

SPECIAL ISSUE

Assessing the Assessment Procedures and Grading of Community Based Education/CBE Courses at Jimma University

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Abstract

Students' performance in CBE courses should be evaluated regularly and grades are awarded accordingly. However, assessment and grading procedures can serve their purpose only if they are of good quality. It follows that the quality of CBE assessment and grading schemes should be examined through research so that corrective actions can be taken soon. This study thus investigated the quality of assessment and grading of CBE courses at Jimma University. To this end, data were collected from students (selected from the class of 2012) and academic staff through close-ended questionnaires. The data collected in these ways were analyzed quantitatively using frequencies and percentages. The findings indicated that there were some limitations in the assessment and grading of CBE courses due to lack of awareness among some academic staff members and students about the availability of CBE course assessment guideline, lack of uniformity among CBE supervisors in utilizing the CBE assessment guideline and absence of consistency among supervisors in applying the assessment tools prescribed by the university. Thus, regular awareness raising orientations for supervisors and students, uniform and frequent utilization of the CBE assessment guideline and further studies are recommended to solve these drawbacks.

Key Words: CBE assessment, students' satisfaction, grading guidelines, curricula

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INTRODUCTION

Background of the Study

Educational assessment is defined as the process of documenting (usually in measurable forms) knowledge, skills, attitudes, and beliefs of learners (Mctighe and O'connor, 2005). It can focus on the individual learner, the learning community (class, workshop, or other organized group of learners), the institution or the educational system as a whole (Vergis and Hardy, 2010). It is obviously understood that the final goal of assessment practices in education depends on the theoretical framework of the practitioners and researchers, their assumptions and beliefs about the nature and process of human learning, the aim of educational practices, educational policies, etc. Assessment is usually an integral part of learning in virtually all school contexts. It is a means to determine whether or students have attained the course objectives (Madson, 1983; Miller, 2013; Simachew, 1989). Therefore, it is necessary that a course assessment schemes follow clear principles, guidelines and well-articulated grading schemes.

Jimma University has been implementing Community Based Education for a long time. CBE, like other courses, is offered in accordance with predefined objectives, instructional procedures and assessment criteria. Likewise, it is assumed that students' achievement in CBE courses is being evaluated regularly and grades are assigned based on pre-specified assessment guidelines and grading criteria. In fact, the university aspires that assessment and grading practices be periodically examined to determine the extent to which they comply with the CBE philosophy, the objectives of each CBE and the assessment criteria. It is with this rationale that this study was initiated to examine the assessment and grading practices of CBE courses at Jimma University.

Statement of the Problem

Jimma University has the mission of training professionals who competently function in the contemporary world dynamic change and development. To this effect, the University pioneered to implement an educational approach which links instruction and research with societal needs and development agendas. This educational philosophy is known as Community Based Education (CBE). Forms of CBE, namely, Community Based Training Program (CBTP), Team Training (TTP), Developmental Team Training Program (DTTP) and Student Research Project (SRP) are not viewed as casual experiences but as compulsory activities inseparable from Jimma University's education, training and research schemes. This fact is clearly stated in one of the principles of Jimma University's CBE: "The students' work during CBE training is a 'real work' that is related to their educational needs and also forms part of the requirement for obtaining a degree" (JU, 2013).

As quality maintenance a course grading mechanism, evaluation of each CBE course takes place following the implementation of the course. As CBE is a joint undertaking, the evaluation is done by collaborating supervisors, students and other stakeholders. In addition, students' performance in each CBE course is assessed and grades are awarded accordingly. To this end the university developed guidelines, procedures, as well as formulated policy. Some guidelines and frameworks for general approaches to the evaluation of CBE courses has been reported based on experiences gained so far (JU,

2013; Kamien, 1996; Mennin, *et al.*, 1992; Tegegne, *et al.*, 2000; Asefa, *et al.*, 2000). However, although the university is committed to ensure quality in CBE implementation, including its assessment and grading, not much has been documented about the strengths and limitations of the assessment and grading practices. That means, research studies aiming to examine the quality of assessment and grading practices of CBE course appears crucially important. Therefore, this research aimed to look into the assessment and grading of CBE courses at Jimma University. Particularly, the following basic questions were raised:

- How are the availability of CBE assessment guidelines and their access to students rated by students and academic staff?
- How do supervisors rate their use of the CBE assessment guidelines?
- How do students perceive their supervisors' utilization of the assessment guidelines?
- How do students and academic staff evaluate the quality of CBE assessment tools?
- What are the methods used to assess and grade students' performance in CBE courses?
- How satisfied are students in the assessment and grading of CBE courses?

