1-1-2014

An Investigation of Faculty Perceptions of the Use of a Student Evaluation of Faculty Instrument

Julie Cordell Fulgham

Follow this and additional works at: https://scholarsjunction.msstate.edu/td

Recommended Citation
Fulgham, Julie Cordell, "An Investigation of Faculty Perceptions of the Use of a Student Evaluation of Faculty Instrument" (2014). Theses and Dissertations. 577. https://scholarsjunction.msstate.edu/td/577

This Dissertation is brought to you for free and open access by the Theses and Dissertations at Scholars Junction. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of Scholars Junction. For more information, please contact scholcomm@msstate.libanswers.com.
An investigation of faculty perceptions of the use of a student evaluation of faculty instrument

By

Julie Cordell Fulgham

A Dissertation
Submitted to the Faculty of
Mississippi State University
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Philosophy
in Instructional Systems and Workforce Development
in the Department of Instructional Systems and Workforce Development

Mississippi State, Mississippi

May 2014
An investigation of faculty perceptions of the use of a student evaluation of faculty instrument

By

Julie Cordell Fulgham

Approved:

____________________________
Connie M. Forde
(Director of Dissertation)

____________________________
Mabel C.P.O. Okojie
(Committee Member)

____________________________
Anthony A. Olinzock
(Committee Member)

____________________________
Stephanie B. King
(Committee Member)

____________________________
James H. Adams
(Graduate Coordinator)

____________________________
Richard L. Blackbourn
Dean
College of Education
This study investigated the faculty perception of the use of a student evaluation of faculty instrument. The areas considered were use of the current Student Evaluation of Faculty (SEF) instrument to measure teaching effectiveness; use of the current instrument for annual faculty review; faculty involvement in developing the instrument; utilizing the instrument to improve teaching; and demographics of faculty gender, college/school in which they teach, and the numbers of years of higher education experience.

Participants included 734 full-time instructional faculty members at Mississippi State University who taught during the fall 2012 semester and utilized the current SEF instrument. From the 734 faculty invited to participate in the study, 205 responded. The study was conducted in the fall 2013 semester. Over 71% of the participating faculty indicated a negative perception toward the current SEF instrument as an effective tool for their use in evaluating teaching effectiveness. However, 60% of the participants agree the instrument serves as an effective tool for their use to improve teaching. The faculty also indicated they would like to be able to compare their SEF results to others teaching comparable courses. Participants were asked to rate each question taken from the current
SEF instrument, indicating its level of usefulness in their ability to utilize the results to improve teaching. Of the 11 questions, only 2 were found to be least useful to the faculty. One of those was related to the tests they give being fair and the other related to the student learned a great deal in the class. Almost 81% of the participants indicated that faculty involvement in the development of the current student evaluation of faculty instrument increased the usefulness in measuring teaching effectiveness.

Conclusions based on the findings indicated a need to continue revising the evaluation process and instrument to include a multidimensional process. This multidimensional process should provide separate instruments to be used for annual faculty review and for improving teaching. These revisions should be carried out with faculty involvement to ensure acceptance of the processes and maintain positive perceptions.

Keywords: student evaluation of faculty, multidimensional evaluation process, teaching effectiveness
DEDICATION

This dissertation is dedicated first to my wonderful family: my husband Steven, my daughter Jessica, my son Brad, and all my Fulgham and Cordell relatives. You have all given me the necessary encouragement along this journey.

To my husband Steven, thank you for putting up with me through the past many years of college studies and most recently the late nights of my computer being on with the light interfering with your sleep.

To my children, thank you for your understanding that I had to let some things take a back burner to get this accomplished. I hope I have shown you through this journey, that diligence, hard work, and most of all, support from your family pays off.

To my deceased parents that I know were the roots to my success – you instilled in me some values I truly cherish and can only hope I pass along to my children.

And lastly, numerous friends and colleagues that have encouraged me and made me believe that I could get this completed – you are too many in numbers to list, but each of you know you are special to me.

~ By believing in myself, I can achieve any goal I set for myself ~
ACKNOWLEDGEMENTS

There are five people without whom this dissertation would not have been completed, the members of my doctoral committee. To Dr. Connie Forde, Dr. Mabel Okojie, Dr. Anthony Olinzock, and Dr. Stephanie King you deserve a huge thank you for all your comments, recommendations, and suggestions through this process. I would be remiss without acknowledging Dr. Dwight Hare, who passed away shortly before my completing this dissertation.

Dr. Forde, my committee chair, I can never express how grateful I am to you for your continued support and encouragement. Knowing you had additional workload as department head, you graciously agreed to see me through this to the end.

Dr. Okojie, I want to thank you for your support not only through the dissertation, but also as a professor in my graduate studies.

Dr. Olinzock, thank you for your concern in the stats along the way – everything from your concern of response rates to analyses, each one really made me dig into more levels of knowledge and determination to make this a meaningful study.

Dr. King, you without hesitation agreed to serve on my committee at the death of Dr. Hare. Along with your agreement you instantly gave me encouragement to persevere.

Again, thank you to all of my committee members. I could have never accomplished this goal in life without the role you played and the example you set for so many pursuing their advanced education.

iii
# TABLE OF CONTENTS

DEDICATION .................................................................................................................... ii

ACKNOWLEDGEMENTS ............................................................................................... iii

LIST OF TABLES ............................................................................................................ vii

LIST OF FIGURES .............................................................................................................1

CHAPTER

I.  INTRODUCTION .....................................................................................................1

  Background .............................................................................................................. 3
  Statement of the Problem ...................................................................................... 5
  Purpose of the Study ............................................................................................ 6
  Justification for the Study ................................................................................... 6
  Research Questions .............................................................................................. 7
  Significance of the Study .................................................................................... 8
  Limitations of the Study ..................................................................................... 9
  Operational Definitions ....................................................................................... 9

II. REVIEW OF THE LITERATURE ...........................................................................12

  Formative Student Evaluations of Faculty .......................................................... 14
  Summative Student Evaluations of Faculty ......................................................... 16
  Perceptions of Student Evaluations of Faculty ................................................. 16
  Validity and Reliability ....................................................................................... 18
  Uses of Student Evaluation of Faculty ............................................................... 20
  Attributes Affecting the SEF Rating Instrument ............................................. 21
  Teaching Effectiveness ....................................................................................... 22
  Organization Theory – Classical Management .................................................. 25
  Summary .............................................................................................................. 27

III. METHODOLOGY ..................................................................................................29

  Research Design .................................................................................................. 29
  Participants ......................................................................................................... 30
  Instrument .......................................................................................................... 31
    Items of the Instrument .................................................................................... 31
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondent Attributes</td>
<td>31</td>
</tr>
<tr>
<td>Evaluating Teaching Effectiveness</td>
<td>32</td>
</tr>
<tr>
<td>Use of Reports from Evaluating Teaching Effectiveness</td>
<td>32</td>
</tr>
<tr>
<td>Application of SEF Results</td>
<td>32</td>
</tr>
<tr>
<td>Comments Concerning Current SEF Instrument and Process</td>
<td>33</td>
</tr>
<tr>
<td>Institutional Review Board and Informed Consent</td>
<td>33</td>
</tr>
<tr>
<td>Procedures</td>
<td>33</td>
</tr>
<tr>
<td>Content Experts</td>
<td>34</td>
</tr>
<tr>
<td>Pilot Survey</td>
<td>34</td>
</tr>
<tr>
<td>Administration of Study</td>
<td>35</td>
</tr>
<tr>
<td>Data Analysis</td>
<td>35</td>
</tr>
<tr>
<td>IV. RESULTS</td>
<td>38</td>
</tr>
<tr>
<td>Participants</td>
<td>38</td>
</tr>
<tr>
<td>Instrument</td>
<td>40</td>
</tr>
<tr>
<td>Validity</td>
<td>41</td>
</tr>
<tr>
<td>Reliability</td>
<td>42</td>
</tr>
<tr>
<td>Final Instrument as Administered</td>
<td>43</td>
</tr>
<tr>
<td>Data Collection</td>
<td>43</td>
</tr>
<tr>
<td>Results of Research Questions</td>
<td>43</td>
</tr>
<tr>
<td>Research Question 1</td>
<td>43</td>
</tr>
<tr>
<td>Research Question 2</td>
<td>46</td>
</tr>
<tr>
<td>Research Question 3</td>
<td>49</td>
</tr>
<tr>
<td>Research Question 4</td>
<td>52</td>
</tr>
<tr>
<td>Research Question 5</td>
<td>53</td>
</tr>
<tr>
<td>Summary</td>
<td>63</td>
</tr>
<tr>
<td>V. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS</td>
<td>67</td>
</tr>
<tr>
<td>Summary and Discussion</td>
<td>68</td>
</tr>
<tr>
<td>Research Question 1</td>
<td>68</td>
</tr>
<tr>
<td>Research Question 2</td>
<td>69</td>
</tr>
<tr>
<td>Research Question 3</td>
<td>70</td>
</tr>
<tr>
<td>Research Question 4</td>
<td>71</td>
</tr>
<tr>
<td>Research Question 5</td>
<td>71</td>
</tr>
<tr>
<td>Conclusions</td>
<td>72</td>
</tr>
<tr>
<td>Recommendations for Practice and Future Studies</td>
<td>75</td>
</tr>
<tr>
<td>REFERENCES</td>
<td>78</td>
</tr>
<tr>
<td>APPENDIX</td>
<td></td>
</tr>
<tr>
<td>A. FACULTY PERCEPTIONS OF STUDENT EVALUATION OF FACULTY SURVEY INSTRUMENT</td>
<td>96</td>
</tr>
</tbody>
</table>
B. APPROVAL FROM MISSISSIPPI STATE UNIVERSITY
   INSTITUTIONAL REVIEW BOARD .............................................. 103
## LIST OF TABLES

1. Frequencies and Percentages of Self-Reported Answers for Demographic Data of Participants’ Gender, College/School in Which Participant Taught, and Years of Higher Education Experience
2. Frequencies of the Single Response Item for the Opinion of the Current Instrument Being Effective in Measuring Teaching Effectiveness
3. Frequencies of the Scale Items (Strongly Agree through Strongly Disagree) for the Perception that SEF Results Serves as an Effective Tool to be Used by the Faculty to Improve Teaching
4. Frequencies of the Scale Items (Strongly Agree through Strongly Disagree) for the Perception of Using the SEF as an Effective Tool to Assist in Administrative Decisions as Related to Annual Faculty Review
5. Frequencies of the Scale Items (Strongly Agree through Strongly Disagree) for the Perception That a Single SEF Instrument Can Be Used by Department Heads for Decision-making Purposes and Used by Faculty to Obtain Results to Use in Improving Their Teaching Effectiveness
6. Contingency Analysis of Current SEF Effectiveness and Gender
7. Contingency Analysis of Current SEF Effectiveness and College/School
8. Contingency Analysis of Current SEF Effectiveness and Years of Higher Education Experience
9. Frequencies of the Scale Items (Strongly Agree through Strongly Disagree) for the Perception that Faculty Participation in the Development of the Current SEF Instrument Gives More Usefulness to the Current Instrument
10. Frequencies of the Scale Items (Strongly Agree through Strongly Disagree) for the Perception of the SEF Results as an Effective Tool to Improve Teaching
11 Frequencies of the Items (Applies or Does Not Apply) Provided From SEF that has Encouraged the Faculty to Validate or Change ..................56

12 Frequencies of the Items from Current SEF that Participants Indicated They Use in Improving Teaching Effectiveness ...........................................61
LIST OF FIGURES

1 Combined frequency results of the items (Highly Effective and Somewhat Effective) and (Less Effective and Not Effective) from current SEF instrument..........................................................................................63
As higher education answers the call for more accountability, colleges and universities turn more to student surveys to collect information for legislators and officials (Chen, 2011). The National Commission for Higher Education states that for the United States to continue to claim the finest education systems, we must hold ourselves to the highest levels of accountability for student success (Accountability for Better Results, 2005). Institutions that are supported by the tax-payers dollars face the obligation to answer to the public (Accountability in Higher Education, 2000). Expectations must be defined at all levels to justify the rising costs of public education. Clarifying the expectations that institutions and departments have for their employees’ performance are central to successful evaluation systems. This does not differ in the systems utilized to evaluate faculty. The key to thinking constructively about accountability is to begin with an institution-wide perspective (Accountability in Higher Education, 2000).

Teachers and students hold the main responsibility for improving undergraduate education (Chickering & Gamson, 1987). Students were considered the primary consumer of the teaching product, therefore, in the best position to evaluate teaching (Calkins & Micari, 2010).

The evaluation of teaching has evolved into a systematic approach that involves student evaluations, teaching portfolios, and peer review. The National Academy of
Academic Leadership (NAAL) questioned whether our faculty is provided with adequate professional development that will contribute to improving quality of education (NAAL, 2000). Since 1970, there has been a consensus on the purpose of Student Evaluation of Faculty (SEF) in higher education. Seldin (1980) stated the main purpose of the SEF was to improve the teaching component of education by moving faculty closer to excellence. Earlier in 1976, faculty evaluations were described as having two purposes: formative and summative, Southern Regional Education Board (as cited in Centra, 1993). Rifkin (1995) confirmed that the primary purpose of SEF is formative, to facilitate faculty growth, and development, and to foster and encourage self-improvement. In addition, SEFs are used for summative purposes in the institution and play a critical role in tenure, promotion, and salary decisions by department heads (Beran, Violato, & Kline, 2007; Stapleton & Murkison, 2001). Whether the intended purpose of student evaluations is formative or summative, McIlrath and Huit (1995) explained evaluations are a model based on teaching and learning processes.

In higher education, two principle purposes of SEFs are to improve performance and to provide measures for administrative decision-making in areas of tenure and promotion (Abrami, d’Apollonia, & Rosenfeld, 1997; Centra, 1993; Donahue, 2000; Marsh & Rosche, 1993). Seldin (1984) also stated that faculty evaluations intended to improve teaching should be a separate process than the process used for personnel decisions to allow for more focus on the teaching effectiveness. This ideal SEF process is impacted by both time and financial restraints and therefore is not deemed as the ideal evaluation process (Seldin, 1984). While there has been an abundance of research on the areas classified as SEF and Student Evaluation of Teaching (SET) and reasons for using
the evaluation processes, little research has been conducted on the perception of faculty involvement in the development of the SEF instrument and the process (Read, Rama, & Raghunandan, 2001; Wachtel, 1998; Wallace & Wallace, 1998).

Background

In 2005-2006, Mississippi State University (MSU) Faculty Senate and the Office of Institutional Research collaborated to enhance the SEF process (MSU Faculty Senate, 2006). This revision was comprised of three areas: a) revision of the University Academic Operating Policy for Student Evaluation of Faculty, b) implementation of a new evaluation software product in the Office of Institutional Research, and c) development of the instrument(s) for the SEF process.

