

Original Paper

Experiences of 5th Year Students in Kerbala with Formative Mini-CEX

Riyadh Dhayhood Mahdi Al Zubaidi^{^*}

[^]College of medicine/ university of Kerbala/ Kerbala/ Iraq.

Abstract

Background: Formative work place assessment give opportunities to follow the progression of students learning through monitoring of their doing

Aim: To know the experience of the 5th year students with the first year implementation of formative mini clinical evaluation exercise (mini-CEX).

Method: It is a qualitative research. The information were collected from interview with students completed the internal medicine discipline of the fifth year during the academic year 2017 - 2018.

Results: The participants were aware about the exam, the embarrassment of the exam and the presence of peer get less with subsequent examinations, and the encouraging feedback of the examiner exerted a positive effect on the learning process. The students explored the need to further training of clinical examination, in addition to adhering to instructions regarding the need to focus on educational goals. Some of the teachers did not administer the exam according to the instructions of mini – CEX.

Conclusion: The experience resulting from the mini clinical evaluation exercise (mini-CEX) indicates positive results with regard to students' rush towards learning, a great opportunity for teachers to follow up the students' level and guidance, enhancement the students' communication skills, and the need of some teachers to adhere to the essence of this type of assessment.

Keywords: Mini – CEX, feedback, formative assessment, qualitative research, Kerbala, Karbala

Introduction

The formal curriculum is the planned programme of objectives, content, learning experiences, resources and assessment offered by a school ⁽¹⁾ In designing curriculum we should answer the following questions: why do we learn (objectives) ?, what do we learn (the content), how do we learn (learning strategies and methods), how do we ascertain that the learning is happened (assessment and evaluation), where do we learn (learning environment)? Also we should think of the effects of past experience of the learner on curriculum designing (student as partner).

The assessment is a planned action to obtain information about the competence and performance of a student ⁽²⁾ It is of two types (formative = checking the progress), summative assessment (to ascertain the achievement of educational objectives). By using assessment, we enhance student learning to meet their learning outcomes, assesse the student's progression, to verify where teaching need more development, and to gain feedback regarding the process of learning ⁽³⁾. Owing to the fact that learning takes place under the headings of knowledge, skill, and attitude so it is important to base on Bloom's taxonomy

*for corispondance E-mail: riyadhzubaidi@yahoo.com

in choosing the level and the type of required examinations.

The enhancement of student learning need feedback which is the information provided by a teacher, trainer or colleague of a student or trainee in one or more of his performance or understanding of the topic of the study or training ⁽⁴⁾ In other words feedback gives a perception of how successful a task is. Feedback should provide learning-related information that fills the gap between what is actually learning and what should be learned ⁽⁵⁾

The efficiency of feedback depends on its goal, and this goal determines the method and time of the procedure. The purpose of feedback is to improve the learner's knowledge, skills, or attitude. Receipt of accurate feedback can help to narrow the gap between actual and desired performance. Effective and regular feedback has the potential to reinforce good practice and motivate the learner toward the desired outcome ^[6] The feedback given by the teacher enable the learner to correct the mistakes, promote the good performance, so more effective and efficient learning shall takes place ⁽³⁾

The opportunities and quality of learning obtained are better in the classes that provide effective feedback to the students ⁽⁴⁾ The development of the education process will be positively affected by: Making the feedback process part of the fundamentals academic work, providing immediate feedback, the teacher's ability to provide feedback directly to students ‘ high readiness for learners to positively understand feedback received, , Provide students with clarifications related to what they have accomplished and what they did not achieve is much better than giving students marks that reflect their achievement "In the case of grades may not let students know where they made mistakes and how to avoid the error" ⁽³⁾