Significance of the study

It is expected that the findings of the study will be used to:

- Develop policies and strategies for the CBE courses with high levels of performance,
- Attract CBE actors' attention for specific CBE courses assessment and grading practices to enhance successful performance and sustainability of the philosophy in the university,
- Stimulate other researchers, practitioners and scholars to conduct further study.

Hence, the implementing offices/ CBE coordinators, directors and senior directorial offices, as well as other academic office bearers participating in assessment and grading of the CBE courses can also be benefited from the outputs of the study.

Research Objectives

Main Objective

The study generally attempted to examine the quality of assessment and grading guidelines of CBE courses at Jimma University.

Specific Objectives

The study tried to achieve the following specific objectives. These are to:

- Find out how students and academic staff rate the availability of assessment and grading guidelines of CBE courses and their access to students
- Identify supervisors' ratings of their utilization of the CBE assessment and grading guidelines;
- Investigate students perception of their supervisors' utilization of CBE course assessment guidelines;

- Examine the views of students and academic staff regarding the quality of CBE assessment tools;
- Identify the type of methods usually used in assessing and grading students' performance in CBE courses;
- Assess students' satisfaction with the assessment and grading of CBE courses.

RESEARCH METHODOLOGY

Research Method

The study adopted a cross-sectional descriptive survey that employs quantitative methods. Descriptive method, a scientific method which involves describing an issue, a phenomenon, an event, a situation etc. without manipulating it in any way (Babbie 1989; Best and Kahn 2003), is used to study behaviors that are observed, beliefs that are held, situations that are prevailing, phenomena that are occurring and trends that are developing. Thus, descriptive method was used in this study to assess and describe the existing condition of the assessment and grading of CBE courses at Jimma University. Besides, the study is a cross-sectional survey because data were collected from a representative subset of the target population at one specific point in time (Lee, 1994).

Sources of Data

The data required for this study were collected from two groups of sources. One set of data were collected through questionnaire from a sample of Jimma University students selected from the class of 2012. Secondly, some academic staff members of the university (the head, one senior instructor and one recently hired instructor from each department) participated in the study by filling out questionnaire. The selection of the two sources of data was accomplished based on some underlying assumptions. Student respondents were taken from the class of 2012 because it was thought that their involvement in CBE activities from first year of entry till graduation had given them adequate experiences so that they were good sources of information. On the other hand, academic staff members of this university were involved in the study for it was believed that their experience as instructors at Jimma University could have given them experience in CBE.

Sampling Techniques

Different methods of sampling were used to select respondents for the study. Extreme case sampling technique was used to select instructors who participated in the study. Three instructors, i.e. one recent employee, one senior instructor and the head were selected from each department. This technique was used to capture the maximum amount of variability of CBE related experiences among academic staff members. Hundred twenty academic staff members 27, 30, 21, 11, 19, 9, and 3 respectively from the Colleges of Social Sciences & Law/CSSL, Public Health and Medical Sciences/CPHMS, Agriculture and Veterinary Medicine/CAVM, Business and Economics/BECO, Natural Sciences/CNS, Jimma Institute of Technology/JiT and Institute of Education and Professional Development Studies/IEPDS), participated accordingly. On the other hand, all

college/institute deans, college/institute CBE coordinators and top university officials were selected through availability sampling technique. Finally, the sample size for student respondents (taken from 40 departments which yielded 780 possible pair-wise comparisons between departments) was computed to achieve a 95% CI, with an alpha level of $0.05/780=6.4*10^{-5}$, and a prevalence of 50%, that is, proportion of students who are satisfied with the execution of CBE courses is assumed to determine the sample size generally calculated as:

$$n \square \frac{Z^2}{d^2} p(1 \square p) \square \frac{Z^2}{4d^2} \square \frac{3.83^2}{4 * 0.05^2} \approx 1467$$

eq.(1)

However, since the population is finite, the final sample size was:

$$n_f \square \frac{n_o}{1 \square \frac{n_o}{N}} \square \frac{1467}{1 \square \frac{1467}{3517}} \approx 1036$$

eq.(2)

The final sample size was distributed proportionally to the population of prospective graduates of each department among the class of 2012 academic year.

Data Collection Instruments

A questionnaire for academic staff members and questionnaire for students were used to collect data for the study. The questionnaires were of the close-ended type since the study is a quantitative one. The questionnaire was used for it was believed to be a useful instrument to collect data on a wide range of topics from a large number of respondents (Kumar, 1996). Both questionnaires were designed based on the various CBE guidelines available in Jimma University and drawing on the practical experiences the researchers had gained in their involvement in the implementation of CBE.

