comments were made by faculty who said they received help from other faculty members. Four comments were made in which faculty said they utilized their teaching assistants or graduate assistants to improve their teaching. These comments came from 14 different faculty members.

The greatest number of survey responses on this topic came from the College of Humanities, the College of Education, and the Marriott School of Management of Management (Business) (each with 3 comments), followed by the College of Fine Arts and Communications (2 comments). Faculty from the College of Engineering and Technology, the College of Life Sciences, and the School of Family, Home and Social Sciences and each made one comment.

Although many of the faculty did not mention dialogue with other faculty members in their survey responses, when they were specifically asked about their

communication with other faculty members, most of them could comment on the subject (positively or negatively). From the interview data, 22 of the 27 faculty members made comments about their interactions with other faculty members to improve teaching.

From the interview data, there were approximately eight reasons faculty mentioned that they communicate with other faculty members to improve teaching. These reasons are:

1. Pedagogical strategies and ideas. Faculty like to talk with other faculty members to receive new insights on how to teach a particular topic. One faculty member commented that she “certainly benefited from other people’s ideas” and had attended the capstone class one of her colleagues to gathering ideas for the next time she taught the same course.
2. Discussion. Some faculty love to discuss certain topics to spur on discussions that can be carried from one classroom to another.
3. Teaching Improvement. Some faculty members are completely focused on teaching and enjoy talking with other faculty members about how teaching can be improved, regardless of the subject matter. Some faculty ask their colleagues questions such as, “Do you have your outcomes defined?” “How are you measuring your outcomes?” and “Did your students understand them the first day of class?”
4. Preparation. Some faculty members teach courses that build upon the courses their colleagues taught. These faculty have dialogue with other to determine if their students are prepared for the next course level.

5. New faculty member. Some faculty members are new and engage in conversation with their colleagues to learn how to be successful teachers.
6. Standardization. Some faculty teach the same course that has multiple sections. Faculty often communicate with other faculty members to make sure there is standardization across the sections. Sometimes this dialogue takes place in bi-annual meetings and also in casual conversation.
7. Validate teaching. Some faculty engage in conversation with their colleagues to validate their teaching, their research, the programs they supervise, or the lessons they teach.
8. Problem solving. Some faculty members have conversations with their colleagues when they have a difficult problem that they cannot solve by themselves.

Although some faculty members do communicate with their colleagues to improve teaching, other faculty members made responses during their interviews to explain their reasons for not having dialogue with their peers. The researcher summarized these responses into the following six categories: (a) felt class was going well and didn't need help, (b) subject matter different and no one understands, (c) faculty are too busy, (d) faculty just want to talk and not listen, (e) individuality and uniqueness is celebrated (don't want to do things like colleagues), and (f) no reward or credit for working together.

Research Question 4: Research and Teaching Performance

In this section, the following research question is addressed: Is there a correlation between research productivity and teaching performance among faculty who improved in their teaching?

As part of the survey, faculty were asked the following question: During the past three years how many scholarly publications did you have? Faculty could answer the question anywhere from zero-one publications to eight or more. Sixty percent of the faculty who said they published 0-1 publication were part-time faculty. Whereas 80 percent of the faculty who reported 8 or more publications over the past three years were full-time, tenured faculty (see Figure 3).

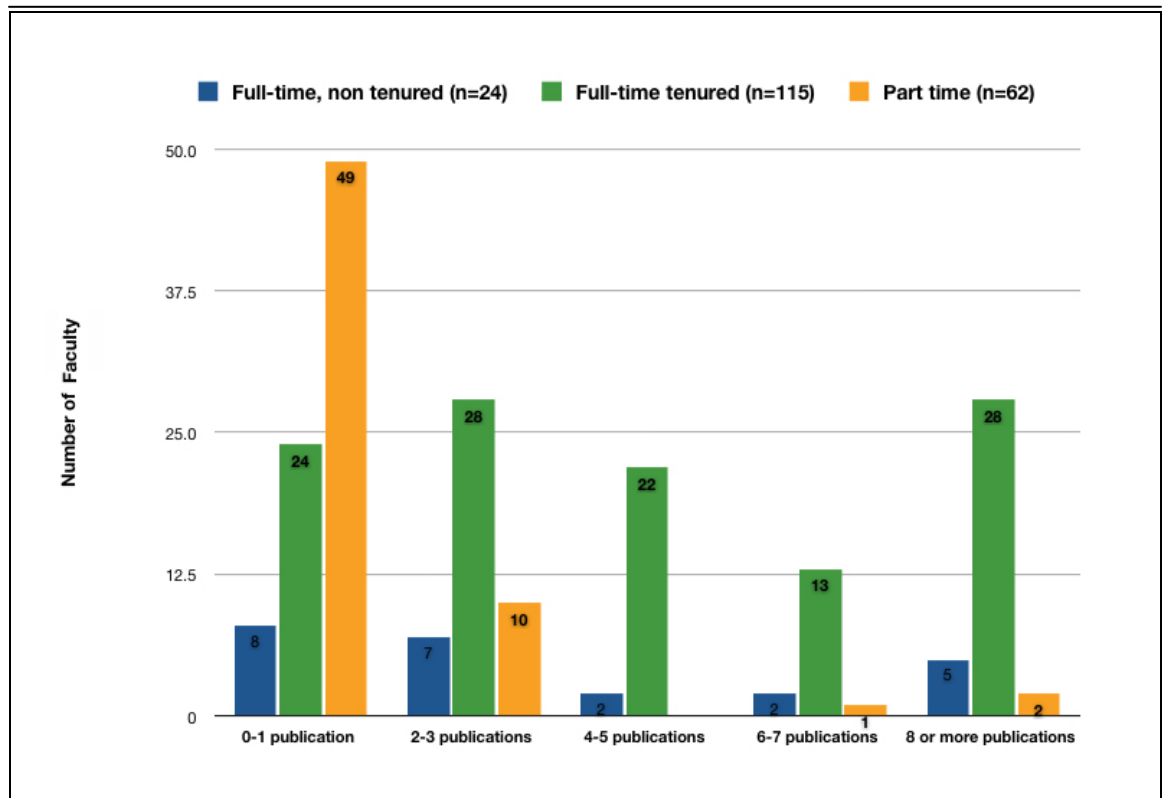


Figure 3. Number of publications faculty have written in the past three years (n=203).

The faculty were also asked the following question: How does this number of scholarly publications compare with other three-year periods in your career? Twenty-seven percent of all of the faculty said they published slightly less or much less compared with other three-year periods in their career. Twenty-two percent of the faculty said they

published slightly more, or much more as compared with other three-year periods. Fifty-percent of the faculty said they published about the same. This number would imply that the responses faculty provided regarding the number of scholarly publications they have had over the past three years is comparative to other three-year periods of publication for half of the faculty (see Figure 4).

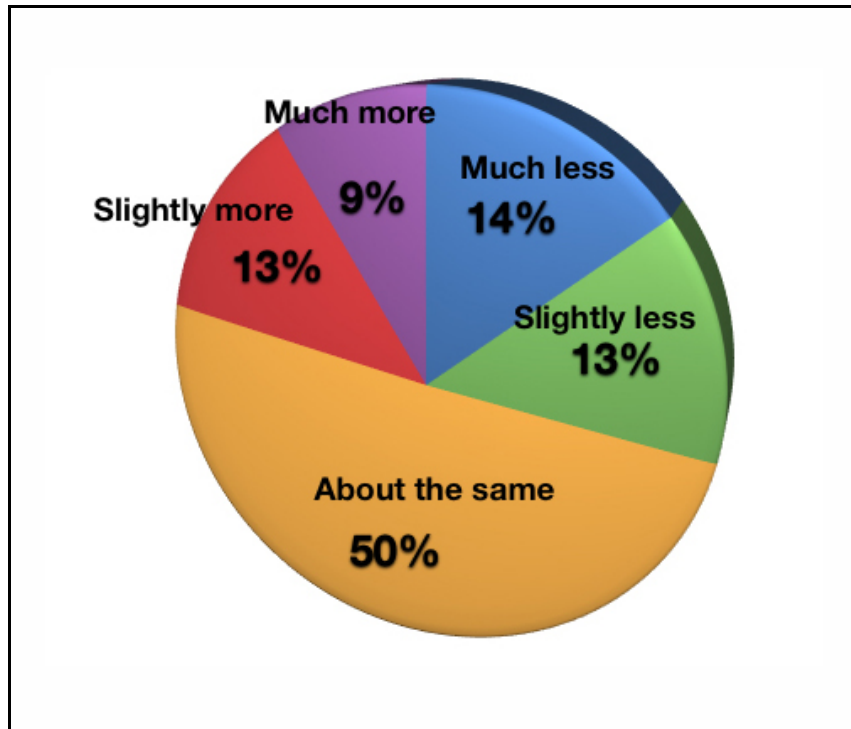


Figure 4. How current three-year publication period compares with other three-year periods of publication (n=202).

The researcher was curious to discover the experience of the faculty members who said they were publishing frequently (eight or more publications over a three-year period), and those who were not publishing or rarely publishing (zero-one) publication over a three-year period). The researcher separated the faculty into the following three categories: (a) Full-time tenured faculty, (b) full-time non-tenured faculty, and (b) part-time faculty. Of the faculty who completed this question, 115 (57 percent) were full-time,

tenured faculty members, 24 (12 percent) were full-time non-tenured faculty members, 62 (31 percent) were part-time faculty members. There were two faculty members for which the status of the faculty members could not be determined (1 percent). These faculty members are listed in the figures as unknown (see Figure 5). These statistics also confirm that faculty at all levels of ranking can improve, whether one is a part-time faculty member, or a full-time, tenured faculty member.

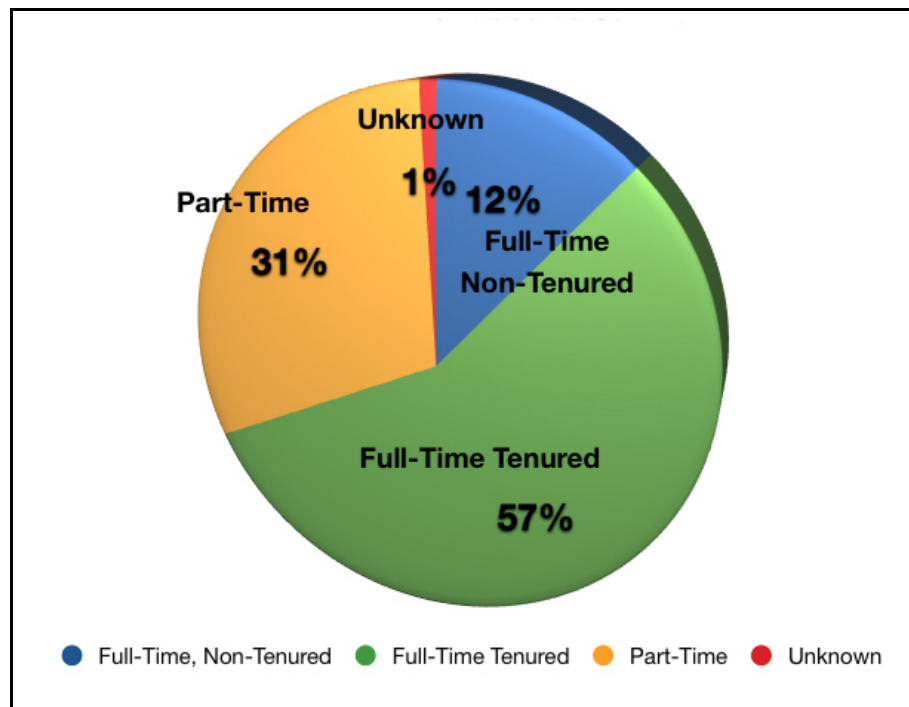


Figure 5. Ranking of faculty who responded to the online survey (n=203).

