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Teaching and Learning Strategies in Universities: Teachers' Perspectives

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ABSTRACT

Teaching and learning strategies in universities are now considered to be an important component of quality assurance in higher education. The issue of incorporating creativity and innovation in teaching and learning process is becoming the need of the hour. We have taken the views of the faculty members of Cavendish University Zambia (CUZ) and Mewar University (MU), Chittorgarh (India) on vital parameters of teaching and learning. In this paper, we have analysed these views and presented them in such a way that a comprehensive policy could be prepared for an effective teaching and learning mechanism with creativity and innovation as built in component.

INTRODUCTION

Higher education in the world over has become a prime mover in bringing students and teachers at the one common platform. This in turn has initiated a strong competition among higher education institutions and universities to provide quality education and research. The quality education has become a subject of concern in the diverse areas of university education. The universities are making continuous efforts not only to maintain the already set quality standards but to continuously improve upon them.

Gadiya and Chandra (2014) have extensively studied the teaching and learning skills in a university system. Each and every conventional university has its own method of teaching and evaluation. These activities are by and large teacher centred. Open and distance educational universities, on the other hand, have the systems which are student centred. Each one of these approaches has some advantages and disadvantages. Mewar University has adopted a unique approach of teaching and evaluation which is partially teacher centred and partially student centred (Gadiya and Chandra 2014, Salati and Chandra 2014).

The emphasis is also shifting from conventional teaching to integrating teaching (Smith 2005). The way of connecting skills and knowledge from multiple sources and experiences or applying skills and practice in various settings is integrated teaching. It simply means bridging connections between academic knowledge and practical (Huber and Hutchings 2004).

Thus alternative method of teaching based on lectures, seminar, and assignments is believed to be beneficial to the student community at the institution and would be the ideal approach. Large undergraduate courses in any university offer a challenge to those involved in both their development and their delivery, to ensure that the best possible learning outcomes are achieved in the most efficient way possible. When these students represent a combination of internal (traditional) and distance learners (non-traditional), domestic and international, the challenge to achieve these outcomes become even more complex (Kehoe et.al. 2004).

Online and technology-based modes of study have been identified as a useful addition to classroom-based, traditional teaching methods (Light et al, 2000). The delivery of online courses enhances student learning in some respects, researchers have also cautioned against using technology without adequate regard for the learning outcomes being sought (Buckley, 2003; Lawther & Walker, 2001; Willett, 2002). In fact teaching should drive technology and not vice versa (Petrides, 2002).

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It has been observed that not all students learn at the same pace (Cano et al. 1991). Students are unique in their own ways, including the way they learn. Since not all students learn in the same style, it is essential that teachers recognize the learning style differences of their students and teach in a manner in which all learning styles are considered. The characteristics of teachers are just as diverse as those of the students. Garger and Guild (1984) suggested that the learning style, teaching style, and personality style of teachers have implications for student learning.

The teachers teaching styles may or may not be consistent with their learning styles. The teachers teach the way they learned (Dunn and Dunn's 1979). However, Koppleman (1980) commented that there is a lack of research concerning the influence of a person's learning style on their teaching style. Heimlich (1990) in an attempt to describe an individual's teaching style, defined two domains, sensitivity and inclusion. The sensitivity domain is based on the ability of the teacher to sense the shared characteristics of the learners. The inclusion domain is based on the teacher's willingness and ability to utilize instructional strategies that take advantage of the group's characteristics.

Usually teachers are the backbone of the delivery system in education. It is important that we make an effort to know from the teachers about the latest happening in teaching and learning process for our further understanding of teaching and learning process in higher education and how we can utilise their responses for improving our teaching and learning process. This we have done by asking several questions (Annexure-1). This paper discusses the responses received from the faculty members from two universities: Cavendish University Zambia (CUZ) and Mewar University (MU), Chittorgarh (India).

Research Methodology

We have administered a questionnaire (Annexure-1) to the faculty members of Cavendish University Zambia (CUZ) and Mewar University (MU), Chittorgarh, India. Almost all the full time as well as part time faculty members to whom the questionnaire was administered responded.