Data Quality Assurance and Analysis

In order to assure the quality of data, the researchers administered the questionnaires to the relevant respondents in an effort to achieve the necessary information. Moreover, data collectors were well informed on the aspects of the questionnaire and how to handle the respondents and the data carefully. During the data analysis, the raw data were entered using EpiData and was exported for further cleaning and analysis into SPSS version 16.0. Tables were used to present quantitative data in the form of frequency distribution and percentages.

Ethical Considerations

In this study, care was taken to meet ethical standards. Firstly, participation in the study was voluntary since it was believed that the respondents' willingness was important to obtain reliable data. Secondly, interviews were conducted according to the interviewees' choice of venue and schedule. Maximum care was taken to avoid questions that could

affected the feelings of the respondents. In addition, participation was anonymous and all the data obtained from the respondents were used only for the purpose of the study.

RESULTS

Availability of CBE Assessment Guidelines

The following figure shows the responses of students and academic staff members about the availability of assessment guideline and its utilization by supervisors. As can be seen from figure 1, a large number of staff members, 67(58.8%), reported that they were aware of the CBE courses assessment guideline, while the remaining 33(28.9%) claimed that they were not aware of the availability of document, and 14(12.3%), could not decide whether or not they know the guideline existed. On the other hand, a total of 358(40.3%) students have information about the presence of the assessment guideline, while the majority, 390(43.9%), of the students expressed that they did not know the guideline, and the remaining 141(15.9%) were in dilemma concerning the availability of the assessment guidelines.

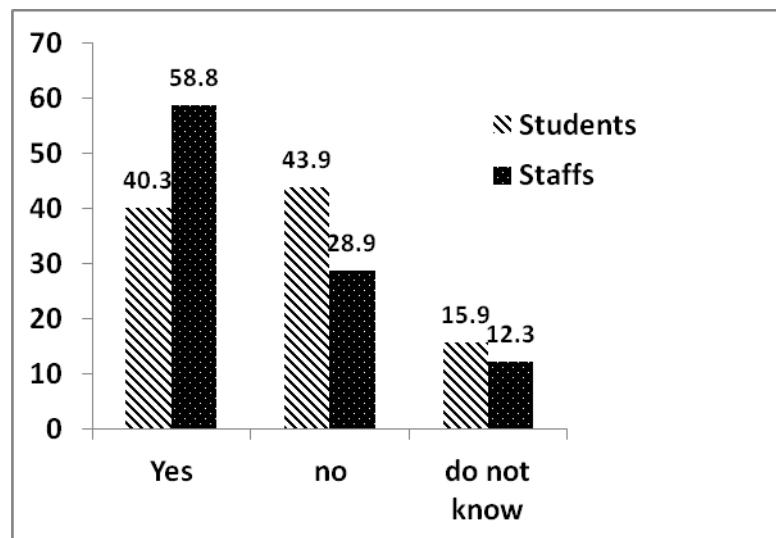


Figure 1: Students' and academic staffs' reflection about availability of CBE course assessment guidelines ($n=1036$ students, 95.5% response rate; $n=120$ academic staffs)

Generally, the data in the figure illustrate that a significant number of students did not have information about the availability of the CBE assessment guidelines. This shows that adequate orientation and awareness might not have been delivered to the students before or during the implementation of the various CBE courses.

Accessibility of CBE Assessment Methods to Students

As figure 2 below depicts, the majority, i.e. 259(72.5%) of the students reported that the CBE assessment guideline had been made accessible to them while 98(27.5%) expressed that they were not exposed to the existing guidelines. Similarly, the majority, 56(83.6%), of the academic staff members asserted that the guideline were accessible to the students, while 11(16.4%) did not have information about students' access to the CBE assessment guideline. This implies that a large number of students had enough accesses to the existing CBE assessment guidelines.