Of the faculty who said they had zero-one publication over a three-year period (82 faculty), 60 percent (49 faculty members) were part-time faculty members, 29 percent (24 faculty members) were full-time tenured faculty members, 10 percent were full-time, non-tenured faculty members (8 faculty). One percent was unknown (one faculty member). The part-time faculty members are not required to publish, which may explain why 60 percent of these individuals did not publish or rarely published. However, there

were still nearly one-third of the full-time faculty members who said they published 0-1 publications over a three-year period. The researcher does not have an easy explanation for this number.

Of the faculty who said they published eight times or more over a three-year period (36 faculty), 78 percent were full-time tenured faculty, 14 percent were full-time, non-tenured faculty (5 faculty), six percent were part-time faculty (2 faculty), and three percent was unknown (one faculty).

After the faculty responded to the question regarding how many publications they have had over the last three years, they were asked the following question: How does this number of scholarly publications compare with other three-year periods in your career?

Twenty-seven percent of the faculty (56 faculty) said they published much less or slightly less during the past three years. Twenty-eight of these faculty were full-time tenured faculty. Seven of these faculty members were full-time, not tenured. Twenty were part-time faculty, and one faculty member was anonymous.

Half of the faculty members said they published about the same (102 faculty members). Of these 102 faculty members, 54 were full-time tenured, 10 were full-time, non-tenured, 37 were part-time, and one was anonymous. Twenty-two percent of the faculty said they published slightly more or much more (44 faculty members). Of these 44 faculty, 32 were full-time tenured faculty, seven were full-time, non tenured, and five were part time faculty members. Further, 83 percent of the faculty who said they published much more were full-time tenured faculty members.

Approximately 45 percent of the faculty who said they published much less were part-time faculty, however, more than half of the faculty in this category were full-time

tenured faculty (see Figure 11). For the purpose of this figure, FNT represents full-time, non-tenured faculty. FTT represents full-time tenured faculty. PT represents part-time faculty, and Anon represents faculty whose status was unknown. This statistic shows faculty who are full-time tenured faculty are publishing on different levels. Further, based on these statistics, it cannot be said that because one is a full-time tenured faculty member they publish frequently, nor can it be said that because one is a part-time faculty member, they do not publish.

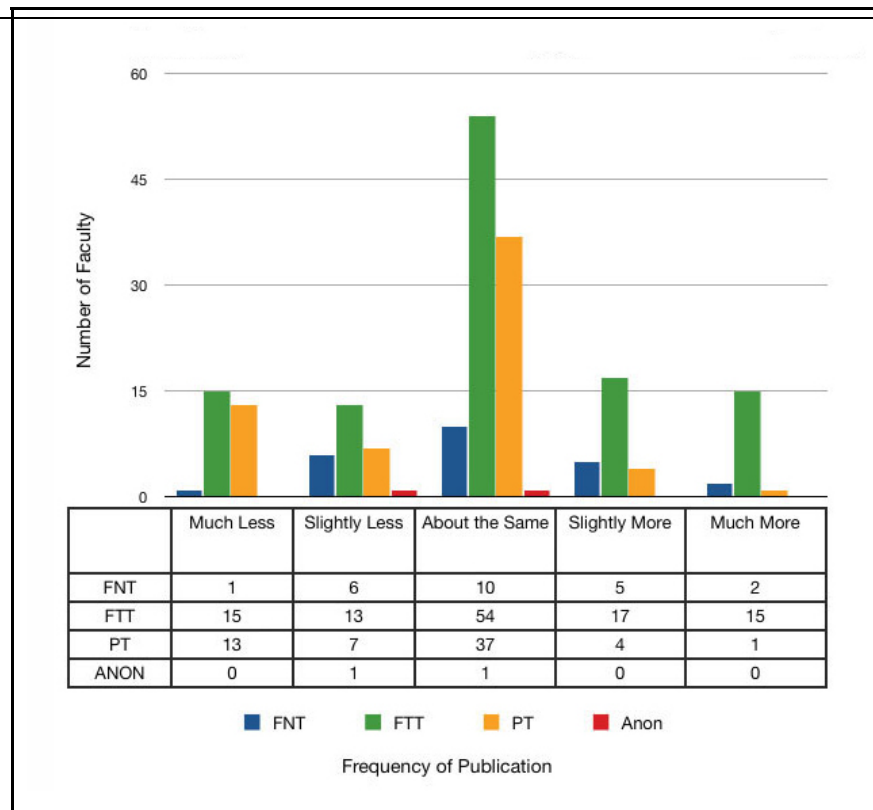


Figure 6. How current three-year publication period compares with other three-year periods of publication for faculty of all statuses (n=202).

During the interviews, the researcher asked the faculty if they felt there was a direct correlation between faculty who publish frequently and faculty who are excellent

teachers. Seventy-five percent of the faculty (15 faculty members) said there was a correlation for the following reasons:

1. Good examples of scholars. One faculty member felt that faculty who are engaged in research will share their findings with their students and strive to show them how they can have a great research experience and be excited about learning and asking engaging questions.
2. Being well rounded. One faculty member felt that one who is well-versed in research and writing is a better teacher. He said, “The writing makes my classes better and the classes make my writing better as I get some insights. So I see them as complimentary and reinforcing.
3. Research is incorporated into classroom discussion. One faculty member felt that the discussions he had in class were often correlated with some of the research he was publishing. He said the following:

There is no question about it. It is challenging to publish and get your stuff out there in a high-quality journal. But I don't think that there is a faculty member on this campus who has done this kind of research who wouldn't tell you that during classroom discussions and lectures that these things end up getting incorporated in the classroom, and they do. I have done that numerous times and students are interested in that and want to know what you are doing and what research you are doing. You end up bringing it into the classroom and talking about it. It is incorporated in your teaching.

Twenty-five percent (five faculty) said there was not a correlation between publishing and teaching for the following reasons.

1. Narrow research. One faculty member said his research was much more narrow than teaching and that his research was important, but it was “aimed at such a small target.”

2. Advanced research. One faculty member said that his research topics were much more advanced than anything he would ever teach.
3. Personal examples. Another faculty member said he had known professors in the past who had been tremendously effective teachers who were not researchers at all.
4. Research venue. One faculty member felt cutting edge research in his discipline happened in the industry and not in academia.
5. Teaching is a learned discipline. Another faculty member felt that there was a great difference between a faculty member who had a body of knowledge and a faculty member who was able to successfully disseminate that body of knowledge to students. This faculty member commented,

I think teaching is a very developed skill. There may be some natural teachers out there but I think that really good teachers have this desire to be better teachers and they work on it... and have spent time becoming better disseminators of information. Because you publish and do a lot of research, you may be an expert in the field but it doesn't make you a good teacher. I have heard, even from my own my kids who have attended college say, "Man, that professor is really smart. He really knows what he is doing, but the material just went right over my head." We cannot say that there is a linear correlation between the amount of research that we do and teaching. I don't think that it is that straight of a clause.

Research Question 5: Faculty and Personality

In this section the final research question is addressed: Can improvement in teaching occur among a variety of different personality types?

Research from this study shows the answer to whether improvement in teaching can occur among a variety of different personality types is a resounding "yes." First, faculty from all of the colleges were among those who had improved 1.5 points in their

teaching. Second, faculty across the colleges were interviewed. During the interviews the faculty members discussed their personalities. Some faculty members described themselves as enthusiastic and humorous, others as knowledgeable, and some described themselves as demanding or as who had had very high expectations for the students.

Another faculty member just showed his students that he cared about them.

I wouldn't classify myself as an entertainer but you can enjoy the students and have fun. I think it has more to do with them feeling you understand them and you know them personally and you care how they do.

One faculty member was quite humble about his personality and said, "I don't think there is anything extraordinary about what I do. It is just focusing on the student and their learning experience, rather than on the specific material or whether you cover all of the material."

Another faculty member simply described his personality as one who was fair, as well as demanding. He also paid close attention the comments from his online student ratings which caused him to try to become less intimidating to his students. He said,

I have heard some comments from my grad students that hear students say that I am one of the hardest instructors in the department, but I am fair. I want to be demanding, I want to challenge the students, but I try to be fair. I want them to know that if they have a rationale that is reasonable, they can come to me and we can negotiate why they think this way. So I actually like what I hear, but I think there are some students that think I am intimidating. I find it hard to picture in my mind what they perceive but that is not a good perception. You can be defensive all you want, but if that is what the students think you have got to change that. I think it takes a lot of self reflection. I have become very aware of my mannerisms, I really try to get to know everyone by their first name, which for me is really hard, and I have tried not to be condescending.

Finally, one faculty member claimed his personality was not helping his student ratings. He had worked for a long time to improve them and still saw no improvement. However, this professor made some curriculum changes by adding a new textbook and implementing a team-based learning approach to his teaching and went from a 3.43 in Summer 2005 to a 7.0 in Summer 2006, an increase of 3.57 points! He made the following comment about his teaching:

I don't get good student ratings. I am not a naturally gifted teacher. Some students really pick up on what I teach and some really enjoy it, and there is a lot who don't. I have worked on that class for years trying to figure out why in the world the students are not getting it. What I lacked was a good textbook. When the text became available it was just a great text and the students could read and understand it, and the author could bring them along and it required and helped make a paradigm change. Once they could think a certain way I could show them how to apply to the principles of economy. I didn't have to do all of the work to get the paradigm shift. The text was the key. Before I used that text less than one fourth of the students got it. That is not a really good batting average. When I made these changes 75 percent of the class really got it. It is because I made the paradigm shift and they knew what I was talking about and saw how it applied and they could think on their own.

Overall, faculty from across the disciplines, with a wide variety of personality traits improved in their teaching. For some the improvement came gradually, for others the improvement came over a semester, however, for each faculty member, improvement was made.

Chapter 6: Practical Application For Teaching Improvement

Disposition to Change

After reviewing the 27 interviews, the researcher noticed several patterns that faculty said helped them to make changes to improve their teaching.

Have Desire

The faculty member was motivated and willing to have an open mind regarding the new knowledge they received (from student comments, faculty, observations in class, books, etc.) and also a desire to improve the course. Many of these faculty members had to decide to become humble about the feedback they were receiving on their course. For example, one faculty member said that he had to admit that he was “an inexperienced teacher who was trying to be better.” These faculty members often expressed how much they loved their students and how they wanted to make their class a haven for learning.

Select Focus

The faculty members usually selected just one item to improve their teaching, although there could have been several items to improve. During the interview, the faculty were asked if they tried anything to improve their teaching that did not work. There was not one general response. Sometimes faculty chose an item to improve and the class dramatically improved on the first try.

I didn't try anything that didn't work. I zeroed in on it. I knew that I had created a challenging class, and it is a lot of work. I could have read the comments and said I just need to back off on the workload, I need to make the class easier, but I didn't take that route. Those were my two choices, make the class easier, or help

the students understand what was going on and let them know that they are okay, that I understand that they are going to struggle. So I tried that route first before I ditched the assignment, and it worked.

Other times a faculty selected an item to improve, worked on it, and discovered that the item of change was not the right item to change.

About every semester I have tried something that didn't work. I try new things every semester, some things bomb and some things work. Sometimes I think, "Oh this will be so great, but the kids kind of disagree."

For some faculty, the change process was evolving. They made little adjustments along the way that helped to improve their course. For example:

So this semester we utilized the students to show how we can integrate technology into our practice. It has been an evolving process. I wouldn't say that stuff has bombed or hasn't worked. I have continually tried to improve and look back on the class to see if it has worked and ask, "How well did that work?" and then make some adjustments every semester. I don't think that I have taught the same way every semester that I have taught the class. Things continue to change.

Identify Target Date

The faculty members usually selected a date to initiate the change process and also a date to evaluate how focusing on one factor impacted teaching. Oftentimes the faculty member started the change at the beginning of the semester and evaluated if the class was improving at the end of the semester. The faculty often based their improvement using the scores from their online student ratings.

Put Forth Effort

The faculty members usually worked diligently on the factor they had selected to improve, even if the change process took more than one semester. Usually this factor included one of the top three factors to improving teaching from this study

(active/practical learning, teaching/student interactions, clear expectations/learning outcomes).

