

Analysis of Implementation of Effective Teaching Practices and Instructors' Characteristics in Engineering Education at Selected Universities, Ethiopia

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Abstract

The most accepted criterion for measuring effective teaching is the amount of student learning that occurs. Effective teaching is an art and no easy endeavour. However, despite the efforts of many researchers over more than a century, a direct link between perceptions of effective teaching practices and instructors' characteristics at universities less discovered. Hence, this study explored perceptions of effective teaching practices and instructors' characteristics. A mixed-method approach using a descriptive survey design was used. The four experienced universities were selected and samples for the study were selected by systematic and random sampling technique. Data gathered from two groups (students & instructors) through interviews and Liker scale questionnaires by a sample of 69 students and 64 instructors were analyse. The study found that effective instructors were regarded as respectful, makes classes interesting, cares about students' success, friendly shows a love for their subject, encourages questions and discussion, fair in their marking, well prepared and organized, and makes difficult subjects easy to learn. The study also found that ineffective instructors did not plan for their lectures, came late for lectures, were not knowledgeable, were not contributing to students' presentations, were intimidating students, were not involving students, were boasting about their qualifications and family and were biased in their marking. It emerged that ineffective instructors' marking did not highlight strengths and weaknesses of students. Recommendations were made to improve on the effectiveness of university instructors.

KEY WORDS: *Effective teaching, instructors' characteristics, Perceptions, universities.*

1. Introduction

The government of Ethiopia has placed great emphasis on quality education, effective instructors and recognizes it as an essential component for development needs of the society. The recent policy to quality improvement focuses on the complex interaction that takes place in the teaching-learning process at the university level to improve quality of education (MoE 2005). Effective teaching is lecturing that creates an environment in which deep learning outcomes for students are made possible, where high quality student learning is promoted and where superficial approaches to learning are discouraged Ramsden (in Biggs 2003). Taking a constructivist view of education, Biggs sees the secret of high quality teaching as ensuring that there is “alignment between what instructors want, how they teach and how they assess” in a system where all components address the same agenda. Biggs (2003) posits that the purpose of university teaching is to promote the development of high order learning processes, which he suggests appear to come naturally to high-achieving undergraduates but not necessarily to all students. Perceptions of effective teaching practices and instructors’ characteristics and instructor classroom practice and interaction at classroom level seem to have vital importance in learning improvement. Therefore, the main objective of the present study was to analyse what both students and instructors viewed as important characteristics of effective and ineffective teaching as well as instructors’ characteristics, with the intent of comparing their responses to cross cultural descriptors provided in empirical studies. The researcher was also interesting to investigate mediating factors that have influence on the responses of the participants.

2. Review of Literature

2.1 The Personality View of Effective Teaching

The characteristics of good instructors based in terms of the personality view encompass personal human qualities such as: intelligence, self-confidence, fairness, respect, caring, sensitivity, flexibility, enjoyment of students, open-mindedness, friendliness, providing individual attention, kindness, enthusiasm, having a good sense of humor, making learning interesting, being serious, being hospitable towards students, teaching style, trust, credibility, and even instructor attractiveness and height (Beishuizen, Hof, vanPutten, Bouwmeester & Asscher 2001). The trait theory assumes that there are identifiable qualities that set the effective teachers apart from others and that these special qualities enable the effective teacher to exert influence over students. Walsh and Maffei (in Smith, Mendendorp, Ranck, Morrison & Kopfman 1994: 23) shed light when they postulate “*The student- teacher relationship is important not only for its own sake, but also because it is closely linked to learning*”. Some of the most insightful definitions in support of the relational view of effective teaching are expressed as follows: to Walls, Nardi, von Minden and Hoffman (2002:40), the “... *emotional climate constitutes a strong if not predominant construct associated with effective teaching*”; to Borich (2000), “... *a personal connection between teacher and student may, in fact, be the single most important avenue to student growth and to students’ satisfaction with their education*”; while for Wubbels, Levy and Brekelmans(1997:82) “... exceptional teaching can also be described in terms of instructor-student relationships”. Clearly, personal relationships between effective instructors and their students are viewed as important to these researchers.

Building good relationships is one of several components of teaching effectiveness and it falls under the umbrella of ‘relationship management’. It is about working effectively with others, including the handling of frustrations and disagreements. It is having the capacity to guide, motivate, influence, and persuade followers to share a common vision. It is about holding the learners’ best interest in mind by developing their abilities through positive and constructive feedback. Through teamwork and collaboration, it is about being an agent of change who initiates, manages, and leads learners towards something new, something mind-expanding.

However, the personality view of good teaching, which is grounded in the qualities of the teacher, is not easily or directly classified, measurable or observable and, as discussed above, has limitations. Special characteristics such as values, experiences and insights remain until today to be isolated. Moreover, even if they do become identified at some point in the future, it will continue to present a challenge to establish direct links between such identifiable teacher qualities and teaching performance. Nonetheless, many researchers including those mentioned above, would not be entirely satisfied with a definition of instructor /teaching effectiveness that focused solely on the personality perspective.

