International Egyptian Journal of Nursing Sciences and Research (IEJNSR)

Original article

Assessment-A need based task: A scholarly report over online ML web discussion

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Introduction: Traditionally, there was set-up to assess the knowledge by giving examination and papers only. But the outcome of learning obliviously might show at the final examination and the students consistently confused while putting a huge information what the received into writing. Teaching in the field of medicine faces new challenges in recent times How do we know if our students are achieving specific learning goals for a course? Class evaluations and observations provide excellent feedback about student satisfaction in learning outcomes. Assessment is a concurrent strategy that identifies the current status of the students from the commencement of the course to the completion to appraise their actual educational activities. Student assessment is a comprehensive decision making process with many important implications beyond the measure of students' success. The future of higher education lies with online learning. Many of the educational programs are being converted from traditional method of distance education program which were in the form of papers and books to digitalized education system called online programs. With this idea ,as assessment a need based task in medical education for one month , online ML web discussion was planned during the onsite session of FAIMER fellowship programme . All FAIMER fellows were actively participated .pre and post discussion survey was conducted. At the end of the month analysis was made based on the topic discussed. Finally the reports denotes that online web discussion was much useful which could be implemented especially in adult learning.

Key words: Assessment, ML web, medical education,FAIMER.

1. Introduction

In The Field Of medical education, it is generally recognized that assessment drives learning.[1] though all forms of assessment has its own strength and flaw , it is considered to be a important aspect of promoting future leaning process.[2] After all, we want to reinforce students' intrinsic motivation to learn and to inspire them to set higher standards for themselves .[3]

Assessment is a basic element of both learning and teaching as it structures what students learn and their certification [4]Assessment refers to the processes employed to make judgments about the achievements of students over a course of study[5] Universities are facing significant challenges. Re-addressing assessment methods is a key component of this transformation of medical education. Over the past decade, huge efforts have been made to provide accurate and timely assessment of the competence of trainees. The assessment of students' competency to practice is a worldwide matter of concern to all practice-based professions as diverse as teaching, accountancy, and medicine.[7]As the students of today are more inclined to question and challenge grades, there is a growing emphasis on ensuring that assessment methods are reliable, valid and able to sustain legal scrutiny.[6] Assessment and the judgments or evaluations that arise from it are important at the level of the trainee, the program, and the public.Assessing student learning in the practice setting is one of the most sophisticated and complex forms of evaluation undertaken by medical and nursing educators.

Assessment needs to include evaluation of skill (technical, psychomotor and interpersonal), attitudes and insights, and reasoning One of the mostls -al /media important drivers of student learning is how that learning is assessed and it has been shown that students' attitudes towards their studies are strongly affected by the nature and timing of assessment.[8].

There are two forms of assessment in medical education: formative and summative. Formative assessments happen repeatedly throughout the academic semester. formative meant for guiding future learning, providing reassurance, promoting reflection, and shaping values or *summative* for making an overall judgment about competence, fitness to practice, or qualification for advancement to higher levels of responsibility. They offer valuable qualitative feedback on students' current teaching–learning outcomes, and accordingly aid faculty to adjust prospective teaching methodologies in order to enhance students' subsequent learning outcome.[9].

There are six key features and components of effective assessment such as

- Assessment processes are continuous and frequent. Robust, on-going feedback is essential.
- Assessment is criterion-based, using a developmental perspective
- Assessment is made based on preparation for what the trainee will ultimately do, requires robust work-based assessment.
- Training programs must use assessment tools that meet minimum requirements for quality.
- Assessment tools and an effective approach are essential for helping our faculty to apply them.
- Assessment must incorporate more "qualitative" measures and methods. Assessment needs to draw upon the wisdom of the group and to involve active engagement of the trainee.

When designing an assessment system for, medical education we must attend to the context of the multiple settings where clinical training occurs. There is a wealth of research evidence that the everyday practice of assessment in classrooms is beset with problems and shortcoming". Current research supports this claim, indicating that, when teachers reflect on their teaching practice, the area where they are least confident is that of assessment.