This revision took place at the request of the Institutional Research Office to address faculty concerns about an unrevised instrument that was used that had not been tested for validity, or reliability, or revised to be compatible with the class sizes and delivery methods (MSU Faculty Senate, 2006). The faculty desired a set of instruments that more adequately matched the courses they were teaching as opposed to one instrument for all courses. Their request for this set of SEF instruments was threefold in matching the courses: a) instrument should be based on class size, b) instrument should be adequate for the type of course (lecture, lab, studio, discussion), and c) instrument should be adequate for the course delivery method (face-to-face, online, hybrid). In addition to addressing these course attribute concerns and the association of the course attributes to the SEF instrument, the University Academic Operating Policy needed to be revised to reflect a more current process of administering the SEF and to ensure
university wide participation in the instrument used as opposed to individual departments utilizing an instrument of their choice.

A number of concerns were raised by the faculty and were addressed in the pilot.

1. The SEF results from the semester of the pilot (Fall 2006) would not be used for annual faculty review purposes.

2. The pilot would consist of courses that were taught by a select group of faculty identified as recipients of the John Grisham Master Teacher Award. Within this group of faculty, 11 courses were selected to comprise the pilot study.

The following concerns were voiced for the pilot:

1. There was no expectation that the statistics on this pilot would indicate a significant difference in the mean scores of these faculty members’ prior three years of SEF scores.

2. Students participating in the pilot were not to be aware of whether the instrument they were given contained the previous questions or the newly revised questions.

3. Statistical tests were performed in the Office of Institutional Research and reviewed by some of the faculty members on the Senate sub-committee who had disciplines in statistics. No significant differences were found in the mean scores when comparing the mean scores of prior years’ evaluation results to those mean scores derived from the results of the new questions used in the pilot. To validate the students understanding of the questions to which they were responding, the students who were enrolled
in courses selected for the pilot study were administered a follow-up survey to test their understanding of the questions that had been developed.

This study explored faculty perceptions that indicate whether the current instrument has had an impact on improving teaching in the classroom. In addition, the study explored the faculty’s perception of whether the revised instruments used for SEF have provided them an instrument more effective in measuring their teaching effectiveness and can also serve as a decision-making instrument for annual faculty review.

Statement of the Problem

Higher education institutions continue using SEFs to assess instructional quality in a quantitative and reportable function (Simpson & Siguaw, 2000). Research indicates that administrators, in general, have a positive attitude toward SEF data and find it useful for personnel decisions (Campbell & Boseman, 2008; Beran & Violato, 2005). As accountability is increasing in colleges and universities and financial constraints tighten in higher education, these circumstances warrant in-depth studies of the effectiveness of teaching (Rabovsky, 2012).

Colleges and universities invest significant amounts of money, resources, and time into evaluating teaching effectiveness (Edstrom, 2008). This evaluation of teaching effectiveness serves as a component of the university’s annual faculty review process at many institutions (Berk, 2005; Burden, 2008; Kealey, 2010). Unfortunately, this process of administering a SEF at many institutions has become just a mere formality, a process, and the process does not include a routine analysis of the data or a follow-up survey to
gather the data representing faculty perceptions to ensure the purpose of the process is being fulfilled (Theall, 2010). Therefore, there is a need to investigate the perceptions of the faculty about utilizing the SEF system and instrument to aid them in the improvement of teaching effectiveness. Six years ago, the MSU SEF process and instrument were revised with input from the Faculty Senate in developing the questions on the instrument. This revision took place to address concerns shown by the faculty and the university administration about using a set of questions on a single instrument that had not been revised, validated, or assessed for reliability. The revision of the instrument used was led by a subcommittee of the Faculty Senate. The revised SEF instruments were the results of combined efforts of the Provost and Vice President for Academic Affairs and the Office of Institutional Research at MSU.

**Purpose of the Study**

The purpose of this study was to determine the perception from the faculty about the current SEF instrument and whether it is perceived that the instrument has had an impact on helping them improve teaching effectiveness in the classroom. Since the SEF are also used in the annual faculty review process, this study also investigated the faculty perception of one instrument being used to obtain results to improve their teaching and used by the department head for annual faculty review.

**Justification for the Study**

The justification behind this study was to emphasize the importance of a SEF process and instrument that is perceived by the faculty as an instrument that can be used to improve teaching effectiveness and used in the process of annual faculty review. A
review of the literature revealed the concerns faculty share about the SEF process. Few extensive studies have been conducted on the perceptions of SEF systems by those using them and those being affected by their results (Nasser & Fresco, 2002). What were not evident in the literature were the perceptions of the faculty in regard to the results received from the SEF process as a means to evaluate the teaching effectiveness. A survey designed by the researcher was administered to gather data from the faculty as related to the following research questions.

**Research Questions**

The following questions were addressed in this study:

1. Does the faculty perceive the current SEF instrument as an effective approach to evaluating teaching effectiveness?
2. Does the faculty perceive the current SEF instrument as an effective tool to be used in decision-making for annual faculty review?
3. Is the perception of the current SEF instrument different based on demographics, specifically gender, primary college/school, and number of years of higher education experience?
4. Is it perceived that faculty involvement in the development of the current SEF instrument has increased the usefulness of the evaluation instrument used for teaching effectiveness?
5. To what extent have the questions on the current SEF instrument affected the faculty’s ability to enhance their teaching?
Significance of the Study

Increased accountability has been hitting higher education from numerous levels: the federal government through national funding; state government due to decreasing funds available for state appropriations; and the local taxpayers expecting to see their tax dollars wisely utilized and an increased, more valuable workforce as the result of their taxes (Rabovsky, 2012; Theall, 2010). According to a 1987 ASHE-ERIC Higher Education Report, public confidence in colleges and universities declined between 1965 and 1985. Economic and societal conditions worsened and higher education has not found solutions to these issues to satisfy the public. The American Association for Higher Education and other organizations have called for colleges and universities to reassess their commitment to teaching and place greater importance on teacher effectiveness (Read et al., 2001; Rubenson, 2009).

More recently, higher education is dealing with budget constraints that are requiring mergers of colleges and departments and sustaining quality education with fewer members of the faculty (McBain, 2009). These challenges present universities with difficult decisions to make in order to maintain quality faculty. With these challenges, faculty morale drops and these actions place even more uncertainty on assessment practices according to P. Chen (2011).

The results of this study will provide assistance to higher education administration in their strategic planning efforts and attempts to improve instruction. University Chief Academic Officers and Teaching and Learning Center Directors can use the results of this study to further enhance faculty development programs. Where SEF data are used in conjunction with teaching assistance, such as that provided by Teaching and Learning
Centers, improvement in the SEF ratings can be observed over time (Barrie, Ginns, & Prosser, 2005). The faculty can use the information to see first-hand the value gained from a SEF process that fosters continued teaching improvement. Finally, the students can see their participation in the SEF process is a way for them to contribute to the changes and improvements in the classroom. Studies on student perceptions of SEF and their use of the data collected from the evaluations are limited. Most of the studies have been small and from single institutions (Campbell & Bozeman, 2008). Even as limited as these student perception studies are, Campbell and Bozeman (2008) believe that students can be and are effective evaluators of teaching.

Limitations of the Study

Several limitations to this study existed. First, data in this study were from faculty from a public, doctoral research institution in the southeast and the results may not be generalized to faculty in other regions of the United States or schools abroad. Second, other faculty attributes which might affect the perceptions of the participants such as personality or teaching style were not accounted for in this study. Third, the study utilized a self-reported questionnaire survey and was limited by the accuracy of the responses.

Operational Definitions

For the purpose of this study, the following operational definitions were used. Current SEF - refers to the student evaluation of faculty instrument currently used to gather student feedback pertaining to the instructor and course.

Department Head - refers to the administration using the evaluation results for annual faculty review purposes.
Formative use of evaluations refers to the faculty member improving and enhancing their teaching effectiveness skills (Mohanty, Gretes, Flowers, Algozzine, & Spooner, 2005).

Instructional Faculty - refers to those members of the instructional staff whose major regular assignment is instruction

Perception (from the Latin perceptio, percipio) is the organization, identification and interpretation of sensory information in order to represent and understand the environment. All perception involves signals in the nervous system, which in turn result from physical stimulation of the sense organs. For example, vision involves light striking the retinas of the eyes, smell is mediated by odor molecules and hearing involves pressure waves. Perception is not the passive receipt of these signals, but can be shaped by learning, memory and expectation. Perception involves these top-down effects as well as the bottom-up process of processing sensory input. The bottom-up processing is basically low-level information that is used to build up higher-level information (i.e., shapes for object recognition). The top-down processing refers to a person's concept and expectations (knowledge) that influence perception. Perception depends on complex functions of the nervous system, but subjectively seems mostly effortless because this processing happens outside conscious awareness. In this study more specifically, perception refers to how the faculty feel about and observe the usage of the SEF.

Research indicates that faculty being well informed about the purpose of the SEF process tends to eliminate a large degree of anxiety and foster an environment where they can learn from the student feedback (Gallagher, 2000; Sojka, Gupta, & Deeter-Schmetz, 2002). Student Evaluation of Faculty (SEF) is a process that provides higher education students the opportunity to evaluate their instructors. These means of evaluation in
research may be referred to as “student evaluations,” “course evaluations,” “student ratings of instruction,” and “student evaluations of teaching.” Wright (2006) suggested that the most appropriate term for end-of-course summative evaluations used primarily for personnel decisions and not for teaching development or effectiveness, is “student ratings of instruction” because it most accurately reflects how the instrument is used. For the purpose of this study, the researcher will refer to such evaluations as SEF.

*Summative* use of evaluations refers to the use of evaluations for determining merit increases, tenure, promotion, and course assignments.

*Teaching effectiveness* is the extent to which the teaching activity fulfills its intended purpose. Teaching effectiveness can also refer to the environment in which the course material is delivered. Comprehension of the subject and the value they place on human learning has been recognized as attributes of an effective teacher. In this study, more specifically, teaching effectiveness refers to the improvements made by the faculty in their teaching delivery and classroom actions as they interact with the students.
CHAPTER II
REVIEW OF THE LITERATURE

This chapter explored the literature concerning the development of the SEF in American education. The use of SEF, validity, reliability, faculty concerns pertaining to the process, and the impact SEF has on teaching effectiveness were also considered.

SEF are the most commonly used methods of students providing feedback about their instructors in higher education (Aleamoni, 1987; Berk, 2006; Centra, 1993; Kozub, 2008; Mangan, 2009; Marsh, 1984; McKeachie, 1979; Oliver-Hoyo, 2008; Ramsden, 1991; Remmers & Brandenburg, 1927; Seldin, 1984; Spencer & Flyr, 1992; Theall & Franklin, 2001; Zhao & Gallant, 2012). Students’ evaluating their teachers is traced back as far as Socrates, who was executed in 399 BC for the corruption of youth of Athens with his philosophy (Marsh, 1984). In 350 AD, fathers made public complaints about their sons’ teachers when dissatisfied with their education (Marsh, 1984). By the early 1800’s, schools in Boston assigned lay committees whose responsibility was to inspect the schools to ensure educational objectives were met (Spencer & Flyr, 1992). Centra (1993) stated that teacher salaries in Europe were determined from the number of students attending their class. In the United States, research indicates use of evaluating teachers with rating forms in the 1920s and 1930s (Cronbach, 1963; McKeachie, 1979; Remmers & Brandenburg, 1927; Seldin, 1980; Wilson, 1999). The next 30 years of using SEF in higher education marked the era with significant changes (Barr & Tagg, 1995;
Calkins & Micari, 2010; Theall, 2010). The areas indicating the highest level of change were purpose and methodology (Ory, 2000). During the 1960s, SEF’s main purpose was in response to the students demanding public accountability (Calkins & Micari, 2010; Ory, 2000). The next 10 years brought about a change in the use of SEF for faculty developmental use and improvements in teaching (Ory, 2000) as well as validity of student ratings (Calkins & Micari, 2010). Later into the 1990s, administration began utilizing the SEF for use in budgetary decisions (Ory, 2000). It is also during this time that national interest had surfaced to improve undergraduate education (Astin, 1991; Denson, Loveday, & Dalton, 2010; Erwin, 1991; Lang & Kersting, 2007), a higher demand on accountability from colleges and universities (Bok, 1992; Ewell, 1991; Fossey, 1999; Theall, 2010) and even the nation’s legal system (Centra, 1993; Jones, Gaffney-Rhys, & Jones, 2012).

The most recent demand in the area of SEF is coming from the faculty themselves. Those faculty in the tenure process are desiring evaluations that are perceived as fairer and more reliable (Boyer, 1987). The tenure system has been referred to as the cornerstone of accountability and institutional excellence (Accountability in Higher Education, 2000). In the 1970s the SEF usage shifted from a formative character to a process used for administrative and personnel decisions (Galbraith, Merrill, & Kline, 2012). Faculty share a level of distrust about the SEF results being used for summative purposes (Nasser & Fresco, 2002). The use of SEF results for summative purposes has been noted an item causing anxiety issues for faculty (Hodges & Stanton, 2007). Common findings in universities today are the use of SEF for both formative and summative reasons (Berk, 2005; Burden, 2008; Kealey, 2010). This use of evaluation
results for formative and summative practices leaves an uneasy feeling with some faculty (Penny, 2003). Most teachers are convinced the use of the SEF results in a formative manner is a legitimate use of the results (Balam & Shannon, 2010). However, the use of the same instrument to determine administrative policy and decision changes (Penny & Coe, 2004) and whether the faculty have reached certain milestones in their field of expertise (Chen & Hoshower, 2003) has led to many concerns faculty share pertaining to the SEF (Blackmore, 2009).

Seldin (1984) stated the ultimate situation in using SEF would be to have separate instruments/processes for each purpose. This dual usage of SEF has led to the questioning of the validity and reliability of the instrument by many faculty (Kogan, Schoenfeld-Tacher, & Hellyer, 2010).

**Formative Student Evaluations of Faculty**

Student evaluations are formative when their purpose is to help faculty members improve and enhance their teaching skills Mohanty et al., (2005). SEF serve a formative purpose when four conditions are met: a) instructors must learn something new from them, b) instructors must perceive value in the information gained, c) instructors must understand how they can make the suggested improvements noted in the evaluations, and d) the instructors must be motivated to make improvements in their teaching ability (Beran et al., 2007; Centra, 1994; Kealey, 2010). Today, higher education places a high level of importance on SEF as a means to quantify and measure instructional quality (Grace, Weaven, Bodey, Ross, & Weaven, 2012). Simpson and Siguaw (2000) also stated that SEF processes and instruments that are reviewed and revised are proof of the concept of teaching as an important factor in higher education. Lewis (2001) and Ory
(2001) note that to be most effective in improving teaching, SEF should be both continuous and formative and used in the context of an instructor’s personal goals for improving teaching effectiveness. Formative feedback collected early in the semester rather than at the end of the semester would provide information that could be used by the faculty member to make changes and respond to the needs of the current enrolled students (Clement, 2012).