So the first semester that I taught the class, I was giving the students a lot of information, but none of it was very organized. I was just trying to throw it at them and got some really cutting comments that made me realize, “Holy smokes! I have to change something here.” By the next semester I taught it, I was much more personally invested in it and got more organized myself. It took those first two semesters to really figure out how I needed to change things. Once I figured it out and put this new game into play the first semester, it became a lot easier to teach.

Change Triggers

During the interviews, the researcher asked the faculty members to explain how their teaching improved and what caused the change. The faculty members usually had an experience that triggered the change. Overall the 27 faculty mentioned six primary factors that initiated the change, which are (a) online student ratings, (b) mid term surveys and exit interviews, (c) lack of excitement in class, (d) personal desire, (e) teaching support, and (f) teaching material. Each factor is discussed below.

Online Student Ratings

Reading comments from the online student ratings was the biggest change factor for faculty to improve their teaching, according to 12 of the 27 faculty members (44 percent). Further, 20 of the 27 faculty (74 percent) who participated in the initial interviews commented that they utilized the online student ratings to improve their teaching. In essence, the faculty members needed to take advice from the students whom they were teaching to make their classes better. The faculty said the online student ratings were helpful and beneficial, and overall had a positive experience with the student rating

process. Here are several short examples from faculty regarding their feelings about the online student ratings:

I take the online student ratings very seriously. Part of that is that I know the students by name. I have been to their weddings, so the comments and ratings can be very personal to me. It is an incredible opportunity that every 16 weeks I have some very truthful feedback on my job performance. I think a professor would be silly not to read them and take them seriously. The student evaluations made it very concrete what I was feeling was happening in the class. It wasn't going the way I wanted it to, and the comments solidified that.

I read the comments from the online student ratings all the time. If you don't have them, then you don't get a full picture of the class. I get a better idea of what people are thinking so I can improve the class. I always read the comments. What I noticed is that for a while there I wasn't focusing a lot on the students.

Of course at the end of every semester I evaluate what I have done, and I look at the student evaluations. Most of the evaluations I would say are honest. The students say what they like and don't like...So I dropped the programming assignments because it wouldn't enhance their learning experience, based on two years of student comments, and also based on what I felt was good to make.

Although 20 of the 27 faculty members viewed the online student ratings positively, five of the faculty members reported that they did not use the online student ratings (19 percent). Two of the faculty members did not mention the use of student ratings during their interviews (7 percent).

Reading comments from the online student ratings was the biggest change factor for faculty to improve their teaching. However, during the interviews faculty also mentioned a few others triggers that propelled them to change a factor in their teaching.

Mid-Term Surveys and Exit Interviews

As stated above, many of the faculty members used the online student ratings. However, they often wanted an additional measure of their teaching. Six faculty members (22 percent) stated they would have mid-term surveys or exit interviews with their students to determine what they could do to improve teaching. The faculty members would initiate mid-term surveys to assess the class and then use that feedback to make changes throughout the rest of the semester. The faculty who initiated exit interviews from the students wanted to receive feedback for the following semester. Combining the online student ratings and the mid-term surveys and exit interviews, 62 percent of the faculty used these factors to decide the changes they needed to make in their teaching.

I actually like to see and know what the students think. At the end of the class I give them the option to write me a little note before they leave the classroom and I keep those and I like to read them. I have kept the notes for four years now. It is serious what they students think.

Sometimes I do an informal evaluation where I give students a typed sheet to fill out anonymously and I give that to the secretary to type up and give me the responses.

Lack of Excitement in Class

Four faculty members knew they needed to make a change in their teaching by observing their students in class. They often felt like their students weren't as excited or interested about the subject matter as they were about their class.

I am passionate about the history of the university, which is what the course is about, and I wanted the students to be as passionate as I was. I felt after the first couple of lectures that I wasn't conveying what I wanted them to about the University, and that for me was the first clue. If the students aren't feeling the same way that I am, then I need to do something to convey the information better.

Personal Desire

Three faculty members felt they wanted to make the class as best as they could, regardless of student ratings. They felt they had a moral duty to make the class a wonderful learning experience for their students.

Actually I wouldn't say that the change was the student ratings at all. I wanted to improve the class. So for me it was an effort change. It wasn't just random that I realized, "Oh I am just doing this differently." I actually thought about the class and how I could make it go more smoothly because I wanted to offer the best class that I can so students can understand what they are doing. Every semester in all of my classes I am always taking notes on how things work. I am now working on what I am going to do for the midterm because of notes that I took on how lab went yesterday. So every semester I am always trying to make improvements on it. It is actually a really concerted effort on my part to do something about it.

Teaching Support

Two faculty members felt they experienced a trigger for change after talking with individuals from the Faculty Center and being introduced to the SCOT program.

I worked with some folks from the Faculty Center when I first came to campus, and that has been helpful. As a new faculty you are hooked right away in the Faculty Center and a lot of the workshops. You have nice discussions.

Teaching Material

Two faculty members felt a desire to improve their teaching after reading some instructional material.

I read from other textbooks to get other insights on how to teach the material, to make things clearer to the students. There are several different textbooks and ideas on how to teach. I was trying to gather up ideas from other books and that is something that I focused on.

Effort Involved

During the interviews, most of the faculty commented that the effort it took to make these changes was minimal. In essence, the faculty members were fine tuning their teaching and focused primarily on one factor to change. For example, Table 6 shows short statements from eight faculty members demonstrating the effort the change in their teaching involved.

Although the effort to change did not require hours and hours of the faculty member's time, the results were visible, important, improved online student ratings, and were even life-changing to some faculty members.

Table 6

Responses from Faculty Stating Effort Involved to Improve Teaching

I tweaked my classes every semester and now my classes are pretty consistent.

Most of the changes that I have made are simple but they make a big difference to the students.

To answer your question, I have been teaching it four years and it took those first two semesters to really figure out how I needed to change things. Once I figured it out and putting this new game into play the first semester it became a lot easier to teach.

It didn't take a whole lot of effort to make the change. With 30 or 40 students it is possible to learn their names. It might be an extra hour per class to learn their names.

It takes a little more time, not a lot, but I think a lot of it is that you are a little more aware in class.

When you are a good teacher you should be aware of what is around you and you should continue to adjust and you should know what is happening. It is a continuous growth.

It took a little bit of time. Overall the changes reduced a lot of the grading work that I had to do. It reduced some of the load off of me.

I don't think it was any more effort than I normally put in. In terms of class preparation my focus changed. In term of energy I put forward, it is probably about the same.

Chapter 7: Conclusions and Suggestions for Further Research

Overall, more than 300 of the 1600 faculty at BYU have shown they can improve in their teaching. These faculty were from a variety of disciplines with various teaching experience. These individuals also had different personalities and character traits. The top three contributing factors to improved teaching in this study were faculty who engaged their students in active/practical learning experiences, faculty who had good interactions with their students and cared about them, and faculty who focused on student learning outcomes and had high expectations for their students. The results of this study should be encouraging to any faculty member who feels he or she cannot improve, as well as to administrators who are looking for ways to help their colleagues improve their teaching performance.

From the interview and survey data, some faculty are utilizing the services offered at BYU to improve their teaching. The most common response of institutional assistance was from faculty who take part in the SCOT program. Overall, faculty are appreciative of these services and feel they are valuable. Furthermore, the research from this study showed that only a small number of faculty are currently engaging in a community of practice to improve their teaching. The faculty who are having conversations within their discipline about teaching improvement have benefited from these interactions.

Concerning scholarship and teaching, faculty (from part-time to full-time tenured) in this study are publishing at the same time they are improving their teaching. A direct correlation cannot be drawn with this study. Some faculty felt that there was a correlation

between the amount they published and the quality of their teaching and others felt there was no correlation. There was a general consensus that faculty who publish could use that information and present it in their classroom. The faculty who published also felt that the knowledge they gained from their research contributed positively to their teaching.

Although the research primarily viewed the overall course score from the online student ratings to determine contributing factors to improved teaching, future research could be conducted on other areas included in the online student ratings in which faculty could improve such as amount learned, student involvement, how effectively concepts were explained, the amount of time that was valuable in class, etc. Faculty who are doing really well in these areas could be interviewed and results could be distributed to faculty. Another area of research could be to conduct this same study and look at the student perspective. Students could be interviewed to see if the factors they feel contribute the most to teaching improvement are the same factors for faculty.

Chapter 8: Summary Article

Abstract

This paper brings a much-needed focus on the quality and scholarship of teaching as it pertains to educational and faculty development. The main purpose of this paper is to outline what more than 200 faculty across a wide variety of disciplines have focused on over a three-year period to make significant (a 1.5 standard deviation increase or higher in online student ratings) and sustained improvements in their teaching. The top three factors of improvement include active/practical learning, teacher/student interactions, and clear expectations/learning outcomes. The researcher also discusses how institutions and faculty communities of practice, research, and faculty personality contribute to teaching performance. The findings of this research build upon the literature review on scholarship of teaching. The researcher provides a vignette of a faculty member who has gone through a change process to improve his teaching, highlights important teaching areas for faculty to focus on in each college, provides practical application for change, and concludes by providing suggestions for future research. This paper is full of hope and encouragement for all faculty and administrators, regardless of their personality, their current skill level at teaching, or the subject matter they teach.

Introduction

Statement of Problem

No instructor grows up thinking, “I really want to be a bad teacher!” (Phillips, 2001, p. iv). Rather, individuals who become teachers generally want to be the very best they can “become in their field and seek to have elevated purposes in their teaching pursuits” (Fink, 2003, p. 244). They want their students to have “significant learning experiences, grow, and progress” (p. 6).

The best thing we can do to help every student succeed is to provide good teachers, well versed in subject matter content and in how to teach it. Teachers need and want help to do their jobs well.Teachers want the kind of professional development that will give them the knowledge and skills to help their students meet these new academic standards. They want good diagnostic information that allows them to be better at adjusting their teaching for individual students. (Landgraf, 2003, para. 5)

However, despite these high aspirations to become the greatest teachers, oftentimes faculty consider the literature on that which makes an excellent teacher, or watch a faculty member whom they feel is an outstanding teacher and immediately shut down or give up thinking that they can improve because they believe they can never be as good of a teacher as that professor for various reasons. They may also get discouraged if they spend time on teaching activities and research that does not improve their ratings (Hattie & Marsh, 1996). Even new teachers may suffer if they do not feel they have reached excellent teacher status at the beginning of their careers.

Most new teachers enter the profession with a powerful desire to do good work. They want to teach. But they are expected to just jump in and be successful. If they don't feel effective, they can get discouraged—especially the most conscientious ones. (Boss, 2005, p. 5)

This study is one that is full of hope and encouragement for faculty who consider themselves just “average teachers.” The researcher shows that all faculty can change and become better professors and learners and have a powerful impact on their students, regardless of their personality, the subject matter they teach, or their current skill level.

It is my experience and belief that nearly all faculty have deep inner dreams of what they would like their teaching to be like – and those dreams are significantly different from their ordinary, everyday experiences in the classroom. If some way could be found to encourage faculty to dream their dreams and to have a realistic hope of making these dreams a reality, they would have the basis they need for saying, “Yes, it is worthwhile for me to invest in learning how to be a better teacher.” (Fink, 2003, p. 8)

The purpose of this study is to identify faculty who have improved significantly in their teaching over at least a three-year period and to determine what these faculty changed in their teaching to become better. Therefore, this study has the potential to impact every faculty member. It is one in which faculty from a variety of disciplines can gain understanding from their peers as to how they achieved performance and improved in their teaching.

A significant amount of research has been conducted on what makes an excellent teacher (Bain, 2004; Chickering & Gamson, 1991; Fink, 2003; Palmer, 1993). Further, a great deal of literature regarding feedback to improve teaching is in abundance; however, “most studies focus on the kind of information that is fed back to the instructor rather than the process by which the instructor receives the information” (Brinko, 1993, p. 574). Therefore, research on what faculty actually do to improve their teaching is lacking. This study will contribute to the literature in the areas of development and improvement among faculty members.

