ASSESSMENT METHODS IN THE NEW LEARNING ERA

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A B S T R A C T

Assessment is a process by which information collected is directed towards the achievement of a desired goal for which it is designed. Assessments serve as an important evaluation tool to arrive at fundamental questions about the educational process, their outcomes, student engagement, effectiveness of learning resources. This necessitates the need of well-planned and designed assessments that not only address students' needs and learning objectives but also helps them in solving real life problems and professional enrichment. The success and effectiveness of every assessment can be judged by the feedback and results it reflects on student achievement. This paper attempts to achieve the objective of analyzing the effectiveness of different assessment methods among the student teachers based on the Faculty and different age groups. The assessment methods used in this survey were: (i) Seminar presentation (ii) Closed book assignments (iii) Open book assignments (iv) Gallery walk and Dramatization (v) Multiple choice questions. The findings of the paper highlighted that Multiple choice questions were the most preferred methods of assessment towards academic achievement among the student teachers and Seminar presentation was found to be the least preferred assessment method among them.

Keywords: Academic achievement, different assessment methods, effectiveness of assessment, different instructional methods, student teachers.

INTRODUCTION

Traditionally assessment at school is mostly rote-based with very little importance given to understanding, application and skill such assessments are easier to be made and score. They are mostly repetitive and predictive. Today assessment needs to cater critical, creative and constructive thinking skills. Assessments should focus on conceptual understanding and the ability to apply the knowledge, understanding and skill in a new and unfamiliar situation hence it becomes important to use differentiated assessment methods which will give a better perspective of assessment towards meaningful learning.

An effective assessment aims at:

- to identify students learning needs based on their learning styles
- to monitor students' progress by catering to differentiated assessment methods
- to design instructional methods based on the earning needs of students

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- to evaluate the effectiveness of the instructional methods through different assessment methods.

This paper attempts to achieve the objective:

To analyse the effectiveness of different assessment methods based on the academic faculty (Science/ Arts/Commerce), based on different age groups (20-25, 25-30, 30-35, 35-40, 40-45)

Harvey Richard (2000) suggests educators at all grade levels and all content areas to implement a holistic learning program that seamlessly integrates learning styles and multiple intelligences into instruction, curriculum, and assessment. It is designed to help educators' process ideas and analyze their current practices; and planning templates for designing integrated lessons, assessments, and curriculum instruments. It also assists teachers in helping students become more reflective, self-aware learners and identify their own style and intelligence profiles. McKay, Annette (2000) sought to improve student motivation in order to increase academic performance among eighth graders in an urban community incorporating a variety of cooperative learning and

social skill activities. The findings were:

- Post-intervention data indicated an overall improvement in areas such as interest in class content, and academic achievement.
- The incorporation of cooperative learning and multiple intelligence lessons strengthened student motivational levels and academic achievement.

David (2008) focuses our attention our attention on the varying approaches to learning by the students in order to cope with the assessment tasks. The research questions of the study were i) Do students who participate in a constructivist learning environment change their perception of assessment demands towards more deep level demands? ii) Do students in a constructivist learning environment change their approaches to learning towards a more deep approach to learning? One questionnaire measured their approaches to learning and the other their general perceptions of the assessment demands. The findings of the study were:

- Students' approach to learning at the beginning of the course seems to have a higher impact on the extent to which they change their approach to learning than how students perceive the demands of the assessment within the course.
- The results also indicated that students did not change their approach to learning towards a more deep approach. On the contrary, students seem to develop more surface approaches to learning during the course. These results point us to the complexity of the relationship between the learning environment, the students' perceptions of assessment demands, and students' approaches to learning.

The above researches aimed at different teaching learning processes for academic achievement and this could be done through different assessment methods.

RESEARCH METHODOLOGY

To analyse the effectiveness of different assessment methods a survey was conducted on 85 student teachers,

Based on the age group of which;

(12) were between the age group of 20 - 25,
(18) were between the age group 25- 30, (30) were between the age group 30-35,
(14) were between the age group 35- 40 and
(11) were between the age group 40-45.

Based on the faculty of which;

Science faculty
35, Commerce faculty
22, Arts faculty – 28

The student teachers were asked to rank the different assessment methods preferred as effective towards academic achievement. Each assessment method is given a range from 1 to 5 of which 1 being the least preferred and 5 being the most preferred. The assessment method used in the survey

1) Seminar presentation.
2) Closed book assignment.
3) Open book assignment.
4) Gallery walk and Dramatisation.
5) Multiple choice question.

The data collected was analysed using statistical technique. The mean value for each of the assessment methods were analysed. Further it was analysed based on the faculty and the different age groups.