2.2 The Ability View of Effective Teaching

Process-product research was born and upheld its name since its goal was to link teaching processes to students’ performance on standardized tests (Shulman 2004). Despite being unfashionable in certain areas of educational research, the view of process-product research that attempts to identify teacher behaviors that contribute to student achievement is still held

favorably by many educators today. They believe that teaching effectiveness can be defined in terms of a plethora of skills and behaviors, knowledge (content, pedagogical, social, tacit knowledge), and experience of good instructors (Beishuizen *et al.* 2001; Hay McBer 2000; Wubbels *et al.* 1997). Amongst the numerous skills-oriented definitions available, one provided by Anderson (2004:25) is that "... an effective teacher is one who quite consistently achieves goals – be they self-selected or imposed – that are related either directly or indirectly to student learning". A similar definition focusing on goals and objectives offered by Fuhrmann and Grasha in Centra (1993:43), based on the process-product perspective and which also helps us to understand the ability perspective is this:

... effective teaching is demonstrated when the instructor can write objectives relevant to the course content, specify classroom procedures ... and student behaviors needed to teach and learn such objectives, and show that students have achieved the objectives after exposure to the instruction.

Hay McBer (2000) report found no correlation amongst biometric data (teacher's age, years of teaching experience, additional responsibilities, qualifications, career history, etc.) and teaching effectiveness. This finding is also consistent with the notion that student progress outcomes are affected more by the teacher's skills and professional characteristics than by factors such as age, qualifications or experience. Hence, the impact of teaching effectiveness is, arguably, contingent upon elements of the situation. The major dispute with process-product research is that while product variables can be measured fairly accurately through standardized tests of achievement, process variables remain elusive. For that reason, many teacher behaviors

and methods of instruction that appear to be effective in one context or milieu may be ineffective in another (Centra 1993). Effective teachers utilize different qualities under differing situations. Another definition offered by Fuhrmann & Grasha in Centra (1993:44) helps us to understand the cognitive theory approach:

Effective teaching is demonstrated when instructors use classroom procedures that are compatible with a student's cognitive characteristics, can organize and present information to promote problem solving and original thinking on issues, and can show that students are able to become more productive thinkers and problem solvers.

From the above discussion on the evolution towards a definition of teaching effectiveness and from the numerous and readily available definitions of the effective teacher, it seems that not one definition is meant to be mutually exclusive nor is it suggested here that there are only personality traits and ability characteristics to be considered. As Cruickshank and Haefele (2001) posit, in an ideal world, a good teacher would demonstrate all aspects of teacher "goodness", but in reality, there are many different types of effective teachers who satisfy the needs of different students and other stakeholders. Cruickshank and Haefele (2001:29) use the argument that "... perceptions of good teachers differ by age, gender, socioeconomic background, educational level, geographic area, and political persuasion". While keeping in mind the mediating factors or variables that may play a major role in defining effective teaching, knowledge accumulated through research covering more than half a century serves us well in adopting an incremental view of

teaching effectiveness that encompasses a large number of indicators found in both the personality and the ability perspectives of the good teacher.

3. Importance of the Study

The results obtained and implications drawn could be of benefit to instructors everywhere who are receiving students from all corners of the country, to have better understand student needs from another culture in the classroom environment. In addition, researcher sees this work as a contribution to help guide to those who are involved in the development of future research on similar settings. In view of the above, this study will help university instructors, students, academic department heads, deans, the Ministry of Education, the Regional Education Bureau and other concerned bodies to design preventive, intervention and rehabilitative measures regarding problems related to the direct influence of the implementation of effective teaching practices and instructors' characteristics in engineering education.

4. Statement of the Problem

The researcher was interested to conduct this research at universities rather than the lower education levels, because now a days the university students are evaluating their instructors, but high schools' and elementary schools' teachers are evaluated by only department heads and administrators. Furthermore, the research was conducted on engineering instructors and students, because this field is given emphasis by the government. The researcher came across students' complaints about their instructors being ineffective. Heads of departments and schools deans have received

anonymous letters from students complaining about ineffective instructors (MoE 2005). Students could possibly attribute some cases of low throughput rate to these complaints of instructor ineffectiveness. It was the findings of the scholars past personal experience of teaching in university that inspired him to look into the problem closely. In addition, being the differences among the instructors and students' views regarding effectiveness and characteristics of instructors and experiences have inspired researcher to think of conducting this study. The researcher decided to explore perception of effective teaching practices and instructors' characteristics because instructor's perceptions and belief lead to change.

5. Objectives of the Study

This study was respond issues with regard to engineering education at the selected universities, Ethiopia in general and particularly attempts to achieve the following objectives:

- explore the relationship between effective teaching and the instructor's personality and ability;
- assess students' and instructors' perceptions of effective teaching practices;
- examine predominant instructors' characteristics perceived by the study participants to describe effective teaching,
- identify whether instructor's characteristics had any effects on effective teaching ;
- provide useful information to instructors on teaching approaches and instructor characteristics that affect effective teaching.

6. Basic Research Questions

Therefore, this study is designed to find out answers to the following questions:

1. What are the predominant characteristics used by the study participants to describe effective teaching?
2. To what extent are students' perceptions of effective teaching similar to those of instructors?
3. To what extent are students' perceptions of ineffective teaching similar to those of instructors?
4. Are the descriptors used to describe effective teaching amongst the two sample groups focused more on the ability or on the personality view?

