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Evaluating Teaching Quality in Higher Education: A Focus on Students' Learning Experiences

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Chapter 7

Summary

There were two major reasons for starting this research project. First, the Ethiopian Government clearly stated the need for higher education institutions to put in place a comprehensive measure of quality that addresses, among other things, evaluating by students of the quality of teaching, and to give more emphasis to student centered approaches (Higher Education Proclamation, 2009). Second, the Teaching Evaluation Questionnaire (TEQ) widely being used in most higher education institutions in the country is teacher-centered in its character. Thus, it was mandatory to develop an improved measure that can be used in learner centered instruction. As the dominant form of instruction in these institutions was described to be teacher centered (Daniel, 2004), the measure was developed based on students' experiences in learner centered instructional setting.

The use of student rating questionnaires as measures of teaching effectiveness is based on the assumption that teachers have an impact on student learning, which can be demonstrated by students through the feedback they provide about their experiences. Such feedback, apart from being evidence of students' learning experience, can be used for teaching improvement. However, a number of factors need to be considered if the feedback is to be used for teaching improvement. Some of these factors are the appropriateness of the items in the rating questionnaire and the impact of conceptions on teaching approaches and teaching evaluation. The Teaching Evaluation Questionnaire (TEQ) currently used in higher education

institutions in Ethiopia focuses on the evaluation of teacher performance as an indicator of the effectiveness of teaching. The use of the questionnaire is believed to encourage teacher centered orientations since there is a tendency among teachers to give more emphasis to what is being evaluated.

In this research project the Student Evaluation of Learning and Teaching Questionnaire (SELTQ) that combines both the support from the teacher and students' perception of their learning has been designed and validated. It has been argued that the basis for evaluating teaching quality should be students' perception of their learning progress as well as the support teachers provided to enhance student learning. The appropriateness of the measure currently being used had to be evaluated before designing a new measure. Teachers and students participated in the process of validating the TEQ and in designing the SELTQ. The study examined students' experiences in learner centered instruction while designing the improved measure. In this chapter the assumptions considered in conducting the various empirical studies including the summary of the major findings and their implications are discussed. The study investigated the following:

1. The validity of the Teaching Evaluation Questionnaire as source of feedback for instructional improvement.
2. The conceptions instructors and students in various instructional settings hold about the meaning of teaching and learning.
3. The nature of teaching and learning in learner centred instruction and its implications to the evaluation of teaching quality.

7.1 Assumptions considered

The empirical studies were conducted based on certain assumptions related to evaluating teaching effectiveness. One of the assumptions is that a measure designed to evaluate teaching effectiveness is not valid unless it takes student learning into account. In the case of student rating questionnaires, one of the approaches used to estimate validity is to consider the interrelationship between student ratings and other measures believed to be indicators of teaching effectiveness (Cohen, 1981; Marsh, 1984; Olivares, 2003). It is assumed that if a student rating questionnaire is actually an appropriate measure of the construct, then it should be related to other measures believed to be outcomes of the effectiveness of teaching, such as course grades or students' perception of their learning. The quality of the Teaching Evaluation Questionnaire (TEQ) had to be evaluated before designing an improved measure. The validity was estimated based on the relationships the TEQ has with such indicators as course grades, students' perceptions of their own learning, and expected grades.

The second assumption was that teachers' and students' conceptions of teaching and learning have an impact on whether the teaching approaches will be teacher centered or learner centered (Entwistle & Tait, 1990; Trigwell & Prosser, 1991). These conceptions are also believed to influence students' evaluation of the effectiveness of the teaching (Kember & Wong, 2000; Kember, Jenkins, & Ng, 2004). Although conceptions of teaching and learning may be formed as a result of experiences in the process of instruction, it is possible that the implied meaning in student rating questionnaires could influence teachers and students to develop new conceptions or strengthen existing orientations. Thus, when a measure of

teaching effectiveness is entirely designed to evaluate teacher performance, it is believed to influence teachers and students to develop teacher centered conceptions. On the other hand, when the instrument addresses the support and facilitation from the teacher as a basis for effectiveness, then student centered conceptions are believed to be exercised. In the second empirical study teachers' and students' conceptions of teaching and learning were assessed. The study examined how these conceptions were reflected in the actual practices of teaching and learning. The implication of the conceptions to the evaluation of teaching quality has also been discussed.