Seldin (1984) predicted financial strain would be experienced in higher education and continue to worsen. Out of this predicted financial strain came a series of changes for higher education (Seldin, 1984). At the very time that accountability and outcomes assessment is increasing, so is the need to incorporate faculty performance (Rabovsky, 2012).

Performance information in public colleges and universities has been a recurring topic over the past decade and a half (Rabovsky, 2012). In recent years, several initiatives have surfaced at both state and federal levels to directly link performance to funding (Aldeman & Carey, 2009; Burke, 2002; Zumeta, 2001). Burke’s (2002) definition of states having performance-funding policies indicates these entities have a direct link between the state appropriations and the institution’s performance in respect to student outcomes. While performance-funding policies vary across the states, many have recognizable common trends. The most common indicator used to measure performance is graduation rate, followed by retention, number of degrees granted, and other areas such as cost efficiency measures. These findings are generally consistent with earlier studies of performance-funding indicators (Burke, 2002). Rabovsky (2012) indicates the ultimate goal behind performance initiatives is to improve the students’ educational experience.
Summative Student Evaluations of Faculty

The evaluations that yield information upon which decisions in respect to promotion, rank, and tenure are made involve summative evaluations (Centra, 1993; Ory, 1991; Rifkin, 1995; Seldin, 1980). Zelby (1974) concludes that changing the purpose of the evaluation to meet the needs for personnel appraisals could have actually posed a problem to teaching. A 2007 study conducted by Beran et al., at one research-intensive institution found that in general, the view of SEF is positive, but there are some reservations regarding their effective use. Beran and Violato (2005) indicated that department heads found course evaluation data useful for evaluating individual teaching for personnel decisions and recommending awards, for monitoring progress of reported teaching problems, evaluation of teaching at the department level and for course and curriculum planning. These findings correspond to earlier studies by d’Apolonia and Abrami (1997) who found global indicators of SEF useful as indicators of teaching effectiveness. Stapleton and Murkison (2001) questioned whether such shifts in the use of SEF have resulted in issues such as grade inflation and a decrease in academic standards.

Perceptions of Student Evaluations of Faculty

It is accepted that there are two distinct perceptions for the process of faculty evaluations: an administrative perception and a faculty perception. Conflict has grown as faculty evaluations have developed and the usage of the evaluations has changed over the years (Ory, 1991; Theall, 2010). Research indicates that faculty being well informed about the purpose of the SEF process tends to eliminate a large degree of anxiety and
foster an environment where they can learn from the student feedback (Gallagher, 2000; Sojka et al., 2002; Smith, 2008).

Among the explanations for the conflict is perception. Studies reviewed by Rifkin (1995) found that faculty perceived discrepancies between the ideal purpose of evaluation, as stated by the administration, and its practical use. These perceptions of discrepancy interfere with the overall success of evaluation systems that attempt to incorporate both formative and summative purposes (Waller, 2004). These misperceptions many times result from the competing intent of the two purposes, according to Hyle (1999).

Faculty perceptions of three forms of student evaluation information were studied by Braskamp, Ory, and Pieper (1981). The study revealed that of the three types:  
1. objective questionnaire,  
2. open-ended comments, and  
3. group interviews, the faculty generally perceived the information from the students’ open-ended comments to be more useful and credible when used for self-improvement and teaching effectiveness.

However, when SEF results are being used for the purpose of promotion, the faculty found the students’ open-ended comments to be less credible. The impeding results of the study revealed that faculty desire more than one type of information from evaluations (i.e., multidimensional) regardless of the purpose of the evaluation.

Unfortunately, a number of misconceptions linger that authors have reported but have no research to support. These misconceptions are also affecting faculty improving the practice of SEF (Feldman, 2007; Svinicki & McKeachie, 2011). Benton and Cashin (n.d.) report in *Student Ratings of Teaching: A Summary of Research and Literature*, such misconceptions include the idea that a) students cannot make consistent judgment,
b) student ratings are simply popularity contests, c) SEF are unreliable and invalid, d) feedback from students cannot be utilized to improve teaching effectiveness, and e) focus on SEF has led to the issue of grade inflation.

This upcoming section investigates faculty perceptions in regard to (a) validity, (b) reliability, and (c) appropriate uses of student evaluations of faculty. Much research is available on the validity and reliability of the methods of student evaluations (Aleamoni, 1987; Cashin, 1988; Marsh, 1984; Yunker & Yunker, 2003). A more serious issue along with those concerns of validity and reliability is the poor practice in development and use of the instruments for evaluation purposes, the analysis and reporting of the data collected, and the interpretation and use of the results (Smith, 2008; Theall, 2010).

Validity and Reliability

Numerous research studies pertaining to SEF has literature on the areas of validity and reliability (Cashin, Downey, & Sixbury, 1994; Kulik, 2001; Marsh & Roche, 1997; Simpson & Siguaw, 2000; Yunker & Yunker, 2003; Zhao & Gallant, 2012). More recent research indicates a shift from the initial concerns of the SEF instrument’s validity and reliability, to the development of the instruments and expanded practices that will provide meaningful information that the instructor can use to improve teaching effectiveness (Calkins & Micari, 2010).

An evaluation is said to be valid if it is measuring what it is intended to measure. SEF also tend to correlate well with retrospective evaluations by alumni, former students rarely change their evaluations of their instructors as the years pass (Centra, 1993). Kulik (2001) defends SEF with the claims that he says demonstrate the validity of the instrument in three areas: a) students’ ratings agree with students’ comments when
interviewed, b) students’ ratings agree with those ratings of observers, and c) students’ ratings agree with alumni ratings.

SEF studies that have found a correlation of scores with the instructors’ self-evaluation, indicating evidence of validity (Marsh, 1984). Some research supports the validity of SEF (Alsmadi, 2005; Coffey & Gibbs, 2001; Obenchaim, Abernathy, & Wiest, 2001) while other research found irrelevant factors affecting the SEF ratings (Feely, 2002; Germain & Scandura, 2005; Safer, Farmer, Segalla, & Elhoubi, A. 2005). thus indicating doubt in the validity of the ratings. Alsmadi (2005) found inter-rater agreement and consistency and therefore concluded students are capable of providing a reliable source of feedback pertaining to effective teaching. Additional factors have been found that indicate a threat to SEF ratings’ validity. These factors are gender, class size, personality, appearance and student’s major (Basow & Silberg, 1987). Oliver-Hoyo (2008) found significant variations in SEF with instructors teaching multiple sections of the same course. With all the debate pertaining to validity of SEF, Seldin (2006) suggests the actual validity lies somewhere in the middle. Calkins and Micari (2010) suggests that SEF instruments are as valid as their design allows them to be and the design should be the focus of debate rather than inherent validity itself.

Other researchers reported that SEF are not accurate measures of the teaching performance (Simpson & Siguaw, 2000). Some faculty suggests that SEF are a better measure of personality or likability than actual teaching performance (Marks, 2000). These faculty perceptions are somewhat supported by the earlier studies of Mowen, Keith, Brown, and Jackson (1985) which indicated the evaluations focus more heavily on
personal aspects rather than situational aspects. However, Cashin and Downey (1992) stated that instructor personality is one of many variables not related to student ratings.

An instrument is said to be reliable if when repeated, it provides consistent and stable results and the scores calculated represent averages for the instructors from a number of students in a given course. Reliability has also been examined through the use of multi-section evaluations, which reported consistency in the results across multiple course sections (Ory & Ryan, 2001). Agreement in the literature supports this statement of reliability (Abrami, 2001; Theall & Franklin, 2001). Most researchers agree that SEF are highly reliable because students tend to agree with each other on their evaluation of an instructor (Huemer, 2010). They also tend to agree the SEF are valid in that the students’ ratings of the course quality correlate positively with other measures of teaching effectiveness (Huemer, 2010). The emphasis on SEF in evaluating teaching effectiveness has increased the concerns of validity (Lattuca & Domagal-Goldman, 2007; Simpson & Siguaw, 2000). Reliability issues become more of a topic when SEF are administered online rather than on paper since typical reports of online processes result in lower response rates than paper surveys (Ballantyne, 2003). Although the use of online evaluations for classes has increased, these methods have provided mixed results (Carini, Hayek, Kuh, Kennedy, & Ouimet, 2003). Later studies have indicated these evaluations are reliable and produce higher quality responses and greater quantity of responses to the open-ended questions (Dommeyer, Baum, Hanna, & Chapman, 2004).

Uses of Student Evaluation of Faculty

It has been estimated that more than 2,000 studies have been completed in the area of using SEF for the purpose of evaluating teaching effectiveness. Moore and Kuol
(2005) found that SEF systems help in deterring anecdotal information related to teaching behaviors and evaluating effectiveness. Experts in the field offer guidance as to how to use SEF properly so bias is understood and the best results for their purpose can be obtained (Calkins & Micari, 2010; Denson et al., 2010; Shao, Anderson, & Newsome, 2007). Rifkin (1995) supports one of the main obstacles in developing more effective instruments to use in evaluating teaching is to agree on the purpose and use of the evaluation. Earlier in 1974, Zelby warned that an undefined use of the SEF would lead to problems especially when the instruments are used as a determinant in promotion and tenure.

**Attributes Affecting the SEF Rating Instrument**

A number of attributes have been found to cause bias in SEF ratings. The charismatic instructor is typically rated more highly on overall ability, and studies including gender as an attribute, indicate clearly that male and female instructors are rated differently on the same behaviors (Calkins & Micari, 2010). Calkins and Micari (2010) also state ethnicity and gender are contributing attributes that correlate with SEF results.

Studies by Feldman (1984), Koh and Tan (1997) and Toby (1993) concluded class size can attribute to variation in student ratings. However, Feldman (1978) and Centra (1993) concluded that class size had little significance to the SEF results. A second attribute found to have a positive impact on the student ratings on the SEF instrument is the course type. Courses such as labs and practicum courses allow the student to apply the knowledge obtained and feel a sense of mastery that can lead to a more positive feeling toward the instructor (Beran & Violato, 2005).
Instructors having smaller classes receive higher ratings than those instructors teaching larger classes (Algozzine et al., 2004; Cashin et al., 1994; Cramer & Alexitch, 2000; Nerger, Vinley, & Riedel, 1997). Franklin (2001) concluded that highest ratings are found in classes with fewer than 20 students, followed by classes with over 100 students and lower-to middle-sized classes. Instructors’ optional questions added to the SEF have revealed themselves as strong predictors of overall satisfaction (Denson et al., 2010).

An area that has not been evident in research related to the SEF and courses is that of nontraditional settings. Changes in student population have occurred over the years of researching this topic (Theall, 2010).

Teaching Effectiveness

Teaching effectiveness can be defined as the extent to which the teaching activity fulfills its intended purpose (Jahangiri, Mucciolo, Choi, & Spielman 2008). A number of researchers consider SEF to be a useful measure of the instructional behaviors that contribute to teaching effectiveness (Beran et al., 2007; Abrami, 2001).

In 2001, Kulik stated simply that student ratings are valid when they reflect teaching effectiveness. However the issue is no one has determined what measure to use as the criterion of teaching effectiveness. In the same article, Kulik outlines a number of studies that have cited critical student ratings of faculty. The studies imply that all measured factors other than teaching effectiveness such as students’ opinion of the teacher’s personality or grading standards affect the student ratings of faculty. However, these studies actually show that the ratings agree with other measures of teaching effectiveness, such as learning measures, the students’ comments on the instrument, expert observations, and alumni ratings. Significant variations in the students’ ratings of
an instructor teaching multiple sections of the same course have been identified (Oliver-Hoyo, 2008). Despite these differences found in the research, correlations between student ratings on the SEF and examination scores and between student ratings and classroom observations is high. Another area these studies show is the usefulness of these SEF ratings to the instructor for improving his or her teaching effectiveness. The instructors benefit from the ratings alone but even more so when the ratings are paired with instructional consultation (Wilson, 1986; Marsh & Roche, 1993, Kulik, 2001). Research also demonstrated that when faculty is provided training or assistance and consultations with colleagues or faculty/educational development, they make changes to their teaching behaviors (Penny & Coe, 2004). Beran et al. (2007) suggest that evaluations not only be supplemented by sources of information regarding teaching effectiveness, but also state that the faculty members and students should be aware of the need for this supplemental information as an effort to use SEF for improving teaching effectiveness.

A number of earlier studies by researchers have compared the single overall evaluation and the multidimensional profile when results are used for personnel purposes (Abrami, 2001; Abrami & d’Apollonia, 1991; Cashin & Downey, 1992; Marsh, 1984; Marsh, 1991; Marsh & Hoccevar, 1991). Of these, Abrami and d’Apollonia (Abrami & d’Apollonia, 1990; d’Apollonia & Abrami, 1991) tend to prefer multiple global items when evaluating faculty for personnel issues. Abrami et al. (1997) base their argument on five findings from their research:
1. They are not convinced that any of the carefully developed, validated forms provide invariant teaching dimensions.

2. They have concerns regarding the content validity of certain items when used across multiple courses, instructors, students and different environments.

3. They agree with Cohen’s (1981) earlier reviews of multiple section validity studies indicating lower correlations with actual student learning than with overall course and instructor ratings.

4. They perceive that less is known about the ability to generalize specific factors than is known about overall ratings being generalized.

5. They concur with concerns related to department heads’ weighing information adequately that is provided by factor scores to formulate quality teaching attributes.

Burdsal and Harrison (2008) conclude that having a reliable and valid measure of perceptions regarding effective teaching does not equate to having a valid measure of effective teaching. Their advice to the academy is for a teaching portfolio that is comprised of multiple indicators of teaching performance, including student evaluations as one component of the performance portfolio to be utilized for evaluating university faculty.

More recent research in the area of evaluating teaching effectiveness provides evidence that the SEF is most useful for measuring teaching effectiveness for summative purposes when used along with a multidimensional profile evaluation (Balam & Shannon, 2010; Blauvelt, Erickson, Davenport, & Spath, 2012; Burdsal & Harrison,
This research also validates previous research that indicates the SEF should be merely one component of a teaching portfolio.

**Organization Theory – Classical Management**

An organization, by its most basic definition, is an assembly of people working together to achieve common objectives through a division of labor (Organization Theory, 2007). As businesses have evolved over the years, analysts, economists and educational researchers have studied theories to support those businesses’ dynamics and how decisions are made, power and control is distributed and how to best promote change in the organization.

Organizational theory studies provide an interdisciplinary focus on (a) the effect of social organizations on the behavior and attitudes of individuals within them, (b) the effects of individual characteristics and action on the organization, (c) the performance, success, and survival of organizations, (d) the mutual effects of environments, including resource and task, political, and cultural environments on organizations and vice versa, and (e) the concerns with both the epistemology and methodology that undergird research on each of these topics (Pfeffer, 1997).