7. Methodology

A mixed-method approach using a survey design for obtaining descriptive statistics supported by a qualitative investigation was employed because of the complexity of the research issues. Further, the researcher primarily selected descriptive survey method because it is found to be the most appropriate technique for collecting vast information and opinions from quit a large number of respondents (Creswell 2009).

7.1 Sampling Techniques

The sample universities (Adama, Addis Ababa, Haramaya and Hawasa) were conveniently selected, for the researcher had contact persons for easy

data collection. The sample for this study was selected using systematic and random sampling technique.

7.2 Sources of Data

The primary sources included in this study were engineering students and instructors, deans and vice deans, and department heads selected from the four experienced sample universities. The secondary sources for the present study were printed materials. One-tenth of the senior year engineering students from each sample university were selected by using systematic and random sampling technique.

7.3 Data Collection Instruments

In order to collect the required information the researcher was used questionnaires, interviews and observation checklist. The instrument was adapted and modified from Tootoonchi, Lyons and (Hagen 2002). The proposed theoretical framework was used to guide the researcher to analyze and categorize the perceptions of students and instructors of effective teaching and instructors characteristics.

7.4 Methods of Data Analysis

The data collected through different instruments (questionnaires, observation and interview) were organized, presented in tables and then analyzed statically using statistical methods such as percentages, means, standard deviation and Ch-square and were interpreted.

8. Results and Discussion

The research questions identified in the introduction was the focal point for this part of the study.

8.1 The Predominant Characteristics Used By the Study Participants to Describe Effective Teaching

From Table 1 below, the following six personality characteristics were very important (VI) to describe effective teaching respectful of their students; make classes interesting; fair in grading and evaluating student work; care about students succeeding in their course; show that they really like the subject they teach, and are friendly to students. In addition, worthy of mention is that all remaining personality characteristics were considered by the study respondents to be important (I) descriptors of effective teaching. Thus, each one of the 11 personality characteristics specifically designed for the questionnaire was rated as either very important or important. This indicates that all personality characteristics reflected in the questionnaire were essential (average mean of 3.37, Table 1) to the entire sample population to describe effective teaching.

According to this study, the most important characteristic of the effective instructor personality trait to emerge is “are respectful to their students” (mean 3.73, Table 1). This finding closely matches the high (2nd place) ranking of Feldman’s trait “is concerned with, is friendly to and *respects* students” and matches the results from studies conducted to other researchers (Saafin 2005 & Raymond 2001).

Table 1: Descriptive Statistics of the Personality Traits Measure Of Effective Teaching by Entire Sample ($\alpha=0.05$)

Personality characteristics	Min	Max	Mean	Rate	S D	Rank
. ... are respectful of their students.	1	4	3.73	VI	0.538	1
. ... make classes interesting.	1	4	3.70	VI	0.522	2
. ... are fair in grading and evaluating student work	1	4	3.67	VI	0.612	3
. ... care about students succeeding in their course.	1	4	3.56	VI	0.632	4
. ... show that they really like the subject they teach.	1	4	3.53	VI	0.713	5
. ... are friendly to students.	1	4	3.50	VI	0.735	6
. ... welcome students' opinions/ suggestions.	1	4	3.38	I	0.682	7
. ... are available to help students outside of class.	2	4	3.33	I	0.693	8
. ... use humour in the classroom.	1	4	3.33	I	0.781	10
. ... make an effort to get to know their students.	1	4	3.11	I	0.794	10
. ... have a unique teaching style.	1	4	3.11	I	0.049	11
Overall mean			3.37			

As it has seen in the literature review, other researchers also report that instructors must demonstrate respect for their students from the moment of first encounter for effective teaching to transpire (Colker 2008; Day 2004 & Hay McBer 2000). Respect for students emerged as highest trait to be mentioned in the qualitative, open-ended portion of the questionnaire instrument.

Upon closer examination of open-ended questions, “Make classes interesting and fun” was the most frequently mentioned trait, providing further support as to the importance of this finding. “An effective instructor should regularly succeed in inculcating a love of knowledge” does one instructor while answering the open-ended question write the words. It appears that respect for students is more of a concern for instructor respondents. In addition to delivering content knowledge; respect for self, others, and institutional policies and procedures is the second highest overall rated effective personality teaching as revealed by this study’s respondents is (mean, 3.70, Table 1). This trait ranked high in both components of this study (questionnaire results, and open-ended questions). Being “fair in grading and evaluating student work” was the third most prominent effective teaching characteristic as reported by respondents (Table 1). The importance of this trait objectivity to effective teaching has been discussed methodically in the literature reviewed (Beishuizen *et al.* 2001; Day 2004; Miller Dzindolet, Weinstein, Xie & Stones 2001; Raymond 2001; Saafin 2005). The fourth highest rated personality characteristic of effective teaching to emerge from this study was “caring about students succeeding in their course” and it was ranked fourth highest according to the open-ended question on the survey instrument. Students ranked this trait as their second most important

indicator of teaching effectively. Making a link between this study's results and the literature, Borich (2000) describes effective instructors are those who "... provide a warm and encouraging classroom climate by letting students know help is available". Following on from the previous findings, students rated this trait as their premier characteristic, while the more experienced, more independent students ranked this item 6th of the eleven personality characteristics measured in the questionnaire (Berk 2005 & Cheng, Mok & Tsui 2001).

