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PROCEEDINGS
Assessment and Accreditation of Learning in Open University
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THE EFFECT OF ONLINE TUTORIAL ACTIVITY ON GRADE OF PDGK4104 COURSE AT UNIVERSITAS TERBUKA

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QUALITY CONTROL ON FINAL EXAMS PROCESSING AT EXAMINATION CENTRE OF UNIVERSITAS TERBUKA – INDONESIA

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ABSTRACT

One indicator to measure competency of learning outcomes from student of Universitas Terbuka (UT) is the final exams (FE). As part of the student learning system, the FE is the only process that can be fully controlled by the UT. Therefore, UT performs quality control to maintain the credibility and validity of the results of FE. One attempt to maintain the validity of the results of FE is controlling the processing of examination results in UT Examination Centre. There are three types of exam results at UT, the exam answer sheet (EAS), exam answers book (EAB), and exam assessment sheet. This article will discuss quality control on EAS processing. Quality control on EAS processing consists on many steps: EAS admission, examination and determination of the validity of rules and sanction violations of test administration, scanning, matching examinees student data and personal data, giving sanction violations of rules and administration, scoring, and grading. During the semester exam 2016.2, EAS which were processed data UT Examination Centre were amounted to 1,505,220 pieces. With the number of permanent employees 15 people, each semester, the Examination Center recruits temporary labors to process the exam results from 739 test points. To get qualified temporary labor, then Examination Center must do the selection. For selected temporary labors, trainings were conducted in order to work according to the required qualifications from UT. Providing quality control of test results processing and temporary labor recruitment process, have be enable to improve the performance of the Examination Center. It can be seen by the exam results available in earlier stage and the decreasing of problems related to the processing of exam results each semester.

Keywords: Quality control of processing exam results, exam answer sheet, Examination Center, temporary labors.

INTRODUCTION

Universitas (UT) is a university that uses open and distance learning systems. Teaching materials for students are delivered through various media, ranging from printed materials to digital teaching materials. The learning process for students is done freely with the help of learning through face-to-face tutorials, online tutorials, and practice/practicum whose implementation is controlled by academic staff at the UT. At the end of each semester, students’ learning achievement is measured through the final exam of the semester (FE) for each course. Each UT semester holds 2 FE’s, namely FE for Faculty of Economics (FEc), Faculty of Law, Social and Political Sciences (FLSPS), Faculty of Mathematics and Natural Sciences (FMNS), and Faculty of Teacher Training and Education (FOE) and FE for FOE Program Primary School Teacher Education (PSTE) and Teacher Education Early Childhood Education (TEECE).

FE are implemented throughout the Regional Offices (RO). UT has 39 ROs serving across Indonesia and one Overseas Service Unit. Materials for FE in the form of supporting materials and manuscripts sent from the Central UT to all RO and test places abroad. The test script is destroyed at the local exam/test location/RO site. The results of FE in the form of test answer sheets (EAS) and the assessment format along with the supporting test result files are sent directly to the Test Center at the Central UT. While the test results in the form of test answers (EAB) sent to RO Sentra to be corrected by the examiner. EAB scores obtained from inspectors at RO Sentra are sent to Central Testing Center at UT Center for grading process.

The FE process is done in the Field of Exam Resulting Processing, Testing Center, UT Center. The processing time of the FE results to yield the grade in the Testing Center is determined for 7 weeks for FE results from FEc, FLSPS, FMNS, and FOE and FOE Program PSTE and TEECE. While the process time
of FE FOE Program PSTE and TEECE is determined for 9 weeks. The total score processed in each semester of 2015-2016 are listed in Table 1. The FE results process must produce valid, reliable, and in accordance with the standards specified by UT. Bearing in mind that value process should be done correctly according to the standards specified in UT. Quality dick is done at every stage of the process of examination result since RO and in Processing Field of Exam Result, Test Center, UT Center. In this paper will be discussed about quality control performed on the processing of exam results in the Field of Exam Resulting Processing, Testing Center, UT Center in an attempt to generate valid and standardized value.