Waller (2004) stated one way to understand the tension between the conflicting purposes of SEF, their development and use as a performance measure is to relate them to the context of organization theory. Conflict begins because both the higher education organization and its employees want an idealized working environment, with just decisions pertaining to promotion and tenure, and where the faculty can continually improve their teaching effectiveness. When these ideas are related to the context of organization theory then the desires equate the rational model of an ideal organization.
With the rational model, literature pertaining to SEF also shows aspects of classical management theory. Perrow noted in 1986 that the idealized rational model is not compatible with the real-world organizations. Perrow (1986) also points out one can view organizations as cultures. Understanding these cultures helps one to better comprehend the conflicts that may arise.

Faculty can better achieve an understanding of the SEF purposes when they understand the various levels of the organization culture. Organizational theory appears in much of the faculty evaluation literature (Hatch, 1997; Ory, 1991; Wagner-Tsukamoto, 2003; Waller, 2004).

Perrow (1986) noted that while researchers may relate faculty evaluations to Weber’s elements of rational-legal bureaucracy, reliance on the rational model predominates in the literature of faculty evaluations. Classical management developed in the United States in the early twentieth century before Weber’s views were widely distributed.

Classical management theory applies what Perrow (1986) refers to as proverbs to management. This is not a practice typically accepted by the contemporary theorists. Hatch (1997) relates organization theories to openings that can be used to view organizations and their many cultures. These cultures can be viewed in three ways: a) the organization is a culture, b) the organization has multiple cultures within it, and c) the organization is affected by external cultures. These various cultures correlate directly to the structure of higher education and the process of faculty evaluations.

One cannot dismiss the most basic theories of management and the studies of the theorists Douglas McGregor and Abraham Maslow. In addition to Maslow’s hierarchy of
needs, which is often portrayed in a pyramid shape, he is also credited with the term meta-motivation, to describe the motivation of people who go beyond the scope of the basic needs and strive for constant betterment. The area in the hierarchy of self-actualization lends itself closely to the self-expectations of some faculty. Some faculty desire to become well known scholars for their diligent work in their scholarships, others are satisfied with the daily activities of lecturing. Regardless of their level of self-expectations, both desire to be the best they can in their chosen fields and can find benefits from a well-structured SEF process as we know today in higher education (Organization Theory, 2007).

Theory X and Theory Y relates to Maslow’s hierarchy of needs in how human behavior and motivation is the driving force in the workplace when attempting to maximize output. Theory Y contributes the organization is trying to create the most symbolic relationship between the managers and workers which directly relates to the area of Self Actualization and Esteem in Maslow’s hierarchy of needs. Theory Y is a participative style of management which “assumes that people will exercise self-direction and self-control in the achievement of organizational objectives to the degree that they are committed to those objectives” (Wikipedia, 2014).

Summary

Research on faculty use and perception of the use of SEF revealed this is a highly debated topic in higher education, but a topic that warrants continuous studies mainly due to the fact that our student population is continuously changing and our delivery methods of instruction are continuously changing. No literature review on the topic of SEF can be
considered comprehensive given the vast amount of research that currently exists and continues to grow.

There is abundant research on the history of SEF, the instruments used in the SEF process, and their reliability and validity or their lack of; but few extensive studies exist on the perceptions of SEF and how the results affect the faculty (Cashin et al., 1994; Kulik, 2001; Marsh & Roche, 1997; Simpson & Siguaw, 2000; Yunker & Yunker, 2003; Zhao & Gallant, 2012). Faculty generally believe that SEF provide valuable information to the individual about their own teaching but distrust the use of results for summative purposes (Nasser & Fresco, 2002). SEF have been labeled as a source of anxiety issues for faculty (Hodges & Stanton, 2007). Such issues have led the faculty to question overall validity of evaluations and how the results are used or misused (Beran et al., 2007). Negative perceptions of evaluations can lead faculty to discount their importance and eliminate the possibility of their role in improving teaching effectiveness (Theall & Franklin, 2001).

Finally, the literature supports the perceived theory that teaching effectiveness is multidimensional and that it should be evaluated in such a manner for the best results (Algozzine et al., 2004; Beran et al., 2007; Burdsal & Harrison, 2008; Balam & Shannon, 2010; Blauvelt et al., 2012)
CHAPTER III

METHODOLOGY

The purpose of this study was to determine the perception from the faculty about the SEF instrument and whether they perceived that the instrument has had an impact on helping them improve teaching effectiveness in the classroom, whether these perceptions differ based on gender, the college/school in which the faculty teach, and the number of years of higher education the faculty member has. SEF are also used in the annual faculty review process. This study also investigated the faculty perception on one instrument adequately evaluating their teaching effectiveness, provide them with information to use in improving their teaching and used by the department head for annual faculty review. The methods that were used to address this purpose through the research questions of the study are discussed in this chapter. This chapter includes (a) the research design, (b) the participants, (c) the instruments, (d) the procedures, and (e) the data analysis.

Research Design

This study was survey research with quantitative analysis of the perceptions of faculty involved in the SEF process. It included the perception survey that was administered to the instructional faculty.

The study was designed to investigate the following research questions:
1. Does the faculty perceive the current SEF instrument as an effective approach to evaluating teaching effectiveness?
2. Does the faculty perceive the current SEF instrument as an effective tool to be used in decision-making for annual faculty review?
3. Is the perception of the current SEF instrument different based on demographics; specifically gender, primary college/school, and number of years of higher education experience?
4. Is it perceived that faculty involvement in the development of the current SEF instrument has increased the usefulness of the evaluation instrument used for teaching effectiveness?
5. To what extent have the questions on the current SEF instrument affected the faculty’s ability to enhance their teaching?

Participants

Participants for the pilot for this study included part-time faculty members who are using the current SEF and are currently in a teaching role. After the pilot was concluded, the population for the entire study consisted of 734 full-time faculty members who are using the current SEF instrument.

The data were provided by the Office of Institutional Research. Specific criteria in the data designated the part-time and full-time faculty. Employee status validated the faculty as being currently employed to receive the electronic survey in the fall 2013 semester and as being employed in the fall 2012 semester as instructional faculty.
Instrument

A survey instrument was developed to gather the perception of the faculty as they pertain to the use of the SEF results in regard to improving teaching effectiveness. The instrument was named Faculty Perceptions of Student Evaluation of Faculty (FPSEF). Appendix A contains the instrument used for the study. Participants of both the pilot and the research study were emailed the respective instrument as designed by the researcher. The instrument was a self-report questionnaire, which gathered information related to the faculty perceptions of the use of SEF to evaluate teaching performance by students. By conducting the pilot, the researcher established validity of the instrument as well as determined how long it will take to complete the data collection process. In addition, the researcher obtained feedback that was used to enhance the instrument with the entire population.

Items of the Instrument

The instrument consisted of five sections. The sections are (1) Respondent Attributes, (2) Evaluating Teaching Effectiveness, (3) Use of Reports from Evaluating Teaching Effectiveness, (4) Application of SEF Results, and (5) Faculty Comments Concerning Current SEF Instrument and Process. The following paragraphs describe the sections of the instrument.

Respondent Attributes

The first four items of the FPSEF instrument were to gather information pertaining to the attributes of the faculty as related to gender, college/school in which the faculty member teaches, the number of years of higher education experience, and the
overall perception of the current SEF instrument in relation to its effectiveness in measuring teaching effectiveness. The fifth question in this group provides an opportunity for the respondents to further explain their answer to question four.

Evaluating Teaching Effectiveness

The next four questions relate directly to the perceptions of SEF in respect to how the results are used. The questions focus on areas of the tool’s effectiveness in improving teaching, using the SEF as an effective tool to assist with decision-making as related to annual faculty review, the usefulness of the instrument given faculty participated in the development of the questions, and the perceptions of a single instrument being used for both decision-making and teaching effectiveness.

Use of Reports from Evaluating Teaching Effectiveness

The next two questions allow the researcher to gather information about how the faculty use the SEF reports received after the evaluation period has ended. The final question in this section asks whether the faculty would desire comparative data of other faculty teaching comparable courses.

Application of SEF Results

The following 11 questions were taken from the current SEF instrument and are used in this study to gather information from the faculty pertaining to their use of the results obtained from these questions in respect to their use in improving teaching effectiveness. No attempt was made to establish reliability of these eleven questions taken from the university instrument. An additional open comment question has been added to allow the faculty to provide any additional criteria they perceive beneficial to
improving their teaching effectiveness that could be obtained from the students’ feedback.

Comments Concerning Current SEF Instrument and Process

The final area of the instrument allows the faculty to provide any additional comments that pertain to the SEF instrument or process in an open comment section.

Institutional Review Board and Informed Consent

A request to conduct the study was submitted July 2, 2013, to the Mississippi State University Institutional Review Board for the Protection of Human Subjects in Research (IRB). On July 12, 2013, IRB approved the study. A copy of the Mississippi State University IRB letter is included. The researcher contacted the Office of Institutional Research and Effectiveness (OIRE) and discussed the data needed for the study. Participants were guaranteed confidentiality in the use of their data. Participants gave their informed consent by completing and submitting the instrument.

Procedures

Once approval to conduct the research was granted from the MSU IRB, the researcher emailed the content experts and asked them to review the instrument in the context of the study. The researcher obtained data files from the OIRE that included participants’ email addresses to use in administering surveys. A description of the participants was provided to the OIRE in order to extract the correct population of participants based on their employment status of part-time, full-time, or instructional faculty. Administration of the instrument was conducted through emails launched from the researcher’s Class Climate software for conducting faculty evaluations and surveys.
All participants were guaranteed confidentiality in the use of their data. Participants gave their informed consent by completing and submitting the survey instrument. Survey data was analyzed using SAS to perform necessary statistical tests.

Content Experts

A professional in the field of psychometrics reviewed the instrument and provided no needed suggestions for improvement. Next, the researcher solicited faculty and administrators at Mississippi State University to serve as content experts. Comments and suggestions from this group of experts were considered prior to the administration of the instrument to the pilot population. These experts evaluated the instrument to ensure it would collect the type of data that could be translated into information that would be useful for a faculty member to improve his or her teaching effectiveness.

Pilot Survey

After content experts reviewed the instrument, the researcher conducted the pilot study by administering the instrument to part-time faculty members. This group provided information that was used to ensure the validity of the survey. The main purpose for the pilot was to obtain any comments or questions concerning the items on the questionnaire. The results of the pilot were analyzed by the researcher. It was noted by one respondent in the pilot that the instrument did not give the option for years of higher education experience less than eight years. The instrument was changed to add two additional categories for years of higher education experience. This change not only met the population more adequately, but also provided an additional category for analysis.
Administration of Study

The final version of the instrument was administered to full-time faculty via email during the fall 2013 term. Two reminder emails were sent to those participants that had not responded to the survey. An email was sent to each of the participants along with the questionnaire. This email explained a) the purpose of the study, b) the informed consent for the researcher to utilize data collected, c) the use of the results, and d) ensured the respondents’ confidentiality. Also, this email informed recipients his or her participation was totally voluntary and about his or her choice to decline to answer any question(s) without penalty. Consent to participate in this study was given by the participant submitting the survey with his or her responses. This process once again allowed for confidentiality of the responses.

Data Analysis

Data collected from the surveys administered were analyzed utilizing both the binomial tests for proportions and Chi-square tests for independence. These analyses were conducted in an attempt to answer the following research questions:

1. Does the faculty perceive the current SEF instrument as an effective approach to evaluating teaching effectiveness? This was determined from survey items 1.4, 1.5 and 2.1 from the faculty instrument.

2. Does the faculty perceive the current SEF instrument as an effective tool to be used in decision-making for annual faculty review? This was determined from survey items 2.2 and 2.4 from the faculty instrument.

3. Is the perception of the current SEF instrument different based on demographics; specifically gender, primary college/school, and number of
years of higher education experience? This was determined from survey items 1.1, 1.2, 1.3, 1.4 and 1.5 from the faculty instrument. The demographic factors tested were gender, college/school in which the faculty teaches, and years of higher education experience. Responses from the faculty survey items 1.1, 1.2, 1.3, 1.4 and 1.5 were used in analyses.

4. Is it perceived that faculty involvement in the development of the current SEF instrument has increased the usefulness of the evaluation instrument used for teaching effectiveness? This was determined from survey item 2.3 from the faculty instrument.

5. To what extent have the questions on the current SEF instrument played in the faculty’s ability to enhance their teaching? This was determined from survey items 3.1, 3.2, and 4.1 through 4.11 from the faculty instrument.

The analysis of the data was conducted using the software programs SAS and JMP; descriptive statistics provided a profile of the respondents to the survey. This profile is presented in Table 1 with frequencies and percentages. The survey questions used to address the research questions used a Likert format and statistical inferences were made using both non-parametric statistics and parametric statistics. Parametric statistics were applied to the sum of the responses for each question using the Likert scale.

The open comment responses were analyzed using text mining techniques which transformed text into numerical data for the application of statistical analysis. This data analysis involved a process of deriving information from text through uncovering patterns and trends in the data. In addition to the analysis of the comments using data
mining techniques, domain experts reviewed the comments and categorized the
comments as either a positive, neutral, or negative comment. This process provided
validation of the text mining procedure. These open-ended questions when analyzed
using standard text mining techniques yielded further insight into the questions posed by
this research. The textual data was converted into numerical data by SAS Text Miner.
CHAPTER IV

RESULTS

This chapter includes information on the participants involved in the study, the instrument administered, the data collection procedures, and an interpretation of results of each of the research questions.

Participants

Participants in this study were 205 full-time faculty at Mississippi State University who were employed in the fall 2013 semester and employed in the fall 2012 semester as instructional faculty and whose classes were evaluated using the current SEF instruments.

Respondent attributes with frequencies and percentages of self-reported answers are given in Table 1. Of the 205 respondents, 115 participants (56.4%) were male and 89 participants (43.6%) were female; one respondent did not report gender. The participants represented seven colleges/schools in which they taught at the university. Of this group the largest number was in the College of Arts and Sciences with 84 (41.6%) participants, followed by 35 participants (17.3%) in the College of Agriculture & Life Sciences, 27 (13.4%) representing College of Engineering, 25 (12.4%) College of Education, 19 (9.4%) representing College of Business, 8 participants (4.0%) in the School of Architecture, and 4 participants (2.0%) in the College of Forest Resources. Three did not
indicate their college/school. In addition, the respondents were asked to provide the number of years of higher education experience. Of the 200 participants providing the number of years of higher education experience, 44 (22.0%) responded having 12 to 15 years of higher education experience, 43 (21.5%) responded having four to seven years of higher education experience, 41 (20.5%) responded having fewer than four years of higher education experience, 34 (17.0%) responded having an excess of 20 years of higher education experience, 29 (14.5%) responded having eight to 11 years of higher education experience, and 9 (4.5%) responded having 16 to 19 years of higher education experience. The number of participants is representative of the total faculty population. Therefore, with caution, you can generalize the results of this study to the entire faculty body.