Of the eleven personality traits included in the survey instrument, six were rated as *very important* and five were rated as *important* descriptors of the effective instructor. Though it can be seen that there are some minor differences in opinion between how students and instructors rated the personality traits included in the questionnaire, it is evident that there is substantial agreement between students and instructors views as to which traits are deemed important to effective teaching. This study findings reveal that instructors who are fair in grading and evaluating student work, demonstrate genuine respect for their students, make classes interesting and exciting places to be, are fair in all students' dealings, care about students' success, genuinely enjoy teaching their subject matter and are always friendly and approachable are more likely to be effective in transferring knowledge to their students, and in return more likely to be rated higher in instructor evaluations. According to the student and instructor respondents, three ability attributes emerged as dominant (very important) by the study participants to describe effective teaching: are respectful of their students; make classes interesting, and are fair in grading and evaluating student work (Cheng *et al.* 2001).

Table 2: Descriptive Statistics of the Ability Characteristics Measure Of Effective Teaching by Entire Sample (A=0.05)

Ability characteristics	Min	Max	Mean	Rate	S D	Rank
. . . encourage students' questions and discussion.	1	4	3.7	VI	0.62	1
. . . are always well prepared and organized.	2	4	3.6	VI	0.62	2
. . . make difficult subjects easy to learn.	1	4	3.5	VI	0.69	3
. . . have expert, up-to-date knowledge of their subject.	1	4	3.4	I	0.73	4
. . . require students to think critically.	1	4	3.4	I	0.69	5
. . . expect students to become independent learners.	1	4	3.3	I	0.73	6
. . . give frequent feedback about student progress.	1	4	3.2	I	0.71	7
. . . encourage students to learn in pairs/groups.	1	4	3.0	I	0.89	8
. . . maintain strict control over the class.	1	4	2.8	I	0.78	9
. . . use the latest computer technology in their teaching.	1	4	2.5	I	0.98	10
. . . give many quizzes and tests.	1	4	2.3	SI	0.81	11
. . . have many years of teaching experience.	1	4	2.2	SI	0.96	12
. . . assign a lot of homework.	1	4	2.0	SI	0.74	13
. . . lecture (talk) for the entire class period.	1	4	1.7	SI	0.87	14
Overall mean			2.89			

Table 2 above, indicates that three ability attributes were considered to be very important descriptors of effective instructors to the entire sample and that the highest ranked ability trait used to define effective teaching emerged as “encourage students’ questions and discussion”. Overall, this ranked the first highest of all ability characteristics with a mean of 3.7. This characteristic (is open to students’ ideas, opinions, and discussion) also rated high in the literature summary, tying for second place overall (Beishuizen *et al.* 2001; Saafin 2005; Walls *et al.* 2002; Witcher 2001). The second (mean

=3.6) of three predominant ability attributes viewed as very important by the study respondents is the descriptor of instructors who “are always well prepared and organized” (Table 2). It is also rated very high in the literature review by researchers (Saafin 2005; Walls et al. 2002). Results from the open-ended question also indicate the importance of instructors being prepared to stand and deliver well-organized materials and lessons to their students. The last predominant effective teaching ability attribute to emerge from this study was the aptitude of instructors to make difficult subjects easy to learn (Table2). This characteristic, like all others discussed while answering this first research question, appears to be common as well. The literature review meta-table ranks this as 4th most important (“explains using simple terms”) and was important to preceding researchers ((Barnes & Lock 2010; Walls et al. 2002).

8.2 Students’ Perceptions of Effective Teaching Similar to Those of Instructors’

Even though numerous matches appeared amongst the respondents in regards to effective teaching, some minor mismatches did surface. In other words, what the participating students appeared to value in their instructors differed in some instances from what the participating instructors seemed to regard as very important to effective teaching.

Table 3: Major Matches between Instructors and Students in Descriptors Used to Describe Effective Teaching

Personality characteristics of excellent teaching	Student rating	Instructor rating
Make classes interesting	VI	VI
Are respectful of their students	VI	VI
Are friendly to students	VI	I
Care about students succeeding in their course	VI	VI
Show that they really like the subject they teach	I	VI
Are fair in grading and evaluating student work	I	VI
Are available to help students outside of class	I	I
Welcome students' opinions/suggestions	I	I
Make an effort to get to know their students	I	I
Have a unique teaching style	I	SI
Use humour in the classroom	I	I

Both study groups consider making classes interesting (Table 3), being respectful of students and caring about students' success to be very important (VI) or predominant characteristics of effective teaching. Furthermore, both student and instructor respondents share the perception that effective teaching is exhibited by instructors who remain available to students outside of class, who are open to students' input, make an effort to learn their students' names and who employ appropriate humour in the classroom. Three other personality items– being friendly to students, demonstrating that they like their subject and being fair when dealing with students – were also considered as either important or very important to both groups. This once again suggests a high degree of similarity in their opinions of what

constitutes effective teaching (Leinhardt in Cheng *et al*, 2001; Oredbeyen 2010).