Results and Discussions

We have taken the feedback from the faculty members on the vital issues through a questionnaire. The responses are analysed in the following sections.

Teaching Methodologies

There are several teaching methodologies practiced in the universities (Gadiya and Chandra 2014, Salati and Chandra 2014). Every teacher is unique in his/her own way of teaching. We asked the faculty members about their teaching methodologies. We gave them following four options:

- (a) Simply Lecturing
- (b) Lecturing by giving daily life examples
- (c) Lecturing and asking questions
- (d) Lecturing and giving case studies

The response is given in Fig.1. It can be seen that none of the faculty member responded by saying that their teaching methodology is based on simply lecturing. It is a good changed scenario as compared to few years ago when teaching used to concentrate only on lecturing. About 71.43% of the faculty members in CUZ were of the view that they are using a mix of the options out of lecturing by giving examples, lecturing and asking questions and lecturing and giving case studies as against 39.02% in MU. It is worth mentioning here that MU is broadly a technical engineering) University whereas CUZ is non-engineering university. That is why faculty members in MU favoured need based teaching methodologies. About 14.29% of the faculty members of CUZ responded by saying that their teaching methodology is involved lecturing by giving examples as against 20.33% in MU. About 7.14% of the faculty members of CUZ responded by saying that their teaching methodology involved lecturing by asking questions as against 20.33% in MU.

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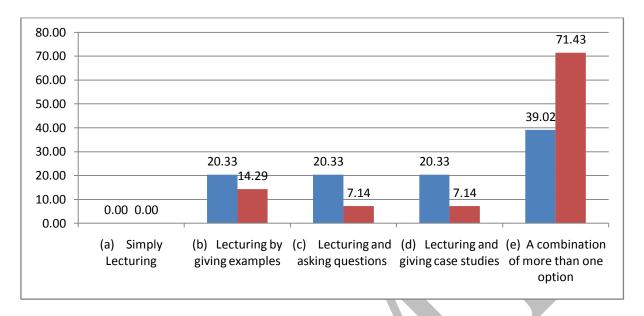


Fig. 1: Teaching Methodologies

Suitable New Kinds of Learning

It is very important for the faculty in higher educational institutions to engage and know new kinds of learning strategies suitable for the students (Gadiya and Chandra 2014, Salati and Chandra 2014). Every student is unique in his/her own way of learning and also has a unique way of learning. We asked the faculty members what the is most suitable new kinds of learning were. We gave them the following options:

- (a) Developing skills in communications
- (b) Group work
- (c) Lifelong learning
- (d) Any other

The response is given in Fig. 2. It can be seen that faculty members have widely responded to these learning strategies. About 35.71% faculty members in CUZ have responded to lifelong learning as the new kind of learning as against 30.89% in MU. Developing skills in communications was preferred by about 28.57% of the faculty members in CUZ as against 39.02% in MU. It is interesting to see that group work was preferred by about 28.57% of the faculty members in CUZ as against 25.20% in MU.

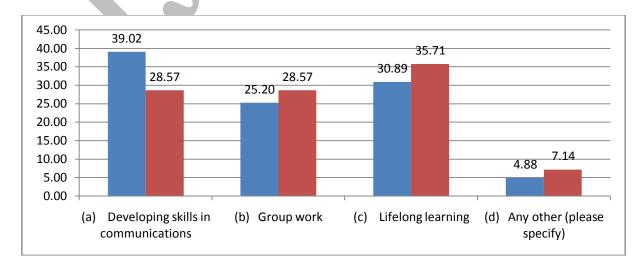


Fig. 2: Suitable New Kinds of Learning

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Teaching and Learning

It is our experience that many faculty members in universities and colleges do not know the difference between teaching and lecturing. We wanted to know the current scenario in CUZ and MU. We asked them that teaching and lecturing are the same. Do you agree? Their response is shown in Fig. 3. All the faculty members in CUZ responded by saying that teaching and learning are not the same whereas in MU, about 12.2 % responded by saying that teaching and learning are the same. We continued further and asked them to define teaching and learning and if believed they are different. Their definitions of teaching and learning show a remarkable difference which confirms the saying that 'each teacher has its own way of teaching and learning'.