Research Questions

In this paper, the researcher will address the following questions:

1. What have faculty who have been successful at improving their teaching performance done to realize that growth?
2. How do the institutional/administrative contexts (departments, colleges, Faculty Center, CTL, ASB Admin, SCOT) in which faculty work influence teaching performance?
3. How much improvement in teaching performance is dependent on interactions within the faculty communities of practice?
4. Is there a correlation between research productivity and teaching performance among faculty who improved in their teaching?
5. Can improvement in teaching occur among a variety of different personality types?

Definition of Terms

BYU Faculty Center: The Faculty Center at Brigham Young University (BYU) exists to support excellent teaching, scholarship, citizenship, and collegiality among faculty.

Center for Teaching & Learning: The Center for Teaching & Learning (CTL) is a department at BYU that partners with faculty on a variety of levels to help improve teaching and learning.

Online Student Ratings: At the end of each term or semester, BYU students are encouraged to provide feedback on each of their professors and reports of the ratings are made available to BYU faculty and administrators.

Students Consulting on Teaching (SCOT): This program is designed to help BYU faculty improve their teaching. A student is assigned to help faculty gain a better understanding of that which is happening in his or her classroom. The student consultant (SCOT) can serve as a filmmaker, observer, or interviewer for the class.

Review of the Literature

In this section, the researcher will provide an overview on the scholarship of teaching including the practical and theoretical significance, characteristics on exemplary teachers, and the importance of improvement.

Practical/Theoretical Significance

Boyer (1990) first introduced the concept of a scholarship of teaching as a process of discovery research in which faculty gain “knowledge of effective ways to represent subjects, the ability to draw the various strands of the field together in a coherent and purposeful way, and [develop] ways that make the subject more accessible, interesting, and meaningful to students” (Kreber & Cranton, 2000, p. 477). Shulman (1987) discusses how faculty develop a scholarship of teaching when their work as teachers becomes visible to their colleagues and shared so that others can build on their research (as cited in Kreber, 2006).

One aspect that the scholarship of teaching and learning is concerned with is understanding and utilizing best practices in teaching and discovering which “teaching innovations produce the best results” (Shulman, 2006, 88).

For the purpose of this study, the scholarship of teaching and learning is “especially applicable in understanding how teachers of all levels can contribute to better or increased learning, [and] more in depth learning” (Shulman, 2006, p. 88).

Exemplary Teachers’ Characteristics and Classroom Behaviors

The purpose of this study is to gain a better understanding of how faculty become better teachers and make improvements in their teaching. To understand how a faculty member becomes a better teacher, one must have an understanding of what makes a good teacher, or an excellent teacher.

Excellent teachers are those who have a great understanding of their subject material. They are active in their field of study and make an effort to publish. These are individuals who treat their discussions, classroom material, and all other elements of teaching as “serious intellectual endeavors as intellectually demanding and important as their research and scholarship” (Bain, 2004, p. 17). Excellent teachers expect a lot from their students. They use a variety of teaching methods and they treat their students with respect and trust (Bain, 2004).

Chickering and Gamson (1991) have done significant research on effective teaching and have stated that the following seven principles should be used as guidelines for faculty: (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). Although a great deal has been learned and gained from research on teaching in higher education, “much

still remains unknown, and most remains unused by practitioners themselves” (Menges, 2000, p. 5).

Importance of Improvement

To measure growth, one must understand how growth works and its importance. A program that looks toward the “cultivation of faculty growth is a necessity in every institution” (Russell, 1993, p. 1020). Faculty who do not strive to grow in their teaching performance often end up becoming comfortable with a low-level performance, and also become inflexible in their teaching methods and procedures (Russell, 1993).

Faculty improvement is essential for a variety of reasons. First, faculty who experience improvement in their teaching tend to increase in their level of teaching satisfaction as well as their happiness. Second, faculty who do not strive to improve in their teaching are less likely to succeed in motivating their students to achieve additional improvement (Russell, 1993).

Design of the Research Study

Identification of Faculty Sample

This qualitative research study was conducted in the following way: First, full-time faculty from BYU were identified who have shown significant improvement in their teaching performance over time. This selection was done by the use of online student ratings. The Center for Teaching & Learning currently has a database containing online student ratings for every class each faculty has taught. The database was queried by the CTL to identify faculty who have taught the same course (faculty course pair) over a three-year period. Scores were obtained from each faculty member, starting with their

most recent score and working back. The database was programmed to begin with scores from Winter 2007. If faculty taught several sections of a course during the same semester, their scores were averaged. Next, the database was queried to show faculty who had improved at least 1.5 points in a specific class, over the three-year period, for three consecutive semesters or terms. Scores were obtained for each faculty member based on their overall course and overall semester score. With the online student ratings system, faculty are rated on a scale of 1-8.

Once faculty were identified, they received an email survey, in which they were asked to answer four questions about what they have done to improve in their teaching. They were also asked if they were willing to discuss their experiences by participating in an interview. The survey was sent by the Academic Vice President at BYU on August 24, 2007 to 308 faculty using a survey program called Qualtrics. Faculty had one month to complete the survey. Several reminder emails were also sent to faculty who had not completed the survey.

Selection of Faculty Interviews

Next, a purposeful sample was drawn in which 27 faculty were selected for an interview. The researcher attempted to interview faculty from a wide variety of disciplines, and also interview faculty who taught large and small-scale classes. The second survey question was the following: "I would be willing to participate in a follow-up interview regarding teaching performance." There were 170 faculty (84 percent) who said they would be willing to participate in a follow-up interview. Thirty-two faculty (16 percent) declined the interview request.

To determine faculty who should be interviewed, the researcher read through each response that faculty had provided regarding what they had done to improve their teaching in their courses. If faculty provided useful information (meaning they mentioned something specific they did to improve in their teaching), or if the paragraph(s) they wrote seemed like an interesting case, the researcher contacted faculty by phone to request an interview.

Twenty-seven faculty from 10 of the 12 colleges participated in a 30-40 minute semi-structured interview. Each faculty filled out an IRB form and each interview was recorded and converted to a mp3 file.

Analysis of Transcripts

After faculty were interviewed, the interviews were transcribed and analyzed using NVivo (qualitative data analysis and research software). The researcher read through the transcripts and looked for emerging themes and information that was “interesting, potentially relevant, or important to the study” (Merriam, 1998, p. 181).

The standards that were used for this study were taken from Lincoln and Guba’s (1985) four ways of establishing trustworthiness in qualitative studies, which include credibility, transferability, dependability, and confirmability.

To establish credibility, the researcher used the following techniques:

1. Prolonged engagement. Although the length of the interviews was not prolonged, the period of time that the researcher analyzed the data to see improvement in teaching was over a three-year period. Analyzing the data over this extended time period helped to ensure that the improvements in teaching did not occur just by chance over one or two semesters. Using an improvement scale of 1.5 increase in

standard deviation in the online ratings over this period of time also shows sustainability in improvement.

2. Triangulation. The researcher used a variety of data-gathering methods such as using the results from the online student ratings database, faculty open-ended surveys, and personal interviews.
3. Member checking. The researcher provided a copy of the vignette to the faculty member

Transferability was an important standard that was addressed as part of this study. To make transferability possible, the researcher provided a description of the setting of the study, the faculty and their circumstances, as well as rich details from the interviews. Direct quotes from the interviews, as well as comments from the students were also used.

To establish dependability, the researcher discussed her project and findings with one of her professors on a weekly basis and kept notes on the discussion and learnings. She also discussed decisions that were made as part of the study, reflections from the interviews, coding structures, and learnings that occurred while coding the data. To establish confirmability, copies of the recorded interviews and transcripts, as well as notes from the researcher were available upon request from the researcher.

The research questions were answered by using data from the survey questions and from analyzing data from the interview questions.

Research Question 1: Thematic Analysis

What have faculty who have been successful at improving their teaching performance done to realize that growth? Overall, 203 faculty (66 percent response rate) started the survey and 200 faculty (65 percent response rate) completed it.

Survey responses were received from faculty from 12 colleges at BYU. The survey consisted of four questions. The first question was the following open-ended question: “Your student ratings have increased for at least three consecutive semesters during the last three years in your ____class. What factors led to this change in your teaching performance?” Responses included 25 pages of data. The researcher read all of the responses from the faculty and categorized them into 45 detailed categories (see Table 7).

The researcher then combined these categories into the top 13 factors that contribute to improved teaching (see Table 8).

The category that received the most responses regarding what faculty did to improve their teaching was active/practical learning, receiving 96 of the 489 responses (20 percent). To separate the category of active/practical learning, practical learning received 34 responses (35 percent), and active learning constituted 62 responses (65 percent). The active/practical learning category was followed by teacher/student interactions (75 responses, 15 percent) and clear expectations/learning outcomes (63 responses, 13 percent). The number of responses in each of these three categories from each college is shown in Figure 7.

The following top five categories consisted of more than two-thirds of the responses of what faculty did to improve in their teaching: (1) Active/Practical Learning (2) Teacher/Student Interactions (3) Clear Expectations/Learning Outcomes, (4) Faculty Preparation, and (5) Evaluation. A complete list is shown in Table 9. The category of non-relevant data was not included in this category, as the faculty did not list anything they did to improve in their teaching (26 responses, 5 percent).

Table 7

A List of the 45 Subcategories Identified in Teaching Improvement Performance and Number of Responses from Each Category

Ranking of Subcategories	
Subcategory	# of Responses
High/clear expectations	34
Real life application and practical examples	28
Hands-on activities (active learning)	27
Experience	24
Spend more time/communication with students/doing more work myself	20
Revising section of course/syllabus	20
Evaluation of student feedback	20
Bring in gospel principles and practices	20
More in-class discussion/group work	19
Focus on learning outcomes	19
Increased knowledge of subject matter	18
Use of technology	17
Love/care about students	17
Being a mentor/less teaching, more student teaching	17
Different/innovative teaching methods/formats	14
Did not change anything	13
Feedback on assignments	12
Listen to students	11
Received help from faculty resource centers/ books	10
Received help from faculty members	10
Good/better students	10
Decrease in workload	10
Relaxed teaching (no fear – more comfortable)	9
Organization/structure	9
Getting to know students/engaged in students' lives	9
Student self evaluations	8
Passion/enthusiasm for subject	7
No response/no idea	7
Changed text/materials	7
Teacher evaluation	6
Small/reduced class size	6
Not applicable	6
More work/quizzes/writing/assessment/demonstrations	5
Knowing needs of students	6

Ranking of Subcategories

Subcategory	# of Responses
Students really like material/recognize importance	5
Preparation	5
Learning names	5
Believing in /encouraging students	5
Training/utilizing TA	4
Visuals	3
Simplified personal life	3
Humor	3
Time of day/year class was taught	2
More open to students	2
Better facilities	2
Total Responses	515

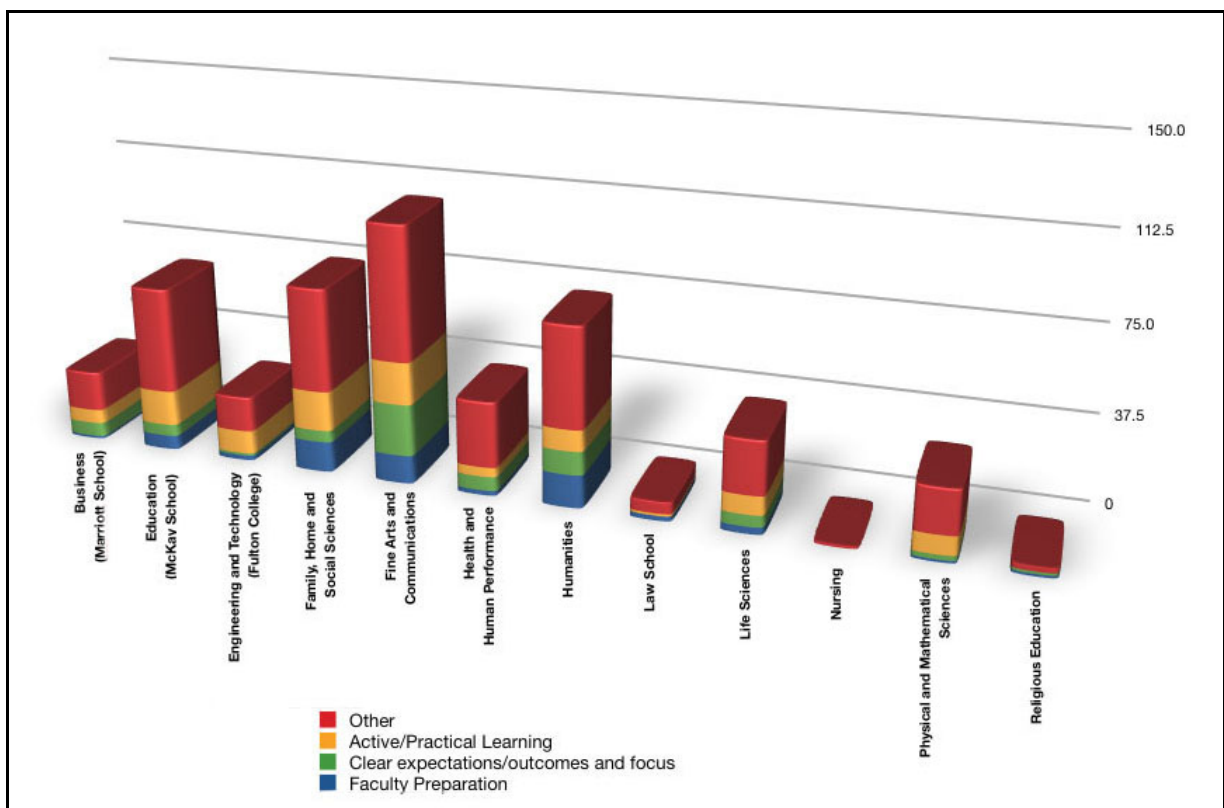


Figure 7. Number of responses in top three categories from each college (n=489).