Participants were asked their opinion of the current SEF instrument’s effectiveness in measuring teaching effectiveness. The question was answered with a “yes” or “no” single response answer and an open text question allowed them to explain their response. Of the 202 responding, 58 (28.7%) responded “yes,” indicating they perceive the current SEF instrument as an effective approach to evaluating teaching effectiveness and 144 (71.3%) responded “no,” indicating they do not perceive the current SEF instrument as an effective approach to evaluating teaching effectiveness. Of the 202 participants that responded, 169 (84.0%) provided a text explanation to further explain their response.
Table 1

*Frequencies and Percentages of Self-Reported Answers for Demographic Data of Participants' Gender, College/School in Which Participant Taught, and Years of Higher Education Experience*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Answer</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Female</td>
<td>89</td>
<td>43.6%</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>115</td>
<td>56.4%</td>
</tr>
<tr>
<td></td>
<td>Omitted</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>205</td>
<td>100.0%</td>
</tr>
<tr>
<td>College/School</td>
<td>Agriculture &amp; Life Sciences</td>
<td>35</td>
<td>17.3%</td>
</tr>
<tr>
<td></td>
<td>Architecture, Art &amp; Design</td>
<td>8</td>
<td>4.0%</td>
</tr>
<tr>
<td></td>
<td>Arts &amp; Sciences</td>
<td>84</td>
<td>41.6%</td>
</tr>
<tr>
<td></td>
<td>Business</td>
<td>19</td>
<td>9.4%</td>
</tr>
<tr>
<td></td>
<td>Education</td>
<td>25</td>
<td>12.4%</td>
</tr>
<tr>
<td></td>
<td>Engineering</td>
<td>27</td>
<td>13.4%</td>
</tr>
<tr>
<td></td>
<td>Forest Resources</td>
<td>4</td>
<td>2.0%</td>
</tr>
<tr>
<td></td>
<td>Omitted</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>205</td>
<td>100.0%</td>
</tr>
<tr>
<td>Years of Higher Education Experience</td>
<td>Less than 4 years</td>
<td>41</td>
<td>21.0%</td>
</tr>
<tr>
<td></td>
<td>4 – 7 years</td>
<td>43</td>
<td>21.5%</td>
</tr>
<tr>
<td></td>
<td>8 – 11 years</td>
<td>29</td>
<td>14.5%</td>
</tr>
<tr>
<td></td>
<td>12 – 15 years</td>
<td>44</td>
<td>22.0%</td>
</tr>
<tr>
<td></td>
<td>16 – 19 years</td>
<td>9</td>
<td>5.0%</td>
</tr>
<tr>
<td></td>
<td>More than 20 years</td>
<td>34</td>
<td>17.0%</td>
</tr>
<tr>
<td></td>
<td>Omitted</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>205</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

**Instrument**

The *Faculty Perceptions of Student Evaluation of Faculty (FPSEF)* survey instrument was designed by the researcher and administered to the faculty. The instrument included 25 items. The first three items were demographics. The following item simply asked the opinion of whether the current SEF instrument is effective in
measuring teaching effectiveness, “yes” or “no” and gave space for any explanation should the participant want to further explain their opinion. The following four questions pertained to evaluating teaching effectiveness. The next section allowed multiple responses to the question pertaining to using reports from faculty evaluations to validate or change course objectives, use of group discussion/projects in class, amount of course materials covered in lecture, amount of materials provided to the student as handouts or other course aids such as online practice tests and case studies, the process of returning papers and exams, difficulty level of course projects and assignments, interaction with students outside the classroom, and method used for grading in the course as well as a category for other and space for explanations. The last question in this section asked if the participant would like to be able to compare his or her results of SEF to others who teach comparable courses. The next 11 questions on the instrument were taken from the current SEF instrument and asked the participant to rate whether they perceived each of the items as a measure that can be used to change their teaching style in order to improve teaching effectiveness. The participant was provided space to provide any additional criteria perceived beneficial to improving their teaching effectiveness that could be obtained from students’ feedback. The final question on the instrument allowed the participant to provide any additional comments pertaining to the Mississippi State University Student Evaluation of Faculty instrument or process.

Validity

Validity refers to whether the test actually measures what it is intended to measure. With all the debate pertaining to validity of SEF, Seldin (2006) suggests the actual validity lies somewhere in the middle. Calkins and Micari (2010) suggest that SEF
instruments are as valid as their design allows them to be and the design should be the focus of debate rather than inherent validity itself. The instruments were first reviewed by content experts for content validity. One of these experts holds a Ph.D. in psychometrics. The other two experts had experience at both the faculty and administration level of using SEF results.

The content experts were provided with a copy of the instruments via email. The experts agreed that the instrument measured what it was intended to measure for this study and, therefore, was valid. In addition to the experts’ feedback, a suggestion was made from one of the pilot participants that the demographic question to collect the number of years of higher education experience should be expanded to include two additional categories. One additional category was added for less than 4 years of higher education experience and one category added for 4 – 7 years of higher education experience.

Reliability

An instrument is said to be reliable if when repeated, it provides consistent and stable results and the scores calculated represent averages from a number of participants in a given study (Ory & Ryan, 2001). Also, studies have indicated online evaluations are reliable and produce higher quality responses and greater quantity of responses to the open-ended questions (Dommeyer et al., 2004). The administration of the instrument to the pilot group of part-time faculty compared to the final instrument administration confirmed consistent and stable results. The percentages calculated were very comparable. No attempt was made to establish reliability of the current University SEF instrument.
Final Instrument as Administered

The final instrument incorporated the changes suggested by the pilot feedback. The instrument was emailed to the faculty and two reminder emails were sent to those individuals who had not responded to the study. A copy of the final instrument as administered and emails are included in Appendix A.

Data Collection

Data collection was made with an initial email launch of the instrument and non-respondents received follow-up reminders over a period of two weeks in November 2013.

Results of Research Questions

Data collected from the survey administration were exported from the survey software for analyses. Results were examined to answer the research questions. The following sections discuss the methods used to investigate the research questions and provide the results from the investigation of each question.

Research Question 1

Does the faculty perceive the current SEF instrument as an effective approach to evaluating teaching effectiveness?

Results for Research Question 1 were obtained through examining frequencies of the responses on the FPSEF survey. This was determined from responses provided for survey items 1.4 and 2.1 from the faculty instrument. The frequencies and percentage of “yes” or “no” responses from participants are given in Table 2. Item 1.4 asked for the opinion of the participant, “yes” or “no,” as to whether the current SEF instrument is effective in measuring teaching effectiveness. The largest percentage of participants, 144
(71.3%) responded “no” and 58 (28.7%) responded “yes.” There were three participants who chose to not respond to this question. The researcher, using the binomial test, showed that 71.3% was significantly greater than 50% with a p-value of .0001. Thus the respondents do not perceive that the current SEF instrument is effective in evaluating teaching effectiveness.

The researcher using SAS Text Miner, which converts text data into numerical data, examined the relationship between the open ended question 1.5 and the “yes”/”no" question 1.4 regarding effectiveness of SEF. The numeric data produced from SAS Text Miner was used as inputs into a decision tree for predicting the responses for question 1.4. The decision tree model was able to predict the “yes”/”no” response with 95% accuracy. All of the “no’s” were classified correctly and only 5% of the “yes’s” were classified as “no’s.” This shows a high reliability between the responses of these two questions.

Table 2

*Frequencies of the Single Response Item for the Opinion of the Current Instrument Being Effective in Measuring Teaching Effectiveness*

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>58</td>
<td>28.7%</td>
</tr>
<tr>
<td>No</td>
<td>144</td>
<td>71.3%</td>
</tr>
<tr>
<td>Omitted</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>202</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Question 2.1 asked for a scaled response to the participants’ level of agreement that SEF results serves as an effective tool to be used by the faculty to improve teaching.
Of the participants, 82 (40.2%) indicated they “agree” that SEF results serves as an effective tool to be used by the faculty to improve teaching, 47 (23.0%) responded “neutral” agreement, 45 (22.1%) responded that they “disagree” and 18 (8.8%) indicated they “strongly disagree” that SEF results serves as an effective tool to be used by the faculty to improve teaching. Of the participants, 12 (5.9%) responded that they “strongly agree” that SEF results serves as an effective tool to be used by the faculty to improve teaching. Table 3 shows the frequencies of these ratings.

Table 3

Frequencies of the Scale Items (Strongly Agree through Strongly Disagree) for the Perception that SEF Results Serves as an Effective Tool to be Used by the Faculty to Improve Teaching

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Agree</td>
<td>12</td>
<td>5.9%</td>
</tr>
<tr>
<td>Agree</td>
<td>82</td>
<td>40.2%</td>
</tr>
<tr>
<td>No Opinion</td>
<td>47</td>
<td>23.0%</td>
</tr>
<tr>
<td>Disagree</td>
<td>45</td>
<td>22.1%</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>18</td>
<td>8.8%</td>
</tr>
<tr>
<td>Omitted</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>204</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

There were 94 (46.1%) participants who “agreed” or “strongly agreed” that SEF results serves as an effective tool to be used by the faculty to improve teaching while 63 (30.9%) participants either “disagree” or “strongly disagree” that SEF results serves as an effective tool to be used by the faculty to improve teaching. Considering the response of “no opinion” as a non-response, those 157 (76.9%) faculty with an opinion indicated 60% agree and 40% disagree with the statement. The researcher, using the Binomial test,
showed that the proportion indicating “agree” was significantly greater than 0.5 with a p-value of .0082. Thus the responders agree that the SEF instrument is an effective tool for improving teaching.

Research Question 2

Does the faculty perceive the current SEF instrument as an effective tool to be used in decision-making for annual faculty review?

Results for Research Question 2 were obtained through examining frequencies of the responses on the *FPSEF* survey. This was determined from responses provided for survey items 2.2 and 2.4 from the faculty instrument. Item 2.2 asked the participant to rate whether they perceived using the SEF serves as an effective tool to assist in administrative decision as related to annual faculty review. The largest percentage of participants, 58 (28.6%) responded that they perceived using the SEF serves as an effective tool to assist in administrative decisions as related to annual faculty review, followed by 55 (27%) that responded “disagree.” Forty eight (23.6%) participants responded “neutral,” and 33 (16.3%) responded “strongly disagree.” Nine participants (4.4%) responded that they “strongly agree” that using the SEF serves as an effective tool to assist in administrative decisions as related to annual faculty review. Considering the response of “neutral” as a non-response, the faculty with an opinion indicated 67 (43.2%) agree and 88 (56.8%) disagree with the statement. The researcher using the Binomial test determined that 88 (56.8%) and 67 (43.2%) are not significant differences at the .05 level of significance with a p-value of .0916. Table 4 shows the frequencies of the responses to question 2.2.
Table 4

*Frequencies of the Scale Items (Strongly Agree through Strongly Disagree) for the Perception of Using the SEF as an Effective Tool to Assist in Administrative Decisions as Related to Annual Faculty Review*

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Agree</td>
<td>9</td>
<td>4.4%</td>
</tr>
<tr>
<td>Agree</td>
<td>58</td>
<td>28.6%</td>
</tr>
<tr>
<td>Neutral</td>
<td>48</td>
<td>23.6%</td>
</tr>
<tr>
<td>Disagree</td>
<td>55</td>
<td>27.1%</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>33</td>
<td>16.3%</td>
</tr>
<tr>
<td>Omitted</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>203</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Question 2.4 asked for a scaled response to the participants’ level of agreement that a single SEF instrument can be used by department heads for decision-making purposes and used by faculty to obtain results to use in improving their teaching effectiveness. Of the 202 participants responding, 68 (33.7%) responded that they “disagree” that a single SEF instrument can be used by department heads for decision-making purposes and used by faculty to obtain results to use in improving their teaching effectiveness. Forty-five participants (22.3%) responded that they “agree” and 45 (22.3) responded they were “neutral” in their level of agreement that a single SEF instrument can be used by department heads for decision-making purposes and used by faculty to obtain results to use in improving their teaching effectiveness. Forty-one participants (20.3%) responded “strongly disagree,” and three participants (1.5%) responded “strongly agree” to the question. Combining the responses for “strongly agree” and “agree” and considering the response of “neutral” as a non-response, yields 48 (30.6%)
that agree with the statement and 109 (69.4%) that disagree with the statement. Table 5 shows the frequencies of the responses to question 2.4.

Table 5

*Frequencies of the Scale Items (Strongly Agree through Strongly Disagree) for the Perception That a Single SEF Instrument Can Be Used by Department Heads for Decision-making Purposes and Used by Faculty to Obtain Results to Use in Improving Their Teaching Effectiveness*

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Agree</td>
<td>3</td>
<td>1.5%</td>
</tr>
<tr>
<td>Agree</td>
<td>45</td>
<td>22.3%</td>
</tr>
<tr>
<td>Neutral</td>
<td>45</td>
<td>22.3%</td>
</tr>
<tr>
<td>Disagree</td>
<td>68</td>
<td>33.7%</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>41</td>
<td>20.3%</td>
</tr>
<tr>
<td>Omitted</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>202</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Again, considering the response of “neutral” as a non-response, and combining the responses for “strongly agree” and “agree” yields a percentage of 69 that agree with the statement and thus 31% disagree with the statement. The researcher using the Binomial test for proportions showed that 69% is significantly greater than 0.5 at the .05 level, with a p-value of .0001. Thus a significant number of responders disagree with the research statement that a single instrument can be used for both improving teaching and for administrative purposes.
Research Question 3

Is the perception of the current SEF instrument different based on demographics; specifically gender, primary college/school, and number of years of higher education experience?

Results for Research Question 3 were obtained through examining frequencies of the responses on the FPSEF survey. Of the 205 respondents, 115 (56.4%) were male, and 89 participants (43.6%) were female; one respondent did not report gender and was not reported (n=204). The participants represented seven colleges/schools in which they taught at the university. Of this group the largest number was in the College of Arts and Sciences with 84 (41.6%) participants, followed by 35 participants (17.3%) in the College of Agriculture & Life Sciences, 27 (13.4%) representing College of Engineering, 25 (12.4%) College of Education, 19 (9.4%) representing College of Business, 8 participants (4.0%) in the School of Architecture, and 4 (2.0%) in the College of Forest Resources. Three did not indicate their college/school. In addition, the respondents were asked to provide the number of years of higher education experience. Of the 200 participants providing the number of years of higher education experience, 44 (22.0%) responded having 12 to 15 years of higher education experience, 43 (21.5%) responded having 4 to 7 years of higher education experience, 41 (20.5%) responded having less than 4 years of higher education experience, 34 (17.0%) responded having an excess of 20 years of higher education experience, 29 (14.5%) responded having 8 to 11 years of higher education experience, and 9 (4.5%) responded having 16 to 19 years of higher education experience.
Participants were asked their opinion of the current SEF instrument’s effectiveness in measuring teaching effectiveness. The question was answered with a “yes” or “no” answer and an open text question allowed them to explain their response. Of the 202 responding, 144 (71.3%) responded they did not perceive the current SEF instrument as effective in measuring teaching effectiveness and 58 (28.7%) responded “yes,” they did perceive the current SEF instrument as effective in measuring teaching effectiveness, 84% provided a text explanation. Table 6 shows the contingency analysis of question 1.4 and gender. Table 7 shows the contingency analysis of question 1.4 and college/school. Table 8 shows the contingency analysis of years of higher education experience and question 1.4.