Table 1. Number of FE Score Value Processed in 2015-2016

<table>
<thead>
<tr>
<th>Short Number</th>
<th>FE Period</th>
<th>FEC, FOE</th>
<th>FLSPS, FMNS, FOE Program PSTE and TEEC</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>2015.1</td>
<td>466.550</td>
<td>1.077.467</td>
<td>1.544.017</td>
</tr>
<tr>
<td>2.</td>
<td>2015.2</td>
<td>472.134</td>
<td>1.043.171</td>
<td>1.515.305</td>
</tr>
<tr>
<td>3.</td>
<td>2016.1</td>
<td>497.609</td>
<td>976.340</td>
<td>1.473.949</td>
</tr>
<tr>
<td>4.</td>
<td>2016.2</td>
<td>562.914</td>
<td>942.306</td>
<td>1.505.220</td>
</tr>
</tbody>
</table>

Distance education is teaching and planned learning in which teaching normally occurs in a different place from learning, requiring communication through technologies as well as special institutional organization (Moore and Kearsley, 2012). The existence of distance between student and learning source hence need media and technology to assist the learning process.

According Moore and Kearsley (2012), there are 4 kinds of media that can be used to assist student learning process, that is:

A. Print media
B. The image media (silent and moving)
C. Voice media
D. Media artifacts.

Instructional design should consider all aspect of instructional environment, following a well-organized procedure that provides guidance to even the novice distance instructor. The learner (Simonson etc., 2012) is the learner of the distant learner.

Final Exam of the Semester at UT

To measure the level of achievement of student learning outcomes in the courses followed, UT conducts final exam (FE) in each semester. FE results in the form of value is symbolize the success rate of students mastering a teaching material. Simonson et al (2012), states that assessment is define as a process of measuring, documentating, and interpreting behaviors that demonstrate learning. Assessment is the means of measuring learning gains and can be used to improve the teaching-learning process in distance education setting as well as more traditional environments.
Processing of FE Results at UT

Processing of FE results in Processing Field of Testing Result, Testing Center, UT Center begins with acceptance of FE results from RO. For test answer sheets (EAS) and test scoring formats are sent directly from RO, while for exam book (EAB) sent from RO Sentra.

The FE results are sent to the Field of Exam Resulting Processing through Post Office and Giro, delivered directly by RO staff or delivered by courier. Upon receipt of FE results, the number of packs (sacks) is matched with mailing letters from the Post Office and Giro / RO / courier staff. If the number of sacks is in accordance with the delivery letter then the exam results will be checked the number of boxes, the number of envelopes in the acceptance of FE results.

The next stage is batching numbering on FE results based on test location per exam spot per RO on a number of FE envelope results. After the batching process, the next step is to check the validity of FE results. In this process, the EAS / assessment format is matched with the student's personal data (name, student identification number, date of birth, course code, signature graduation on Student Presentation Checklist with EAS / EAB signature). If EAS is in accordance with the student's personal data, then the EAS is scann. EAS scann results will be matched with personal data on student registration data base, if there is discrepancy and after examined correctly then editing and updating personal data of students.

The execution of the punishment shall be conducted if in the Minutes of Examination Execution there is a record of violation of the disciplinary examination or on the monitoring officer's report on the execution of the examination there is a record of violation of the discipline of examination. In addition, also applied punishment pattern answers for students who have the same pattern of answers on the answer about the wrong. Scoring is done based on the key answer questions from the Field of Test Examination and Testing Technology Development at the Testing Center. After the supporting value is declared complete by the Administrative and Academic Bureau of Students, then grading the value of FE. In UT there are 5 grade values, namely A, B, C, D, and E. These sequential processes affect each other. There is a potential for significant errors during the production process consisting of sequential stages, each of which is heavily dependent on the previous stage. Such processes can be affected critically by material variations, weight, time, temperature, or other parameters, regardless of the task. Choice between alternatives can be crucial to the success of the entire process (Allalouf, 2007). Therefore the process of examination results should be controlled so that the results are valid and standardized.

Announcement of FE Results to UT Students

The result of FE is the result of the assessment of student learning process in certain subject. The FE results are submitted to students in grade form on the exam list (EL) format per semester. Student grades are sent to RO through student records system (SRS) application to RO and UT website. Students will get EL from RO. In addition students can access the UT website to see its grade.

Research Questions / Objectives

The purpose of this study was to know the suitability of quality control on the processing of FE results into grades in the Field of Examination of Test Results, Testing Center with UT standard. It also studies the compatibility of recording with quality controls performed.

