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Raising the Awareness of Learners towards Modularization: A Case Study of Wolaita Sodo University, Ethiopia

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Abstract
The aim of this study was to survey the level of awareness of students towards modularization; and to take action (train) to raise the awareness to a desirable state. For the purpose of surveying the students' level of knowledge towards modularization, a 15-item questionnaire (The Initial Questionnaire) on a Likert scale was given to all the 24 Agribusiness and Value-chain Management (ABVM) year II students. Accordingly, the overall percentage of incorrect answers was 52.5%, which implies that more than half of the students are levelled poor in their knowledge and attitude (awareness) towards modularization. It was also evidenced that 54.6% of the students rated that their level of knowledge about modularization as "very poor" or "poor". Based on the results from The Initial Questionnaire, a refresher and awareness training was given to students to raise their awareness to a desirable state. As the second action focus group discussion also conducted with selected instructors leading modules on the issues of essence of modular curriculum and implementation of the packages so that learners can recognize the merits of modularization. After all the actions, for the purpose of surveying the changes on the students' level of knowledge towards modularization, a 15-item questionnaire (exactly the same as the Initial Questionnaire) was given again to students. Accordingly, the overall percentage of correct answers was 85.67%, which implies that majority of the students are levelled high (preferably desirable) in their knowledge and attitude (awareness) towards modularization after the intervention. After the intervention it was also evidenced that all (100%) of the students rated that their level of knowledge about modularization as "good" or "very good" or "excellent".
Keywords: Wolaita Sodo University, raising awareness, modularization.

1. Introduction

1.1. Background Information

It was in 2012 that the Ethiopian Higher Education Institutions started implementation of modularization in the intention of producing competent and well equipped graduates all over the nation. As one of the public Higher Education Institutions, the Wolaita Sodo University is in a progress in implementing modularization since 2012. Department of Agribusiness and Value-chain Management (ABVM) is a newly launched program in Wolaita Sodo University, under the College of Agriculture. It has now two batches of students. When it was first started it had 27 students, in 2012. Currently the number is down to 24. The program here is going on with special follow up led by a nationally harmonized modular curriculum.

1.2. Problem Statement

As the nationally harmonized curriculum envisages, we started practicing modularization with ABVM year I students in 2012. By its very nature, modularization demands that much of the learning tasks to be delivered in block basis; learners are required to take a cluster of learning tasks at a time exclusively. As a result both learners and instructors remain top busy on independent activities.

In both semesters of 2012 we implemented modularization with all its elements (package) as its first kind as a test. In the meantime, however, learners were repeatedly reporting challenges they face during the process. They reported that they ran short of time to complete the tasks given to them and couldn't grasp the concepts properly. As a result they told that they remain shallow with concepts of major courses, as well.

Meanwhile, the department of ABVM, to its full capacity, tried to analyze the situation at department level and devised a solution. In the first semester of the preceding year, when the learners group grows up to year II, we turned to the conventional (old) method of delivering the modules (all the modules side by side – parallel than block based) against the curriculum and the nature of modularization. The solution is short lasting for two reasons: on one hand, it is against modularization and draws a critical evaluation by higher education external quality audit and strictly criticized for compromising quality of education; on the other hand, the learners were not comfortable as expected, as the solution imposes students to take final examinations on a tight schedule.

Analyzing the situation, the department calls for an action for sustainable solution and takes the attention of the Action Research group.

The Action Research group takes time to critically analyze and makes pre research observation and reached on a consensus that the problem lies with the wrong attitude and/or lack of awareness of learners towards the new concept, modularization; and demands to act on the awareness of learners towards modularization.

1.3. Objectives of the Action Research

The objectives for the research were: -

- To assess the awareness level of students towards modularization;
- To fill the gap in the awareness of students towards modularization;

1.4. The Action

The actions to be taken as a remedy for the aforementioned problem were: -

- Training: Awareness training was given to students;
- Motivation: Focus Group Discussion was conducted with the instructors leading modules and/or learning tasks on the issues of essence of modular curriculum and implementation of the packages so that learners can recognize the merits of modularization

2. The Concept of Modularization

Following are some of the possible conceptualization of modularization which have almost similarity.

- It is a process by which educational awards are broken up into component parts of a more or less standard size
- It is a process of organizing parts based on their competencies or themes.
- It is a process of bringing topics/subjects together based on their themes or competences in the realization of the graduate profile already specified.
- It is a matter of making things happens in their natural order. Therefore, contents in a particular course or courses in a module should be put in their natural flow to avoid thought interruption.

Therefore, a modular system in education has both a pedagogical and organizational component (the curricula would be organized based on themes, competences, correlation, etc.)