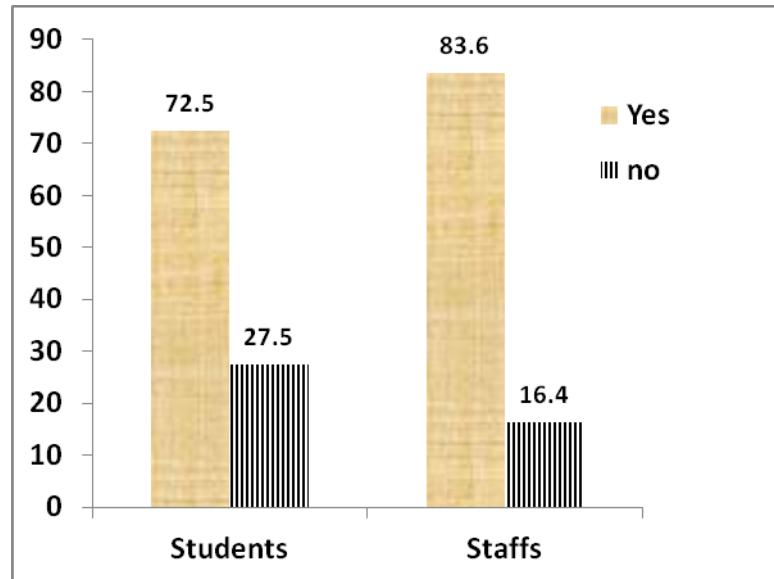


Figure 2: Students' and academic staffs' reflection about the accessibility of CBE course assessment methods to the students (n=358 students; n=67 academic staffs)

Utilization of the Assessment Methods by CBE Supervisors

As figure 3 below shows, a total of 420 respondents (353 students and 67 academic staff members) responded to the items of the questionnaire meant to elicit data on CBE guideline utilization by supervisors. Of these, 276(78.2%) students and 45(67.2%) staff members expressed that the supervisors utilized the guidelines. On the other hand, very few, 56(15.9%), students and 10(14.9%) staff members reported that the guideline had not been effectively utilized by the supervisors. The remaining, 21(5.9%) students and 12(17.9%) staffs, stated that they did not know much about the utilization of the guidelines by the supervisors.

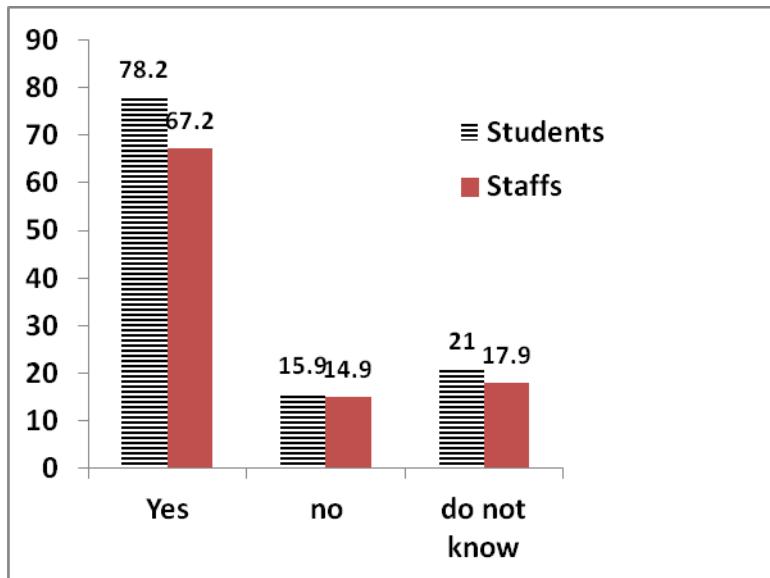


Figure 3: Students' and academic staffs' reflection about the utilization of CBE course assessment methods by the supervisors ($n=358$ students; $n=67$ academic staffs)

This figure shows that the assessment methods have been utilized by the majority of the CBE supervisors to evaluate the student's performance on CBE courses. This might help to ascertain that the grading system is supported by the harmonized guidelines. In fact, we cannot still claim that the assessment and grading of CBE courses is effective since guideline utilization may not imply quality in assessment and grading.

Frequency of the CBE guideline utilization by the supervisors

Figure 4 summarizes the data pertaining to the frequency of guidelines utilization by the supervisors. Accordingly, 113(33.8%), 120(35.9%) and 82(24.6%) of the students respectively rated the frequency of guideline utilization by the supervisors as being 'rare', 'often' and 'always'. On the other hand, 7(12.3%), 12(21.1%) and 30(52.6%) of the academic staff members respectively rated it as 'rarely', 'often', and 'always'. Of the 334 students, 19(5.7%) and of the 57 staffs, 8(14.0%) asserted that they did not know how often the supervisors stick to the rules. Generally, the students' responses in Figure 4 illustrate that while the guideline was utilized by the supervisors, it was not practiced very often/persistently.