The third assumption was that students learn better when they are actively engaged in the process of learning (Barr & Tagg, 1995; Johnson, 2008; Kuh, Kinzie, Schuh, & Whitt, 2010; Ory & Ryan, 2001). As student engagement in the process of learning is believed to contribute to learning, a measure of teaching quality has to address whether opportunities have been provided for students for active engagement and self regulation of their learning. Engaging students in the process of learning could be difficult when the nature of instruction is entirely teacher centered. The dominant instructional approach in universities in Ethiopia has been described as teacher centered (Daniel, 2004). Thus, it was necessary to implement learner centered instruction for the following reasons. Firstly, as a way of changing students' and teachers' conceptions it was a requirement to implement active learning by redesigning course materials and changing the instructional approaches and assessment strategies. Secondly, some of the indicators of effective teaching under the newly designed Student Evaluation of Learning and Teaching Questionnaire (SELTQ) had to be identified from students' experiences of their learning. There was no other way for students to identify these indicators unless they experience such a learning

environment. After designing the improved measure, its validity was estimated based on its relationships with measures believed to indicate qualitative and quantitative changes in student learning.

7.2 Summary of the four empirical studies

The aim of the research project was to validate a teaching evaluation questionnaire currently in use and to design an improved measure of teaching quality that gives emphasis to student's perceptions of their learning experiences. To this end, four independent empirical studies have been conducted. Various groups of students and teachers from two higher education institutions were involved in the different studies.

In Chapter Three the validity of the TEQ currently in use was estimated. To do so, the relationship was checked between the ratings and other indicators of teaching effectiveness. To minimize the influence of differences in the nature of courses on the ratings, multi-section courses were selected. In these sections, the same courses were offered by different instructors. The same types of assessment procedures were employed to determine the grades. Thus, differences in ratings would be attributed to differences in teacher performance, and not to differences in assessments.

Method- Students in the multi-section courses evaluated their teachers using the 27-item TEQ. With the intention of evaluating students' perception of their learning, another questionnaire was designed based on the seven principles of good practice identified by Chickering and Gamson (1987). Students' actual and expected grades were also considered. It was assumed that if the TEQ is valid, then higher ratings provided using this questionnaire should also be associated with higher grades as well as with higher ratings

of students' perceptions of their learning gain. Thus, the validity of the teaching evaluation questionnaire was determined based on its relationships with students' perceptions of their learning, expected grade, and actual grade. An analysis of variance was employed to determine whether differences in ratings and grades also reflected differences in teacher performance.

Results- It was found that students' actual grades did not significantly correlate with the ratings they provided. Instead, students' perceptions of their learning gain correlated significantly with the ratings. ANOVA revealed that differences in ratings provided using the TEQ and students' perception of their learning gain were associated with differences in teacher performance across the multi-sections, while actual and expected grades did not show similar differences. However, the items in the TEQ focus on evaluating teacher performance as criteria of effectiveness. The questionnaire doesn't provide opportunities for students to evaluate teaching in terms of their own learning. The study concluded that improved feedback can be provided if the TEQ is redesigned to include students' perceptions of their learning.

In Chapter Four, the purpose of the study was to assess students' and teachers' conceptions and practices of teaching and learning and state the implications for the evaluation of teaching effectiveness. The effectiveness of the feedback from student evaluation questionnaires is also influenced by the conceptions teachers' and students' have about teaching and learning. The ratings students provide are reflections of their conceptions of the meaning of effective teaching and learning. Similarly, teachers' performance is influenced by the meaning they attach to teaching and learning.

Method:- Teachers and students from two higher education institutions have been involved in the study. Two types of questionnaires with similar contents were designed to assess students' and teachers' conceptions and experiences. The first part of the questionnaires had items referring to the nature of teaching and assessment based on Kember's (1997) classification of teaching as 'knowledge transmission' and teaching as 'learning facilitation'. In the second part, teachers and students were asked to provide descriptions of the meaning of teaching and characteristics of effective teachers. Their responses were analyzed to look for the predominant orientation of teaching and learning among teachers and students. Differences in orientation as well as practice have been evaluated.