Table 6

*Contingency Analysis of Current SEF Effectiveness and Gender*

<table>
<thead>
<tr>
<th>Gender</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>f (%)</td>
<td>f (%)</td>
</tr>
<tr>
<td>Male</td>
<td>38 (33.33%)</td>
<td>76 (66.67%)</td>
</tr>
<tr>
<td>Female</td>
<td>20 (22.99%)</td>
<td>67 (77.01%)</td>
</tr>
</tbody>
</table>

Note: $\chi^2 = 2.572$, df=1. Numbers in parentheses represent column percentages. $p < .05$
Table 7

Contingency Analysis of Current SEF Effectiveness and College/School

<table>
<thead>
<tr>
<th>College/School</th>
<th>Yes f(%)</th>
<th>No f(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture &amp; Life Sciences</td>
<td>14 (41.18%)</td>
<td>20 (58.82%)</td>
</tr>
<tr>
<td>Architecture, Art &amp; Design</td>
<td>1 (12.50%)</td>
<td>7 (87.50%)</td>
</tr>
<tr>
<td>Arts &amp; Sciences</td>
<td>20 (24.39%)</td>
<td>62 (75.61%)</td>
</tr>
<tr>
<td>Business</td>
<td>7 (36.84%)</td>
<td>12 (63.16%)</td>
</tr>
<tr>
<td>Education</td>
<td>8 (32.00%)</td>
<td>17 (68.00%)</td>
</tr>
<tr>
<td>Engineering</td>
<td>6 (22.22%)</td>
<td>21 (77.78%)</td>
</tr>
<tr>
<td>Forest Resources</td>
<td>1 (25.00%)</td>
<td>3 (75.00%)</td>
</tr>
</tbody>
</table>

Note: $\chi^2 = 5.692$, df=6. Numbers in parentheses represent column percentages.
$p < .05$

Table 8

Contingency Analysis of Current SEF Effectiveness and Years of Higher Education Experience

<table>
<thead>
<tr>
<th>Years of Higher Education Experience</th>
<th>Yes f(%)</th>
<th>No f(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 4 years</td>
<td>15 (36.59%)</td>
<td>26 (63.41%)</td>
</tr>
<tr>
<td>4 – 7 years</td>
<td>9 (20.93%)</td>
<td>34 (79.07%)</td>
</tr>
<tr>
<td>8 – 11 years</td>
<td>6 (20.69%)</td>
<td>23 (79.31%)</td>
</tr>
<tr>
<td>12 – 15 years</td>
<td>16 (37.21%)</td>
<td>27 (62.79%)</td>
</tr>
<tr>
<td>16 – 19 years</td>
<td>2 (22.22%)</td>
<td>7 (77.78%)</td>
</tr>
<tr>
<td>20+ years</td>
<td>9 (28.13%)</td>
<td>23 (71.88%)</td>
</tr>
</tbody>
</table>

Note: $\chi^2 = 5.105$, df=5. Numbers in parentheses represent column percentages.
$p < .05$

The researcher used the Chi-Square test of independence and found that the responses were different based on demographics. The Pearson Chi-Square for gender was 2.572 with a p-value of .1088, the Pearson Chi-Square for college/school was 5.692 with a p-value of .4585, and the Pearson Chi-Square for years of higher education experience was 5.105 with a p-value of .4032.
Research Question 4

Is it perceived that faculty involvement in the development of the current SEF instrument has increased the usefulness of the evaluation instrument used for teaching effectiveness?

This was determined from responses provided for survey item 2.3 from the faculty instrument.

Results for Research Question 4 were obtained through examining frequencies of the responses on the FPSEF survey. The frequencies and percentage of scaled responses from participants are given in Table 9. Item 2.3 asked the participant to rate whether they perceived that faculty participation in the development of the current SEF instrument gives more usefulness to the current instrument. The largest percentage of participants, 94 (46.3%) responded they “agree” that faculty participation in the development of the current SEF instrument gives more usefulness to the current instrument. Forty-seven participants (23.2%) responded “neutral” and 32 (15.8%) responded “strongly agree.” Twenty participants (9.9%) responded they “disagree,” and ten participants (4.9%) responded they “strongly disagree” that faculty participation in the development of the current SEF instrument gives more usefulness to the current instrument.
Table 9

*Frequencies of the Scale Items (Strongly Agree through Strongly Disagree) for the Perception that Faculty Participation in the Development of the Current SEF Instrument Gives More Usefulness to the Current Instrument*

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Agree</td>
<td>32</td>
<td>15.8%</td>
</tr>
<tr>
<td>Agree</td>
<td>94</td>
<td>46.3%</td>
</tr>
<tr>
<td>Neutral</td>
<td>47</td>
<td>23.2%</td>
</tr>
<tr>
<td>Disagree</td>
<td>20</td>
<td>9.9%</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>10</td>
<td>4.9%</td>
</tr>
<tr>
<td>Omitted</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>203</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Considering the response of “neutral” as a non-response, combining the responses for “strongly agree” and “agree” yields 126 (80.8%) that agree with the statement and thus 30 (19.2%) disagree with the statement. The researcher, using the Binomial test for proportions, showed that there was a significant difference between the proportions at the .05 level, with a p-value of .0001.

Research Question 5

To what extent have the questions on the current SEF instrument played in the faculty’s ability to enhance their teaching?

This was determined from survey items 2.1, 3.1, 3.2, and 4.1 through 4.11 from the faculty instrument.

Results for Research Question 5 were obtained through examining frequencies of the responses on the FPSEF survey. The frequencies and percentage of scaled responses from participants are given in Table 8. Question 2.1 asked for a scaled response to the
participants' level of agreement that SEF results serves as an effective tool to be used by the faculty to improve teaching. With one non-response to item 2.1, there were 82 participants (40.2%) responding they “agree” that SEF results serves as an effective tool to be used by the faculty to improve teaching. Forty-seven (23.0%) responded “neutral” to the question, 45 (22.1%) responded they “disagree” and 18 (8.8%) responded they “strongly disagree” that SEF results serves as an effective tool to be used by the faculty to improve teaching and 12 participants (5.9%) indicated they “strongly agree.” Table 10 shows the frequencies of the ratings to question 2.1.

Table 10

*Frequencies of the Scale Items (Strongly Agree through Strongly Disagree) for the Perception of the SEF Results as an Effective Tool to Improve Teaching*

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Agree</td>
<td>12</td>
<td>5.9%</td>
</tr>
<tr>
<td>Agree</td>
<td>82</td>
<td>40.2%</td>
</tr>
<tr>
<td>Neutral</td>
<td>47</td>
<td>23.0%</td>
</tr>
<tr>
<td>Disagree</td>
<td>45</td>
<td>22.1%</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>18</td>
<td>8.8%</td>
</tr>
<tr>
<td>Omitted</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>204</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Combining the responses for “strongly agree” and “agree” yields 94 (59.9%) that agree with the statement and thus 63 (40.1%) disagree with the statement that the SEF serves as an effective tool to be used by the faculty to improve teaching.

Faculty responses from survey items 3.1 and 3.2 were also used to answer research question 5. Question 3.1 asked participants to choose from a list of nine areas associated with teaching their course, all that applied as related to their using the
information provided from SEF to encourage them to validate or change course objectives, the use of group discussions/projects in their class, the amount of course materials they covered in lectures, the amount of materials they provided to the student as handouts or other course aids such as online practice tests and case studies, the process of returning papers and exams, the difficulty level of course projects and assignments, the way they interact with students outside the classroom, and the method they use for grading in the course. The frequencies examined indicated the majority of the faculty who responded to this question does not believe the SEF reports are useful for evaluating any of the topics listed in Q3.1. In addition, item 3.2 asked if they would like to be able to compare their results of SEF to others who teach comparable courses. This question was to be answered either “yes” or “no.” Table 11 indicates the responses to item 3.1.
Table 11

*Frequencies of the Items (Applies or Does Not Apply) Provided From SEF that has Encouraged the Faculty to Validate or Change*

<table>
<thead>
<tr>
<th>Responses</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Applies</td>
<td>Does Not Apply</td>
</tr>
<tr>
<td>Course Objectives</td>
<td>37</td>
<td>168</td>
</tr>
<tr>
<td>The use of group discussion/projects in their class</td>
<td>30</td>
<td>175</td>
</tr>
<tr>
<td>The amount of course materials covered in lectures</td>
<td>68</td>
<td>137</td>
</tr>
<tr>
<td>The amount of materials provided to the student as handouts or other course aids such as online practice tests and case studies</td>
<td>70</td>
<td>135</td>
</tr>
<tr>
<td>The process of returning papers and exams</td>
<td>55</td>
<td>150</td>
</tr>
<tr>
<td>The difficulty level of course projects and assignments</td>
<td>61</td>
<td>144</td>
</tr>
<tr>
<td>The way the faculty interacts with students outside the classroom</td>
<td>67</td>
<td>138</td>
</tr>
<tr>
<td>The method used for grading in the course</td>
<td>48</td>
<td>157</td>
</tr>
</tbody>
</table>

Of the responses provided for question 3.2, 122 (61.3%) participants indicated "yes" they would like to be able to compare their results of SEF to others teaching comparable courses. Seventy-seven participants (39.0%) indicated they would not like to be able to compare their results of SEF to others teaching comparable courses.

The questions 4.1 through 4.11 were also used to indicate the extent in which the questions on the current SEF instrument play in the faculty’s ability to improve their teaching effectiveness. The questions were taken from the current SEF instrument. The participants were to rate these scaled items as highly effective, somewhat effective, neutral, less effective, or not effective. Question 4.1 was related to the instructor creating
high expectations for the class. Of the 204 participant responses, 93 (45.6%) responded this feedback was "somewhat effective" in improving teaching effectiveness. Thirty-eight participants (18.6%) responded “neutral,” 28 (13.7%) responded this item was “highly effective” in improving teaching effectiveness, 25 participants (12.3%) responded “less effective,” and 20 participants (9.8%) responded the item was “not effective” for their use in improving teaching effectiveness.

Question 4.2 was related to the instructor conveying the course content in an effective manner. One hundred six participants (52.0%) responded this item was “somewhat effective” in their use in improving teaching effectiveness. Thirty-nine participants (19.1%) responded “neutral,” 38 participants (18.6%) responded “highly effective” in their use in improving teaching effectiveness, 13 (6.4%) responded it was “less effective” in their use, and 8 (4.0%) responded “not effective” in their use in improving teaching effectiveness.

Question 4.3 was related to whether the instructor makes the class interesting. Of the 203 participants responding, 84 (41.4%) responded that this item was “somewhat effective” in their use in improving teaching effectiveness. Forty-three (21.2%) responded the item was “not effective” for their use in improving teaching effectiveness, and 30 participants (14.8%) responded the item was “highly effective” in providing information for their use in improving teaching effectiveness.

Question 4.4 is related to the instructor being enthusiastic about the course matter. Two hundred and four responded to this question. Of those participants responding, 88 (43.1%) responded this item was “somewhat effective” in their use in improving teaching effectiveness. Forty-nine participants (24.0%) responded the item was “strongly
effective” in their use in improving teaching effectiveness. Thirty-nine (19.1%) responded “neutral,” 16 (7.8%) responded the item as “less effective,” and 12 (5.9%) responded the item “not effective” in their use in improving teaching effectiveness.

Question 4.5 pertains to the instructor being accessible outside of class time to respond to student questions. Seventy-three participants (36.1%) responded this item was “somewhat effective” in their use in improving teaching effectiveness. Forty-five participants (22.3%) responded “strongly effective” in their use, 41 (20.3%) responded “neutral,” 28 (13.9%) responded the item was “less effective,” and 15 (7.4%) responded the item was “not effective” in their use in improving teaching effectiveness.

Question 4.6 asked if the student learned a great deal in the class. Of the 203 responding, 64 of those (31.5%) responded this item was “somewhat effective” in their use in improving teaching effectiveness. Fifty-four (26.6%) responded “neutral,” 34 of the participants (16.7%) responded the item was “highly effective” in their use in improving teaching effectiveness, 26 (12.8%) responded the item was “less effective,” and 25 (12.3%) responded this item was “not effective” in their use in improving teaching effectiveness.

Question 4.7 asked about the presentation of course content (lectures, web materials, and/or discussions, etc.) helping the students learn in the class. Of the 203 faculty rating this question, 97 of those participants (47.8%) responded the information about the presentation of course content was “somewhat effective” in their use in improving teaching effectiveness. Fifty-three (26.1%) responded “neutral,” 33 (16.3%) responded that the information was “highly effective” in their use in improving teaching effectiveness, 13 participants (6.4%) responded “less effective,” and 7 (3.4%) responded
the information about the presentation of course content was “not effective” in their use in improving teaching effectiveness.

Question 4.8 asked if the tests were fair. Seventy-three participants (35.9%) indicated the information about tests were fair as “less effective” or “not effective” in their use in improving teaching effectiveness. Sixty-seven participants (33.0%) indicated “neutral” and 45 (22.2%) indicated the information about tests were fair was “somewhat effective” in their use in improving teaching effectiveness. Eighteen faculty (8.9%) indicated the item as “highly effective” in providing information for their use in improving teaching effectiveness.

Question 4.9 on the current SEF instrument to be rated by the faculty pertained to tests reflected material presented in lecture and/or assigned reading. Of the 200 responses from participants, 74 (37.0%) indicated this question was “somewhat effective” in providing information useful in their improving teaching effectiveness. Forty-eight of the participants indicated “neutral” perception of the use of this item to improve teaching effectiveness and 33 participants (16.5%) indicated the item provided information “highly effective” to them in improving their teaching effectiveness. Twenty-seven participants (13.5%) indicated “less effective,” and 18 (9.0%) indicated this statement was “not effective” in using to improve teaching effectiveness.

Question 4.10 from the current SEF instrument pertained to tests and/or assignments graded within a reasonable period of time. Two hundred four of the participants responded to this item. Of those, 84 (41.2%) responded the information was “somewhat effective” in their use in improving teaching effectiveness. Fifty-five participants responded “neutral” to this item. Twenty-eight participants (13.7%)
responded the item was "highly effective" in their use in improving teaching effectiveness, 23 (11.3%) responded the item was "less effective," and 14 (6.9%) responded the item was "not effective" in their use in improving teaching effectiveness.