Because of the increased awareness of the subject of education, including assessment, the use of assessment methods such as OSCE has become common in college of medicine university of Kerbala for many years by providing more stations of examination and less chance of bias in the assessment. However, the OSCE does not include the observation of the direct impact of the work environment on student performance which can be observed in mini – CEX “mini clinical evaluation exercise” which in addition can provide immediate feedback afterward from different assessors (the student exposed to minimum of three opportunities of assessment). In Miller's pyramid ⁽⁷⁾ the highest level of assessment lies in ‘does’, i.e. the student is assessed while performing an actual clinical task in an authentic setting. Mini-CEX has been shown to have a good reliability, which is much higher than a long case or an OSCE of similar duration ^(8,9) Frequent exposure in this type of assessment will allow students to know their mistakes or weaknesses to address them. It also provides the opportunity to enhance the good performance of the student. In the final result, the educational goals are achieved with motivation and careful observation of student development ^(10,11) Mini – CEX is a way in which the essence of the trainee's skill is tested on a real patient in a real clinical environment, so they measure performance “what a person actually does” more than competences “what the person is capable of doing”, the exam last for 20 minutes, supervised by a teacher, each student performs three tests, the domains that be watched are “history taking, physical examination, communication skills, diagnostic and management abilities, and professionalism, and overall assessment”, the assessment sheet is that of NBME ^(10,12)

Method

The duration study in the college of Medicine, University of Kerbala (like other Iraqi medical colleges) is six years. The fifth year students (117 students; 30 male and 87 female, with mean of age is 23 year old) are divided into four groups (three of them were 29 students while the fourth group composed of 30 students) according to the major disciplines “internal medicine, general surgery, pediatrics, obstetrics & gynecology”; the study period in each group is 10 weeks. The program of each discipline includes (resource sessions “Lectures”, ward round, bed side teaching, outpatient clinic, Problem based interactive sessions, medical image, and Lab results interpretation, and operational theater in surgery and obstetrics & gynecology). The assessment tools includes (mini – CEX, OSCE, written examination). The exam has been applied in the OSCE method style since nine years, while the mini - CEX application began this academic year.

This study is a qualitative research, which was designed to know the feedback of student on mini – CEX test as a formative assessment. For this purpose we met with all the 116 students who passed through the internal medicine discipline, each group was interviewed separately to obtain feedback from students following the implementation of mini – CEX as formative assessment. The mini – CEX is a 20-minute direct observation assessment or “snapshot” of a trainee-patient interaction. Each student exposed to four attempt of mini – CEX. Each student received immediate feedback from the examiner. The interview with the participant rely on the following questions:

(1) Whether you had a prior idea of the nature of the exam. Were you scared? Why?

- (2) How did you find the exam?
- (3) Did you receive feedback after each exam?
- (4) Did you identify the weak point in your education?
- (5) Did the exam add something that enhances your study experience?
- (6) Are the teachers similar in conducting the exam?
- (7) Was the presence of your colleagues in the exam useful or working pressure on you?
- (8) Do you think that being an observer to your colleague is useful?
- (9) If you were a teacher how do you test students?
- (10) Do you think the exam can be used as a means of summative assessment?
- (11) Did you think that mini – CEX influence your communication skills?

The results

The students' answer is a summary of an open interview on each question. This interview began by mentioning the fact that the students have an important role in the designing and development of the curriculum. We also agreed to make our motto be the old saying “May Allah’s mercy be upon one who dedicate me my faults” so the response to the questions is agreed by all students.

1. *“We had an idea about the exam, also we noticed our teacher in dealing with the patient in daily practice. We were not afraid but feel embarrassed as it is the first experience”.*

In fact, the students were embarrassed in the exam because it was their first attempt, because they did not see the ideal things in daily practice owing to the large number of patients who seek medical attention, and because in fact they integrated the learning domains in clinical practice alone for the first time. Students' views were enhanced by improved performance in subsequent attempts

2. *“The examination at first was difficult but it became testy in the*

subsequent examination, really it is the place of complete integration!!”

The students found the exam as a field of interaction among communication, knowledge, and skills (which was the truth we frequently mentioned it in the preceding years)

3. *“The wonderful way we received the feedback made us feel that we were part of the future team. It also showed us that the exam was a high-level learning lesson or a means of promoting learning.*

The instructions were to mention the positive things first and then encourage the students to make their performance better through reading, doing more examinations on peers first then patients ...etc.

