AN INVESTIGATION INTO GOOD TEACHING TRAITS

Leon Korte, PhD

Associate Professor of Accounting Beacom School of Business University of South Dakota Vermillion, South Dakota

Angeline Lavin, PhD

Professor of Finance Beacom School of Business University of South Dakota Vermillion, South Dakota

Thomas Davies, LL.M

Professor of Accounting Beacom School of Business University of South Dakota Vermillion, South Dakota

ABSTRACT

Undergraduate and graduate students at an AACSB International accredited Midwestern business school were surveyed about their perceptions of traits that might contribute to good teaching. Thirty-five traits were presented for evaluation. Students scored each trait and identified the items they perceived as the five most important and the five least important. Means tests were used to order the traits based on student scores. Rank order correlation was used to evaluate compiled lists of most important and least important traits. Instructor expertise in the content/subject matter, strong communication skills, and being prepared for class were identified as the traits perceived by students as most important to good teaching. Students in general believe that an instructor's rank or title, the instructor's manner of dress, and the instructor's research record contribute the least to teaching effectiveness.

INTRODUCTION

The Merriam-Webster Dictionary provides many definitions for the word "teach" including the following: "to cause to know something," "to accustom to some action or attitude," or "to impart the knowledge of." While the meaning of the word "teach" is certainly well understood, pinpointing the exact mix of characteristics or traits that make for "good teaching" is another matter. Experienced teachers know that "teaching" is a constantly evolving process, and though it may be relatively easy to identify "good teachers," describing exactly what makes for "good teaching" is no easy task. In fact, as Kneipp, Kelly, Biscoe and Richard (2010) point out, one of the continuous and long standing challenges in higher education is the development of an educational environment that is conducive to maximum stu-

dent learning. Part of the challenge in education at all levels comes from the fact that individual students have different optimal learning environments, but classes are not offered on the basis of student learning preferences. Therefore, part of the difficulty in assuring learning is reaching students with many different learning styles who share the same classroom. Most, if not all, teachers first and foremost want their students to excel and master the material. This goal is compounded at the college level since students have the opportunity to evaluate teaching effectiveness using various types of student opinion surveys. Through this evaluation process which generally takes place at the conclusion of most college courses, student opinions of a faculty member's teaching ability have the potential to impact a faculty member's career trajectory. Therefore,

faculty members have many reasons to take an interest in student opinions of "good teaching."

This paper summarizes the results of a study undertaken by the authors which consisted of a survey administered to approximately 550 students in select classes in fall 2011 at a mid-sized AAC-SB International accredited Midwestern university business school. The purposes of the study were to collect data on the teacher traits that students believe contribute to good teaching, and to facilitate continued discussion on this rather elusive topic that has the potential to significantly impact the careers of those faculty members who are not yet tenured or may not have the opportunity to be granted tenure. In recent years, there has been increased emphasis place on monitoring the quality of university teaching as attention has been focused on learning outcomes for quality assurance purposes (Marsh, 2007). As Chingos and Peterson (2011) explain, it is conventional wisdom that teachers at all levels in the education system vary substantially in terms of their effectiveness or ability to lift students to classroom achievement as measured by standardized test scores. The cause of the variability, however, is very difficult to identify. The goal of this paper is to provide an additional perspective, specifically the student perspective, on the topic of teacher effectiveness.

PRIOR RESEARCH

Studying teacher effectiveness is certainly not new and neither is the controversy surrounding student opinion surveys as a tool for measuring teaching effectiveness. Guthrie (1953) described the student survey process which had been in place at the University of Washington since 1925. The process was not mandatory; faculty members could choose to have their classes surveyed. However, a questionnaire put out by the local chapter of the American Association of University Professors at the University of Washington in 1944 found that 69% of the faculty approved of the practice. By the early 1950's, the teaching effectiveness survey had been administered thousands of times, and Guthrie concluded, "students agree quite well on what they believe are important features of good teaching and their judgments provide a valuable measure of teaching effectiveness." The five traits that the students mentioned most often were the following:

- Clear and understandable in explanations
- 2. Active, personal interest in progress of the class
- 3. Friendly and sympathetic in manner
- 4. Interest and enthusiasm in subject
- 5. Gets students interested in the subject

While students have changed over time and teaching methods have evolved, the formal study of what makes a college teacher effective is ongoing. Comparing the list above from the 1953 Guthrie article to a similar list published fifty years later in 2003 suggests that student opinions regarding teaching effectiveness may not have changed dramatically. Witcher et al (2003) suggest that students believe that effective college teachers possess some or all of the following nine characteristics, listed in order of importance:

- 1. Student-centered
- 2. Knowledgeable about the subject matter
- Professional
- 4. Enthusiastic about teaching
- 5. Effective at communication
- 6. Accessible
- 7. Competent at instruction
- 8. Fair and respectful
- 9. Provider of adequate performance feedback

There are many consistencies between the two lists including enthusiasm, effective and clear communication, and friendly and student centered. The lists include characteristics that might be considered personality traits (enthusiastic, friendly, and sympathetic) as well as skills (knowledge of the subject matter and clear explanations) and teaching methods (prompt feedback and fairness). The second more extensive list also includes the knowledge of the teacher and the ability of the teacher to be fair, respectful and to provide adequate feedback. Indeed, many contemporary authors, such as Helterbran (2008) and Barr and Tagg (1995), argue that there has been a paradigm shift between providing instruction and producing learning. Specifically, many believe that the primary teaching role has changed over time from the teacher as one who imparts knowledge to the teacher as one who facilitates learning. In a model where the professor primarily facilitates learning, feedback is of utmost importance, and students expect prompt, formative feedback that can help them to improve future work (Polachek, 2006). Moore (2006) provides statistical support that fairness and respect are key teaching effectiveness. Administering fair examinations and treating students with respect were significant variables positively correlated with a student's assessment of the teacher's overall effectiveness while actual or anticipated grades given by the professor were not related to a student's assessment of the teacher's overall effectiveness.

Providing clear and understandable explanations ranked at the top of the 1953 list from the University of Washington and also ranks high on the latter list. As McIntyre and Battle (1998) point out, content is certainly important to effective teaching, but unless the delivery of the content is effective, the content cannot be "absorbed" by the students. Therefore, communication is really at the center of a quality classroom.

Personality traits of individual faculty members cannot be overlooked with respect to their potential impact on the student perceptions of teaching effectiveness. Kneipp, Kelly, Biscoe and Richard (2010) examined the effects of teacher personality characteristics on student perceptions. They assessed five personality traits (openness, conscientiousness, extraversion, agreeableness, and neuroticism) using the Big Five Personality Test. The results indicated that agreeableness was the only factor that significantly correlated with student ratings of instructional quality. Agreeableness as a personality characteristic is described as being positive and accepting of others. According to Costa and McRae (2002), it denotes the traits of trustworthiness, helpfulness, and caring.

The characteristics that have been identified as potential contributors to effective teaching that fall into the skills and teaching methods categories are characteristics that can change over time for a particular faculty member. Marsh (2007) examined the long-term stability of students' evaluations of teaching effectiveness (SETs) using an applied a multiple-level growth modeling approach. He studied a diverse cohort of 195 teachers who were evaluated continuously over

13 years and found little evidence that teachers became either more or less effective with added experience. While there were substantial individual differences between teachers in terms of their teaching effectiveness, their teaching abilities remain relatively consistent over time.

This research suggests that age or experience may not predict teaching effectiveness. Similarly, Hoffmann and Oreopoulos (2009) found that differences in commonly observed instructor traits, such as rank, faculty status, and salary, have virtually no effect on student outcomes. While student outcomes are not necessarily the same as student opinions of teacher effectiveness, this does suggest that these variables might be interesting to study from a teaching effectiveness point of view as well.