Knowing more on the importance of assessment and evaluation for, the medical education community will need more collaborative research to address several major challenges in assessment, including "best practices" in the context of systems and institutional culture and how best to train faculty to be better evaluators.

With this idea, an online Mentor Learning Web Learning (ML Web) FAIMER Fellowship program for the month of December 2016 was targeted towards Assessment . it was mainly aimed upon the various technique used in Medical Education and what are the other newer technique which could employed effectively to quantify and qualify the competency level in teaching and learning process.

2. Objectives

1. To recognize the learning needs on Assessment
2. To assess online discussions on assessment with the sources and contribution provided by the
3. participants.
4. To evaluate the understanding of the participants on assessment.
5. To estimate the effect e of the ML web discussions on assessment

3. Materials and methods

The ML-Web discussion and analysis of e-mails was undertaken in three steps. These steps are described below

3.1 Need based assessment for the discussion

Assessment in medical education was the Topic of the month December month and it was decided during the onsite session held on June, 2016 at PSGIMS&R(Regional Centre for FAIMER). The team comprises of two first-year Fellows and second-year Fellows with 9 Faculty Co-Mentors & Alumni .In order to have the effective ML discussion, survey was carried out as a need assessment to know the participants priority need

which must be focused on assessment. So that ml discussion might be designed based on the participants' survey report which made the participant to move forward in to the proper track. Using survey monkey 10 items of questionnaire were sent and all were given a reminder to respond to those survey questions.. To increase the response rate, fellows were contacted on their personal emails or called on their personal phone. Finally, based on the findings of survey and the proposal reviews, the discussion needs and its objectives were refined. It was decided to remain focused to the current needs or queries of the Fellows

3.2 Action path for discussion

The entire action process is illustrated in figure 1.Through PSG-FAIMER INSTITUTE@listserv.ecfmg.org. the discussion on 'assessment was facilitated during the month of December 2016. The topics related to assessment in medical education was introduced to learners by moderators with the brief introduction followed by Suggested reading material sent as an e-mail attachment or links. Some activities related to the topic also depicted which mad the learners to trigger their thinking to move towards the development of their skills in making a effective academic assessment. After gone through the various review of literature the following objectives were framed for each week and to achieve those many practical oriented activities and questions were given

Week Learning Objectives

I week: At the completion of week 1, the learner should be able to

- To apply framework of teaching learning and assessment.
- To use the applied knowledge to generate tools of assessment
- To explain the meaning of an authentic assessment tool.
- To outline the utility of Blueprinting in medical education

II week:
- Various attributes of the different assessment tools in medical education
- Appropriateness of the tools in terms of attainment of specific learning objectives in medical education

III week:

- To enumerate assessment tools for 'shows how' level of Millers pyramid
- To enumerate assessment tools for 'does' level of Millers pyramid.
- To be able to compare between the tools in terms of their advantages and limitations. .

- To be able to plan the best possible application of these tools in our assessment system
- To construct a blueprint

IV week

- To learn from the experience of the good practices of assessment tools according to miller's pyramid.
- To know the obstacles in the implementation of the assessment tools as well as ways to overcome them.during each session were analyzed by manual content analysis technique. Only the mails attached to the weekly thread of the topic were included for analysis Descriptive statistics was used for need assessment survey analysis.

3.4 Feedback

After being exposed to the ml discussion to know the participants learning outcome, experience and their limitation post discussion survey was conducted using Survey monkey online questionnaire. It is a real platform to understand about how far December month discussion was effective which was articulated by all participants through their reflection.