The final item in the list, question 4.11, pertained to whether the student would recommend this instructor to other students if they wanted to learn this subject. Of the 204 participants rating this item, 71 of the participants (34.8%) indicated the item as "somewhat effective" in their use in improving teaching effectiveness. Fifty-six participants (27.5%) indicated "neutral" to this item, 41 (20.1%) indicated the item was "highly effective" in their use in improving teaching effectiveness, 19 (9.3%) indicated the item was "not effective," and 17 (8.3%) indicated the item "less effective" as an item to use to improve teaching effectiveness.

The participants were also asked to respond "yes" or "no" as to whether they would like to be able to compare results of SEF to others teaching comparable courses. Of 199 participants responding, 122 (61.3%) responded "yes" they would like to be able to compare results of SEF to others teaching comparable courses, and 77 (38.7%) responded "no." Six chose not to respond to this statement. Table 12 presents the scaled responses to the 11 questions taken from the current SEF instrument for the participants to rate their perception of these items as useful in improving teaching effectiveness.
Table 12

*Frequencies of the Items from Current SEF that Participants Indicated They Use in Improving Teaching Effectiveness*

<table>
<thead>
<tr>
<th>Item</th>
<th>Highly Effective</th>
<th>Somewhat Effective</th>
<th>Neutral</th>
<th>Less Effective</th>
<th>Not Effective</th>
</tr>
</thead>
<tbody>
<tr>
<td>The instructor created high expectations for the class.</td>
<td>28 13.4%</td>
<td>93 45.6%</td>
<td>38 18.6%</td>
<td>25 12.3%</td>
<td>20 9.8%</td>
</tr>
<tr>
<td>The instructor conveyed the course content in an effective manner.</td>
<td>38 18.6%</td>
<td>106 52.0%</td>
<td>39 19.1%</td>
<td>13 6.4%</td>
<td>8 3.9%</td>
</tr>
<tr>
<td>The instructor made the class interesting.</td>
<td>30 14.8%</td>
<td>84 41.4%</td>
<td>43 21.2%</td>
<td>25 12.3%</td>
<td>21 10.3%</td>
</tr>
<tr>
<td>The instructor was enthusiastic about the subject matter.</td>
<td>49 24.0%</td>
<td>88 43.1%</td>
<td>39 19.1%</td>
<td>16 7.8%</td>
<td>12 5.9%</td>
</tr>
<tr>
<td>The instructor was accessible outside of class time to respond to my questions.</td>
<td>45 22.3%</td>
<td>73 36.1%</td>
<td>41 20.3%</td>
<td>28 13.9%</td>
<td>15 7.4%</td>
</tr>
<tr>
<td>The presentation of course content (lectures, web materials, and/or discussions, etc.) helped me learn in this class.</td>
<td>34 16.7%</td>
<td>64 31.5%</td>
<td>54 26.6%</td>
<td>26 12.8%</td>
<td>25 12.3%</td>
</tr>
<tr>
<td>The tests were fair.</td>
<td>33 16.3%</td>
<td>97 47.8%</td>
<td>53 26.1%</td>
<td>13 6.4%</td>
<td>7 3.4%</td>
</tr>
<tr>
<td>The tests reflected material presented in lecture and/or assigned reading.</td>
<td>18 8.9%</td>
<td>45 22.2%</td>
<td>67 33.0%</td>
<td>39 19.2%</td>
<td>34 16.7%</td>
</tr>
<tr>
<td>Tests and/or assignments were graded within a reasonable period of time.</td>
<td>33 16.5%</td>
<td>74 37.0%</td>
<td>48 24.0%</td>
<td>27 13.5%</td>
<td>18 9.0%</td>
</tr>
<tr>
<td>Would recommend this instructor to other students if they wanted to learn this subject.</td>
<td>28 13.7%</td>
<td>84 41.2%</td>
<td>55 27.0%</td>
<td>23 11.3%</td>
<td>14 6.9%</td>
</tr>
</tbody>
</table>
Combined results of frequencies for items rated by the participants from the current SEF as they are found to be either effective or not effective in their use in improving teaching effectiveness are discussed in the following paragraphs and presented in Figure 1.

Combining the “highly effective” and “somewhat effective” responses and considering “neutral” as a non-response, analysis of the frequencies indicated a definite gap between the response percentages of the 11 statements on the current SEF instrument faculty found more effective in improving teaching effectiveness and those found less effective in improving teaching effectiveness. One hundred forty-four (87.3%) of the participating faculty indicated the highest relation to their use in improving teaching effectiveness comes from “The instructor conveyed the course content in an effective manner,” followed by 137 (83.0%) who indicated their use in improving teaching effectiveness comes from “The instructor was enthusiastic about the subject matter.” One hundred thirty (86.7) indicated their use in improving teaching effectiveness comes from “The presentation of course content (lectures, web materials, and/or discussions, etc.) helped me learn in this class.” “The instructor created high expectations for the class” was an item found by 121 (72.9%) of the participating faculty as effective in providing information that can be useful in improving teaching effectiveness. One hundred eighteen (73.3%) indicated effectiveness in the rating for the statement “The instructor was accessible outside of class time to respond to my questions.” “The instructor made the class interesting,” was rated by 114 (71.3%) as an effective item for their use in improving teaching effectiveness and “The tests reflected material presented in lecture
and/or assigned reading.” was indicated by 107 (70.4%) of the participating faculty as effective in their use in improving teaching effectiveness.

Of the remaining items, the two areas found least effective in their use in improving teaching effectiveness was “I learned a great deal in this class,” and “The tests were fair.” Seventy-three (53.7%) of the participating faculty indicated “The tests were fair,” followed by 51 (34.2%) indicated “I learned a great deal in this class,” as least effective items to use in improving teaching effectiveness.

![Graph showing combined frequency results of items](image)

**Figure 1.** Combined frequency results of the items (Highly Effective and Somewhat Effective) and (Less Effective and Not Effective) from current SEF instrument.

**Summary**

Research was conducted on responses to an instrument composed of three demographic variables, one question directly asking faculty opinion of the current SEF instrument in use, four perception items related to the SEF instrument/process, two items related to the faculty use of faculty evaluation reports, and eleven items taken directly
from the current SEF instrument to gather the faculty perception of how effective each of these items are in their use to improve teaching effectiveness. The final section of the instrument provided an opportunity for the faculty participating to provide any additional comments that pertain to the SEF instrument or process. Participants were 205 full-time instructional faculty employed at MSU in fall 2013 who were also teaching in the fall 2012 semester and utilized the current SEF instrument. Data collection was made through an email administration of the survey and two follow-up email reminders to potential participants.

The first research question examined whether the faculty perceive the current SEF instrument as an effective approach to evaluating teaching effectiveness. Frequencies were used to determine the results of data to answer this question. Of the 202 participants responding, 144 (71.3%) indicated they do not perceive that the current SEF instrument is effective in measuring teaching effectiveness. Fifty-eight or 28.7% of those participants indicated they do perceive the current SEF instrument is effective in measuring teaching effectiveness.

The second research question dealt with the faculty perception of the current SEF instrument as an effective tool to be used in decision-making for annual faculty review. Frequencies from two survey questions were used to determine the results to this question. Of the 203 participants responding, 43% agree and 57% disagree that the current SEF instrument serves as an effective tool to be used in decision-making for annual faculty review. However, 31% of the participants responded they do agree that a single SEF instrument can be used for both decision-making and by the faculty to improve teaching, while 69% disagree with the dual use of a single SEF instrument.
Research question three investigated whether the perception of the current SEF instrument was different based on demographics. Frequencies were examined and contingency analyses conducted on gender, primary college/school in which the faculty taught, and number of years of higher education experience. The Chi-square test of independence found the responses were different based on demographics.

The fourth research question pertained to the perception of the faculty that the faculty involvement in developing the current SEF instrument has increased the usefulness of the instrument used for teaching effectiveness. Of the 156 participants with an opinion, 81% indicated they agree that the faculty involvement in developing the current SEF instrument increased the usefulness of the instrument used for teaching effectiveness and 19% disagree with the involvement increasing the usefulness. Binomial test for proportions showed a significant difference between the proportions of agree and disagree.

The fifth research question investigated the extent that the questions on the current instrument has played in the faculties ability to enhance their teaching. Of those participants providing an opinion, 60% agree the questions on the current instrument serves as an effective tool to be used by faculty to improve teaching. Over 61% of the participants also indicated they would like to be able to compare their SEF results to others teaching comparable courses. In examining the usefulness of the questions on the current SEF instrument, the participants indicated for each question (taken from the current SEF instrument) whether it was an item that was effective for their use to improve teaching effectiveness. Of the eleven items only one was found to be less effective in their use in improving teaching effectiveness. That one item indicated by faculty as less
effective related to the tests they give being fair. Two questions pertaining to the course content were ranked the highest by the participating faculty as items from the current SEF instrument they relate to utilizing in improving their teaching effectiveness.
CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Accountability for student success has been one area of responsibility the National Commission on Accountability in Higher Education poses for the United States to continue to enhance in order to maintain our level of education systems. In the 1960s, the main purpose of SEF was in response to the students demanding public accountability (Calkins & Micari, 2010; Ory, 2000). For almost 100 years higher education institutions in the United States have used SEF in some form. Since the 1950s the evaluations have been marked with significant changes, with the highest level of changes in purpose and methodology (Barr & Tagg, 1995, Calkins & Micari, 2010; Ory, 2000; Theall, 2010). The most recent demand for changes in the SEF is coming from the faculty themselves desiring the ability for faculty to evaluate each other and in doing so, creating a teaching environment based on trust and honesty, growth in his or her discipline and in the end improved values throughout the institution (Thompson, 2013). The vast amount of research ongoing today indicates that we are still enhancing our evaluation systems and the many areas associated with the results of these evaluations.

The primary purpose of this study was to investigate the faculty perception of the use of a student evaluation of faculty instrument. The areas investigated were whether the current instrument has had an impact on improving teaching in the classroom and whether this revised instrument has provided a tool that can be used to measure their
teaching effectiveness and also serve as a decision-making instrument for annual faculty review.

This study involved the full-time faculty at Mississippi State University who were employed as instructional faculty in the fall 2012 semester and used the current SEF instrument in the courses taught for student feedback. The population examined in this study consisted of full-time faculty representing all colleges/schools on the main campus who were instructional faculty in the fall 2012 semester. There were 734 faculty invited to participate in this study by email. Of those 734 invitees, 205 participated in the study by submitting his or her responses to the survey questions. This study did not include the College of Veterinary Medicine at the university as they conduct a separate SEF process.

Summary and Discussion

In this research study, five research questions were developed to investigate the faculty perceptions of the use of a student evaluation of faculty instrument. The research questions and the results obtained from the statistical methods utilized in this study are discussed in the following sections.

Research Question 1

Does the faculty perceive the current SEF instrument as an effective approach to evaluating teaching effectiveness?

Frequencies were examined to answer this question. One hundred forty-four, or 71.3% indicated they do not perceive the current SEF instrument is effective in measuring teaching effectiveness while 58 or 28.7% of the participants indicated they do perceive the current SEF instrument is effective in measuring teaching effectiveness.
Binomial tests indicated that 71.3% was significantly greater than 0.5 with a p-value of .0001. While there is not a large percentage of the faculty participating that perceives the current SEF instrument as an effective approach to evaluating teaching effectiveness, 60% of the faculty with an opinion agree that SEF results serves as an effective tool that the faculty can use to improve teaching. The faculty member improving and enhancing their teaching effectiveness skills has been recognized in much of the SEF research (Denson et al., 2010; Clement, 2012).

Research Question 2

Does the faculty perceive the current SEF instrument as an effective tool to be used in decision-making for annual faculty review?

This use of evaluation results for formative and summative practices leaves an uneasy feeling with some faculty (Calkins & Micari, 2010; Jones et al., 2012). Most teachers are convinced the use of the SEF results in a formative manner is a legitimate use of the results (Balam & Shannon, 2010). However, the use of the same instrument to determine administrative policy and decision changes (Penny & Coe, 2004) and whether the faculty has reached certain milestones in their field of expertise (Chen & Hoshower, 2003) has led to many concerns faculty share pertaining to the SEF (Blackmore, 2009).

Frequencies were examined and of those faculties with an opinion, 57% disagree that the current SEF instrument serves as an effective tool to be used in decision-making for annual faculty review. An additional question focused on a single instrument being utilized for both decision-making and for faculty to use in improving teaching effectiveness. The results yielded 69% disagreeing in utilizing a single instrument for
both decision-making purposes and for faculty to use in improving teaching effectiveness.

Research Question 3

Is the perception of the current SEF instrument different based on demographics; specifically gender, primary college/school, and number of years of higher education experience?

Gender, primary college/school in which the faculty member teaches, and the number of years of higher education experience were the demographics evaluated. Chi-square tests of independence conducted on these demographic variables found the responses were independent of each of the demographics.

In addition to the frequencies of these demographics being examined in this study, participants were asked their opinion of the current SEF instrument’s effectiveness in measuring teaching effectiveness. The responses were a simple “yes” or “no” and an open text question allowing explanation. Slightly over 71% responded they did not perceive the current SEF instrument as effective in measuring teaching effectiveness.

Obtaining SEF information in a multidimensional process has been found beneficial according to previous research when used for decision-making (Balam & Shannon, 2010; Blauvelt et al., 2012; Burdsal & Harrison, 2008). In analyzing the comments to the open text question explaining the participants “yes” or “no” response, comments support having a multidimensional process of SEF to obtain results to use in measuring teaching effectiveness. An additional area obtained from the comments was to have more qualitative measures obtained from the students as opposed to a majority of Likert-scale questions on the instrument.
Research Question 4

Is it perceived that faculty involvement in the development of the current SEF instrument has increased the usefulness of the evaluation instrument used for teaching effectiveness?

This was by far the highest percentage of agreement from questions posed to the faculty for this study. Eighty-one percent (81%) agreed that the faculty being involved in developing the current SEF instrument increased the usefulness of the instrument used for teaching effectiveness.

Research Question 5

To what extent have the questions on the current SEF instrument played in the faculty’s ability to enhance their teaching?

Once again, results from multiple questions were examined in an effort to address this area of the study. Ninety-four (59.9%) of those faculty participating agree that the questions on the current instrument serves as an effective tool that they can use to improve their teaching. One hundred twenty-two (61.3%) responded that they would like to be able to compare results of their SEF to others that teach comparable courses. Studies have concluded that class size can attribute to variation in student ratings (Feldman, 1984; Koh & Tan, 1997; Toby, 1993). However, Centra (1993) concluded that class size had little significance to the SEF results. A second attribute found to have a positive impact on the student ratings on the SEF instrument is the course type. Courses such as labs and practicum courses allow the student to apply the knowledge obtained and feel a sense of mastery that can lead to a more positive feeling toward the instructor (Beran & Violato, 2005).
Instructors having smaller classes receive higher ratings than those instructors teaching larger classes (Algozzine et al., 2004; Cramer & Alexitch, 2000; Nerger et al., 1997). Instructors’ optional questions added to the SEF have revealed as strong predictors of overall satisfaction (Denson et al., 2010).