Similar to rank, faculty status (e.g., graduate faculty), and salary, a faculty member's choice of attire does not fall into the category of a personality trait, skill, or teaching method. However, a faculty member's choice of attire may impact a student's perception of the faculty member's professionalism, approachability or knowledge. Lavin, Carr, and Davies (2009) found that male and female students had a higher opinion of a female instructor when she was depicted in professional dress versus casual or business casual attire. However, professional dress was viewed as somewhat of a negative indication of the instructor's willingness to answer questions and listen to student opinions, especially with respect to the female students. Faculty attire adds an interesting aspect to the study of teaching effectiveness because while many of the traits of good teaching that have been discussed may be difficult for an individual faculty member to change or impact, especially over the short term, one's attire can certainly be modified even in the short term. Therefore, if faculty attire has an impact on teaching effectiveness, faculty members might consider that as a potential avenue for change.

There is a long list of characteristics that have been identified through many years of research on the topic of teaching effectiveness conducted by researchers across various fields of study. The common theme among this work goes back to the idea that good teaching does matter to students, and students recognize good teachers when they have them. However, there is no "universal" definition of good teaching. McIntyre (1998) studied four trait categories of "good" teachers - person-

ality traits, respectful treatment of students, behavior management practices, and instructional skills. He found that African-American students believe that the instructor's personality traits and respectful treatment of students are significantly more important than their white student peers. Specifically, African-American students viewed humorous, entertaining, relaxed, and caring teachers as being more desirable than did their white peers. He also found that across the board, teacher characteristics and personality traits are viewed with greater importance by female students than by male students. These findings support the hypothesis that different students define "good" teaching differently. Therefore, the goal of this work is to add another perspective to the discussion of what makes for good teaching.

PRESENT STUDY

Students from a cross-section of undergraduate and graduate business face-to-face classes at a mid-sized AACSB International accredited Midwestern university business school were given the opportunity to participate in a research study by completing a brief, two page questionnaire, the purpose of which was to assess student perceptions of the characteristics and traits that contribute to good teaching. The survey instrument consisted of a list of 35 instructor traits or characteristics and asked each survey respondent to indicate the extent to which each contributes, if at all, to good teaching. These traits were selected due to their inclusion in prior studies as well as the experience of the authors. The student could choose from the following options: No Contribution, Minimal Contribution, Moderate Contribution, and Major Contribution.

In addition, respondents were also asked a number of demographic questions, including whether they were graduate or undergraduate students, their program of study or major, and their year in school (e.g., freshman, sophomore, etc.) as well as their grade point average, gender, age, employment status and personality type.

In all, the survey was administered in fall 2011 in seven different face-to-face classes which included those at the 100 (first year), 200 (second year), 300 (junior level), 400 (senior level) and graduate (700) level. Courses selected included a general survey of business course, principles of economics, three undergraduate core business courses (i.e., classes required of all business majors), and

one graduate core course from the MBA program as well as the MPA (Master of Professional Accountancy) program. The courses were selected in order to achieve representation from a variety of students in the business school and in order to minimize the potential for the same student to receive the survey twice. Students were asked to complete the survey only one time. Due to the fact that there were multiple sections of several of the courses offered on the university's main campus and in a satellite location, 19 sections in total were studied. Faculty members who participated were asked to devote class time to allow students to complete the survey due to the predicted positive impact on the response rate.

In total, 381 respondents answered all substantive and related demographic questions, and these surveys serve as the basis for the analysis that is reported here. Demographic characteristics of the respondents are as follows:

- Eleven percent were graduate students, while 89% were undergraduate students;
- With respect to the undergraduate students, 27% of the respondents were accounting majors, 21% were management/human resource majors, 11% were marketing majors, 10% were finance majors, 8% were health service administration majors, and 4% were economics majors. In addition, 11% were nonbusiness majors, while 8% had not chosen a major;
- Also with respect to undergraduate students, 29% were freshman, 28% were sophomores, 28% were juniors, and 15% were seniors;
- Thirty-nine percent of the respondents reported having grade point averages between 3.51 and 4.0, 35% reported having grade point averages from 3.01 to 3.5, 21% had grade point averages of 2.51 to 3.0, and 5% indicated they had a grade point average between 2.01 and 2.50;
- Forty-one percent of the respondent were female, while 59% were male;
- Eighteen percent of the participants reported being aged 18 or younger, 55% were aged 19 to 21, 15% were aged 22 to 24, and 10% were over 24:

- Eighty-four percent reported they were traditional students, while 16% considered themselves nontraditional;
- Forty-four percent classified themselves as being competitive by nature, while 56% responded that they were easy-going; and
- Nine percent were employed full-time, 53% employed part-time, and 38% were not presently employed.

RESULTS

The survey asked respondents to indicate the extent to which thirty-five instructor traits or characteristics contributed to good teaching. Respondents were provided a scale which included

(1) "No Contribution," (2) "Minimal Contribution," (3) "Moderate Contribution," and (4) "Major Contribution." Responses for each trait were averaged and standard deviations were calculated. Table 1-A reflects the 18 traits which reflected the highest average contribution scores. Table 1-B reflects the 18 traits which reflected the lowest average contribution scores. A means test was conducted between traits. Those traits which exhibited no statistically significant differences $[p = \emptyset.05]$ between the respective mean scores are shown in the two tables.

Respondents rated content expertise as the trait which contributed most to good teaching. Communication skills, preparedness, approachability, fairness, and respect [for students] were clustered together (averages ranging from 3.6168 to

Table 1-A Groupings of Ranked Items for																				
Which No	Which No Statistically Significant [p = 0.05] Differences Were Found																			
	Traits are Ranked from Greatest Perceived Contribution to																			
Least Perceived Contribution to Good Teaching																				
Traits	Average		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Content/subject matter expertise	3.7087	1	1																	
Strong communication skills	3.6168	2		2																
Class preparedness	3.6063	3		3	3															
Approachability	3.5906	4		4	4	4														
Fair	3.58Ø1	5		5	5	5	5													
Respectful	3.5486	6		6	6	6	6	6												
Receptive to questions	3.5092	7				7	7	7	7											
Timely feedback	3.4829	8						8	8	8										
Responsive	3.4672	9						9	9	9	9									
Caring attitude	3.4593	10						10	10	10	10	10								
Organized presentation	3.4567	11							11	11	11	11	11							
Clear presentations	3.4514	12							12	12	12	12	12	12						
Concise explanations	3.4331	13							13	13	13	13	13	13	13					
Engaging	3.4121	14								14	14	14	14	14	14	14				
Enthusiastic	3.3858	15									15	15	15	15	15	15	15			
Encouraging	3.3517	16													16	16	16	16		
Dynamic presenter	3.3255	17														17	17	17	17	
Work (industry) experience	3.3228	18														18	18	18	18	18
Sense of Humor	3.3228	19															19	19	19	19
Structured	3.3018	20																20	2Ø	20
Professionalism	3.2651	21																21	21	21
Experienced lecturer	3.2598	22																22	22	22

Table 1-B GROUPINGS OF RANKED ITEMS FOR Which No Statistically Significant [P = 0.05] Differences Were Found Traits are Ranked from Greatest Perceived Contribution to Least Perceived Contribution to Good Teaching

CONTRIBUTION TO C							O GOOD TEACHING													
Traits	Average		18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
Work (industry) experience	3.3228	18	18																	
Sense of Humor	3.3018	19	19	19																
Structured	3.2651	20	20	20	20															
Professionalism	3.2625	21	21	21	21	21														
Experienced lecturer	3.2598	22	22	22	22	22	22													
Out of class accessibility	3.1864	23			23	23	23	23												
Outgoing personality	3.1785	24			24	24	24	24	24											
High academic standards	3.1207	25						25	25	25										
Relaxed demeanor	3.1129	26						26	26	26	26									
Technological proficiency	3.0761	27							27	27	27	27								
Professional certification(s)	2.9764	28										28	28							
Educational credentials	2.9344	29											29	29						
Repetitive (content/concepts)	2.7612	30													30					
Rigorous	2.6719	31													31	31				
Strict adherence to course materials	2.5774	32														32	32			
Established research record	2.5512	33															33	33		
Professional attire	2.5066	34															34	34	34	
Rank/title	2.3150	35																		35