Table 8

Thirteen Main Themes Used to Identify Contributing Factors to Teaching With 45

Subcategories in the Right-Hand Column

Theme	Subcategory
Active/Practical Learning	<ol style="list-style-type: none"> 1. Real life application and practical example 2. Hands-on activities (active learning) 3. More in-class discussion/group work 4. Being a mentor/less teaching, more student teaching 5. Students really like material/recognize importance
Administrative Factors	<ol style="list-style-type: none"> 1. Time of day/year class was taught 2. Small/reduced class size Better facilities 3. Good/better students 4. Simplified personal life
Clear expectations/outcomes/focus	<ol style="list-style-type: none"> 1. High/clear expectations 2. Focus on learning outcomes 3. Decrease in workload
Curriculum Changes	<ol style="list-style-type: none"> 1. Revising section of course/syllabus 2. Changed text/materials 3. More work/quizzes writing /assessment/demonstrations
Curriculum Enhancements	<ol style="list-style-type: none"> 1. Visuals 2. Use of technology

Theme	Subcategory
Evaluation	<ol style="list-style-type: none"> 1. Student self evaluations 2. Teacher evaluation 3. Evaluation of student feedback 4. Feedback on assignments
Faculty Preparation	<ol style="list-style-type: none"> 1. Experience 2. Increased knowledge of subject matter 3. Relaxed teaching (no fear – more comfortable) 4. Preparation
Gospel Principles	<ol style="list-style-type: none"> 1. Bring in gospel principles and practices
Non-relevant Data	<ol style="list-style-type: none"> 1. No response/no idea 2. Did not change anything 3. Not applicable
Personality of Faculty Member	<ol style="list-style-type: none"> 1. Passion/enthusiasm for subject 2. Humor
Teacher/Student Interactions	<ol style="list-style-type: none"> 1. Getting to know students/engaged in students' lives 2. More open to students/listen to students 3. Believing in /encouraging students 4. Learning names 5. Spend more time/communication with students/doing more work myself 6. Love/care about students 7. Knowing needs of students

Theme	Subcategory
Teacher/Student Interactions	<ol style="list-style-type: none"> 1. Getting to know students/engaged in students' lives 2. More open to students/listen to students 3. Believing in /encouraging students 4. Learning names 5. Spend more time/communication with students/doing more work myself 6. Love/care about students 7. Knowing needs of students
Teaching Format	<ol style="list-style-type: none"> 1. Organization/structure 2. Different/innovative teaching methods/formats
Teaching Support	<ol style="list-style-type: none"> 1. Received help from faculty members 2. Received help from faculty resource centers/ books 3. Training/utilizing TA

Table 9

Contributing Factors to Improved Teaching With Number of Responses from Faculty and Percent

Category	Responses	Percent
Active/Practical Learning	96	20 percent
Teacher/Student Interactions	75	15 percent
Clear expectations/learning outcomes	63	13 percent
Faculty Preparation	57	12 percent
Evaluation	46	9 percent
Curriculum Changes	32	7 percent
Teaching Support	24	5 percent
Teaching Format	23	5 percent
Administrative Factors	23	5 percent
Gospel Principles	20	4 percent
Curriculum Enhancements	20	4 percent
Personality of Faculty Member	10	2 percent

The first three categories listed consist of nearly half of the responses (48 percent). An example of each of the three categories is provided here.

Active/Practical Learning

Faculty provided a wide variety of ways they are using active/practical learning experiences in the classroom such as providing real-world experiences, hands-on activities, and lots of in-class discussions. One faculty said the following:

Some students would say that I bring real world experience and practical stuff. I don't lecture on theory nearly as much, even though we cover the basic foundation of theory, but I illustrate it all with practical stuff. Even though we cover the theory, I cover it in a hands on, very meaningful, practical way. The students can take what I teach in class and actually apply it.

Teacher/Student Interactions

Faculty who emphasized this aspect of teaching often learned the names of their students and were genuinely interested in their lives. One professor demonstrated the teacher/student interactions aspect of improvement by getting to know his students really well. At the beginning of the semester he invited every student to set up a 15-minute appointment with him. He said,

It helps me because when I see them in class I know their name and something a little bit about them and it helps them because they can ask me any questions about me so they know me. I hope what that accomplishes is that it breaks the ice....I have had students comment that out of all of their years at BYU this was the first time a professor has tried to get to know them personally... I think, it is a time consuming process, but it is very rewarding for me because my students know that I look at them as a person and not just as a name or a picture on a roster.

Learning Outcomes/Expectations

Faculty who utilized this aspect of teaching often had high and clear expectations for their students. They also emphasized each learning outcome to their students. On the first day of the semester, one professor would have a discussion with his students on his expectations. He would have them discuss their responsibilities, and job descriptions as students and then they would list these characteristics on the board. Next, he would define his responsibility as a professor, as well as their expectations for him and say, “So now we understand each other, if you do this, I will do this.” He felt this was an unspoken contract with the students that communicated to them his expectations.

Overall, faculty provided 515 survey responses. The percentages of response for all of the colleges below do not include the category of non-relevant data. Thus the percentages provided are out of 489 responses, rather than 515 (see Figure 8).

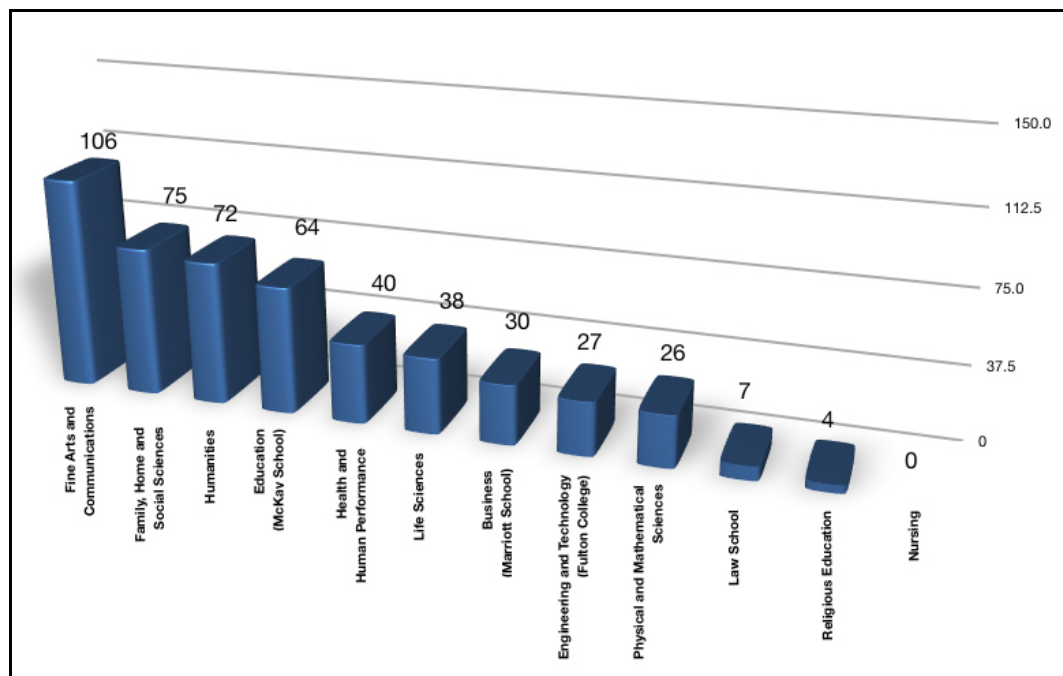


Figure 8. Number of survey responses provided by faculty in each college (n=489).

In summarizing the data from the colleges, overall faculty from all of the colleges, except for faculty from the College of Humanities, mentioned active/practical learning, teacher/student interactions, or clear expectations/learning outcomes as the number one thing they did to improve their teaching. The top reason for improvement for each college is shown in Table 10.

Table 10

Top Factors of Improvement for Each College

Factor	College
Clear Expectations	1. Marriott School 2. Fine Arts and Communications
Active practical learning	1. McKay School of Education of Education 2. Engineering & Technology 3. Family, Home, and Social Sciences 4. Life Sciences 5. Physical and Mathematical Sciences
Teacher/student interaction	1. Education Health and Human Performance 2. Law School
Faculty preparation	1. College of Humanities
4-way tie (Clear expectations, Evaluation, Curriculum enhancements, Faculty preparation)	1. College of Religious Education

Case Vignette: McKay School of Education Professor

The top categories of improvement have been listed in this paper. The researcher now provides a short case study from the interviews, which demonstrates specific changes one faculty member made to improve his teaching.

Here's my story of what I did to improve in my teaching. My 3-year review came back and at the bottom of the report, there was this subtle little comment that said, "Pay more attention to student comments." I was a little shocked by the feedback from my review because I felt like I was listening to students, and that I did receive feedback. I got feedback from students, and for the most part, they said they liked me. I also had SCOT come in and evaluate my teaching. After I received my three-year review, I cried in my office. The reason it was hard was I felt I wasn't showing that I was a good teacher because of the ratings I received.

I guess in a way I was demanding more of the students than was reasonable for a one to two hour-credit course. I had to decide to be humble about my teaching and my ratings. When I got that review back, I said, "I have to make a decision here. I have to either decide that I'm going to say there is not a problem here and try to hide it, or I'm going to have to admit there is a problem and try to fix it."

I realized I needed to get help from some experienced faculty in my department. That was the most humbling part of the experience—actually going to my peers, and saying, "I'm struggling with this!" I gave them my student ratings and asked them to read them and also set up a meeting time to discuss patterns and possible plans of action.

They said they noticed three main themes from student comments: (a) too much busywork, particularly referring to written reflections, (b) too high workload in the course

for the amount of credit hours, and (c) not enough direct instruction and explanation of tool skills.

Too much busywork. Scott told me that one of my students claimed in the online ratings that there was a lot of busy work. Another student kept saying that my class was way too much work for a one-credit hour course. After Scott made these comments, he made a few suggestions. He said, “This is what I do. When I have them do readings, I don’t have them do lots of reflection because they perceive that as busy work.” So, I built something in Blackboard, and had the students do a self report on the readings. We continued to talk about the readings in class, but I didn’t have them do endless reflections. The students liked it a lot better, and it actually saved me a lot of time too.