Both respondents (students & instructors) consider effective instructors to be always well prepared for their classes and have the ability to make difficult topics easy to learn (Table 4). Despite this finding, however, it can be reasonably concluded that student and instructors perceptions of what constitutes effective teaching are largely very similar. Other sub-group differences, which have emerged, will be discussed below.

Table 4: Major Matches between Instructors and Students in Descriptors Used to Describe Ability Characteristics of Effective Teaching

Ability characteristics of excellent teaching	Student rating	Instructor rating
Are always well prepared and organized	VI	VI
Make difficult subjects easy to learn	VI	VI
Have many years of teaching experience	I	SI
Encourage students' questions and discussion	I	VI
Have expert, up-to-date knowledge of their subject	I	I
Require students to think critically	I	VI
Give frequent feedback about student progress	I	I
Expect students to become independent learners	I	I
Maintain strict control over the class	I	I
Encourage students to learn in pairs/groups	I	I
Use the latest computer technology in their teaching	I	SI
Give many quizzes and tests	I	SI
Lecture (talk) for the entire class period	SI	NI
Assign a lot of homework	SI	SI

Answers to the open-ended question on the questionnaire instrument help us to understand the importance of these characteristics to students: *S1: In my opinion, the effective instructor who is strict controls the class, has a unique teaching style, and gives many quizzes or tests. S2: Give many tests and frequent feedback to students.* Instructors, on the other hand, rated the ability characteristics of requiring students to become critical thinkers, encouraging questions and discussion as well as expecting students to become independent learners as more important than did their young charges who are likely inexperienced with these concepts of higher education. Answers to the open-ended question on the questionnaire instrument help us to understand instructors' perspectives of these attributes:

In1: *An effective instructor should regularly succeed in inculcating a love of knowledge.*

In2: *One who understands the student needs & learning preferences & can facilitate high-order thinking in the learning process.*

Relative to how instructors assess encouraging students' questions and discussion, as well as to the importance of assisting students to become independent learners, one instructor had this to say:

In1: *An effective/ excellent instructor is one who is always open-minded—actually welcomes students' questions, opinions, and suggestions. One who uses what students say and contribute to bringing the learning process to life!*

In2: *... listen to them, have time for students outside of class, be creative and fun in class, be a friend and a instructor.*

In3: *The ability to motivate students to learn.*

Thus, findings from this study appear to correspond to what Beishuizen *et al.* (2001:185) found in their study conducted in the Netherlands. Similar to students in this study, primary students in Holland "... described effective instructors primarily as competent instructors, focusing on transfer of knowledge and skills ..." whereas secondary students and instructors at the same institute in Beishuizen *et al.* "... emphasised relational aspects of effective instructor ..." reflecting what has just been discussed with the instructors' comments. Furthermore, "Young students displayed an ability view while mature students and instructors showed a personality view on instructors" (Beishuizen *et al.* 2001:196).

Finally, a comparison of the significant differences between the students and instructors views indicate that instructors rated six ability characteristics to be more important indicators of effective teaching than did their students. Instructors would more likely describe the effective instructor as one who requires students to think critically, encourages students to work in small groups or in pairs, gets to know their students, and encourages students' discussion and questions. To help us identify with the environment at the time the study was conducted, the following quotes taken from the open-ended qualitative questions are presented:

In1: *Someone who can get the students to question ideas/concepts –create a genuine interest in learning. Someone that “pushes” the students to do their best*

In2: *Student-centred learning manoeuvres that guide students to independent knowledge and skills acquisition.*

In3: ... engage the students in critical thinking and new ways of looking at the world & their learning who then reflects on the process & seek ways to improve. In4: Interact with students on a professional and personal level.

Students, on the other hand, would place more emphasis on ability descriptors of effective instructors such as being current with the latest technology and up-to-date with their subject knowledge. As it has seen in the literature review, opportunities to work in groups were also reported as a learning preference by students according to Saafin (2005), and Raymond (2001).

8.3 Students' Perceptions of Ineffective Teaching Similar to Those of Instructors'

To answer this question, descriptive data that was collected through interviews and respondents' answers to an open-ended question of the questionnaire was compared. Information extracted from interviews and open-ended question, it can be observed that students and instructors' perceptions of ineffective teaching coincide with regard to a number of attributes. Both groups describe the ineffective instructor as someone who does not respect his/her students, does not care, is boring, cannot explain the subject matter well, is unprepared for class and is unfair in grading . Table 5 below, which compares the characteristics of effective teaching extracted from research question alongside the results of the ineffective instructor revealed from the interviews and open-ended question, suggest that at least to the population sampled in the selected universities, Ethiopia, there is agreement that study participants do view the two extremes as polar images of each other.