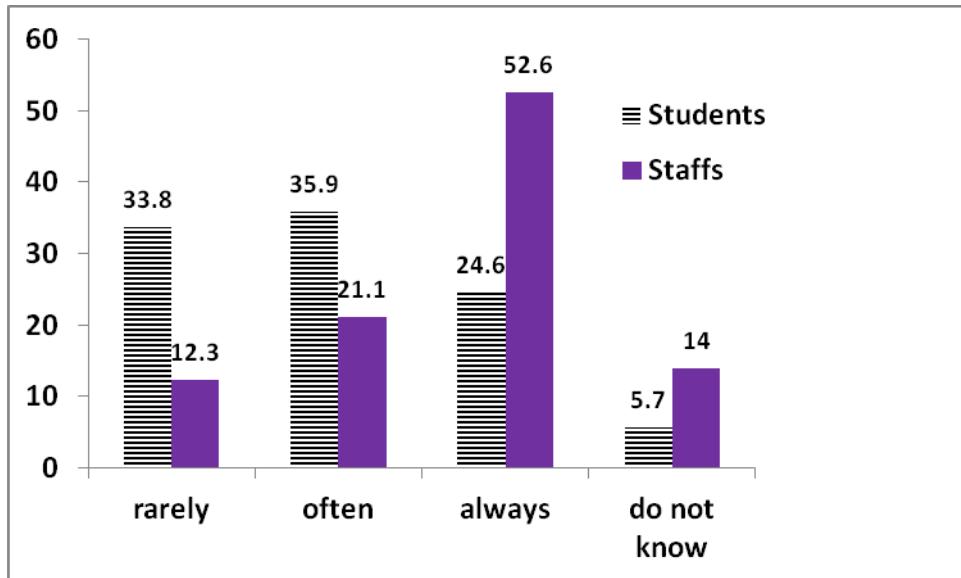


Figure 4: Students' and academic staffs' reflection about frequency of the guideline utilization by the supervisors(n=1036 students; n=120 academic staffs)

Quality of Assessment Tools

Figures 5 and 6 summarize students' and academic staff members' responses about the quality of the assessment tools used to evaluate students' performance on CBE course. As can be seen from figure 5, students revealed that the assessment tools were well planned [651(76.8%)], purposeful [616(72.7%)], relevant [608 (74.1%)] and transparent [519 (63.7%)]. On the other hand, some of the students claimed that these tools were not planned [138(16.3%)], not purposeful[74(20.5%)], not relevant [213(25.9%)] and not transparent [206(36.3%)]. The remaining students, [59(7.0%)], and [57(6.7%)], did not say whether the assessment tools were planned and/or purposeful, respectively.

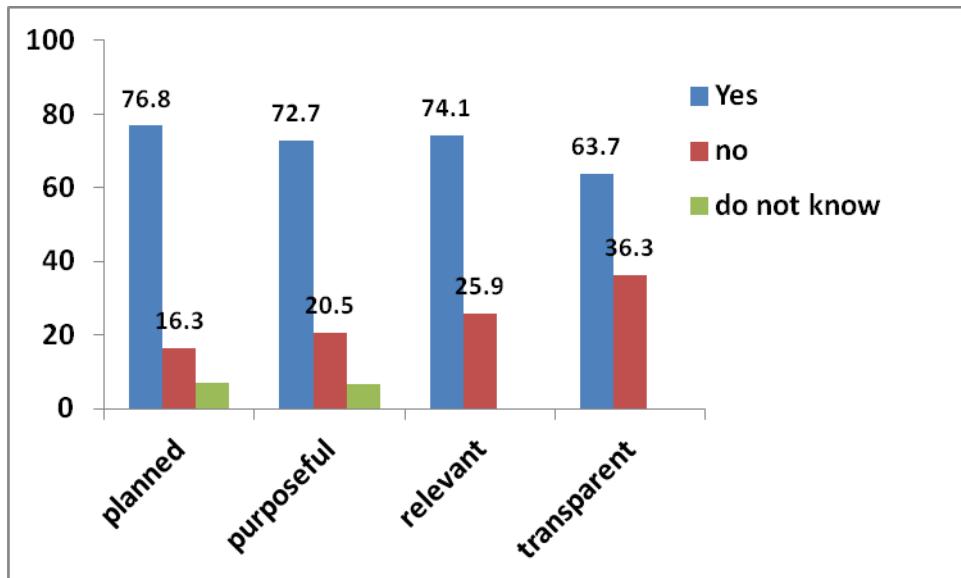


Figure 5: Students' reflection on the quality of the CBE assessment tools (n=1036 students)