The rating of the items that are on the current instrument used for SEF as related to their being effective or not in the faculty members’ use in improving teaching effectiveness revealed that all of the items with the exception of one are effective in their use to improve teaching. Two items rated the highest in their ability to provide information for the faculty to use in improving their teaching effectiveness. These items were both related to the instructor conveying the course content effectively, 144 (87.3%) and presenting the course content in a manner that helped learning in the class, 130 (86.7%). The one item rated least effective to the faculty in their use to improve teaching is fairness of tests given. Of those faculty participating, 73 (53.7%) indicated this item as less effective or not effective.

Conclusions

The following conclusions are based on the findings as they relate to the topics of the five research questions: (a) the current SEF instrument is not effective in measuring teaching effectiveness; (b) the current SEF instrument does not serve as an effective tool to be used in decision-making for annual faculty review; (c) perceptions of the current SEF instrument are different based on demographics; (d) faculty involvement in development of the current SEF increased the instrument’s usefulness for the purpose of evaluating teaching effectiveness; and (e) the questions on the current SEF instrument serves as an effective means the faculty can use to improve their teaching.
Respondents do not perceive that the current SEF instrument is effective in evaluating teaching effectiveness (144 or 71.3%). There were, however, (94 or 46.1%) of the participants who indicated agreement that the SEF results serve as an effective tool to be used by the faculty to improve teaching. From these findings, it seems that the faculty does not view the current SEF instrument as effective in evaluating teaching effectiveness.

Two separate questions were analyzed in an effort to address this area of the research. Fifty-seven percent of the faculty with an opinion tended to disagree with the effectiveness of the tool being used in decision-making for annual faculty review. Also, 69% indicate they disagree with a single SEF instrument being used for decision-making purposes and being used by the faculty in improving teaching effectiveness. These findings indicate the faculties are not in agreement with the instrument being used in decision-making for annual faculty review and do not agree that one instrument can be used for both decision-making and used by the faculty to improve teaching.

The three areas of demographics that were used in this study were gender, college/school in which the faculty teaches, and the number of years of higher education experience. Responses to questions in this study were different based on the demographic variables used.

In combining the responses for agreement, results indicated almost 81% of the participants responding agree that faculty involvement in the development of the SEF instrument increased the usefulness of the evaluation instrument used for teaching effectiveness. Faculty responding would like to be involved in the development of SEF instruments used for evaluating teaching effectiveness.
Using the questions on the current SEF instrument, the participants rated each question in respect to their perception of the level of effectiveness the results provide them in their ability to improve their teaching effectiveness. Sixty percent of the faculty participating indicated they agree that the questions on the current SEF instrument serves as an effective tool to be used to improve teaching. Responses from the faculty participating in the study indicated that 61.3% of those would like to be able to compare their evaluation results to other faculty evaluation results of those teaching comparable courses. Over 50% of the participating faculty indicated they agree that the questions on the current SEF instrument serves as an effective tool they can use to improve their teaching. They also indicated they would like enhanced reports of the SEF results that include comparable courses taught by other faculty.

A comparison of conclusions from the five research questions indicated that there is a need for revisions to the current SEF instrument utilized at the university. This conclusion is supported by the 144 (71.3%) participants indicating they do not perceive the current SEF instrument to be effective in measuring teaching effectiveness. In addition, the faculty does not agree that one instrument can be used for both decision-making and by faculty to improve teaching. From the literature review, research indicates that faculty evaluations intended to provide the faculty with results to use in improving teaching should be separate from evaluations intended to provide results to use for personnel decisions (Seldin, 1984). Although a large number of the faculty participating in this study indicated they do not perceive the current SEF instrument as an effective approach to evaluating teaching effectiveness, 60% of those that provided feedback indicated they do perceive that SEF results serves as an effective tool that they can use to
improve their teaching. This indicates an acceptance of the process used to provide the faculty with information he or she can use to improve their teaching. This was evident from the responses to their using student feedback from the current SEF to improve teaching effectiveness. The literature indicated the use of effective student feedback from evaluations provides information to improve teaching while building information that can be utilized for summative purposes (Campbell & Bozeman, 2008).

Over 80% of the faculty participating in this study indicated that faculty involvement in the development of the current SEF instrument has increased its usefulness as an instrument used for teaching effectiveness. The faculty also indicated a desire to have SEF results from comparable courses taught as a means to further their use of the results to improve teaching.

**Recommendations for Practice and Future Studies**

Student evaluations are accepted as effective by faculty as confirmed in this study for the purpose of improving teaching. SEF appear to be institutionalized into higher education with most institutions using some form of an evaluation process. Therefore, administrators may want to continue providing financial support for increased use of the SEF and programs to further develop and enhance the practice. Obtaining SEF information in a multidimensional process has been found beneficial according to previous research when used for decision-making (Abrami, 2001; Abrami & d’Apollonia, 1991, Cashin & Downey, 1992; Marsh, 1984, 1991, Marsh & Hocevar, 1991, Smith, 2007).

The findings of this research study added to the body of research on student evaluations specifically related to faculty and their perceptions. The massive amount of
Research on the SEF process has established validity, reliability, and course characteristics, student participation and environmental impact. With a continued emphasis placed on higher education faculty accountability combined with the increasing financial strains, higher education should benefit from further research into the perceptions and use of the SEF results to improve teaching effectiveness.

Further quantitative and qualitative research in these areas would improve the acceptance of such evaluations and produce more meaningful processes. The primary focus on SEF should remain on improving teaching effectiveness. And separating the purposes of the SEF would place further value on the topic for both faculty and administrators.

Based on the findings of this study, recommendations for practice and future studies have been made. The following recommendations include those for practice and those for future studies:

1. Faculty do prefer the current SEF instrument be used for improving teaching and not used in annual faculty review. Therefore, the Faculty Senate and administration should investigate a multidimensional process for use in the annual faculty review of teaching (Balam & Shannon, 2010; Blauvelt et al., 2012; Burd sl & Harrison, 2008; Feldman, 2007; Jahangiri et al., 2008; Smith, 2007).

2. Faculty do perceive use of the current SEF instrument as an effective tool they can use for the purpose of improving their teaching. This tool should be evaluated by the Teaching Evaluation Committee on a routine basis to
ensure the instrument continues to meet the needs of the faculty’s use to improve teaching.

3. The faculty participating in this study indicated a high percentage of perception that their involvement in the development of the current SEF instrument increased the usefulness of the instrument. Faculty should continue to be involved in the development of any additional tools/instruments developed to be utilized for improving teaching or to be used in annual faculty review.

4. Enhance the reports that the faculty receive from the SEF process to include comparative results.

5. Some of the findings of this study might change if the population were increased. Other studies should look at similar research questions with a larger population and expand the study to the department heads as their role in using the results is important in the overall usefulness of the SEF results.

6. This study was confined to the study of Mississippi State University faculty. Future studies should include faculty from additional institutions in order to gather a broader perspective of the general usage of SEF to improve teaching effectiveness.
REFERENCES


87


Mississippi State University Faculty Senate. (2006). *Minutes from MSU faculty senate meeting, November 10, 2006 meeting*. Mississippi State University, MS


doi: 10.1002/ir.2


doi:10.3102/00346543074002215


APPENDIX A

FACULTY PERCEPTIONS OF STUDENT EVALUATION OF FACULTY SURVEY INSTRUMENT
Faculty Perceptions of Student Evaluations of Faculty

This instrument is designed to collect individual perceptions of student evaluations of faculty for a doctoral study at Mississippi State University. Please feel to provide additional comments about this process in the final comment section of this instrument. Your participation in this project is greatly appreciated.

SEF = Student Evaluation of Faculty

1. Respondent Attributes
   1.1 Gender
      - O Male
      - O Female

   1.2 Primary College/School in which you teach:
      - O Agriculture & Life Sciences
      - O Arts & Sciences
      - O Education
      - O Forest Resources
      - O Architecture
      - O Business
      - O Engineering

   1.3 Years of Higher Education Experience
      - O less than 4 years
      - O 4-7 years
      - O 8-11 years
      - O 12-15 years
      - O 16-19 years
      - O more than 20 years

   1.4 In your opinion, is the current SEF instrument effective in measuring teaching effectiveness?
      - O Yes
      - O No

   1.5 Please explain: (maximum 200 characters)
Please answer the following statements using the following scale – Agree or Disagree as they related to your perceptions of the Student Evaluation of Faculty Instrument/process.

2. Evaluating Teaching Effectiveness

2.1 SEF results serves as an effective tool to be used by the faculty to improve teaching.

2.2 I perceive using the SEF serves as an effective tool to assist in administrative decisions as related to annual faculty review.

2.3 I perceive that faculty participation in the development of the current instrument gives more usefulness to the current instrument.

2.4 I perceive a single SEF instrument can be used by department heads for decision-making purposes and used by faculty to obtain results to use in improving their teaching effectiveness.

3. Use of Reports from Evaluating Teaching Effectiveness

Choose all that apply.

3.1 The information provided to me from SEF results has encouraged me to validate or change the:

- course objectives
- use of group discussion / projects in my class
- amount of course materials covered in my lectures
- amount of materials provided to the student as handouts or other course aids such as online practice tests and case studies
- process of returning papers and exams
- difficulty level of course projects and assignments
- way I interact with student outside the classroom
- method I use for grading in the course
- other
3.2 If you chose other in Question 3.1, please provide explanation. (maximum 250 characters)

3.3 I would like to be able to compare my results of SEF to others who teach comparable courses.

   O Yes   O No

4. Application of SEF Results
Please rate whether you perceive each of the following items (taken from the current SEF instrument) as a measure you can use to change your teaching style in order to improve teaching effectiveness.

4.1 The instructor created high expectations for the class.  O O O O O
4.2 The instructor conveyed the course content in an effective manner.  O O O O O
4.3 The instructor made the class interesting.  O O O O O
4.4 The instructor was enthusiastic about the subject matter.  O O O O O
4.5 The instructor was accessible outside of class time to respond to my questions.  O O O O O
4.6 I learned a great deal in this class.  O O O O O
4.7 The presentation of course content (lectures, web materials, and/or discussions, etc.) helped me learn in this class.  O O O O O
4.8 The tests were fair.  O O O O O
4.9 The tests reflected material presented in lecture and/or assigned reading.  O O O O O
4.10 Tests and/or assignments were graded within a reasonable period of time.  O O O O O
4.11 I would recommend this instructor to other students if they wanted to learn this subject.  O O O O O
4.12 Please provide any additional criteria you perceive beneficial to improving your teaching effectiveness that could be obtained from students’ feedback. (maximum 250 characters)

5. Comments Concerning Current SEF Instrument and Process

5.1 Please provide any additional comments you have pertaining to the Mississippi State University Student Evaluation of Faculty instrument or process in the space provided. (maximum 250 characters)

Thank you for your participation in this study.
Dear Faculty Member,

I am a doctoral student in the Department of Instructional Systems and Workforce Development at Mississippi State University. Dr. Connie Forde is my major advisor. Despite the volumes of research literature on Student Evaluations of Faculty (SEF) in higher education, I found no studies investigating how faculty and administrators perceive a SEF instrument that is developed by the faculty and how useful the instrument is in improving their teaching effectiveness.

This study will address both the faculty and department heads' perceptions of using SEF results to improve teaching effectiveness. Your participation in this study will provide valuable insight into the evaluation process and its link to improving teaching effectiveness. I am asking you to participate in this study by completing the Faculty Perceptions of Student Evaluations of Faculty survey. Consent to use your survey responses in this study will be given by your submitting the survey. Your participation will take approximately 15 minutes of your time. Participation in this survey is voluntary, and you may cease participating at any time or decline to answer any question(s) without penalty.

Please note - your survey responses can in no way be linked to you. The researcher will only have your email address and a 'YES' or 'NO' generated by the software indicating whether a response was received from the email address.

Should you have any questions about this survey and/or your participation in this research, please contact either:
Julie Fulgham, Client Engagement Manager / Implementation Specialist - Scanning Corporation @ 1-800-722-6876 extension 7608 or julie.fulgham@att.net, Dr. Connie Forde, Professor, Instructional Systems & Workforce Development @ 662-325-7258 or cforde@colled.mssstate.edu, or Mississippi State University's Office of Regulatory Compliance @ 662-325-3994.

I want to thank you in advance for your participation in this research!

Julie Fulgham

Please click on the link below to gain access to the survey.


If you have problems accessing the link, the direct information is:
The password: [PSWD]
Survey location: [SERVER]
Dear Faculty Member,

You recently received an email that provides you the opportunity to participate in a Doctoral Study pertaining to Perceptions of the Student Evaluation of Faculty Process. This email is a reminder asking you to take a few minutes and respond to the *Faculty Perceptions of Student Evaluations of Faculty* survey.

Please follow the link to open the questionnaire.

[DIRECT_ONLINE_LINK]
APPENDIX B

APPROVAL FROM MISSISSIPPI STATE UNIVERSITY INSTITUTIONAL REVIEW BOARD
July 12, 2013

Julie Fulgham
Instructional Systems & Workforce Development
Mississippi State, MS 39762

RE: HRRP Study #13-199: An Investigation of Faculty and Department Heads’ Perceptions of the Use of A Student Evaluation of Faculty Instrument

Dear Ms. Fulgham:

This email serves as official documentation that the above referenced project was reviewed and approved via administrative review on 7/12/2013 in accordance with 45 CFR 46.101(b)(2). Continuing review is not necessary for this project. However, in accordance with SOP 01-03 Administrative Review of Applications, a new application must be submitted if the study is ongoing after 5 years from the date of approval. Additionally, any modification to the project must be reviewed and approved by the HRPP prior to implementation. Any failure to adhere to the approved protocol could result in suspension or termination of your project. The HRPP reserves the right, at any time during the project period, to observe you and the additional researchers on this project.

Please note that the MSU HRPP is in the process of seeking accreditation for our human subjects protection program. One of these changes is the implementation of an approval stamp for consent forms. The approval stamp will assist in ensuring the HRPP approved version of the consent form is used in the actual conduct of research. Your stamped consent form will be attached in a separate email.

Please refer to your HRPP number (#13-199) when contacting our office regarding this application.

Thank you for your cooperation and good luck to you in conducting this research project. If you have questions or concerns, please contact me at nmorse@research.msstate.edu or call 662-325-3994.

Finally, we would greatly appreciate your feedback on the HRPP approval process. Please take a few minutes to complete our survey at http://www.surveymonkey.com/s/YZC7QOD.

Sincerely,

Nicole Morse, CTP
Assistant Compliance Administrator

cc: Connie Forde (Advisor)