Results- It was found that teachers and students consider teaching as predominantly transmitting contents. Students' and teachers' assessments of their experiences revealed that teaching focused on transmitting contents and assessment was dominated by recall of factual knowledge. The fact that students with higher levels of achievement expressed reproducing orientation also implies that assessment focused on recall of facts. Thus, the use of an improved measure of teaching quality that encourages active learning can also assist teachers and students to change their conceptions. The TEQ currently in use contains items that refer to teacher centered orientations. Prolonged use of the measure might have encouraged the 'teaching as transmitting knowledge' conception of teaching among teachers and students. Moreover, the feedback students provide and teachers use is different from the one obtained using the rating forms. The TEQ currently in use does not address students' active engagement in the learning process as a requirement for teaching evaluation. It does not either address students' evaluation of their own learning.

In Chapter Five the purpose was to design a measure that gives more emphasis to student learning as a basis for evaluating teaching quality. In the most widely used student rating questionnaires the items have been identified based on students' and teachers' agreements to selected teacher characteristics. However, in this study, they were identified from students' experiences in learner centered instruction. Students have been involved in a learning environment that presents opportunities for active engagement.

Method- Students and their teachers participated in learner centered instruction. The courses were redesigned based on the tenets of learner centered instruction proposed by Weimer (2002). During the implementation of learner centered instruction students evaluated their experiences using the learning experience questionnaire. Their replies were used to generate items for the Student Evaluation of Learning and Teaching Questionnaire (SELTQ). In the learning experience questionnaire students were requested to describe their experiences in terms of what helped or hindered their learning in learner centered instruction. Based on a review of previous works and students' evaluations of their experiences, it was hypothesized that evaluating teaching quality has to address the way courses are organized and presented, the nature of assessment, the appropriateness of the feedback to and from students, students' self evaluation of their learning, and students' engagement in the process of learning. A pool of items has been designed and validated at various levels using content and criterion validity.

Results- Students reported that they benefited a lot from their experiences in learner centered instruction. They mentioned that opportunities were provided for engaging them in the process of learning. They also added that regular evaluation and subsequent feedback were provided and, as a result, they believed they were learning better in the learner centered classes.

Factor analysis identified four out of the five hypothesized dimensions, which included course organization and presentation, assessment and feedback, student self evaluation, and students' level of engagement. Two dimensions in the hypothesized framework were combined. As opposed to the TEQ that is entirely designed to evaluate teacher performance, the SELTQ has dimensions that enable students to evaluate their own learning progress as well as the support and guidance from the teacher. The use of the measure is believed to provide teachers with feedback on the impact of teaching on student learning.

Once the SELTQ has been designed, it was necessary to check whether it is more appropriate than the previously used TEQ. The difference in relationships the SELTQ has with course grade and study approaches were used to validate the improved measure. It was assumed that if the improved measure is indeed better, then students who provided higher ratings using the SELTQ should also apply study approaches that encourage high quality learning, and achieve higher course grades. Thus, Chapter Six dealt with evaluating the appropriateness of the SELTQ as compared to the previously used TEQ.

Method- Students attended to learner centered classes and evaluated their experiences using both the previously used TEQ and the newly designed SELTQ. They also indicated their Approaches to Studying using the questionnaire designed by Entwistle and Ramsden (1983). The questionnaire has three subscales: achieving orientation, reproducing orientation, and meaning orientation. The ratings provided using the previously used TEQ and the SELTQ have been used to examine possible relationships with grades and approaches to studying.

Results- Higher ratings provided using the SELTQ were associated with higher values in achieving and meaning orientations. The ratings provided using SELTQ were also significantly correlated with course grade, which implies that the new measure has a significant relationship with the student learning expressed in course grades. Whereas ratings provided using the TEQ were not significantly correlated with approaches to studying as well as with course grade. The rating provided using the TEQ were significantly higher than the one provided using the SELTQ. This implies that students gave higher ratings when the focus of the evaluation was on teacher performance. The fact that students provided higher ratings using the TEQ can be considered as evidence that higher ratings provided using a rating questionnaire entirely designed based on teacher performance may not reflect student learning. Thus, the feedback provided using the SELTQ can be a better source of information for teaching improvement since students are evaluating the quality of the teaching based on the quality of their own learning.

7.3 General discussion and implications

The studies conducted revealed the problems in the rating questionnaire currently being used and the need for an improved measure that gives emphasis to student learning. The outcomes of the first and second empirical study were considered while designing the SELTQ. In the first study, it was indicated that students' perceptions of their learning has an impact on the ratings they provide. The study concluded that a measure of teaching effectiveness would provide better feedback for improvement if it also addresses students' evaluation of their learning progress. The second study also revealed that teacher centered orientation is predominant and has an

impact on the instructional process. The use of the TEQ as a measure of effective teaching is believed to encourage the implementation of teacher centered instruction since the emphasis is on the evaluation of teacher performance. Based on the justifications discussed in the first and second study an improved measure has been designed.