To determine the relative ranking of the assessment methods, the score of the students are transformed to RII values using equation (Tam et,al,2000):

$$RII = \frac{\sum w}{AN}$$

Where w is the weightage given to each assessment by the student teacher ranging from 1 to 5, A is the highest weight (5 for this study), N is the total number of samples, and RII is the relative important index, $0 \leq RII \leq 1$.

RESULTS AND DISCUSSION

The mean value and RII values and ranking of all assessment methods are shown below.

Table 1. The Mean and RII values of assessment method.

Assessment method	Mean Value	RII	Ranking
Seminar presentation	208	0.48	V
Closed book	256	0.60	IV
Open book	282	0.66	III
Gallery Walk and Dramatisation	313	0.73	II
Multiple Choice Questions	331	0.77	I

The Mean value and RII values of assessment methods are indicated in the above table. The RII values were used to rank the assessment method based on their Science, Arts and Commerce faculty student teachers were asked to rank their preference for the different methods of assessment. Science faculty student teachers have attempted numerous competitive tests and hence MCQ's are easy for them answer the questions, the differentiating responses help them to focus clearly on the correct responses.

Table 2. The Mean and RII values of assessment method based on Faculty.

Assessment Method	Science		Arts		Commerce	
	RII	Ranking	RII	Ranking	RII	Ranking
Seminar presentation	0.44	V	0.48	V	0.56	V
Closed book	0.53	IV	0.58	IV	0.70	IV
Open book	0.56	III	0.69	II	0.78	III
Gallery Walk and Dramatisation	0.57	II	0.82	I	0.87	II
Multiple Choice Questions	0.78	I	0.63	III	0.94	I

Science faculty student teachers are also used to draw diagrams and label them which makes it easy for them to prepare charts for Gallery Walk. Science faculty student teachers are also well trained in writing elaborate answers which makes it easier for them to attempt the Open Book and Closed Book assignment.

Commerce faculty student teachers are used to MCQ questions, they are able to respond to the objective type questions easily, hence the prefer MCQ's. Commerce faculty student teachers are used to enact the content through Role play and dramatisation which helps them in understanding the content matter easily as it gives a clear indication of real life experiences. Open Book assignments make it easy for the students to write the answers as they can refer to the notes and elaborate with adequate examples, whereas Closed Book assignment makes the student teachers comparatively difficult to write down all the points and elaborate with examples. Seminar presentation are indeed an integral part of their Commerce syllabus however the student teachers didn't find it effective as an assessment method, because the Seminar method gave a consensus view that was expressed which they preferred as an individual presentation.

Arts faculty student teachers have mastery over art, dramatics and language. The student teachers preferred Dramatization and Gallery Walk because this gave them an opportunity to express and explain. They excel in reproducing the content in a more interactive manner which help them learn better. The Arts faculty student teachers are used to write elaborate answers with additional examples and explanation hence Open Book assignments was considered as an effective study skill for further assessments. Since the answers to questions were aware by the student teachers, MCQ's helped them to choose from the near options to the correct responses, the Arts faculty student teachers felt it was easy for them to remember objective type answers. Closed Book assignments were preferred to them because the other

assessments was based on mastery of the content and then the Closed Book assignment will be easy to attempt, hence it was important that would go through other assessments before they could write the Closed Book assignment. Seminar presentation was generally the forte of bright, smart and student teachers teacher who posses good oratory skills, hence all the arts faculty student teachers were not very much for it as the seminar presentation would reflect the group marks and not individual marks.

The Mean value and RII values of assessment methods based on Faculty are indicated in the above table. The RII values are used to rank the assessment method based on their preference towards academic achievement and enhanced understanding. Across the Science and Commerce Faculty, the Multiple choice question method was ranked First and Seminar presentation was ranked Fifth. Gallery Walk and Dramatisation was ranked Second, Open Book was ranked Third and Closed book was ranked Fourth. The Science and Commerce faculty student teachers are trained to use MCQ's frequently in various entrance tests. Gallery walk included drawing and exhibits that were made to elicit the understanding of the topic, Science faculty student teachers are trained well in skill activities, however Commerce studnet teachers are more focussed on Dramatisation so that was an incentive towards their preference.

Open book, Closed book and Seminar tests had their preference as given in the discussion for table 1.

But the Arts faculty had a different opinion, according to them Gallery Walk and Dramatization was the First preference and Seminar presentation as the Fifth preference. Open Book was ranked Second, Multiple choice question was ranked Third and Closed book was ranked Fourth. Arts faculty student teachers prefer Gallery walk and Dramatisation to elicit their understanding as they find these methods to create an active and interactive learning environment. .