3.5486) as similar in perceived importance, albeit less positive contributors. Receptiveness to [student] questions, timely feedback, responsiveness, a caring attitude, organized presentations, clear presentations, and concise explanations made up a second cluster with means ranging from 3.5092 to 3.4331. A third cluster included engaging, encouraging, dynamic presentations, and work [industry] experience. A sense of humor, structure, professionalism and experience as a lecturer were clustered in a fourth group. Out of class accessibility, an outgoing personality, and high academic standards reflected no statistically significant differences. The remaining ten traits were rated lower and showed fewer instances of statistical significance when compared to traits rated similarly.

The suggested clusters of traits were not tested using "cluster analysis," and the groupings described above appear to overlap with no clear-cut demarcations between the groups. It was apparent that respondents were fairly specific in the traits they considered to contribute the most and the least to good teaching. "Content/subject matter expertise" at the highest end and "Rank/title" at the lowest end were the only traits that reflected statistically significant differences with all other traits in the survey.

Most Important Traits

Respondents were also separately asked to list in order (from most important to least important) the five traits that contributed most to good teaching; space was provided on the survey for additional answers. Each trait was scored on a 1

to 5 scale, where 5 reflected the "most important trait" and 1 reflected the "fifth most important trait." Each trait was listed at least once in the top five contributing factors by one or more students. Table 2 reflects the most important traits as ranked by the survey respondents using a weighted average to arrive at their scores. As with the results reported for the ratings of the extent of contribution, "content/subject matter expertise"

was the ranked as the most important trait. This trait was listed most often of the thirty-five traits in the survey list (155 respondents included it in their top five). It was ranked as the most important trait more often than all other characteristics.

The ratings reflected in Tables 1-A and 1-B are statistically consistent with the rankings reflected in Table 2. A rank order test was conducted

Table 2 Traits Rated as Most Important Factors In Good Teaching (Order Reflects a Weighted-Score from Most Important)											
Traits	Most (+5)				Fifth Most (+1)	Score					
Content/subject matter expertise	94	24	16	12	9	647					
Strong communication skills	30	27	25	27	17	404					
Approachability	28	25	27	22	33	398					
Work (industry) experience	20	32	12	6	8	284					
Class preparedness	14	20	22	23	14	276					
Sense of Humor	16	16	23	20	23	276					
Caring attitude	13	20	24	14	19	264					
Organized presentation	15	14	18	20	12	237					
Timely feedback	8	20	18	23	15	235					
Respectful	17	16	12	13	13	224					
Fair	5	16	17	20	25	205					
Clear presentations	13	13	11	21	15	207					
Engaging	12	7	10	15	29	177					
Concise explanations	7	13	14	11	12	163					
Professionalism	4	11	14	15	10	146					
Enthusiastic	11	4	11	16	15	151					
Dynamic presenter	11	11	8	10	7	150					
Encouraging	4	8	13	19	14	143					
Experienced lecturer	5	8	14	10	14	133					
Technological proficiency	10	7	8	1	10	114					
Receptive to questions	4	7	11	7	10	105					
Outgoing personality	5	9	5	8	7	99					
Educational credentials (e.g., PhD, Masters)	8	8	5	3	2	95					
Structured	4	9	5	7	7	92					
Responsive	3	7	7	7	7	85					
Out of class accessibility	2	4	9	12	6	83					
High academic standards	5	3	6	6	6	73					
Relaxed demeanor	4	2	5	6	8	63					
Professional certification(s)	2	8	3	3	1	58					
Established research record	3	9	2	Ø	1	58					
Repetitive (content/concepts)	2	3	5	2	4	45					
Professional attire	1	Ø	Ø	Ø	4	9					
Rank/title	1	Ø	1	Ø	Ø	8					
Rigorous	Ø	Ø	Ø	2	2	6					
Strict adherence to course materials	Ø	Ø	Ø	Ø	2	2					

between the two lists. The lists reflected a rank order correlation of 0.8513.