4. Results
4.1 Needs for the discussion

Total number of participants in the need assessment survey for module development on Assessment in Medical Education for Mentor Learner Web Learning was 36.it was noticed through survey that the learners were showing the interest in learning about the Assessment and its characteristics , types, advantage and disadvantages of various types of assessment tools and methods, blue printing and item analysis. There were 10 question thrown to know about their knowledge/ interest/ thrust area on assessment .under the following aspects survey was made1. Awareness on importance of assessment in medical education.2. Awareness that only the good assessment methods and tools can help to achieve expected student learning outcome.3 Satisfied with the current assessment methods in the medical school in which they are working.4. Agreement to bring in changes in assessment methods in the current institution.5. Perceived barriers in bringing change to the current assessment methods .6. Tried new / innovative assessment method in the current medical education system.7. Familiarity with reflective writing and portfolio.8. Agreement to align learning objectives towards competency.9 Aware of the importance of preparing blueprinting of assessment tool based assessment.10. Prioritize the learning needs in assessment in medical education.

Among the participants in the survey most (94.44%) of the participants were either well aware or extremely aware on importance of assessment in medical education. Most (66.7%) of the participants were either very much aware or extremely aware. Only 5.72% of participants were Satisfied with the current assessment methods in the medical school in which they are working. Thus indicated that majority of the participants felt that there is a need for improvement for the assessment methods. (88.6%) of the participants were strongly agreeing to bring in changes in assessment Methods. It was indicated that Poorly framed expected curricular outcomes, Unstructured curriculum etc. were the perceived barriers in bringing change to the current assessment Method. It was clearly noticed that vast majority of the participants (94.44%) were innovative to apply some modifications in their assessment methods. Regarding Familiarity with reflective writing and portfolio majority of participants (63.89%) requires more familiarity with reflective writing and portfolios. (86.11%) were either agreeing or strongly agreeing to align learning objectives towards competency based assessment. (91.66%) understood that preparing blueprinting of assessment tool was either very important or extremely important. After analyzing all measures , prioritizing of the learning needs in assessment in medical education were found out for further proceeding the action.

1st – Concepts, objectives and types of assessment

2nd – Domains of assessment and Work place based assessment (WPBA)

3rd- Changes   needed in curriculum from assessment perspective

4th – Item analysis and Blueprinting.
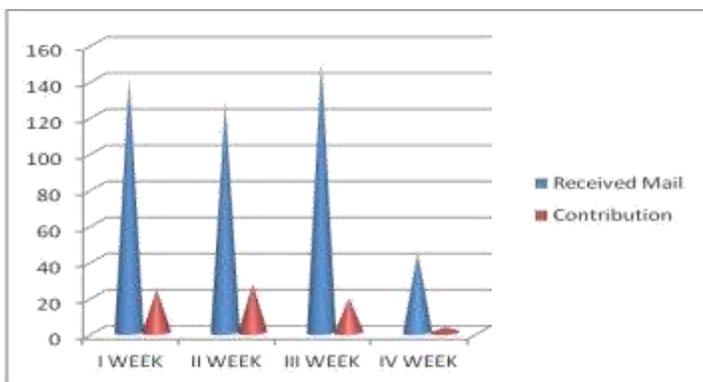
5th – Pros and Cons and barriers of new assessment methods / tools

Fig (1) Illustrates the responses received either through discussion or contribution of study material. During 1week

number of mails received were 141 and 35 study contribution were elicited. Remaining 3 week 127,150 744 mailed were received and 27,19,03 study materials were contributed.

4.2 Week wise discussion

1 week was framed based on Introduction & Basic Concepts which covered Blooms taxonomy,Millers Pyramid of clinical competence,assessment making Blue printing. Total number of participants who actively involved in discussions.Total number of emails were 141 and Total number of resources shared during the week 1 were 35.

subsequently in 2nd week the discussion was about Applying the basics to Knows & Knows how which comprised of the following sub theme - Assessment tools, their advantages disadvantages &its application,-Attributes of good assessment tools and Item analysis. In regard to total number of participants who actively involved in discussions, Total number of emails in the thread and Total number of resources shared were 36,127,& 28.in 3rd and 4th week discussion were as follows