Table 5: A Comparison of Effective and Ineffective Teaching Characteristics

Effective instructors (Results of research question 2)	Ineffective instructors (Results of research question 3)
Are respectful of their students	Are disrespectful of students
Care about students succeeding in their course	Don't care if students understand
Make classes interesting	Are boring
Make difficult subjects easy to learn	Cannot explain well
Are always well prepared and organized	Are unprepared for class
Are fair in grading and evaluating student work	Are unfair in grading

Note: personality measures are highlighted in italicized/ bold font.

The first descriptor of the ineffective instructor to emerge from Table 5 above is disrespectful of students. This finding is particularly interesting for three reasons. First, it represents a very close match in that it appeared with nearly the same frequency in both students' and instructor's data from the open-ended question. Second, supportive evidence is provided for researcher earlier argument in favour of the mixed-methodology approach to the questionnaire instrument wherein it was claimed that unforeseen and beneficial results could often be revealed by the use of qualitative methods. Third, it was indeed an unexpected result since the researcher had not anticipated that lack of respect would be an issue raised by students in answering the open-ended question, especially in the level where this study was conducted. An uncaring instructor would most likely meet with resistance and minimal academic performance from his or her students.

However, even though researcher's observations stem mainly from teaching experience in an Ethiopia context, it appears that this characteristic is not unique to the universities.

One student said: The bad instructor is not concerned about the students.

Researcher: What do you mean?

Student: I mean he/she cannot tell when someone is distracted in class because he/she does not care of this guy. For me I don't usually work hard for an instructor that has no care to me ... or doesn't ask me if I have a personal problem or not. An engineering instructor said: Oh! To tell you the truth, I have a well developed Emotional Quotient(EQ), so for me an ineffective instructor would be someone who didn't show his/her emotional side ... who was uncaring, frigid, unfeeling, lacked compassion ... actually, it's just the opposite of what I've just answered in effective instructors.

Researcher: Are you saying that the characteristics of the effective instructors are merely the opposite of the ineffective one? Instructor: Essentially, yes!

Previous research on teaching effectiveness has established caring as an important factor in distinguishing between good and ineffective teaching. "Is concerned with, and is friendly to ..." have been reported by other authors as an essential personality component (Saafin 2005; Walls *et al.* 2002). This is consistent with Brookfield's in Saafin (2005) argument discussed in the literature review, that effective teaching requires the instructor to relate new concepts to something that is familiar to students. Thus, it can be concluded that unless an instructor can explain his/her topic in a meaningful manner, effective learning will be unlikely to transpire in the classroom or lecture hall. Respondents in this study described ineffective instructor as being

unprepared and disorganized. For example, Saafin (2005) would all agree that effective instructors must be prepared and organized. If instructors fail to capitalize on this opportunity, students will rapidly lose interest and respect, causing the instructor to resort to wielding power in an autocratic manner in order to maintain classroom order. Last in this discussion of features describing the ineffective instructor is being unfair with grades (Barnes & Lock 2010).

To sum up, according to the study's respondents, ineffective instructors are *disrespectful of students, do not care, are boring, cannot explain topics well, are unprepared for class and are unfair with their grading*. The missing ability characteristic *encourages students' questions and discussion*, however, could arguably be considered the opposite of the second highest ineffective instructor characteristic to emerge as one who doesn't care if students understand. Lowyck in Beishuizen *et al.* (2001) "... noticed that in every job with a strong social component qualities like friendliness are very opportune". Aloofness, it could be argued, would be a difficult approach taken to establishing friendly relationships with one's students in the communal environment of the classroom. The findings also provide validation of the study's methodology, purposely designed to attempt to measure effective teaching traits using an alternative method. However, comparable to the Walls *et al.*'s (2002) studies, the findings of this study also indicate that students and instructors hold similar perceptions of what characterizes an ineffective instructor.

8.4 The descriptors used to describe effective teaching amongst the two population groups (Students &Instructors) focused more on the ability or on the personality view.

Of the 25 questionnaire items utilized to evaluate respondents' opinions of effective teaching characteristics, 11 were purposely designed to reflect personality traits while 14 were included to measure ability characteristics. The average of means of the personality measure was calculated as 3.4 whereas the average of means of the ability category was less than 2.9. In addition, by examining column one in Table 6 below which represents findings from two different sources, two of the top six ranked traits are the top ranked personality characteristics.

It can be observed that from the transcribed interviews of study respondents, 54% of the traits mentioned by instructor and student respondents were attributed to personality measures while the remaining 46% were categorized as ability, indicating that when verbally discussing effective teaching traits, respondents in this study slightly favoured personality traits. Of the two comparative measures, personality traits were indicated to be more dominant than ability characteristics when both instructor and student respondents described the characteristics of the effective instructor in the open-ended question. Out of the 46 attributes, which were synthesized, 71% were classified as personality characteristics while ability characteristics occupied the remaining 29% of the total characteristics extracted from the questionnaire.