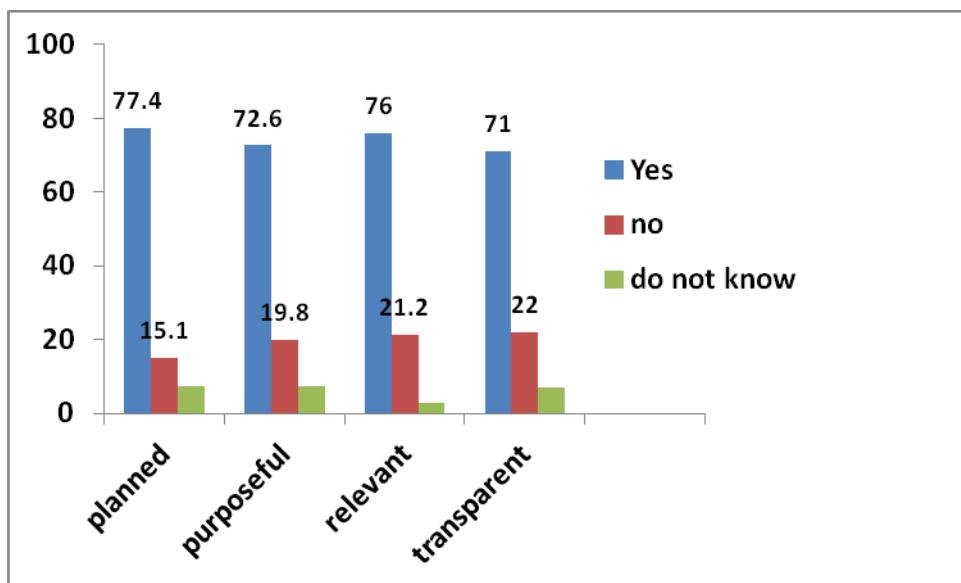


Figure 6: Academic staffs' reflection about the quality of the CBE assessment tools (n=120 academic staffs)

Similarly, staff members revealed that the assessment tools were well-planned [82(77.4%)], purposeful [77(72.8%)], relevant [59(76.0%)] and transparent [71(71.0%)]. On the other hand, a few of them claimed that the assessment tools were not well planned [16(15.1%)], not purposeful [21(19.8%)], not relevant [22(21.2%)] and not transparent [22(22.0%)]. The remaining, very few academic staff (figure 6) did not seem to had evaluated the quality of the assessment tools. Generally, a significant number of students and staff members have doubt about the quality of the existing assessment tools.

Types of Assessment Tools Used in Evaluation and Grading

Table 1 presents data pertaining to the type of assessments used in the evaluation of CBE courses. Accordingly, the majority of the students and the academic staff members agreed that written exam [student (93.9%) and staff (94.8%)], report [students (86.0%) and staff (91.3%)], action plan [students (84.3%) and staff (80.9%)] and symposium presentation [students (82.8%) and staff (89.6%)] were the major types of assessments.

Table 1: Type of Assessments Employed in CBE Course Evaluation (*n=1036 students; n=120 academic staffs*)

Assessment parameters	Student reflection				Staff reflection			
	Yes		no		Yes		no	
	no	%	no	%	no	%	no	%
Written exam	829	93.9	54	6.1	109	94.8	6	5.2
Field supervision	610	69.1	273	30.9	107	93.0	8	7.0
Self-reporting	487	55.2	396	44.8	57	49.6	58	50.4
Peer evaluation	508	57.5	375	42.5	66	57.4	49	42.6
Self-assessment	494	55.9	389	44.1	41	35.7	74	64.3
Report	759	86.0	124	14.0	105	91.3	10	8.7
Action plan	744	84.3	139	15.7	93	80.9	22	19.1
Symposium presentation	731	82.8	152	17.2	103	89.6	12	10.4
Intervention output	620	70.2	263	29.8	68	59.6	46	40.4
Group discussion	672	76.1	211	2.9	61	53.5	53	46.5

The remaining types of assessment: self-reporting [students (55.2%) and staff (49.6%)], peer evaluation [students 57.5%) and staff (57.4%)], self-assessment [students (55.9%) and staffs (35.7%)], intervention output [students (70.2%) and staff (59.6%)] and group discussion [students (76.1%) and staff (53.5%)] were considered marginal by both groups respondents. However, the reflection with regard to the follow-up in field activity had not been equally reflected by the staffs (93%) and the students (69.1%).