Teaching as viewed by Teachers

- A teacher explains a point
- A teacher explains, interacts and provide a two way communications type of method
- Teaching with students, imparting knowledge
- Teaching is in depth analysis of the subject
- Teaching is imparting knowledge or skills in a two way method
- Teaching is a way of imparting knowledge giving examples of real life situation
- Teaching is imparting information, understanding & skills or any practice that causes others to develop skills and knowledge
- Teaching is imparting information & skills, a two way method of teaching
- Teaching is imparting information, understanding or skills
- Teaching is in depth analysis of the subject matter
- Teaching is imparting knowledge to students

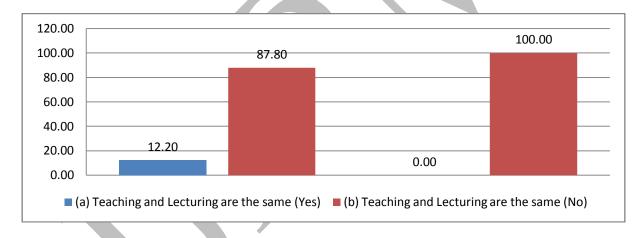


Fig. 3: Teaching and Learning are same? Agree or not

Learning as viewed by Teachers

- Is only one person speaking and teaching the audience what they believe in
- One way communication based on the aims, objectives, materials which are pre-pared
- Giving information using instruction
- Transmission of information for knowledge search
- Students are given time to generate their own ideas from their experience
- An oral presentation intended to present information about a particular subject
- Giving guides to students on a particular subject
- Delivering or reading a speech before an audience or class for instruction or to set forth some subject
- This is mainly one way method of communication. This does not involve significant audience participation.
- Lecturing requires students being given autonomy to build and construct own knowledge
- Guiding the students and allowing the students to carry out research

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- Lecturing is problem solving method.
- Lecture mainly facilitates learning environment

Assignments have Teaching Values or not

We see that many students do not write assignment responses on their own, instead they try to copy either from their fellow students or from the web. Under such circumstances, assignments have no teaching value but become simply a means of scoring good marks. We have also see many cases where students have scored good marks (more than 75%) in assignments but very low marks (below 40%) in semester end examinations and vice versa.

We therefore asked the faculty members whether assignments have teaching value or not. To our great satisfaction, majority of the faculty members said that assignments have teaching value (Fig. 4). About 99.19 % of faculty members in CUZ responded by saying yes as against 92.86% in MU. We have also carried out similar analysis with the students of Cavendish University and observed that about 98.57% of the students said that assignments have teaching values (Salati and Chandra 2014).

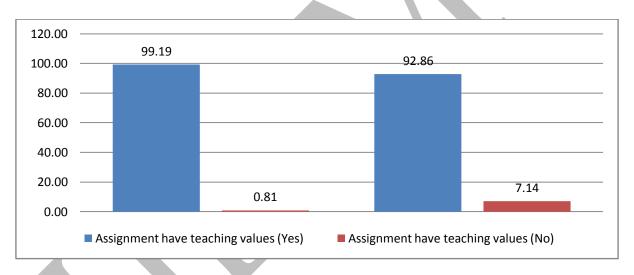


Fig. 4: Assignments have teaching values. Do you agree?

Creativity and Innovation in Teaching and Learning

It is our firm belief that creativity and innovation are necessary in teaching and learning process. We therefore asked the faculty members what they feel about this. Do they agree with the statement or not. Their response showed that all of them agreed that creativity and innovation are necessary in teaching and learning process. We further asked them to elaborate how you can incorporate creativity and innovation in your teaching process. Their response is a welcome initiative and is shown in Fig. 5. Almost all of them said that through case studies, group work and presentations, we can utilise the creativity and innovative qualities of the students to a great extent.