4. *“We have had difficulty in clinical examination”*

In the PBL system; the student learn the clinical skill prior to the 5th year by demonstration on human simulator and volunteer, but we think that time spent by the student for this domain is insufficient . This will require more follow-up of student activity in this field. We also believe that compulsory success in both theoretical and practical work will greatly enhance students' focus on clinical training.

5. *“Yes, we realized the need to economize on the study by focusing on the points that were given to us: definition of the problem, modes of presentation, how do you prove by examination and investigations, how do you manage and follow up”,*

The students of the 5th year (academic year 2017 – 2018) represent the first batch studied according to PBL style, so they are under the influence of the method of education in secondary schools and the opinions of their colleagues in the years preceding them (where the style of learning was teacher centered), but fortunately after completion of each year they feel themselves better than their colleagues in traditional style of learning.

6. *“No, some of them conduct the exam according to their experience”*

Some of the teacher still believe that there is no much difference between mini – CEX and long cases, so some of them leave the students alone with the patients, then return to examine them.

7. *“Yes, the presence of my colleague made us under sever embarrassment”*

Students are at close scientific levels and they are in a life experience that is not enough to make them focus on the main learning goal and erase the factors affecting negatively in the learning process. This feeling begins to diminish as the student undergoes consecutive tests.

8. *“Yes, it is very useful, gave us a chance to see my colleagues' methods of responding to situations that I had not experienced before”*

It is surprising that the students have two opposing beliefs in the exam practice (*when they tested, and when they watch the exam*), and they were encouraged to accept it. They preferred to be alone on testing and agree to be an observer for the other. This feeling get less on subsequent examinations owing to the positive notes of their colleagues.

9. *“We focused on part of the exam e.g. information gathering, examination, critical thinking!!”*

The students were very impressed with the exams in the previous years where they were trained to learn the basic skills in the clinical examination, which was conducted on human simulator or volunteers in form of OSCE.

10. *“Yes, many trial in the exam will reflect a good idea about our performance”*
It is a logical issue that multiple examinations are more reflective of the level of students

11. *“You can communicate with others efficiently if you are confident in yourself as part of the life system. Our confidence has been strengthened”*

It is great to hear that the students realized that they are part of a life system. This is an important step in doing their jobs in the future.

Discussion

This study is a qualitative research designed to identify students' performance (as part of the learning achievement monitoring process), and we can observe progress in students' perception of their new role in learning processes.

In formative assessment, students understand what they should learn and what is expected from them. They also receive the feedback and advice that promotes their learning process⁽¹³⁾. This will explain what the students mentioned about the “testy” subsequent examination because they realized what is expected from them. The feedback to be effective the purpose of which is to use it as part of the educational institution culture, it must be immediate, the teacher must be familiar with the level of the student, provide clarifications on the subject matter intended, must be in a neutral language and not judicial, between two parties cooperate to reach a greater benefit, self-assessment and peer assessment are very helpful and should be encouraged by feedback⁽³⁾. Effective feedback is the one that bridges the gap between reality and goal⁽¹⁶⁾. We thought that these criteria were applied in a manner enabled students to interact positively with the feedback, especially those who are aware of their need to train in the performance of clinical skills, and to focus more in their readings. Their bravery in giving notes that some teacher need more adherence to the core of mini – CEX is promising that the subsequent examination will be better. The realization of the student and teacher to their role in the PBL system enable the college to implement its program, and preparing for examination (formative assessment) facilitates the process of education⁽¹⁴⁾ This study is consistent with the study of Jackson et al⁽¹⁵⁾ and Durning SJ et al^(16,17) Realizing that evaluation is the guide to the learning process requires a focus on preparing examiners and students for this work

Really we are very pleased with the initial results of the formative assessment in the mini - CEX, which we see in improving the daily performance of the students, and we are pleased with

the feedback we received from the students in this research, but the picture will be more informative if we received feedback from teachers in the research which is currently under implementation.

Conclusion

The experience of the students with the first year implementation of mini – CEX is encouraging. The student feel that they are part of a team. They pointed the strength and weak points in their learning process, there is great progress in studying and communicating with colleagues and patients, there is a positive understanding of the teacher-student relationship that has been reinforced by efficient feedback, and point out that all teachers must adhere to the essence of this type of evaluation.

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