Students' Satisfaction with Evaluation of CBE Courses

Figure 7 displays the data on students' ratings of their satisfaction with the evaluation of CBE courses. Accordingly, 222(25.3%) and 388 (44.2%) of the students respectively indicated that they were 'very satisfied' and 'satisfied'. On the other hand, while 137 (15.6%) rated their satisfaction as 'dissatisfied', the fewest, 44(5.5%), assigned 'very dissatisfied' to it. Generally, the data in the table illustrates that most of the students were satisfied with the evaluation criteria used in CBE courses.

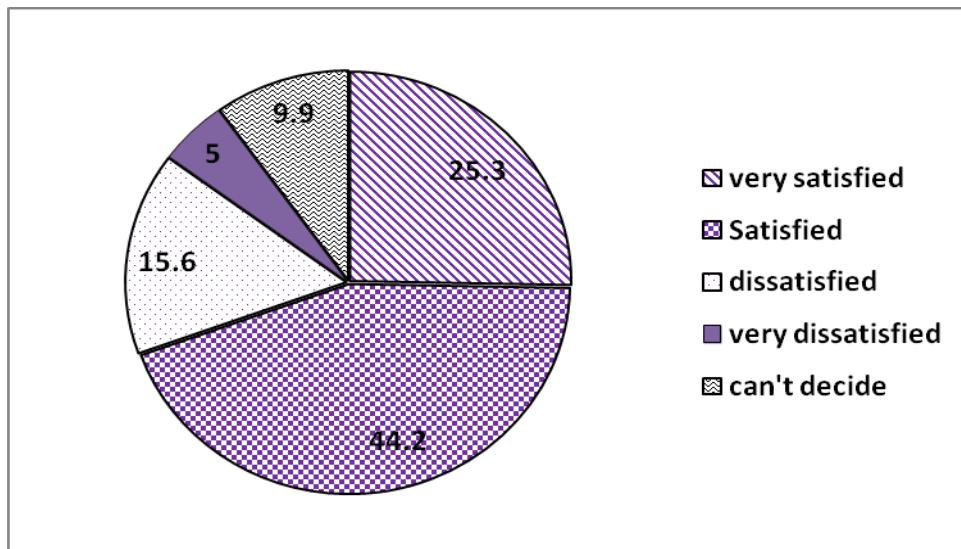


Figure 7: Students' reflection pertaining to their satisfaction in the given CBE course evaluation ($n=1036$ students)

DISCUSSION

The study revealed that most of the academic staff members who participated in the study knew the availability of the CBE assessment guideline, and few students were aware of the existence of such a guideline. The response of the majority of academic staff indicates that Jimma University utilized a uniform guideline to assess students' performance on CBE courses. However, the fact that most of the student respondents and some of the academic staff either did not know or were ambivalent about the availability of an assessment guideline used across programs suggests that orientations made available for staff and students have been insufficient. While it is fortunate that many people, students and academic staff taken together, knew that the document was available, that some of them were unaware of the presence of such a document is not a matter to be overlooked since all supervisors and students involved in CBE activities should have virtually equal level of awareness regarding the procedures followed in the assessment and evaluation of CBE course (JU, 2013).

Availability of guideline is necessary but not a sufficient condition for effective assessment of CBE courses. For an effective assessment and evaluation to be realizable, supervisor should utilize this guideline uniformly and effectively (JU, 2013). It is also with this understanding that the university prepared detail guidelines on how CBE should be implemented, supervised and assessed. The study found out that the majority of the academic staff and the students believed that most CBE supervisors utilized the assessment guideline effectively. But, some respondents expressed views as supervisors failed to

effectively utilize the assessment guideline. Based on this, it is possible to infer that there is slight lack of uniformity among supervisors in utilizing the guideline.

Still, one cannot claim that the assessment and grading of CBE course is effective since guideline utilization is only one component of quality in assessment and grading. Therefore, how frequently supervisors use the guideline in assessing performance in CBE courses should be ascertained. Regarding the frequency of guideline utilization, the majority of the students believed that supervisors used the assessment guideline less frequently, while a good number of the academic staff members held that most supervisors used the guideline frequently. The difference in perception between academic staff and student can be ascribed to the difference in awareness about the availability and use of the guideline. This in turn appears to be linked with the inadequacy of orientations and awareness raising endeavors.

Again, the frequency with which an assessment tool (CBE assessment guideline in this case) is used can bear fruits if only the tool itself qualifies as a good one. In connection with the quality of the CBE assessments, most of the academic staff and students maintained that the assessments were well-planned, purposeful and transparent. However, there is a significant number of academic staff and students who were not aware of the availability of the guideline and how frequently it was utilized, so it can be difficult to boldly argue that this assessment tool was well-planned, purposeful and transparent.