Too high workload. Concerning the workload of the class, at the time I struggled with students complaining that the course was taking way too much time. I was kind of saying to myself, “If someone takes the class who has less skill and less knowledge in this area, then naturally it is going to take them little bit longer.” On average, students were spending two hours outside of class for every hour in class, and I thought, “Well, that is the university norm.” As I talked with other faculty, they would tell me there was no way that was the norm. From my standard, if students were taking 15 hours of course work they would be doing 45 hours outside of class. Many were also trying to hold down a 20-hour per week job. Even though that is the written norm it is not really what students are expecting. Part of what Scott helped me to see was that I have to see my class from the perspectives of the students.

What I did in the shift was decide that I was going to view teaching this course as a long term prospect. I set a goal to try to get this course organized in a way so that five

years down the road or whatever, I could gradually inch up where the students are when they are coming into my course and when they are going out.

Not enough direct instruction. I guess the last thing I haven't mentioned is the theme that the students felt frustrated that there wasn't more direct instruction and explanation of tool skills. Part of the goal of the class is to help students learn how to use a variety of tools and not be afraid to explore new tools on their own. I feel strongly that a step-by-step tutorial approach that was used prior works against that goal. I have scheduled tutorials for the class where I will provide an overview to the tools and some guided exploration. Online tutorials will be provided for students who want to use them, but the tutorials will be specific to the tool, and not to the task they are trying to complete.

I am glad I went to talk to those professors and showed them my student ratings. They gave me great feedback which I have incorporated into my class, and it has improved my teaching.

Research Question 2: Instructional Contexts and Teaching Performance

The research from this article shows that faculty can improve. However, do institutional/administrative contexts (departments, colleges, Faculty Center, CTL, ASB Admin, SCOT) in which faculty work influence teaching performance? From the survey data in which faculty were asked what they did to improve in their teaching, faculty made 10 comments (approximately two percent of the total survey comments) in which they said they used support from institutional/administrative contexts to improve their teaching (see Table 11).

Table 11

Ways Faculty Use Institutional or Administrative Services to Improve Their Teaching

Ways Faculty Improved	Number of faculty
BYU writing services	3
Books for new teaching approaches	3
Seminar or talk	3
Evaluation services, including SCOT program	1

During the interviews, 18 of the 27 faculty discussed using resources and services offered at BYU. A breakdown of these services is shown in Table 12.

Table 12

Specific Resources and Services Faculty Use to Improve Their Teaching

Resources and Services	Number of times the idea was mentioned from faculty
Evaluation services	9
SCOT program	6
Seminars	4
Books from Faculty seminar	2
Simulation from Center for Teaching & Learning	1

Research Question 3: Faculty Communities of Practice

The following research question regarding faculty and communities of practice will be addressed: How much improvement in teaching performance is dependent on interactions within the faculty communities of practice?

From the survey data, 14 of the 489 comments faculty made regarding what they did to improve their teaching pertained to comments in which 14 different faculty said they communicated with other faculty members. This number represents only two percent of the responses—meaning only a few faculty considered their teaching success to be related to other faculty. Ten of these 14 comments were made by faculty who said they received help from other faculty. Four comments were made in which faculty said they utilized their teaching assistants or graduate assistants to improve their teaching.

Although many of the faculty did not mention dialogue with other faculty in their survey responses, when they were specifically asked about their communication with other faculty, most of them could comment on the subject (positively or negatively). From the interview data, 22 of the 27 faculty made comments about their interactions with other faculty to improve teaching.

From the interview data, there were approximately eight reasons faculty mentioned that they communicate with other faculty to improve teaching. These reasons were to (a) gain pedagogical strategies and ideas, (b) for classroom discussion, (c) to discuss teaching, (d) to assess preparation level of students, (e) to learn as a new faculty member, (f) to standardize a course, (g) to validate teaching, (h) to discuss difficult problems.

Although some faculty do communicate with their colleagues to improve teaching, other faculty made responses during their interviews to explain their reasons for not having dialogue with their peers. The researcher summarized these responses into the following six categories: (a) felt class was going well and didn't need help, (b) subject matter different and no one understands, (c) faculty are too busy, (d) faculty just want to talk and not listen, (e) individuality and uniqueness is celebrated (don't want to do things like colleagues), and (f) no reward or credit for working together.

Research Question 4: Research and Teaching Performance

In this section, the following research question is addressed: Is there a correlation between research productivity and teaching performance among faculty who improved in their teaching? As part of the survey, faculty were asked the following question: During the past three years how many scholarly publications did you have? Faculty could answer the question anywhere from zero-one publications to eight or more. Surprisingly, 40 percent of the faculty (82 faculty) said zero-one publication. Furthermore, 22 percent of the faculty (45 faculty) reported two-three publications. In essence more than 60 percent of the faculty (127 faculty) wrote zero-three publications over a three-year period. Eighteen percent of the faculty (36 faculty) said they had eight or more publications over the past three years (see Figure 14). A breakdown of the faculty statuses of faculty who completed from zero-one to 8 or more publications over a three year period is shown in Figure 9.

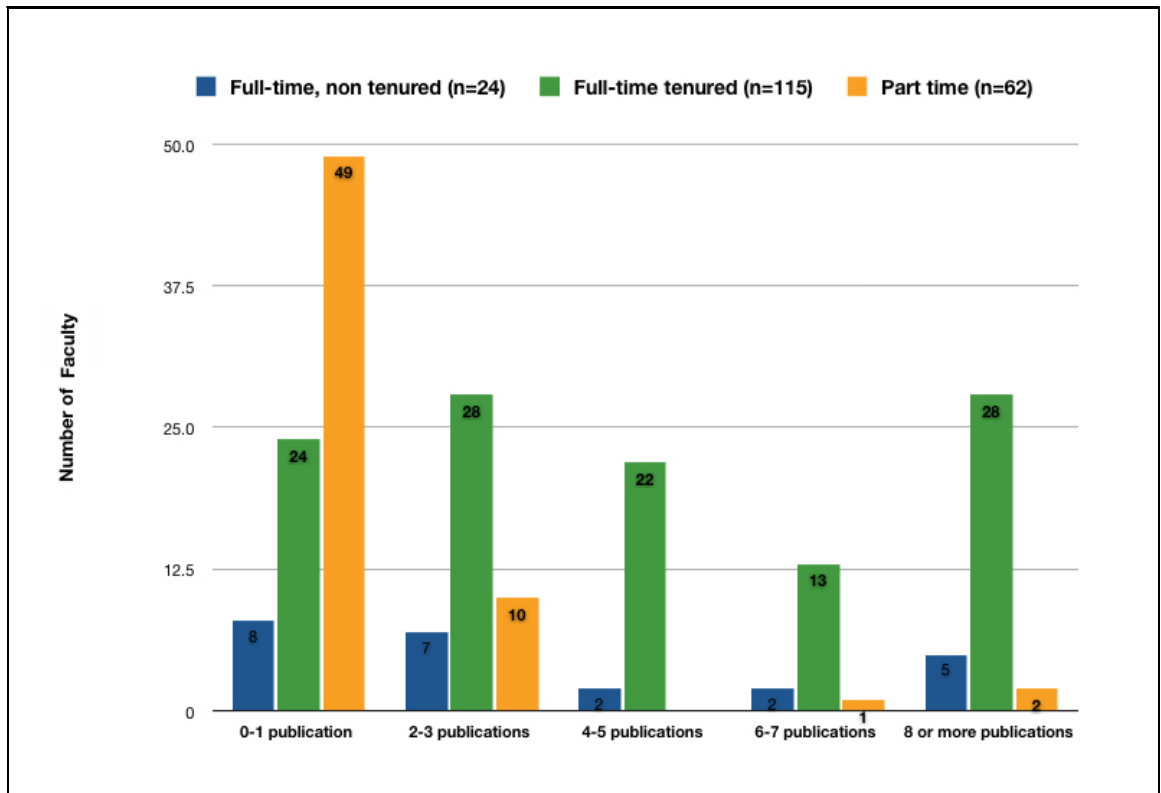


Figure 9. Number of publications faculty have written in the past three years (n=203).

The researcher was curious to discover the experience of the faculty who said they were publishing frequently (eight or more publications over a three-year period), and those who were not publishing or rarely publishing (zero-one) publication over a three-year period). The researcher separated the faculty into the following three categories: (a) Full-time tenured faculty (FTT), (b) full-time non-tenured faculty (FNT), and (b) part-time faculty (PT). The results are shown in Figure 15. There were two faculty for which the status of the faculty could not be determined (1 percent). These faculty are listed in the figures as unknown. These statistics also confirm that faculty at all levels of ranking can improve, whether one is part-time faculty, or full-time, tenured faculty.

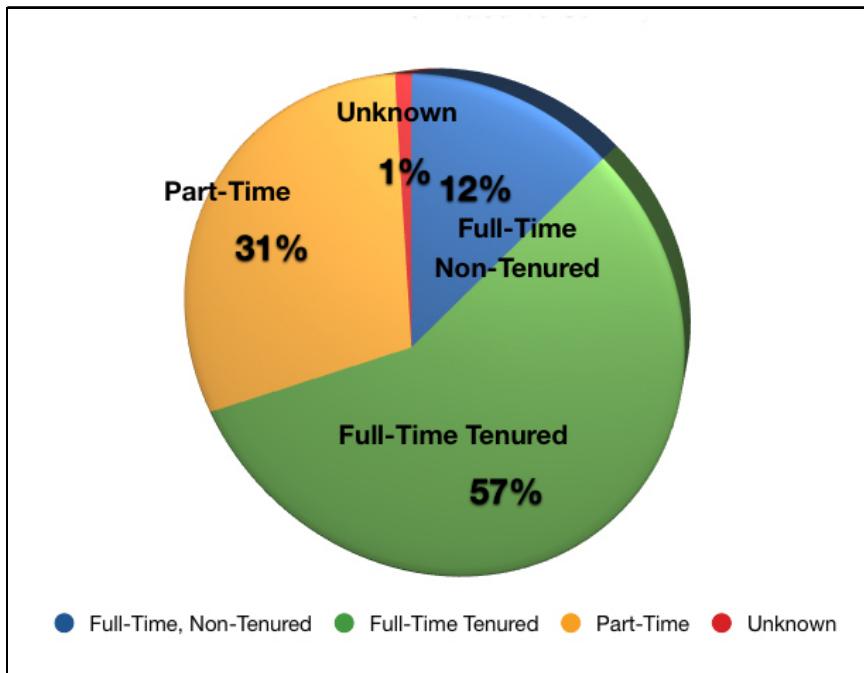


Figure 10. Ranking of faculty who responded to the online survey (n-203).

The faculty were also asked the following question: How does this number of scholarly publications compare with other three-year periods in your career? A detailed list of the faculty status and how the current three-year publication period compares to other three-year periods of publication is shown in Figure 11. The number of publications is comparative to other three-year periods of publication for half of the faculty. These statistics also show faculty who are full-time tenured faculty are publishing on different levels. Further, based on these statistics, it cannot be said that because one is full-time tenured faculty they publish frequently, nor can it be said that because one is part-time faculty, they do not publish.

During the interviews, the researcher asked the faculty if they felt there was a direct correlation between faculty who publish frequently and faculty who are excellent teachers. Seventy-five percent of the faculty (15 faculty) said there was a correlation for the following reasons: (a) To be a good example to students, (b) to be well-rounded, (c) to be able to incorporate research into classroom discussion.