METHOD

The method in this research is observation study. The objective of this observational study is to determine the level of conformity of practice with the quality control standards determined by UT, especially during the final exam period 2015.1, 2015.2, 2016.1 and 2016.2.

Variables of conformity of quality control standard on FE result process, subject to quality control standard on process of FE grade, and achievement of target quality of processing result of FE seen from scope as follows.
1. This research is conducted for FE results in:
A. Faculty of Economic
C. Faculty of Law, Social and Political Sciences.
D. Faculty of Mathematics and Natural Sciences (FMNS),
E. Faculty of Teacher Training and Education and
F. Faculty of Education (FOE) for Program Primary School Teacher Education (PSTE) and Teacher Education Early Childhood Education (TEECE).

The exam results are combined for FEc, FLSPS, FMNS, FOE at each observed FE period. While for FE results FOE for Program Primary School Teacher Education (PSTE) and Teacher Education Early Childhood Education (TEECE) are incorporated separately in each FE period observed based on separate test times with FEc, FLSPS, FMNS, FOE.

2. Time of sampling during final exam period
A. 2015.1
B. 2015.2
C. 2016.1
D. 2016.2

3. Quality objectives achieved during the FE period
A. 2015.1
B. 2015.2
C. 2016.1
D. 2016.2

RESULT AND DISCUSSION

Amount of Value Processed

The number of exam results processed in the Field of Examination of Test Results, Testing Centers from the FE period 2015.1, 2015.2, 2016.1 and 2016.2 are listed in Table 2.

Table 2. Number of FE Value Processed in 2015-2016

<table>
<thead>
<tr>
<th>Short number</th>
<th>FE period</th>
<th>FEc, FLSPS, FMNS, FOE</th>
<th>FOE Program PSTE and TEEC</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>(score) (grade)</td>
<td>(score) (grade)</td>
<td>(score)</td>
</tr>
<tr>
<td>1.</td>
<td>2015.1</td>
<td>466.550 460.740</td>
<td>1.077.467 965 371</td>
<td>1.544.017</td>
</tr>
<tr>
<td>2.</td>
<td>2015.2</td>
<td>472.134 469.842</td>
<td>1.043.171 913.716</td>
<td>1.515.305</td>
</tr>
<tr>
<td>3.</td>
<td>2016.1</td>
<td>498.095 486.602</td>
<td>976.340 871.148</td>
<td>1.473.949</td>
</tr>
<tr>
<td>4.</td>
<td>2016.2</td>
<td>562.914 556.701</td>
<td>942.306 900.770</td>
<td>1.505.220</td>
</tr>
</tbody>
</table>
Tools Used for Quality Control


The Quality of Exam Results to be Achieved under UT Conditions

The quality objective of processing the exam results to achieve ISO 9001: 2015 certification is 95% of the value processed correctly. This value is determined based on the number of scores that can be made grade. Not all processed scores can be made grade because of incomplete administrative requirements, incomplete final score components, and unregistered course registration data. The achievement of the quality objectives in each semester is shown in Table 3.

Achievement of Processing Quality of FE Results

The processing of FE results in the semester 2015.1, 2015.2, 2016.1 and 2016.2 are listed in Table 3.

<table>
<thead>
<tr>
<th>Short number</th>
<th>FE Period</th>
<th>FEc, FLSPS, FMNS, FOE (%)</th>
<th>FOE Program PSTE and TEEC (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>2015.1</td>
<td>98.8</td>
<td>89.6</td>
</tr>
<tr>
<td>2.</td>
<td>2015.2</td>
<td>99.5</td>
<td>87.6</td>
</tr>
<tr>
<td>3.</td>
<td>2016.1</td>
<td>97.7</td>
<td>89.2</td>
</tr>
<tr>
<td>4.</td>
<td>2016.2</td>
<td>98.7</td>
<td>95.6</td>
</tr>
</tbody>
</table>

CONCLUSION AND RECOMMENDATION

Based on observations on the process of FE results semester 2015.1, 2015.2, 2016.1, and 2016.2 in the Field of Processing Results Exam, Testing Center concluded that:


2. Quality targets achieved in accordance with the set of 2015.1, 2015.2, 2016.1 for FE FE, FHISIP, FMIPA and FKIP and FE 2016.2 for FE FKIP PGSD and PGPAUD results.