2.1. International Experience on Modularization

The move towards modular approach to curriculum implementation has got a long history though the literature that supports it is scant when compared to other bodies of knowledge. These days, the approach has drawn special attention all over the world in education systems, from technical and vocational education and training to higher education.

The concept of modularization evolved in higher education in the United States in the second half of the 19th C. The underlying conception is that mind itself is modular (Brewer, Nakamura, 1984). In 1869, Harvard University introduced elective system to promote freedom of learning and increased specialization options. In 1890s a degree based on accumulation of courses was introduced. This in turn resulted in units of measurement in terms of courses and contact hours which are termed as credits. Hence, total freedom or cafeteria-system countered by major-minor system has been fostered. In general, in US, it is believed that modularization increases competition between institutions for Higher Education (credits can be transferred).

The introduction of a modular system in Britain for craft training by the Engineering Industry Training Board in 1968 marked the start of this approach to vocation training which was then emulated in many other industries (Roberts, 1987). The extensive International Labor Organization (ILO) project on ‘modules of employable skills’ (MES) from the mid-1970s onwards, aimed at workers in developing countries, was a particularly significant initiative in relation to a modular approach to vocational education and training (ILO, 1984) in (Cooke L. &Dinkelmann, E., 2001). There are a lot of reasons for the increased interest in modular education; namely:Cutbacks in financing which leads to restructuring and reorganization, Wider range/diversity of student requirements, Demand for flexibility in labor market, Increased access and/or consumption of the educational supplies.

2.2. Modularization in Ethiopian Higher Education Context

Currently few universities have already started implementing the modular approach following the result of institutional transformation studies (BPR) while others are also interested in adopting the approach as per their BPR results.

Higher Education Institutions (HEIs) in Ethiopia have embarked on major reform since last decade. For the reform to take effect, the institutions have used Business Process Reengineering (BPR) as a tool. In the reengineering of the Learning-teaching Core Process, modularization was proposed as a best way for the implementation of curricula and the production of competent global graduates. There are a number of reasons why HEIs opted for modularization. The first one is that the existing curricula are discipline based and the courses are fragmented. They are not organized around competences. As a result, the curricula do not enable HEIs to produce competent graduates. Students who drop out from universities are simply wastage because they cannot be certified in any of the competences as a result of the fragmented courses. The second reason is that the existing curriculum does not say anything about student work load which is very important for students’ success in their academic life. What is mentioned there is only the contact hour that the instructor uses only for the classroom. Hence student workload is one of the central points in the modularization. The third is that there is a

loose connection between the world of education and the world of work because of the inherent problem of the existing curriculum. Furthermore, the traditional curriculum focused on the teacher rather than the learner. However, in recent years there has been a paradigm shift taking place, moving the emphasis from teaching to learning and a more student-centered curriculum. This change has impacted on the curriculum design process with a greater emphasis on the learning in terms of knowledge, skills and competencies within courses and modules. The focus is on how learners learn and the design of effective learning environments (Donnelly, R. & Fitzmaurice, M., 2005).

In general, modularization is believed to increase degree comparability and compatibility, curriculum flexibility, and student mobility. It also strengthens the relationship between the world of education and the world of work.

Based on their BPR results which was harmonized at national level, Universities such as Wolaita Sodo, Hawassa, Bahir Dar, Haramaya and Jimma have already taken the courage to move forward in implementing modularization. Almost all of these universities invited international expert in the area of modularization for training and gained expertise. These universities have cascaded the training down to the academic community. They have already organized their curriculum into module and started the implementation. They are also doing their best to reach other universities with training and awareness creation so that they will be able to implement the modular approach to curriculum.

After seriously looking at the efforts being made by universities to organize their curricula in modular approach and recognizing the role that this approach can play in improving the quality of education, the Ministry of Education through one of its wings, Higher Education Strategic Center (HESC), has given special attention to the effort. The ministry has sponsored through Leadership and Management Capacity Development Project (LMCDP) series of Training of Trainers on modularization. This has contributed a lot to the effort of creating local experts in the area. The ministry is also doing its best in the harmonization of modularization in all public universities. It has organized the harmonization of academic policy to be used by all public universities so that academic quality and standard is maintained. The policy was formulated in such a way that it can accommodate the new developments emanate from modularization.

3. Methodology

3.1. Type and Sources of Data

For the purpose of conducting the proposed action research, primary types of data were gathered. Information relating to the attitude of students towards the modular system of delivery in general and continuous assessment, block based against semester wise (parallel), students work load, long hours of study habit, etc., in particular was gathered from all 24 ABVM year II students.

3.2. Data Collection Techniques

Primary data on the level of awareness (attitude) of learners towards modularization were gathered two times (before and after the intervention) through structured questionnaire. First, data were collected and gap identified; after the gap on the awareness of students is identified, the action/intervention (training) was called on to fill the gap. After a month, the same questionnaire was distributed to the same respondents again to see the change that happened due to the intervention.