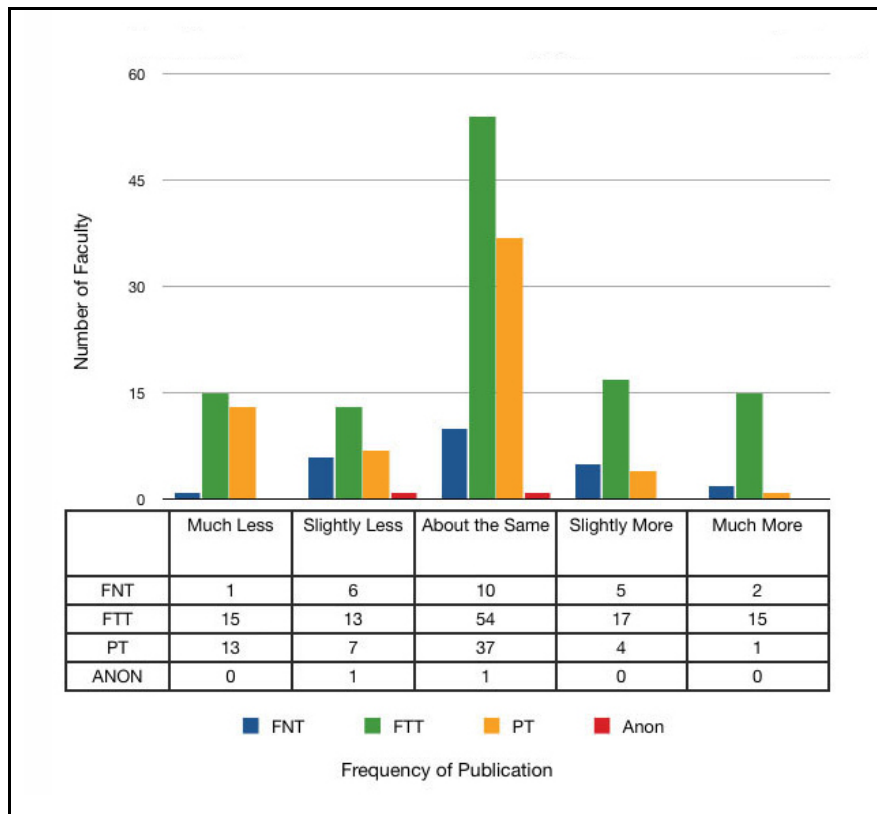


Figure 11. How current three-year publication period compares with other three-year periods of publication for faculty of all statuses (n=202).

Research Question 5: Faculty and Personality

In this section the final research question is addressed: Can improvement in teaching occur among a variety of different personality types?

Research from this study shows the answer to whether improvement in teaching can occur among a variety of different personality types is a resounding “yes.” First, faculty from all of the colleges were among those who had improved 1.5 points in their teaching. Second, faculty across the colleges were interviewed. During the interviews the faculty members discussed their personalities. Some faculty members described themselves as enthusiastic and humorous, others as knowledgeable, and some described themselves as demanding or as who had had very high expectations for the students.

Finally, one faculty claimed his personality was not helping his student ratings. He had worked for a long time to improve them and still saw no improvement. However, this professor made some curriculum changes by adding a new textbook and implementing a team-based learning approach to his teaching and went from a 3.43 in his online student ratings in Summer 2005 to a 7.0 in Summer 2006, an increase of 3.57 points! He made the following comment about his teaching:

I don't get good student ratings. I am not a naturally gifted teacher. Some students really pick up on what I teach and some really enjoy it, and there is a lot who don't. I have worked on that class for years trying to figure out why in the world the students are not getting it. What I lacked was a good textbook. When the text became available it was just a great text and the students could read and understand it, and the author could bring them along and it required and helped make a paradigm change. Before I used that text less than one fourth of the students got it. That is not a really good batting average. When I made these changes 75 percent of the class really got it. It is because I made the paradigm shift and they knew what I was talking about and saw how it applied and they could think on their own.

Faculty from across the disciplines, with a wide variety of personality traits improved in their teaching. For some the improvement came gradually, for others the improvement came over a semester, however, for each faculty member, improvement was made.

Practical Application For Teaching Improvement

Disposition to Change

After reviewing the 27 interviews, the researcher noticed several patterns that faculty said helped them to make changes to improve their teaching.

Have desire. The faculty member was motivated and willing to have an open mind regarding the new knowledge they received (from student comments, faculty, observations in class, books, etc.) and also a desire to improve the course. Many of these faculty members had to decide to become humble about the feedback they were receiving on their course. For example, one faculty member said that he had to admit that he was “an inexperienced teacher who was trying to be better.” These faculty members often expressed how much they loved their students and how they wanted to make their class a haven for learning.

Select focus. The faculty members usually selected just one item to improve their teaching, although there could have been several items to improve. During the interview, the faculty were asked if they tried anything to improve their teaching that did not work. There was not one general response. Sometimes faculty chose an item to improve and the class dramatically improved on the first try.

I didn't try anything that didn't work. I zeroed in on it. I knew that I had created a challenging class, and it is a lot of work. I could have read the comments and said I just need to back off on the workload, I need to make the class easier, but I didn't take that route. Those were my two choices, make the class easier, or help the students understand what was going on and let them know that they are okay, that I understand that they are going to struggle. So I tried that route first before I ditched the assignment, and it worked.

Other times a faculty selected an item to improve, worked on it, and discovered that the item of change was not the right item to change.

About every semester I have tried something that didn't work. I try new things every semester, some things bomb and some things work. Sometimes I think, "Oh this will be so great, but the kids kind of disagree."

For some faculty, the change process was evolving. They made little adjustments along the way that helped to improve their course. For example:

So this semester we utilized the students to show how we can integrate technology into our practice. It has been an evolving process. I wouldn't say that stuff has bombed or hasn't worked. I have continually tried to improve and look back on the class to see if it has worked and ask, "How well did that work?" and then make some adjustments every semester. I don't think that I have taught the same way every semester that I have taught the class. Things continue to change.

Identify target date. The faculty members usually selected a date to initiate the change process and also a date to evaluate how focusing on one factor impacted teaching.

Oftentimes the faculty member started the change at the beginning of the semester and evaluated if the class was improving at the end of the semester. The faculty often based their improvement using the scores from their online student ratings.

Put forth effort. The faculty members usually worked diligently on the factor they had selected to improve, even if the change process took more than one semester. Usually this factor included one of the top three factors to improving teaching from this study

(active/practical learning, teaching/student interactions, clear expectations/learning outcomes).

So the first semester that I taught the class, I was giving the students a lot of information, but none of it was very organized. I was just trying to throw it at them and got some really cutting comments that made me realize, “Holy smokes! I have to change something here.” By the next semester I taught it, I was much more personally invested in it and got more organized myself. It took those first two semesters to really figure out how I needed to change things. Once I figured it out and put this new game into play the first semester, it became a lot easier to teach.

Change Triggers

During the interviews, the researcher asked the faculty members to explain how their teaching improved and what caused the change. The faculty members usually had an experience that triggered the change. Overall the 27 faculty mentioned six primary factors that initiated the change, which are (a) online student ratings, (b) mid term surveys and exit interviews, (c) lack of excitement in class, (d) personal desire, (e) teaching support, and (f) teaching material. Each factor is discussed below.

Online student ratings. Reading comments from the online student ratings was the biggest change factor for faculty to improve their teaching, according to 12 of the 27 faculty members (44 percent). Further, 20 of the 27 faculty (74 percent) who participated in the initial interviews commented that they utilized the online student ratings to improve their teaching. In essence, the faculty members needed to take advice from the students whom they were teaching to make their classes better. The faculty said the online student ratings were helpful and beneficial, and overall had a positive experience with the student rating process. Here are several short examples from faculty regarding their feelings about the online student ratings:

I take the online student ratings very seriously. Part of that is that I know the students by name. I have been to their weddings, so the comments and ratings can be very personal to me. It is an incredible opportunity that every 16 weeks I have some very truthful feedback on my job performance. I think a professor would be silly not to read them and take them seriously. The student evaluations made it very concrete what I was feeling was happening in the class. It wasn't going the way I wanted it to, and the comments solidified that.

I read the comments from the online student ratings all the time. If you don't have them, then you don't get a full picture of the class. I get a better idea of what people are thinking so I can improve the class. I always read the comments. What I noticed is that for a while there I wasn't focusing a lot on the students.

Of course at the end of every semester I evaluate what I have done, and I look at the student evaluations. Most of the evaluations I would say are honest. The students say what they like and don't like...So I dropped the programming assignments because it wouldn't enhance their learning experience, based on two years of student comments, and also based on what I felt was good to make.

Although 20 of the 27 faculty members viewed the online student ratings positively, five of the faculty members reported that they did not use the online student ratings (19 percent). Two of the faculty members did not mention the use of student ratings during their interviews (7 percent).

Reading comments from the online student ratings was the biggest change factor for faculty to improve their teaching. However, during the interviews faculty also mentioned a few others triggers that propelled them to change a factor in their teaching.

Mid-term surveys and exit interviews. As stated above, many of the faculty members used the online student ratings. However, they often wanted an additional measure of their teaching. Six faculty members (22 percent) stated they would have mid-term surveys or exit interviews with their students to determine what they could do to improve teaching. The faculty members would initiative mid-term surveys to assess the

class and then use that feedback to make changes throughout the rest of the semester. The faculty who initiated exit interviews from the students wanted to receive feedback for the following semester. Combining the online student ratings and the mid-term surveys and exit interviews, 62 percent of the faculty used these factors to decide the changes they needed to make in their teaching.

I actually like to see and know what the students think. At the end of the class I give them the option to write me a little note before they leave the classroom and I keep those and I like to read them. I have kept the notes for four years now. It is serious what they students think.

Sometimes I do an informal evaluation where I give students a typed sheet to fill out anonymously and I give that to the secretary to type up and give me the responses.

Lack of excitement in class. Four faculty members knew they needed to make a change in their teaching by observing their students in class. They often felt like their students weren't as excited or interested about the subject matter as they were about their class.

I am passionate about the history of the university, which is what the course is about, and I wanted the students to be as passionate as I was. I felt after the first couple of lectures that I wasn't conveying what I wanted them to about the University, and that for me was the first clue. If the students aren't feeling the same way that I am, then I need to do something to convey the information better.

Personal desire. Three faculty members felt they wanted to make the class as best as they could, regardless of student ratings. They felt they had a moral duty to make the class a wonderful learning experience for their students.

Actually I wouldn't say that the change was the student ratings at all. I wanted to improve the class. So for me it was an effort change. It wasn't just random that I realized, "Oh I am just doing this differently." I actually thought about the class and how I could make it go more smoothly because I wanted to offer the best class that I can so students can understand what they are doing. Every semester in all of my classes I am always taking notes on how

things work. I am now working on what I am going to do for the midterm because of notes that I took on how lab went yesterday. So every semester I am always trying to make improvements on it. It is actually a really concerted effort on my part to do something about it.

Teaching support. Two faculty members felt they experienced a trigger for change after talking with individuals from the Faculty Center and being introduced to the SCOT program.

I worked with some folks from the Faculty Center when I first came to campus, and that has been helpful. As a new faculty you are hooked right away in the Faculty Center and a lot of the workshops. You have nice discussions.

Teaching material. Two faculty members felt a desire to improve their teaching after reading some instructional material.

I read from other textbooks to get other insights on how to teach the material, to make things clearer to the students. There are several different textbooks and ideas on how to teach. I was trying to gather up ideas from other books and that is something that I focused on.

Effort Involved

During the interviews, most of the faculty commented that the effort it took to make these changes was minimal. In essence, the faculty members were fine tuning their teaching and focused primarily on one factor to change. For example, Table 13 contains short statements from eight faculty members demonstrating the effort the change in their teaching involved.

Table 13

Responses from Faculty Stating Effort Involved to Improve Teaching

I tweaked my classes every semester and now my classes are pretty consistent.

Most of the changes that I have made are simple but they make a big difference to the students.

To answer your question, I have been teaching it four years and it took those first two semesters to really figure out how I needed to change things. Once I figured it out and putting this new game into play the first semester it became a lot easier to teach.

It didn't take a whole lot of effort to make the change. With 30 or 40 students it is possible to learn their names. It might be an extra hour per class to learn their names.

It takes a little more time, not a lot, but I think a lot of it is that you are a little more aware in class.

When you are a good teacher you should be aware of what is around you and you should continue to adjust and you should know what is happening. It is a continuous growth.

It took a little bit of time. Overall the changes reduced a lot of the grading work that I had to do. It reduced some of the load off of me.

I don't think it was any more effort than I normally put in. In terms of class preparation my focus changed. In term of energy I put forward, it is probably about the same.