Week	Theme	Number of active participation	Email received	Resources
3rd week	Applying the concepts to does & shows	35	150	33
	Assessment tools, advantages disadvantages & application			
	- Blueprint exercise			
	Encompassing 'shows how' to 'does'			
4th week	Learning from the	32	44	1
	Learning from the community of practice			
	- Experience sharing			

	of good practice
	- Overcoming obstacles to implementation

Based on learning objectives, activities and questions that prepared to implement for 4 weeks EL discussion. The entire plan was divided into 4 season with four different teams which was designed to create the interest, expecting involvement of the participants. Each theme of the week was framed based on priority and need. This discussion was and important task for the participant to develop skill in making assessment. After analysis the participant responses it was found that the most highest priority given to blueprinting and assessment methods for "*Shows how and does*". It was brought to the notice that all existing method of assessment are being practiced in recent academic scenario but still many of the participants were showing their interest to implement innovation in assessment and they shared their experience of limitation when they tried to use innovation in assessment.

4.3 Feed back(post survey)

They were 22 participants in post survey made after ML discussion. The result showed almost all participants were benefited and satisfied with online discussion. Good feedback about the discussion was received. Generally online discussion resource material were found to be more effective and better understanding on assessment in medical education.

- In relation to real life situation
- Effective integration between theory & practice
- selected in such a way that learners are constantly motivated
- learners get meaning & see relation b/w past & present experience & focus to future
- Will learn effectively if experiences are satisfactory

So it was found to be an effective learning atmosphere which was conveyed through the Reflection of participants stating that it facilitated their learning on Assessment. From the refection of the FAIMER Fellows this ML discussion was identified as SMART On Assessment

S. Systematically planned (Known to unknown),Skill oriented (Blue printing) M-Moderated well with More Material,Maximized knowledge on Assessment(tools Method).

A-Applicable(Confident to apply the theory into practice)

R –Resourceful,Remarkable

T- Tremendous experience obtained on Assessment

4.4 Reflective Critique

The task/topic was given. Group members for discussion were marked. All minds were triggered upon *we want to make a module that will be an effective learning resource. But .....Where do I start? How can Learning make the content more interesting? How will the learner track their progress – so that they will be confident that they have achieved something?* These were the issues kept on breaking our heads. Through hunting from various academic sources,there was a huge idea escalated among the team based on the Ralph tyler 4 steps of module development that of 1.Formulation of educational objectives 2.Selecting learning experience3.Effective & efficient organization of learning experience (ML discussion).4.Evaluation of curriculum. By following this steps planning phase was started wherein Priority needs for the discussion on assessment were recognized based on the ranking indicated by the fellows on the pre survey. Based on ranking, the topics were allotted with appropriate leaning objectives were made for each week. So in this phase

Identify the learners nee 2. Suggestion of export and 3. state the objectives were carried out . All the participants were motivated to participate in ML web discussion and it was designed systematically and it
was mainly executed carefully based on some of the principles of learning like

- All learning need should be in relation to objective

What went on well?

Participants involved keenly in pre and post discussion survey. Well planned Activities were well responded by the participants especially on experience sharing.Learning happened on the participants on their convenience time and space.Participants were given free hand to do the activities which facilitated the learning

What did not work well?

So many reading materials were provided with less timing for reading .also many activites made the participants to feel exhausted which could be avoided

Summary

From the month long discussion on various features of assessment tools and methods, were discussed effectively by exploiting enormous intellectual sharing of participants on assessment .contribution and ideas provided by participants on the topic facilitated interest of other to know more about assessment.

5. Conclusions:

The ML-Web discussion at PSG-FRI could successfully offer on-line technical support to Fellows in analysis of education innovation projects and ensured timely feedback to their research work. It also explored a deficient area in faculty development. The present approach may be up-scaled at universities in India, where there is high coverage of internet and telecom facilities. The results and observations of the present work are based on naturally flowing but planned on-line discussion and it stimulate for learning and future research.

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