3.3. Data Analysis

The data gathered both before and after the intervention were analyzed through frequency, percentage, tables and simple comparison to see the difference.

4. Results and Discussion

4.1. Results from Initial Questionnaire

The aim of this study was to survey the level of awareness of ABVM year II students towards modularization; and to take action (train) to raise the awareness to a desirable state. For the purpose of surveying the students' level of knowledge towards modularization, a 15-item questionnaire (The Initial Questionnaire) on a Likert scale was given to all the 24 ABVM year II students. In the Likert Scale, the "strongly agree" and "agree" responses were regarded as correct answers while the "disagree" and "strongly disagree" responses of the respondents were as incorrect. Accordingly, the overall percentage of incorrect answers was 52.5%, which implies that more than half of the students are leveled poor in their knowledge and attitude (awareness) towards modularization.

Table 4.1: Results from the Initial Questionnaire

Statement of consideration	**Responses, # & % of responses**							
	Strongly agree		Agree		Disagree		Strongly disagree	
	#	%	#	%	#	%	#	%
Concerns towards producing competent & capable graduates to address the current social and economic dynamics	0	0	2	9	11	48	10	44
The modular curriculum imposes students to take final examinations on a tight schedule	8	35	9	39	6	26	0	0
Modularization demands that much of the learning tasks to be delivered in block basis	6	26	9	39	8	35	0	0
Modularization promotes freedom of learning and increased specialization options	1	4	5	22	12	52	5	22
Modularization increases competition between institutions for higher education	8	35	2	9	5	22	8	35
Modularization is believed to increase degree comparability and compatibility, curriculum flexibility, and student mobility	2	9	1	4	9	39	11	48
Modularization strengthens the relationship between the world of education & world of work	1	4	5	22	8	35	9	39
Modularization entails student learning should be continuously assessed and timely feedback given	0	0	3	13	11	48	9	39
Modularization entails re teaching and re assessment for better learning	1	4	2	9	13	57	7	30
Modular curricula encourages students to take responsibility for their own learning	11	48	8	35	3	13	0	0
Modular curricula supports the shift of focus from the traditional teachers centered teaching to student centered learning	0	0	11	48	3	13	9	39
The role of teachers is limited to facilitation of students learning in the modular curricula	7	30	9	39	6	26	1	4
Assessment practices in modularization equip students well for a lifetime learning	4	17	7	30	9	39	3	13
The modular curriculum puts a greater emphasis on the learning in terms of knowledge, skills and competencies within courses and modules	9	39	11	48	0	0	3	13
The modular curriculum is strictly criticized for compromising quality of education	10	44	11	48	1	4	1	4

It was also evidenced that 54.6% of the students rated that their level of knowledge about modularization as "very poor" or "poor".

Table 4.2: The Level of Knowledge about Modularization (before action)

Responses	How do you rate your level of knowledge about modularization?				
	Very poor	Poor	Good	Very good	Excellent
#	7	6	5	5	1
%	29.2	25.4	20.1	20.1	4.2

4.2. The Actions

As part of the action research process it was proposed that the action to be taken as a remedy for the aforementioned problem shall be to train the learners on modularization so as to raise their awareness; and to conduct focus group discussion with the selected instructors. It has been done so as per the proposal.

4.2.1. Training

The before intervention questionnaire result reveals that the overall percentage of incorrect answers was 52.5%, which implies that more than half of the students are leveled poor in their knowledge and attitude (awareness) towards modularization; which therefore demands action to make a difference on the awareness.

Based on the results from The Initial Questionnaire, therefore, a refresher and awareness training was given to ABVM year II students to raise their awareness to a desirable state. The content of the training was basically on the concepts of module, modularization and ECTS; and opportunities, challenges and possible suggestions in implementing modularization.

Fig.Pictures taken during training

(Photo: - By Alula T.)

4.2.2. Focus Group Discussion

As the second action focus group discussion wasalso conducted with selected instructors leading modules and/or learning tasks on the issues of essence of modular curriculum and implementation of the packages so that learners can recognize the merits of modularization.

4.3. Results from Post-intervention Questionnaire

After all the actions (training and focus group discussion),for the purpose of surveying the changes on the students' level of knowledge towards modularization, a 15-item questionnaire (exactly the same as the Initial Questionnaire) on a Likert scale was given again to all the 24 ABVM year II students. Like before intervention, in the Likert Scale, the "strongly agree" and "agree" responses were regarded as correct answers while the "disagree" and "strongly disagree" responses of the respondents were as incorrect. Accordingly, the overall percentage of correct answers was 85.67%, which implies that majority of the students (21 of 24) are leveled high (preferably desirable) in their knowledge and attitude (awareness) towards modularization after the intervention.