The study also revealed that the evaluation of CBE courses employs a variety of assessment techniques: written exam, action plan preparation, symposium presentation, self-reporting, self-assessment, peer-evaluation; intervention and group discussion, in fact with varying degrees of emphasis. If a variety of assessment techniques are used in an assessment scheme, students will have a chance to demonstrate understanding, skills and experiences in a variety of ways (JU, 2013; Stiggins, 2001; McMillan, 2000). That may be why most of the students who participated in the study expressed satisfaction with the assessment and evaluation of their performances in CBE courses.

CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

Based on the findings of the study, the following conclusions can be drawn:

1. Some academic staff members and students lack awareness about the availability of CBE course assessment guideline. Therefore, there appears to be insufficient orientation and awareness raising endeavors regarding the assessment of CBE course.
2. There seems to be a lack of uniformity among CBE supervisors in utilizing the CBE assessment guideline. Some use it frequently while others utilize it less frequently.
3. Most of the study participants believe that the assessment tool is well-planned, purposeful and transparent. However, it cannot be effective enough unless implemented uniformly and frequently.
4. The assessment tool includes a variety of assessment techniques, but successful implementation is highly contingent upon the frequency with which it is utilized.

RECOMMENDATIONS

On the basis of the findings and the conclusions drawn from them, the following recommendations are made:

1. It is necessary that the CBE offices coordinate regular awareness raising orientations to ensure that all students and supervisors can acquire reasonable understanding of the procedures used in assessing CBE course.
2. It is vitally important to ensure that supervisors use the CBE assessment guideline uniformly and frequently so that reliable evaluation and assessment can be ensured. Therefore, CBE officials and department heads should make concerted efforts towards this goal.
3. Further studies are needed in order to ascertain the quality of the CBE assessment procedure and the grading practice.

REFERENCES

- Asefa. M, Ayele. F, Teshome M., Haile G. (2000). *Assessing the impact of an innovative curriculum on medical graduates: The Jimma Experience*, Ethiopia. *Ethiop. J. Health Dev.* 14:253-267
- Babbie, E. (1989). *The practice of social research (5th Ed.)*. Belmont CA: Wadsworth.
- Best, J. W. and Kahn, J. W. (2003). *Research in education (7th Ed.)*. New Delhi: Prentice Hall of India Private Limited.
- Jimma University/JU (2013). *Guide line and procedures for CBE. Office of senior Director for research, CBE & PGP. Jimma University*. www.ju.edu.et
- Kamien, M. (1996). *Responding to society needs one criterion in evaluating the education of general practitioners*. *Education for Health*, 9:147-153
- Kumar, R. (1996). *Research methodology: a step-by-step guide for beginners*. London: SAGE Publishers.
- Lee, J. (1994). *Odds Ratio or Relative Risk for Cross-Sectional Data? International Journal of Epidemiology* 23 (1): 201–3. doi:[10.1093/ije/23.1.201](https://doi.org/10.1093/ije/23.1.201).
- Madsen, H. (1983). *Techniques in testing*. Oxford: Oxford University Press.
- McMillan, James H. (2000). *Fundamental assessment principles for teachers and school administrators. Practical Assessment, Research & Evaluation*, 7(8). Retrieved June 26, 2014 from <http://PAREonline.net/getvn.asp?v=7&n=8>
- Mctighe, J. and O'connor, K. (2005). *Seven practices for effective learning*. *Educational leadership* 63 (3): 10–17.

Mennin, S., Friedman, M., Woodward, C. (1992). *Evaluating innovative medical education programs: common questions and problems.* Annals of Community Oriented Education, 5: 123-133

Miller, J.J. (2013). *A better grading system: standards-based, student-centered assessment.* English Journal. 103(1):111-118

Simachew Gashaye (2005). *An exploration of the content validity of grade eleven English language tests: 'the case of East Gojam Preparatory School.* (Unpublished MA Thesis). Addis Ababa University, Addis Ababa.

Stiggins, R.J. (2001). *Student-Involved Classroom Assessment, 3rd Edition.* (Columbus, OH: Merrill, an imprint of Prentice Hall.

Tegene M; Asefa M., Tessema F., Kebede K., (2000). *Assessment of the community-based training program at Jimma University, Ethiopia.* Ethiop. J. Health Dev. 239-52.

Vergis A, Hardy K (2010). *Principles of Assessment: A Primer for Medical Educators in the Clinical Years.* The Internet Journal of Medical Education 1 (1).