Strategy for Evaluating the Learning Outcome

Another aspect of creativity and innovation is to evaluate the learning outcome of the students. We asked the faculty members how they use creativity and innovation to evaluate the learning outcome of the students. Their response is shown in Fig.6. It can be seen that none of the faculty member indicated to a single method of evaluating learner's outcome. This is in fact expected because of diverse nature of teaching and learning process. The teachers grouped the strategies of evaluation learner's outcome in to 7 major groups (Fig. 6).

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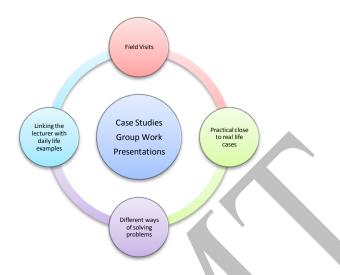


Fig. 5: Creativity and Innovation in Teaching and Learning

- About 28.57% of the teachers in CUZ responded by saying that a combination of Exam, group discussion, presentation and class tests could be the best strategy for evaluating learners outcome as against 39.84 % in MU.
- About 21.43% of the teachers in CUZ responded by saying that a combination of Exam, and presentation could be the best strategy for evaluating learners outcome as against 16.26 % in MU.
- About 14.29% of the teachers in CUZ responded by saying that a combination of Exam, assignments and tests could be the best strategy for evaluating learners outcome as against 10.57 % in MU.
- About 14.29% of the teachers in CUZ responded by saying that a combination of Exam, assignment, tests and presentation could be the best strategy for evaluating learners outcome as against 10.57 % in MU.

The other options are clearly shown in the figure.

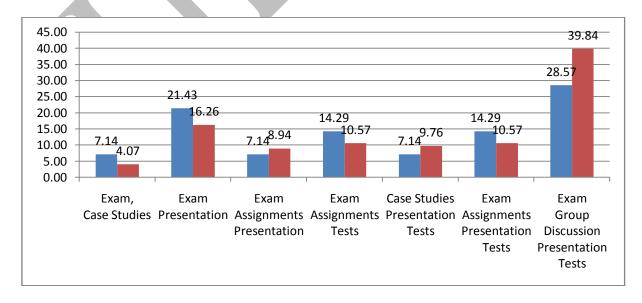


Fig. 6: Strategies for Evaluating Learners Responses

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Focus of Education is Shifting from Teaching to Learning

We are aware that focus in higher education is shifting from teaching to learning. About 85.71 % of the faculty members in CUZ confirmed the statement that focus of education is shifting from teaching to learning as against as against 100 % in MU (Fig.7). About 14.29 % of the faculty members in CUZ expressed their views against the statement.

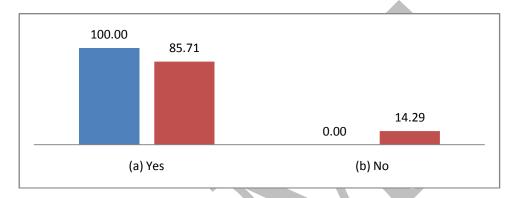


Fig. 7: Focus of Education Shifting from Teaching to Learning

Role of a Teacher: To Facilitate the Acquisition of Knowledge, not transmit it

We further asked the faculty members whether they agree or disagree with the statement that the role of a teacher is to facilitate the acquisition of knowledge, not transmit it. About 71.43 % of the faculty members in CUZ agreed with the statement whereas 21.43 % disagreed and rest neither agreed nor disagreed (Fig.8). In case of MU, about 89.43 % of the faculty members agreed with the statement whereas 8.13 % disagreed and rest neither agreed nor disagreed.

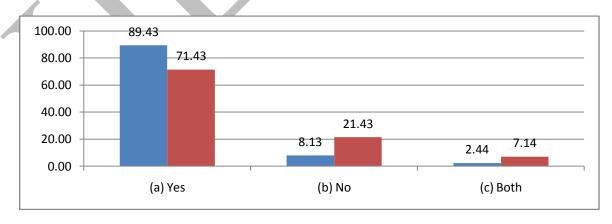


Fig.8: Role of a teacher is to facilitate the acquisition of knowledge, not transmit it.