3. Less than achieved Quality Goals set for semester 2015.1, 2015.2, 2016.1 for results for FE results FKIP PGSD and PGPAUD

4. Factors outside the process of examination results affect the results of grading the value of FE results.

Based on the results of this study, it is recommended that UT to do:

1. Providing trainings for the execution committee for FE exams to be more orderly so that the exam administration case can be avoided.
2. The entry process of supporting value scores is more accurate and timely.

3. The process of validation of the registration of subjects from students on time.

REFERENCES


INTRODUCTION

As one of the issues of “Pitmans journal” has observed, Distance learning and Open learning was “one of the most interesting developments of recent years in the educational world. However, what is amazing is that, this statement was made long ago, namely on 6th December 1924. As academics attached to distance learning method, or adherents of a new philosophy of teaching and learning, from time to time, we need to ask ourselves, whether we have achieved the full potential, of the Open and Distance method in our own institutions and departments? As quoted by (Coffey, 1977) ideally “An open learning system is one in which the restrictions placed on students are under constant review and removed if restrictions are a hindrance to the students. Distant learning, incorporates the widest range of teaching strategies, in particular those using independent and individual learning.” If one was to find the connection between open learning and distance learning, we can say that the philosophy of open learning is to do with improving access and learner control, while this open learning method necessarily involves some element of distance learning. As envisaged, though open learning systems are particularity open, while not all distance-learning systems are particularly open. However, according to Rowntre, (1994), theoretically distance learning need not be open at all.

Although, open, distance learning philosophy provides, many positive benefits such as access, flexibility, availability according to their own times, availability at any place, especially distant students’ own pace, and the benefits list can go on. However, in keeping with what (Coffey, 1977) said above, one needs to review from time to time whether the administrative system adopted by a particular department or an institution, is working properly keeping in our memory, the theory of cybernetics proposed by (Norbert Wiener 1948).

As some one has observed, there is no gain, without pain. We know already, and experience has proved that open and distant teaching method will not suit every one. There are positive benefits as well as constraints or weaknesses due to the way distance education is carried out. According to (Gabrielle, D.M. 2001), dropout rate is one of the measures to determine the effectiveness of an online program. Program quality can be determined, in part by calculating student completion rates.

THEORETICAL FRAME WORK

Two theories provide a comprehensive theoretical framework that might explain why students leave a course. One of these theories is Tinto’s Integration Model, in which persistence is hypothesized to be related to how well individual’s motivation and academic ability match the institution’s academic and social characteristics. This match shapes a person’s commitment to completing college and commitment to the institution (Tinto, 1987). Bean’s Model of Student Departure predicts, persistence based on behavioral intention. These behavioral intentions are
shaped by beliefs and attitudes. Student’s experiences within the institutions, but also factors external to institution, can affect beliefs, attitudes and decisions (Bean, J.P. 1990). According to (Willging and Johnson 2004), due to some gaps is Tinto’s theory, a convergence model has been suggested that combines the major propositions embedded in these two theories.

**Research Questions and design**

Since the drop out or incomplete rates of the B.A. degree in social science of the Open University of Sri Lanka, are increasing year by year, Keeping with above introduction, purpose of this paper is to find out, reasons for drop outs and incomplete students in distant learning program of the B.A. degree in social studies offered by Department of Social Studies. The specific questions addressed in this study includes:

Q.1. Why did students dropout of the B. A degree in Social Studies?

Q.2. When did they dropout of the B. A degree in Social Studies?

**Methodology**

By looking at the performing indicators of a selected group of students, who enrolled through foundation programme, and also students who entered directly in the Department of social studies, for the B.A. degree in social studies, in the Open University of Sri Lanka, the purpose of this paper is to study the social indicators of the students who have performed well, namely who has got “A” or “B” grade and specially, the students who have performed badly either ended up as repeaters continually or dropouts who have constantly got “D” or “F” grade. Since this is not a fully tracer study or a full “SWORT” analysis, analysis is limited to the performing indicators of Exam results, of past three years, of leaners in B.A. Degree in social science, gleaned carefully, through the yearly documented data by the Examination Department of the Open University. In other words methodology is a desk review based on the past documents. However the following hypothesis are posed due to researcher’s past experience of teaching and observation in the same institution.