As compared to the previously used TEQ, the SELTQ is believed to provide improved feedback for teaching improvement since it also addresses students' perceptions of their learning progress. Using the improved measure, students can evaluate the effectiveness of the teaching based on reflection of their own learning. Moreover, a study that compared the two measures revealed that the SELTQ has stronger relationships with the qualitative as well as quantitative indicators of teaching effectiveness. In the newly designed measure, students are also expected to make a self evaluation of their own performance, which conveys the message that students have an active role in their own learning. What is more, the use of the improved measure is expected to contribute to changing the teacher centered orientation widely being exercised in the higher education institutions in the country.

Effective teaching is about communicating expected behaviors and providing support to students in their efforts to learn the material presented. The appropriateness of a measure of teaching has to be evaluated in terms of whether it addresses teacher behavior that contributes to student learning. However, learning is also significantly influenced by the effort students exert. A measure of effective teaching should also provide opportunities for students in such a way that they can evaluate teaching in terms of the support they received to do the learning by themselves. Thus, as opposed to

the previously used TEQ that focused on teacher performance, the SELTQ has dimensions that refer to teacher performance and students' learning experiences. The new questionnaire is believed to help teachers make improvements in teaching with a focus on improving student learning. Students will be able to evaluate teaching both in terms of self evaluation of their own learning experiences and the support the teacher provided. More specifically, students can provide feedback based on self assessment of their contributions to their own learning, their engagement in the process of learning, the appropriateness of courses and how they are presented, the impact of assessment and feedback in improving their learning, and the use of student feedback for teaching improvement. The effectiveness of the teaching will be determined based on students' evaluation of both the facilitation from teachers as well as their own involvement in the process of learning. What is more, the use of the questionnaire is believed to encourage students to develop deep approaches to learning since students can also make self reflections of their own learning while evaluating the quality of the teaching.

The impact of the improved measure can also be seen in terms of its contribution to changing conceptions of teaching and learning. The first empirical study has indicated that improved feedback could be provided to teachers if the rating questionnaire addresses students' perceptions of their learning. The study on beliefs and practices has revealed that teacher centered orientations are widely held among students and teachers in the study site. The questionnaire in use encourages such beliefs since teacher performance is considered as a basis for evaluating effective teaching. Thus, the use of the improved questionnaire is believed to help teachers and

students develop the conception that teaching is effective not only when teachers teach but also when students learn.

The fact that the new measure has dimensions that urge students to make self evaluation of their learning progress enables them to develop the thinking that learning is not something the teacher provides. It shows that the teacher is there to provide guidance and facilitation and it is up to the students to do the learning. The use of the questionnaire reflects that failure in student learning should not only be attributed to the lack of support from the teacher but also to students' inability to do all what it takes to learn. Student engagement is, therefore, considered as evidence of the effectiveness of teaching since it is assumed that it is still the teacher who has to provide opportunities for students to do the learning by themselves. Studies also indicated that the time and energy students invest in educationally meaningful activities is a function of the level of academic challenge experienced, enriching educational experiences provided, active and collaborative learning presented, student-faculty interaction, and supportive campus environment (Kuh et al., 2010; Pascarella & Terenzini, 2005).

The use of the feedback for teaching improvement depends on students' and teachers' conceptions of teaching and learning. It was indicated in one of the studies in this research project that teacher centered conceptions are widely held among teachers and students. In such a context, it will be difficult for students to provide meaningful feedback and for teachers to make use of the feedback for improvement. The attitude is equally, if not more important, in introducing a different approach into an already established educational practice. Hence, staff development programs should consider changing

conceptions of teachers as a requirement if the improved measure is to be used properly. Studies also reported that teachers may not apply instructional approaches that improve the quality of student learning if the approach is not in line with their conception of effective teaching (Trigwell & Prosser, 1991).