Table 6: A Comparison of the Six Highest Ranked Characteristics of Effective Teaching across Respondents (Students & Instructors) Sources

Questionnaire	Transcribed interviews	Open-ended question	Literature review
1. Are respectful of their students.	1. Makes lessons understandable	1. Makes class interesting/fun	1. Is enthusiastic for subject/towards teaching
2. Make classes interesting.	2. Is friendly to Students	2. Is friendly to students	1. Is available to help students
3. Are fair in grading and evaluating student work.	2. Respects students	3. Really knows subject knowledge	2. Is concerned with, is friendly to, and respects students
4. Encourage students' questions and discussion.	3. Encourages students	4. Cares about students' learning	2. Is open to students' opinions, ideas and discussion
5. Are always well prepared and organized.	4. Makes classes interesting/fun	5. Makes lessons understandable	3. Stimulates interest in course/subject
6. Care about students succeeding in their course.	5. Makes students think	6. Is well prepared for class	3. Encourages students to think critically
			4. Is prepared, organized
			4. Is knowledgeable of subject
	6. Answers all students Question		4. Explains using simple terms
			5. Is sensitive to and concerned with class level and progress
			5. Is fair and impartial in marking/evaluating students
	6. Really knows subject knowledge		6. Provides frequent, prompt, useful feedback
			6. Is dedicated, committed

Note: personality measures are highlighted in italicized bold font.

As can be seen from column three in Table 6 above, personality measures occupy the top two of the first six characteristics reported in the open-ended question found in the questionnaire. Consistent with the results of the questionnaire and with the transcribed interviews, personality measures are once again indicated to be the more frequently mentioned of the two by the study respondents.

9. Findings

In this part of the study, an attempt is made to explain the findings of the study with reference to the basic questions formulated:

It was found that common personality characteristics of effective teaching appear to be demonstrating respect to students, delivering interesting classes, caring about students' welfare, exhibiting a love for the subject being taught, and being friendly to students. Educators who encourage two-way communication with students, are organized and well prepared, and present topics in ways that students can relate to and easily understand demonstrate common ability attributes of effective teaching.

Only two personality traits appear to have raised significant differences of opinion between the study's two (students& instructors) population groups. Instructor respondents rated the use of humour in the classroom to be an essential ingredient to effective teaching in contrast, engineering students, with less developed Engineering skills needed to interpret humour, understandably placed a low value on this quality.

Both student and instructor respondents regarded the affective quality to treat learners with respect and caring as very important. The respondents' perceptions also correspond with regard to making classes interesting, caring about their students' success, demonstrating a love for teaching and being friendly. In addition to the five personality characteristics listed above, three ability attributes were also stressed as being very important to all participants: encouraging students' questions, being well prepared and organized, and having a knack for making difficult subjects understandable.

Conversely, instructors rated as more important than students the ability to think critically, being fair in grading, encouraging students' questions and discussion, and expecting students to become independent learners. This is a potentially important finding and it is tempting to conclude that instructors' judgements of effectiveness are founded on strong pedagogical principles and the acquisition of a more global view of education learned in their teacher training and professional development programs.

It was found that, ineffective instructors are disrespectful of students, do not care, are boring, cannot explain topics well, are unprepared for class and are unfair with their grading. What has resulted from examining the characteristics of ineffective instructors has produced mirror images of most of the traits that were considered predominant effective teaching measure by the same sample population.

10. Recommendations

Based on the findings of this study, the following recommendations are made.

First, induction programs for new instructors entering university, particularly engineering departments in the universities of Ethiopia should include a discussion of the impact of established, objective and unalterable evaluation and grading procedures on students who might be unfamiliar with this approach. Vital communications such as this could avoid potential conflict with students receiving their mid-or final semester grades, and thus improve classroom relationships.

Second, this study could provide university policy makers with an applicable list of effective teaching characteristics to help them design appropriate, sensitive and reliable instruments to evaluate and encourage teaching effectiveness of their instructors. Since both student and instructor perspectives have been ranked in order of importance, a valid evaluation form of teaching effectiveness used by students and administrators to evaluate their instructors could be developed. If both administrators use the same form and students to evaluate instructors, the students' feedbacks are more seriously consider, thereby administrators could become more enlightened as to the constantly evolving demands of the classroom environment, and thus validity of the evaluation instrument could be ensured. Second, attributes of what constitutes effective teaching in the eyes of the students specific to the universities where this study was conducted could become a valuable part of recruitment and in-service offerings. Providing such information and training to new and/or adjunct instructors as well as to veteran instructors with consistently low student ratings could contribute to student satisfaction and improved learning, better instructors' performance, institute reputation for the provision of service excellence, and improved student retention.

Third, this study may impart valuable information to universities and curriculum program development specialists by providing them with the results of university students' and instructors' perspectives in universities environment to guide them in creating more effective and culturally sensitive education programs. Equally important, if the attributes of what is required to be effective instructors are made available to students considering the teaching profession prior to their commitment to the program, frustration,

loss of self-esteem and waste of time and money could be reduced. Similarly, attrition rates from university programs could be reduced if job performance criteria were made transparent to potential instructors prior to their commitment to the program.

Fourth, results of this study could be used in proper preparation for instructors entering the classroom environment as an instructor for the first time could include not only what constitutes effective teaching and as well as instruction and training on how to aspire to those characteristics, but also create an awareness that student perceptions are similar to instructor perceptions and are considered in research to be valid. Finally, the results of this study could also be used to develop workshops to disseminate information on what constitutes effective teaching throughout the Ethiopian universities and made available to all who opted to attend.