**Hypothesis.**

H.1. Students with a good English Language background perform well and get good grades.

H. 2. Foundation students who do their studies in English medium perform well and get good grades.

H. 3. Students who are used to the Distant mode of teaching and leaning do better and get good results.

The following back ground details can be useful, to gain reasons why there are incomplete students or drop outs in the department of social studies, which is the main focus of this paper.
Frist, the Three Year, B.A. degree conducted by the Open University of Sri Lanka, is available only in English medium, from the inception of the University and the department. However, the Foundation program in social science is tri-lingual, namely offered in Sinhala, in Tamil, and in English medium, namely though the three national languages that are used in Sri Lanka.

Initially the choice of subjects of the B.A. degree was limited to three subjects, namely Economics, Sociology, and Mass Communication. Subject choice was revisited in 2012, and as suggested by the stakeholders, and feedback received by the students, and, specially as a result of a generous grant given by the World Bank. A new subject, namely Political Science was introduced in addition to previously taught three subjects. As already mentioned, under the umbrella of these four main subjects, hosts of other relevant, subjects, were also introduced as a result of SWAT Analysis done by the department and under the reforms, funded and suggested by the Quality Improvement Grant given by the World Bank. It should be also mentioned further, that a new requirement called, or a compulsory exposure to a course titled “MY OUSL” leaning and teaching methods in distant education, was introduced, since, the department, along with other departments felt that all new students need to be taught how to prepare themselves to a new philosophy or a method of teaching. In other words, introducing MY OUSL was warranted, because most of the new students were more familiar to traditional “didactic “ approach to teaching (Sternberg (1987), namely the teacher or the tutor lectures, and the students listen and take notes, faithfully, and there is limited student interaction with the instructor and/or other students during class.

However, it is also probable that students may receive incompletes or student withdrawals for a number of varying reasons, not at all having to do with academic or “English Language” difficulty or lack of training in distant learning method. As expressed by the previous researchers (Willging, Johnson, (2004) issues of isolation, disconnectedness, and technological problems may be also are factors that may influence a student to leave a course or dropout completely. Therefore understanding the reasons for dropping out of a distance education course or programs can be very complex, multiple, and inter-related. By gaining insights into the reasons why students dropout in particular distant programs, institutions can develop strategies to decrease attrition and improve complete rates. One of the limitation of this research is that it is not possible from this desk research alone to separate out various other reasons for dropout or incompleteness.

FINDINGS.

The desk review of the performance of the student numbers who enrolled to the foundation program and B.A. degree in social studies offered by the department of social studies during last three years (2014, 2015, 2016) respectively revealed the following details.

Around 38% of the all mediums entered into the BA in Social Sciences.

Around 20% of the English medium students registered for the BA and 15% of them, seems to continue the BA programme successfully getting good marks. One also notices that those who have done the certificate level in the English medium relatively have good results in BA (Compared to the majority of fresh BA students) who enter directly with their Advanced Level,
results or equivalents accepted as a entry qualification to enter the B.A. degree program in Social Studies. Further, records reveal that most of the students who have done the certificate level in Sinhala and Tamil mediums have poor performance in the BA. May be this is due to language barriers, namely their inability to express themselves in English, which is the medium of instruction or other constrains experienced by the Students of distance education (Attri, A.K, 2012). Desk review of the student profile further revealed that there is also gender disparity. Statistically males are only 34% of the students, and females are 66%. Majority of the students were employed in the government sector as well as private sector. We further found out that all though, fairly a large number of students enrolled for the foundation program, only a few entered directly to the B.A. Degree programme. Most of them entered the foundation program to qualify for the LLB degree offered by the department of legal studies, or degree in management offered by the department of management studies, which are sister departments of the department of social studies. However, what is intriguing is that relatively, only a few students of those who have done in the English medium from Certificate to BA have performed well in the BA programme.. Those who are directly coming to BA had the following pass rates.

<table>
<thead>
<tr>
<th>Level</th>
<th>Pass Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>58</td>
</tr>
<tr>
<td>4</td>
<td>79</td>
</tr>
<tr>
<td>5</td>
<td>90</td>
</tr>
</tbody>
</table>

Table 1.