Although the effort to change did not require hours and hours of the faculty member's time, the results were visible, important, improved online student ratings, and were even life-changing to some faculty members.

Conclusions and Suggestions for Further Research

Overall, more than 300 of the 1600 BYU faculty have shown they can improve in their teaching. These faculty were from a variety of disciplines with various teaching experience. These individuals also had different personalities and character traits. The top three contributing factors to improved teaching in this study were faculty who engaged their students in active/practical learning experiences, faculty who had good interactions

with their students and cared about them, and faculty who focused on student learning outcomes and had high expectations for their students. The results of this study should be encouraging to any faculty member who feels he or she cannot improve, as well as to administrators who are looking for ways to help their colleagues improve teaching performance. Faculty members can also utilize the five-step process to improve their teaching.

From the interview and survey data, some faculty are utilizing the services offered at BYU to improve their teaching. The most common response of institutional assistance was from faculty who take part in the SCOT program. Overall, faculty are appreciative of these services and feel they are valuable. Furthermore, the research from this study showed that only a small number of faculty are currently engaging in a community of practice to improve their teaching. The faculty who are having conversations within their discipline about teaching improvement have benefited from these interactions.

Concerning scholarship and teaching, faculty (from part-time to full-time tenured) in this study are publishing at the same time they are improving their teaching. A direct correlation cannot be drawn with this study. Some faculty felt that there was a correlation between the amount they published and the quality of their teaching and others felt there was no correlation. There was a general consensus that faculty who publish could use that information and present it in their classroom. The faculty who published also felt that the knowledge they gained from their research contributed positively to their teaching.

Although the research primarily viewed the overall course score from the online student ratings to determine contributing factors to improved teaching, future research could be conducted on other areas included in the online student ratings in which faculty

could improve such as amount learned, student involvement, how effectively concepts were explained, the amount of time that was valuable in class, etc. Faculty who are doing really well in these areas could be interviewed and results could be distributed to faculty. Another area of research could be to conduct this same study and look at the student perspective. Students could be interviewed to see if the factors they feel contribute the most to teaching improvement are the same factors for faculty.

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Appendices

Appendix A: Study Information Sheet

This study information sheet will be accompanied by an email by BYU Administration in which faculty will be invited to participate in the survey. Participants' voluntary completion of the survey will constitute consent to participate in that portion of the study. The paragraph below will be included in the email from BYU Administration.

Thank you for participating in this survey to help us learn more about contributing factors to faculty improvement in teaching. (To learn more about this study, [click here](#). This link will go to the study information sheet.)

Introduction

This research study is being conducted Brigham Young University to learn more about contributing factors to faculty improvement in teaching. You were selected to participate because you have shown improvement in at least one of your courses over a three-year period.

Procedures

You will be asked to participate in a short survey on changes you have made to improve in your teaching.

Risks/Discomforts

The risks in participating in this survey are minimal. There is a possibility that you may feel some discomfort in sharing the challenges faced prior to realizing the improvement in your teaching.

Benefits

Your answers will help administrators at BYU identify factors that lead to improved teaching. This information will serve as a resource to faculty, and various learning institutions and centers on campus.

Confidentiality

All information gleaned from the interviews will be stored on a file on the Center for Teaching & Learning's server. The information will be used to improve teaching and learning at BYU. Pseudonyms will be used in place of faculty names.

Compensation

You will not be compensated monetarily for your participation for doing an interview.

Participation

Participation in this research study is voluntary. You may choose to withdraw at anytime or refuse to participate in the survey without jeopardy to your faculty status, or standing with BYU. Your comments as well as your name will be kept confidential and will not affect your rank or faculty status. You may also be asked to participate in an interview if additional information is needed.

Questions about the Research

If you have questions regarding this study, you may contact Whitney Ransom at (801) 735-2192 or whitney_ransom@byu.edu.

Questions about your Rights as Research Participants

If you have questions regarding your rights as a participant in research projects, you may contact Dr. Renea Beckstrand, Chair of the Institutional Review Board for Human Subjects, 422 SWKT, Brigham Young University, Provo, UT 84602; phone, (801) 422-3873; email: renea_beckstrand@byu.edu.

Appendix B: Research Consent Form

Consent to be a Research Subject

Introduction

This research study is being conducted Brigham Young University to learn more about contributing factors to faculty improvement in teaching. You were selected to participate because you have shown improvement in at least one of your courses over a three-year period.

Procedures

You will be interviewed about the changes you made to improve in your teaching. Questions will be asked dealing with the following areas: Changes geared toward improvement, faculty communities of practice, and research productivity. The interview will last approximately 30-40 minutes and will be conducted by Whitney Ransom.

Risks/Discomforts

The risks in participating in this interview are minimal. There is a possibility that you may feel some discomfort in sharing the challenges faced prior to realizing the improvement in your teaching.

Benefits

Your answers will help administrators at BYU identify factors that lead to improved teaching. This information will serve as a resource to faculty, and various learning institutions and centers on campus.

Confidentiality

All information gleaned from the interviews will be stored on a file on the Center For Teaching & Learning's server. The information will be used to improve teaching and learning at BYU.

Compensation

You will not be compensated monetarily for your participation for doing an interview.

Participation

Participation in this research study is voluntary. You may choose to withdraw at anytime or refuse to participate in the interview without jeopardy to your faculty status, or standing with BYU. You may also choose whether your student comments from your student ratings may be viewed by the researchers. Your comments as well as your name will be kept confidential and will not affect your rank or faculty status. You may also be asked to participate in a follow-up interview if additional information is needed.

Questions about the Research

If you have questions regarding this study, you may contact Whitney Ransom at (801) 735-2192 or whitney_ransom@byu.edu.

Questions about your Rights as Research Participants

If you have questions regarding your rights as a participant in research projects, you may contact Dr. Renea Beckstrand, Chair of the Institutional Review Board for Human Subjects, 422 SWKT, Brigham Young University, Provo, UT 84602; phone, (801) 422-3873; email: renea_beckstrand@byu.edu.

I have read, understood, and received a copy of the above consent and desire of my own free will to participate in this study.

Signature:

Date: _____

I also give the researcher consent to view student comments from my online student ratings for the specific course where there were improvements. (Your name will be kept absolutely confidential and will have no impact whatsoever on faculty rank and status.)

Yes _____ No _____

Appendix C: Introductory Email

Introductory Email:

Email Subject Line: Improving Teaching: BYU Administration would like your feedback
Dear \${m://FirstName},

The BYU Academic Vice President's Office and the Center for Teaching & Learning (formerly known as the Center for Instructional Design and the Faculty Center), are collaborating on a study designed to learn more about the factors that contribute to improvement in teaching.

You were selected to receive this letter because you have shown improvement in your student ratings in your \${m://ExternalDataReference} for three consecutive semesters over a three-year period.

We are particularly interested in knowing what successful faculty across a variety of disciplines have done to improve their teaching performance.

Confidentiality of the faculty members will be maintained. When the report is published, no names will be used. Faculty members will sign an IRB form when they are interviewed which will inform them that their names will be kept confidential and that their responses will have no impact on their faculty status.

We invite you to participate in a short, four-question survey on changes you have made to improve your teaching. This information will serve as a resource to BYU administrators, faculty, and various learning institutions and centers on campus, and will be used in an effort to improve teaching and learning at BYU.

Follow this link to access the Survey: \${l://SurveyLink} We encourage you to complete the survey by September 15.

Thank you for your help as we strive together to build a better house of learning here at BYU.

Sincerely,

John Tanner
Academic Vice President
Brigham Young University

Appendix D: Reminder Email

Dear \${m://FirstName}

The Improving Teaching survey will close soon. Your feedback is very valuable to us. Please take a few minutes and complete this four-question survey.

Follow this link to fill out this survey: \${l://SurveyLink}
Thank you for your participation.

Sincerely,
John Tanner
Academic Vice President
Brigham Young University

Appendix E: Final Reminder Email

Final Reminder Email:

Dear `{m://FirstName}`:

We have received excellent feedback from many faculty who have participated in the Improving Teaching survey and hope to receive your feedback as well.

Some faculty were unable to take the survey before the deadline and requested an extension. The survey will be available for one more week (until October 1, 2007) to all faculty who received the initial email.

We invite you to take a few minutes and respond to this short, four-question survey. Your feedback is very valuable and will help administrators, as well as faculty improve teaching and learning at BYU.

Follow this link to the Survey: `{l://SurveyLink}`

Note: You must complete the survey in one setting.

Thank you for your participation.

Sincerely,

John Tanner
Academic Vice President
Brigham Young University

Appendix F: Survey

1. Your student ratings have increased for at least three consecutive semesters during the last three years in your (course). What factors led to this change in your teaching performance?

2. During the past three years how many scholarly publications did you have?

- a. 0-1
- b. 2-3
- c. 4-5
- d. 6-7
- e. 8 or more

3. How does this number of scholarly publications compare with other three-year periods in your career?

- a. I published much less during the past three years.
- b. I published slightly less.
- c. I published about the same.
- d. I published slightly more.
- e. I published much more.

4. I would be willing to participate in a follow-up interview regarding teaching performance.

- a. Yes
- b. No

Appendix G: Interview Questions

1. What have faculty who have been successful at improving their teaching performance done to realize that improvement?
 - a. What changes have you made to improve your teaching
 - b. What made you decide you needed to change?
 - c. How did you identify what you needed to do to improve your teaching?
 - d. What motivated you to change?
 - e. What motivates you to be a good teacher?
 - f. When did you decide to make the changes?
 - g. What kind of energy, time, did you put in before you began to see improvements in your teaching?
 - h. How did your students respond to the change?
 - i. Did you try some things to improve your teaching that were unsuccessful?
 - j. Tell me about them?
 - k. How did you know they were unsuccessful?
 - l. What did you do to change?
 - m. How long did it take for the change in your teaching performance to occur?
 - n. What evidence did/do you use to show that your teaching was better?

2. Can improvement in teaching occur among a variety of different personality types?
 - a. How would you describe your personality?
 - b. How would your students describe your personality?
 - c. How would you describe your teaching style?
 - d. How would your students describe your teaching style?
 - e. What characteristics or competencies do you feel are essential for good teaching?

3. How does the institutional/administrative contexts (departments, colleges, Faculty Center, CTL, SCOT) in which faculty work influence improvement in teaching performance?
 - a. Have you ever been to the Faculty Center, Center for Teaching & Learning or used a SCOT to assist you with your teaching? If so, how was your experience?
 - b. Did your teaching improve? If so, how did it improve?
 - c. What made you decide to visit any of these places or use these resources?
 - d. If you haven't used any of these resources, why not?
 - e. Did you use any resources on campus to improve (i.e. Faculty Center, CTL, etc.)? If so, which resources?

4. How much improvement in teaching performance is dependent on interactions with other faculty members?
 - a. Have you ever discussed your teaching with another faculty member? If so, tell me about your experience.
 - b. What made you decide to talk to this faculty member?

- c. Did your teaching, or the way you thought about teaching change as a result of this conversation with the faculty member?
 - d. What learning communities do you consider yourself to be apart of? What is your involvement in this (these) learning community (ies)?
 - e. Have you ever taught your class with another faculty member? If so, how was your experience? How long did you teach in this manner? Why did you decide to teach with this faculty member?
 - f. Do you share a syllabus with a faculty member who teaches the same course as you do? If so, how did you decide to combine syllabi? If not, is it something you have considered?
 - g. In addition to evaluation purposes, have you ever attended another faculty member's class in our discipline to see how he or she has taught the material? Was it beneficial to you? Did you apply anything that you learned?
 - h. Do you feel that you work in an environment where mistakes can be made, risks can be taken, or vulnerabilities can arise to the surface? Can you provide an example of this type of work environment?
 - i. Do you feel that you promote the work of your colleagues? If so, how? If not, why?
5. How does teaching in an environment that rewards and values research productivity affect teaching performance?
- a. What are your plans for publication within the next year?
 - b. How do you find a balance between your research and teaching?
 - c. Can you describe a semester where you were able to be successful in your research, as well as your teaching?