Table 3. The Mean and RII values of assessment method based on Age group.

Assessment Method	Age group 20 - 25		Age group 25 - 30		Age group 30 – 35		Age group 35 – 40		Age group 40 -45	
	RII	Ranking	RII	Ranking	RII	Ranking	RII	Ranking	RII	Ranking
Seminar presentation	0.35	V	0.54	V	0.44	V	0.35	IV	0.34	V
Closed book	0.46	IV	0.56	IV	0.55	III	0.58	II	0.52	III
Open book	0.63	III	0.64	III	0.64	II	0.52	III	0.65	II
Gallery Walk, Dramatization	0.76	II	0.67	II	0.52	IV	0.32	V	0.36	IV
Multiple Choice Questions	0.88	I	0.82	I	0.8	I	0.71	I	0.70	I

Arts student teachers have usually a practice of writing descriptive essays and they do have an access to reference materials too hence they preferred open book to the closed book test. They are not usually too focussed with MCQ's hence it was ranked third.

The Mean value and RII values of assessment methods based on different age groups are indicated in the above table. The RII values are used to rank the assessment method based on their preference towards academic achievement and enhanced understanding.

Age played a vital role in deciding the assessment method preferred by each category. The student teachers of the younger age group preferred the MCQ's, Gallery Walk, Dramatisation as their preference on higher scale, these were easy and since they were young their movement and sense of decision making was faster. Whereas the student teachers of the middle age group took time in arriving at decision and they weighed between all pros and cons before they gave their preference of assessment. They were forthcoming in all activities and were a part of the young group as well. The student teachers of the higher age group were not very comfortable with Dramatisation and Gallery walk, they preferred writing the answers after studying well and understanding the concept thoroughly, practical experience in Dramatisation was not very forthcoming for them.

Based on the age group of 20 -25: The Multiple choice question method was ranked First and Seminar presentation was ranked Fifth. Gallery Walk and Dramatisation was ranked Second, Open Book was ranked Third and Closed book was ranked Fourth.

Based on the age group of 25 -30: The Multiple choice question method was ranked First and Seminar presentation was ranked Fifth. Gallery Walk and Dramatisation was ranked Second, Open Book was ranked Third and Closed book was ranked Fourth.

The young student teachers are more keen on MCQ's as they feel it is easy and quick method of understanding the content in a nutshell. The other preferences remains to be the same as discussed in Table 1.

Based on the age group of 30 -35: The Multiple choice question method was ranked First and Seminar presentation was ranked Fifth. Gallery Walk and Dramatisation was ranked Fourth, Open Book was ranked Second and Closed book was ranked Third.

Based on the age group of 35 -40: The Multiple choice question method was ranked First and Gallery Walk and Dramatisation ranked Fifth. Open Book was ranked Second and Closed book was ranked Third, Seminar presentation was ranked Fourth.

Based on the age group of 40 -45: The Multiple choice question method was ranked First and Seminar presentation was ranked Fifth. Open book was ranked Second and Closed book was ranked Third and Gallery Walk and Dramatisation was ranked Fourth.

Student teachers of this age group do not prefer too much of activity based learning mainly due to their age, compatibility and comfortability in performing and presenting before a crowd hence Gallery walk and Dramatisation and Seminar presentation was their least preference. Instead they prefer to study and do ample referencing work which will enable them in better understanding of the topic.

RECOMMENDATIONS

According to the findings of this paper, Multiple choice questions is the most effective assessment method from the student teachers point of view across the different faculty and different age groups. Thus to enhance assessment for learning few recommendations are listed:

Encourage studnet teachers to adapt to collaborative forms of learning, engage in group activities, comprising of the right blend of groups (based on faculty and different age groups) this will help in peer mentoring and a care-share approach.

Encourage student teachers to build an ownership of learning this can be enhanced when we help student teachers to construct their own knowledge based on the learning experiences and the learning environment.

Developing high order thinking skills that enrich the student teachers potential in learning to a great extent and develop a sense of discernment which hold importance in all spheres of their lives - academic, personal and social. Encourage student teachers to be involved in note taking and note making thereby improve their study skills.

CONCLUSION

A survey of the effectiveness of different assessment methods towards academic achievement has been conducted under the categories based on Faculty and different Age groups. The relative important index (RII) and the overall mean a value of all groups under each category was estimated. From the results it has been found out that the Multiple Choice Questions was the most effective method from the student teachers point of view towards academic achievement. The least preferred method was Seminar presentation.

Recommendation are provided to improve the effectiveness of the assessment methods.

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