11. Conclusions

The findings of this study support the results of previous studies on effective teaching, which demonstrate that many traits or practices are common, regardless of culture, age, and/or academic discipline. They also support the literature findings. Results from research question one which attempted to capture predominant characteristics of effective instructors have revealed that all of the predominant personality and ability measures used by this study's respondents to describe effective teaching coincide with principal characteristics revealed in the literature review.

Common personality characteristics of effective teaching therefore appear to be: *demonstrating respect to students, delivering interesting classes, caring about students' welfare, exhibiting a love for the subject being taught, and being friendly to students.* Educators who encourage two-way communication with students, are organized and well prepared, and present topics in ways that students can relate to and easily understand demonstrate common ability attributes of effective teaching. Instructors who are aware of students' expectations and are willing to amend their behaviours based on student feedback are armed with important knowledge to dismantle walls of miscommunication. Improved communication and understanding between students and instructors will enhance classroom environments, lead to higher instructors' ratings, and knowledge transfer, improve retention of students and ultimately, boost institute reputation and image.

Research questions two and three examined the degree to which student perceptions of effective and ineffective instructors are similar to instructors' perceptions. The two questions, to be discussed jointly, were included in this study to attempt to determine if differences in opinion exist at the universities under study between instructor and student respondents in their opinions of what constitutes effective and ineffective teaching. Question 3 was purposely designed to assess respondents' opinions to determine if study respondents held mirror images of the effective instructor as well as to determine effective attributes from an alternate approach. Only two personality traits appear to have raised significant differences of opinion between the study's two population groups. Instructor respondents rated the use of humour in the classroom to be an essential ingredient to effective teaching in contrast, engineering students, with less developed Engineering

skills needed to interpret humour, understandably placed a low value on this quality. Inexperienced students who are expecting to be entertained in the classroom are perhaps expressing having a unique teaching style or those do learn more effectively from instructors who vary their instructional delivery. This leads us to the suggestion that instructors who employ a variety of methods of communication in the classroom may concurrently improve knowledge transfer and secure higher student ratings on their assessments.

The instructors' expectation of students to interact in two-way dialogue at their university was encouraging to see, lecturing is not viewed as a favourable method of effective teaching according to both the literature results and the study's respondents. The lower rating of this trait by students is probably once again an example of students' inexperience with this manner of communication, and with their expectation or misconception that university classes are of the lecture format. Student and instructor respondents agreed on a number of characteristics they believe distinguish the effective from the ineffective university instructor. Both students and instructors regarded the effective quality to treat learners with respect and caring as very important. The respondents' perceptions also correspond with regard to making classes interesting, caring about their students' success, demonstrating a love for teaching and being friendly. Thus, according to these study respondents, both skills and affective factors are necessary virtues to paint a portrait of the effective university instructor. As we have seen above, all of these personality and ability factors used to describe effective teaching were highly compatible with the literature reviewed for this study.

Conversely, instructors rated “the ability to think critically” ,”being fair in grading”, “encouraging students’ questions and discussion”, and “expecting students to become independent learners” as more important compared to the students’ rating,. From this, potentially important finding and it can be concluded that instructors’ judgments of effectiveness are founded on strong pedagogical principles and the acquisition of a more global view of education learned in their professional development programs. Further, according to this study’s respondents, ineffective instructors are *disrespectful of students, do not care, are boring, can not explain topics well, are unprepared for class and are unfair with their grading*. What has resulted from examining the characteristics of ineffective instructors has produced mirror images of most of the traits that were considered predominant effective teaching measure by the same sample population.

Finally, the findings of this study conducted in the selective universities, are consistent with past researches conducted at various locations around the globe. Findings support a widespread view that certain personality and ability traits are critical to effective teaching. Both personality and ability characteristics are used by respondents in describing effective and ineffective teaching, with personality traits appearing to be the more important of the two. Most instructor respondents appear to be aware of their students’ expectations of requisite ingredients for teaching effectiveness.

12. Limitation of the Study

Ethiopia has 31 universities. However, this study has been limited to four experienced sample universities. Moreover, despite the fact that the data collection process was undertaken for a month the response rate was not up to the expectation. This may be attributed to language difficulties of the

questionnaire were distributed with an English version. The English version questionnaire would have been presented in Amharic/native language using back translation technique. Despite these challenges, the researchers have tried to critically analyze the available data to answer the questions raised in the study.

13. Scope for further Research

Although this study has achieved its purpose of investigating perceptions of effective teaching practices and instructors' characteristics in selected universities, there are a number of related aspects that warrant additional research. For instance, it is necessary to verify the perceptions of effective teaching practices and instructors' characteristics, with all universities who are in similar situations in the country.

- In the context of this study, it would also be important to find out about factors that bring about the effective teaching practices and instructors' characteristics.
- An investigation should be conducted to ascertain the qualifications of instructors and their relevance to the courses they are teaching, especially in universities that are not performing up to set standards.
- Future research should explore the ways in which the instructors' personality and style may have repercussions for the learners' final performance as well as in their potential academic failure.

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