Table 4.3 Results from the Post-intervention Questionnaire

Statement of consideration	**Responses, # & % of responses**							
	Strongly agree		Agree		Disagree		Strongly disagree	
	#	%	#	%	#	%	#	%
Concerns towards producing competent & capable graduates to address the current social and economic dynamics	13	54	11	46	0	0	0	0
The modular curriculum imposes students to take final examinations on a tight schedule	5	21	2	10	7	29	10	42
Modularization demands that much of the learning tasks to be delivered in block basis	12	50	12	50	0	0	0	0
Modularization promotes freedom of learning and increased specialization options	9	38	9	38	3	12	3	12
Modularization increases competition between institutions for higher education	13	54	10	42	0	0	1	4
Modularization is believed to increase degree comparability and compatibility, curriculum flexibility, and student mobility	12	50	11	46	0	0	1	4
Modularization strengthens the relationship between the world of education & world of work	10	42	11	46	2	8	1	4
Modularization entails student learning should be continuously assessed and timely feedback given	11	46	11	46	2	8	0	0
Modularization entails re teaching and re assessment for better learning	8	33	11	46	2	8	3	12
Modular curricula encourages students to take responsibility for their own learning	13	54	8	33	0	0	12	0
Modular curricula supports the shift of focus from the traditional teachers centered teaching to student centered learning	8	33	13	54	3	12	0	0
The role of teachers is limited to facilitation of students learning in the modular curricula	6	25	11	54	6	25	1	4
Assessment practices in modularization do not equip students well for a lifetime learning	0	0	8	33	9	38	7	29
The modular curriculum puts a greater emphasis on the learning in terms of knowledge, skills and competencies within courses and modules	10	42	12	50	2	8	0	0
The modular curriculum is strictly criticized for compromising quality of education	1	4	5	21	8	33	10	42

After the intervention it was also evidenced that all (100%) of the students rated that their level of knowledge about modularization as “good” (42%) or “very good” (50%) or “excellent” (8%).

Table 4.4: The Level of Knowledge about Modularization (after intervention)

Responses	How do you rate your level of knowledge about modularization?				
	Very poor	Poor	Good	Very good	Excellent
#	0	0	10	12	2
%	0	0	42	50	8

5. Summary and Conclusion

The aim of this study was to survey the level of awareness of ABVM year II students towards modularization; and to take action (train) to raise the awareness to a desirable state. For the purpose of surveying the students’ level of knowledge towards modularization, a 15-item questionnaire (The Initial Questionnaire) on a Likert scale was given to all the 24 ABVM year II students. Accordingly, the overall percentage of incorrect answers was 52.5%, which implies that more than half of the students are leveled poor in their knowledge and attitude (awareness) towards modularization. It was also evidenced that 54.6% of the students rated that their level of knowledge about modularization as “very poor” or “poor”.Based on the results from The Initial Questionnaire, a refresher and awareness training was given to students to raise their awareness to a desirable state. The content of the training was basically on the concepts of module, modularization and ECTS; and opportunities, challenges and possible suggestions in implementing modularization.

As the second action focus group discussion also conducted with selected instructors leading modules on the issues of essence of modular curriculum and implementation of the packages so that learners can recognize the merits of modularization.

After all the actions, for the purpose of surveying the changes on the students’ level of knowledge towards modularization, a 15-item questionnaire (exactly the same as the Initial Questionnaire) was given again to students. Accordingly, the overall percentage of correct answers was 85.67%, which implies that majority of the students are leveled high (preferably desirable) in their knowledge and attitude (awareness) towards modularization after the intervention. After the intervention it was also evidenced that all (100%) of the students

rated that their level of knowledge about modularization as “good” or “very good” or “excellent”.

References

Cooke L. &Dinkelmann, E., (2001). Modular Education: A Technikon Perspective, CTM Quality Promotion Series, Curriculum Development Series, Modularization: No 1

Donnelly, R. & Fitzmaurice, M., (2005).Designing Modules for Learning. Learning and Teaching Centre, Dublin Institute of Technology)

Jean McNiff& Jack Whitehead, 2006. All You Need to Know about Action Research. SAGE Publications, London

Ministry of Education, 2012. A Guideline for Modularization to Ethiopian Higher Education Institutions (unpublished). Addis Ababa, Ethiopia

Ministry of Education, 2013. Curriculum for Undergraduate Program in Agribusiness and Value Chain Management: Nationally Harmonized BSc Curriculum

Valsa Koshy, 2005. Action Research for Improving Practice: A Practical Guide. Paul Chapman Publishing, London

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