Greatest gift of Teachers to the Students

Nowadays it is becoming a tough competition among higher educational institutions to awards good grades and in the process there is little emphasis on other aspects of learning like learning skills and good discipline. We asked the faculty members about their greatest gift to the students. We gave them the following options:

- (a) Good grades
- (b) Good learning skills
- (c) Good discipline
- (d) Any other (please specify)

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Their response is shown in Fig. 9. It is very welcome observation that none of the faculty members from both the institutions said that good grades are their greatest gift to the students. About 50.00 % of the faculty members in CUZ said that they value much learning skills as against 52.03 % in MU. It is again surprising to observe that faculty members who responded for good discipline as the greatest gift were not much. About 14.29 % of faculty members in CUZ said that it is good discipline as against 34.96 % in MU. However, about 35.71% of the faculty members in CUZ said that it is good learning skills and good discipline which is important. The same figure for MU was 13.01 %. This is highly welcome change. This is because without inculcating good discipline amongst the students, every type of educational skill is of little value. The students cannot become true citizen without good discipline.

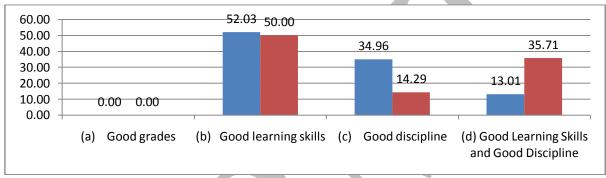


Fig.9: Greatest gift to the students

Bloom's Taxonomy

We wanted to test whether faculty members are aware about Bloom's taxonomy about learning pedagogy. We know that based on the thinking level, the six stages are; knowledge, comprehension, application, analysis, synthesis and evaluation. We put them in different order and asked them to arrange these thinking levels according to their thinking in line with their own priority levels; lowest (1) and highest (6). Surprisingly, only about 64.29 % of the faculty members in CUZ are aware about the order of the thinking levels (Fig. 10). This figure for MU was 94.31 %. This shows that there is strong need to have the training programmes for the faculty members in CUZ to make them aware about these thinking levels, only then they will be able to transmit the right kind of learning skills.

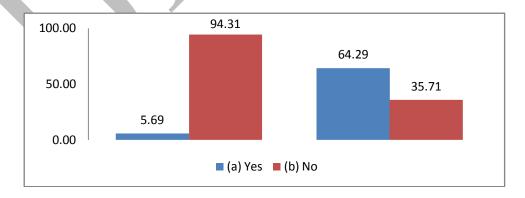


Fig.10: Bloom Taxonomy

Lecture is a process of transferring notes to the students without passing through the minds of either

Some of the faculty members have the habit of writing each and every word they speak on the blackboard. Therefore we asked them that a lecture is a process of transferring knowledge through verbal and written notes to the students without passing through the minds of either. Do they agree? Their response is shown in Fig. 11. About 78.57% of the faculty members in CUZ disagreed with the statement as compared to 84.55 % in MU. On the other hand about 14.29 % faculty members in CUZ agreed with the statement as compared to 11.38 % in MU. The other gave no response.

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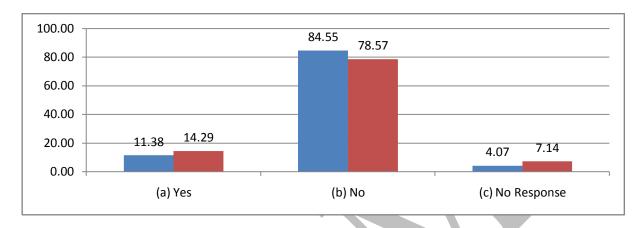


Fig. 11: A lecture is a process of transferring your notes to the students without passing through the minds of either. Do you agree?

CONCLUSION

We have analysed the responses from the faculty members of CUZ and MU about various aspects of teaching and learning. The responses received are mixed one which indicates that faculty members need regular refresher training programmes about new learning skills, evaluation strategies, teaching methodologies using educational technologies, and more importantly understanding the meaning and value of Bloom's taxonomy, and making assignments more meaningful to mention but a few.