Least Important Traits

Respondents were also asked to identify the five listed traits that contributed the least to good teaching; space was provided on the survey for additional answers. Each trait was scored on a -1 to -5 scale where -5 reflected the "least important trait" and -1 reflected the "fifth least important trait." Each trait was listed at least once by one or more students. Table 3 reflects the least important traits as ranked by the survey respondents, again using a weighted average to arrive at their scores. Consistent with the results reported for the ratings of the extent of contribution, "rank/ title" was ranked as the least important trait. This trait was listed most frequently of the thirty-five traits in the survey list (254 respondents listed the trait as a "least important" trait, and it also was listed as the least important most often (79 times). "Professional attire" was listed as a least important trait" less often (220 times) but was identified more frequently as the least important trait (91 times). Of note, all of the traits were ranked by at least two respondents as falling in the list of least five important qualities.

The ratings reflected in Tables 1-A and 1-B are statistically consistent with the rankings reflected in Table 3. A rank order test was conducted between the two lists. The lists reflected a rank order correlation of Ø.8711. The list in Table 2 was compared with the list in Table 3. The rank order correlation between the two rankings was Ø.663Ø.

CONCLUSIONS

Prior to discussing the findings, it is important to acknowledge the limitations of this study. This study focused on data gathered from both undergraduate and graduate students at one public Midwestern university business school. This involved analyzing 381 survey responses. While it is possible that the data collected would be consistent with other student populations at other institutions across the country, caution is advised in making generalizations.

Experienced instructors know that "teaching" is a constantly evolving process, and though it may be relatively easy to identify "good teachers" by reputation, describing exactly what makes for "good teaching" is no easy task. Clearly, what makes someone good at his/her vocation will not always be the same for everyone. Most teachers, no matter "good" or "bad," want more for their students and thus strive for constant improvement. In addition, faculty members have many reasons to take an interest in student opinions of "good teaching." The goal of this paper is to provide the student perspective on the topic of teacher effectiveness.

In this study respondents rated content expertise as the trait which contributed most to good teaching, followed by communication skills, preparedness, approachability, fairness, and respect [for students]. Indeed, respondents were fairly specific in the traits they considered to contribute the most and the least to good teaching. "Content/subject matter expertise" and "Rank/ title," falling on opposite ends of the scale, were the only traits that reflected statistically significant differences with all other traits in the survey. "Rank/title" contributed least to good teaching in the eyes of the students. However, there were a variety of traits in addition to rank/title, that students found to be much less important with respect to good teaching, including professional attire, research record, adherence to course materials, rigor, and credentials. If asked, most faculty might say that substance is more important than form when it comes to student learning. Survey results suggest that students believe the same thing when it comes to quality instruction.

TABLE 3 TRAITS RATED AS MOST IMPORTANT FACTORS IN GOOD TEACHING (ORDER REFLECTS A WEIGHTED-SCORE FROM LEAST IMPORTANT)