The implications of the differences between the TEQ and the SELTQ are reflected in the outcomes of the fourth empirical study that compared the appropriateness of the two measures. The findings of the study revealed that student ratings of teacher characteristics may not reflect students' perception of their learning. The fact that the SELTQ ratings are correlated with grades reveals that students are evaluating what the teacher does in terms of its contributions to their learning. The emphasis of the TEQ is on teacher performance while in the improved measure dimensions that refer to students' evaluation of their learning are included. The difference in ratings between the two types of questionnaires indicates that students gave higher ratings using items that refer to teacher performance. However, the same students gave lower ratings using the SELTQ that also included evaluation of their own engagement. Thus, evaluating one's learning progress may not necessarily be the same as evaluating the effectiveness of teacher performance. It could be the case that students were happy about the performance of the teacher although they were not as happy when it comes to the impact of the teaching on their learning. This clearly indicates the need for a measure of effective teaching to give more emphasis to student learning.

7.4 Practical Implications

Certain issues should be taken into consideration if the improved measure has to contribute to improving teaching. An improved measure of teaching quality does not in itself lead to improved teaching or student learning. Although the requirements stated in the dimensions enable teachers and students to conduct instruction accordingly, the effectiveness of the measure in improving teaching quality depends on implementing an instructional setting that actively engages students in the process of learning. In the higher education institutions in Ethiopia, teacher centered orientation is widely being practiced. Although the use of improved measure of teaching is believed to help in developing student centered conceptions, it is difficult to completely change the teaching-learning tradition by just introducing an improved scale. Thus, department based guidelines that encourage and reward good practices should be put in place if the new measure is to make a difference in improving teaching, by implication student learning. Institutional policies and practices should encourage the use of student centered instruction in such a way that teaching could be conducted according to the demands stated in the dimensions in the new questionnaire. Such policies may have substantial effect on the way teachers and students approach teaching and learning. What is more, the learning environment should be designed in such a way that students will be encouraged to make self evaluation of their learning progress.

The effectiveness of the SELTQ also depends on students' readiness to be self critical to evaluate their own learning as well as work done by their colleagues. Students may resist unless the learning environment encourages students to make self evaluation of their learning progress. What is more,

teachers and the departments have the responsibility to create awareness among students about the importance of active engagement. Students need to be well aware that they will benefit from their experience through active learning. It is when they are actively involved that they can appropriately use the improved measure to provide their teachers with feedback. Studies have also reported that students developed deep approaches to learning when their departments encouraged leaning focused instruction (Kember & Gow, 1994; Trigwell et al., 1999).

In the nine old universities, a staff development program is recently being introduced following the intervention by the Educational Quality Improvement Program (EQUIP). It is hoped that the program will take into account student evaluation feedback provided using the SELTQ as point of departure. The SELTQ could also be used in Communities of Teachers in which teachers learn to reflect on their own teaching habits by discussing the outcomes of SELTQ evaluations.

7.5 Research Implications

The second empirical study revealed that teacher centered conception of the meaning of teaching and learning predominates among students and teachers. The study also indicated that in universities in Ethiopia the nature of the teaching is dominantly teacher centered and the assessment gives more emphasis to reproducing information. As the focus of the second study was on the implications of conceptions about the evaluation of teaching, not much has been done to investigate how these conceptions were formed and what needs to be done to change them. The use of feedback for teaching improvement depends on students' and teachers' conceptions of teaching

and learning. Research that focuses on how existing conceptions are formed and what needs to be done to change these conceptions is believed to contribute to the effective use of student feedback for teaching improvement.

The outcome of the first empirical study revealed that teachers use other sources of feedback in addition to student ratings. Student ratings are just one of the sources of evidence about the effectiveness of teaching and should be considered as a supplement to other sources such as self reflection and self evaluation by the teacher. Further research is required to validate the SELTQ and determine the impact of student rating feedback for teaching improvement.

The effectiveness of the new measure depends on the readiness of students and teachers in implementing student centered instruction. Thus, further research is needed to study the impact of culture and institutional impediments on the introducing student centered university education in the higher education context in Ethiopia. What is more, the SELTQ can also be studied in terms of its contributions to changing teacher centered conceptions in teacher training institutions. Using the scale student teachers may implement learner centered instruction during teaching practice sessions and evaluate their own learning experiences and the teaching skills of their colleagues.

7.6 Limitations

The new scale provides opportunities for students to evaluate the effectiveness of teacher performance in terms of their own learning

progress. The dimensions referring to teacher characteristics and to student learning have been identified based on appropriate factoring procedures. However, the participants were limited in number and do not represent various disciplines. What is more, confirmatory factor analysis has not been conducted to check whether the same dimensions would be extracted using data from various groups. Thus, large scale empirical research has to be conducted to verify the appropriateness of the dimensions across instructional settings and various student groups.