There is a great deal of need to engage trainers (teachers in universities) in innovative teaching and learning practices as an important component of quality assurance in higher education. The finding also underscores the importance of incorporating creativity and innovation in teaching and learning process.

REFERENCES:

- 1. Bloom, B.S., and Krathwohl, D.R. (1956), Taxonomy of Educational Objectives: The Classification of Educational Goals: Handbook I, Cognitive Domain. New York: Longmans, Green.
- 2. Bloom, David, David Canning, and Kevin Chan. (2006), "Higher Education and Economic Development in Africa." Africa Region Human Development Working Paper Series No. 102. Washington, D.C.: The World Bank.
- 3. Buckley, K. M. (2003). Evaluation of classroom-based, web-enhanced, and web- based distance learning nutrition courses for undergraduate nursing. Journal of Nursing Education, 42(8), 367-370.
- 4. Cano, J., Carton, B.I and Raven, M.R. (1991), An assessment of selected teacher characteristics of pre-service teachers of agriculture education, Proceedings of the 45th Annual Central State Conference.
- 5. Chandra and Singh (2004), Open and Distance Education System: New Vistas in Higher Education, Rajdhani Book Service, New Delhi.
- 6. Dunn, R.S. and Dunn, K.J. (1979), Learning styles/teaching styles: should they...can they... be matched? Educational Leadership, 36, 238-244.
- 7. Gadiya, A. K. and Chandra, R. (2014), Teaching and Learning Skills in University System, Mewar University Press, 2014.
- 8. Chandra, R, Salati K.M. and Gadiya, A. K. (2014), Teaching and Learning Skills in Higher Education, Richi Publication, 2014
- 9. Garger, S and Guild, P. (1984), Learning Styles: The crucial differences, Curriculum Review, pp.9-12.
- 10. Huber, M. T., P. Hutchings (2004). Integrative Learning: Mapping the Terrain. The Academy in Transition. Washington, DC.: Association of American Colleges and Universities.
- 11. Heimlich, J.E. (1990), Measuring teaching styles: a co-relational study, Ohio State University.
- 12. Kehoe, J; Tennent, B; Windeknecht, K. (2004), The challenge of Flexible and non-traditional learning and teaching methods: Best practice in every situation, Studies in Learning Evaluation Innovation and Development, Vol. 1(1), pp. 56-63.
- 13. Koppleman, K. (1980), The relationship of cognitive style to teaching style. Paper presented to the Midwest Educational Research Association, Toledo, OH. (ERIC Document Reproduction Service No. ED 194 609).
- 14. Lawther, P. M., and Walker, D. H. T. (2001), An evaluation of a distributed learning system. Education and Training, 43(2), 105-116.
- 15. Light, V., Nesbitt, E., Light, P., and Burns, J. R. (2000), "Let's you and me have a little discussion": Computer mediated communication in support of campus-based university courses. Studies in Higher Education, 25(1), 85-96.

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- 16. Petrides, L. A. (2002), Web-based technologies for distributed (or distance) learning: Creating learning-centred educational experiences in the higher education classroom. International Journal of Instructional Media, 29(1), 69-77.
- 17. Salati, K.M. and Chandra, R. (2014 a), Quality Assurance in Higher Education: Creditisation, Examination, Evaluation and Certification, accepted for the publication in Journal of Indian Research.
- 18. Salati, K.M. and Chandra, R. (2014 b), Innovation in Examination and Evaluation in Universities, accepted for the presentation in 32nd Annual Conference of the Association for Educational Assessment in Africa (AEAA), to be held in Livingstone, 11-15 August 2014.
- 19. Salati K.M. and Chandra, R. (2014 c), Teaching and learning redefined, submitted for the publication.
- 20. Smith, S. R. (2005), Toward an Integrated Medical curriculum. Med Health R I, 88(8): 258-61.
- 21. Willett, H. G. (2002), Not one or the other but both: Hybrid course delivery using WebCT. The Electronic Library, 20(5), 413-419.
- 22. http://www.ceo.wa.edu.au/home/harris.joanne/Tried_and_Tested/SDERA_Teaching_and_learning_strategies.pdf