(ORDER REFLECTS A WEI	GIIILD-O	CORLIN	JWI ELASI	INIF OK 12		1
Traits	Least (-5)				Fifth Least (-1)	Score
Rank/title	79	61	39	38	37	-869
Professional attire	91	53	34	17	25	-828
Established research record	28	48	35	43	21	-544
Strict adherence to course materials	27	23	39	32	39	-447
Rigorous	28	34	24	37	22	-444
Educational credentials (e.g., PhD, Masters)	14	22	31	23	23	-320
Technological proficiency	21	9	20	18	24	-261
Professional certification(s)	9	21	19	27	19	-259
Repetitive (content/concepts)	18	19	14	19	12	-258
Sense of Humor	11	10	13	10	13	-167
Work (industry) experience	8	9	9	11	17	-142
Relaxed demeanor	4	7	17	9	10	-127
Outgoing personality	3	7	10	15	5	-108
High academic standards	5	7	10	4	9	-100
Dynamic presenter	3	7	10	8	10	-99
Experienced lecturer	2	5	7	9	16	-85
Professionalism	4	4	8	6	10	-82
Engaging	3	5	1	3	10	-54
Enthusiastic	4	5	1	2	6	-53
Caring attitude	5	1	3	5	3	-51
Out of class accessibility	1	1	5	7	8	-46
Timely feedback	1	5	4	2	2	-43
Content/subject matter expertise	3	2	1	3	5	-37
Responsive	2	2	3	3	3	-36
Structured	Ø	1	2	7	9	-33
Receptive to questions	1	3	2	3	4	-33
Encouraging	Ø	3	4	2	3	-31
Fair	2	1	2	4	3	-31
Class preparedness	2	Ø	2	5	2	-28
Approachability	1	2	2	3	3	-28
Organized presentation	1	1	2	4	2	-25
Strong communication skills	Ø	1	3	1	2	-17
Concise explanations	Ø	Ø	3	1	2	-13
Respectful	Ø	1	2	Ø	Ø	-10
Clear presentations	Ø	1	Ø	Ø	2	-6

WORKS CITED

- Barr, R. B., and Tagg, J. (1995). From Teaching to Learning -- A New Paradigm for Undergraduate Education. Change, 27(6), 12-25.
- Chingos, M. M. and P.E. Peterson. (2011). It's Easier to Pick a Good Teacher Than to Train One: Familiar and New Results on the Correlates of Teacher Effectiveness. Economics of Education Review, 30, 449-465.
- Costa, P. & McCrae, R. (2002). Looking backward: Changes in the mean levels of personality traits form 80 to 12. In D. Cervone & W. Mischel (Eds.), Advances in personality science. New York: Guilford Press.
- Guthrie, E.R. (1953). The Evaluation of Teaching. American Journal of Nursing, 53 (2), 220-222.
- Helterbran, V.R. (2008). The Ideal Professor: Student Perceptions of Effective Instructor Practices, Attitudes, and Skills. Education, 129 (1), 125-138.
- Hoffman, F. and P. Oreopoulos. (2009) Professor Qualities and Student Achievement. The Review of Economics and Statistics, 91(1), 83–92.
- Kneipp, L.B., K.E. Kelly, J.D. Biscoe, and B. Richard. (2010). The Impact of Instructor's Personality Characteristics on Quality of Instruction. College Student Journal, 44 (4), 901-905.

- Lavin, A., D. Carr and T. Davies. Does Image Matter? Female and Male Student Perceptions of the Impact of the Female Professor's Attire. Journal of Business and Accounting, 2 (1), 93-106.
- A. Marsh, H.W. (2007). Do University Teachers Become More Effective With Experience? A Multilevel Growth Model of Students' Evaluations of Teaching Over 13 Years. Journal of Educational Psychology, 99 (4), 775-790.
- McIntyre, T. and J. Battle. (1998). The Traits of "Good Teachers" as Identified by African-American and White Students with Emotional and/or Behavioral Disorders. Behavioral Disorders, 23, 134-42.
- Moore, T. (2006). Teacher Evaluations and Grades: Additional Evidence. The Journal of American Academy of Business, 9 (2), 58-62.
- Polachek, D. (2006). The interactive college classroom. International Journal of Learning, 13(5), 61-67.
- Witcher, A. E., A.J. Onwuegbuzie, K.M.T. Collins, J.D. Filer, C.D. Wiedmaier, and C. Moore. Students' Perceptions of Characteristics of Effective College Teachers. ERIC Document Reproduction Service: ED 482517.