From above table, it is possible to surmise that weaker students get automatically dropped in level 3, and other students do well in level 4 and five because they also get used to the system gradually in specially years four and five. Online access was also introduced recently and it has brought the following results:

Of late, almost all the students are using My OUSL facility, and monitoring SMS alerts and receiving updates about the happenings related to them, in the department website (online notice board)

At level 3 they have supplementary online forums( around 40% of the students are making use of that). They are doing IMM and online courses at level 4 and 5.

With level 3 experience they are familiar with the forum when they are moving to level 4 and 5. And also in level 4 and 5 forums they have compulsory on line activities . Therefore, their participation in the online activities is more than 85%.

Those who are using these facilities have the following benefits; Interacting directly with the module leader in the main campus, Interacting student groups,
creating online groups for students (viber, whatsapp and Facebook groups) to improve their knowledge about the courses and also they do some other cultural activities as well such as; OUSL open day program, nethata ulelak, aesthetic programmes and student symposiums. Naturally, it is felt that some of these activities could bridge the gap, or reduce the isolation felt by the students, and improve their performances and reduce drop out rates.

CONCLUSION

This desk review was done keeping in mind the following three hypothesis. Namely, (1) Students with a good English Language background perform well and get good grades, (2) Foundation students who do their studies in English medium perform well and get good grades, and (3) Students who are used to the Distant mode of teaching and leaning do better and get good results. There is not sufficient evidence in our desk review to prove or disprove three hypothesis, and more research is needed to arrive at reasonable answers to all the research questions paused by this research paper. The problem of drop out seems not susceptible of a simple solution. It needs multiple analysis of various factors related to distance education. Analysis only show that incompletes and drop outs are not only due to the lack of English language skills, but motivation, timely feed back, student support and services, separation and isolation and also mainly due to lack of experience and training in distance learning methods. Hopefully present initiatives taken by the university should help to reduce the drop out rates and incomplete rates of the B.A. degree program in Social Studies. More research using mix methods needed to find out the main reasons for dropout and incomplete rates.

Reference


THE DEVELOPMENT OF MODELING THE WAY LEARNING STRATEGY IN FACE – TO – FACE TUTORIALS ON MATHEMATICS LEARNING COURSE OF PRIMARY SCHOOL.
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(sondangp@ecampus.ut.ac.id)

Abstract

The purposes of this research are, (1) to identify the effectiveness of using active learning strategy modeling the way in improving the interest of tutorial learning, (2) to identify the effectiveness of using active learning strategy modeling the way in improving the ability of students in transferring their knowledge during tutorial class, (3) to identify the effectiveness of using active learning strategy modeling the way in giving good result in mathematic learning course for primary school. This research was conducted by using experiment research with randomized post test control group design on two sample groups, the experiment group and the control group of tutorial class students, and the experiment group and the control group of primary school student. The results of the research showed the average scores of student in tutorial class that used learning strategy modeling the way is better than the class of student using conventional method. Similarly, the outcomes of the primary school student learning that taught by student from tutorial class experiment is better than the outcome of the primary school student that taught by student from tutorial class control. The hypothesis experiment showed the differentiation of the learning result is significant at $\alpha = 0.05$. The results also indicated positive response from student, that is the lecturing process with learning strategy modeling the way is interesting, very useful for understanding the course and make students more confident in delivering material to their students. It is recommended that the tutor of mathematics learning course for primary school uses the learning strategy of modeling the way in face-to-face tutorial.

Keywords : Modeling The Way, Mathematics Learning in Primary School, Learning Strategy.

INTRODUCTION

In distance learning Universitas Terbuka conduct face-to-face Tutorials to help students understand modules that have been studied independently. But sometimes the implementation of this tutorial can not run maximum because of the limited time available and many lesson materials that must be understood. As in the Mathematics Learning Course of Primary School. In this course, students are not only required to understand the materials contained in the Instructional Materials, but the important thing is the student should be able must be able to deliver the material obtained to primary students at school. With the condition of the tutorial time is limited, then a tutor required to be able to guide the course well. But from the results of research surveys in the location of the tutorial, many tutors who only use conventional tutorial methods in the tutorial activities. The method used are generally lecture, brainstorming the idea and group discussions. Whereas as mentioned previously in addition to understand the material, this course requires students to be able to convey the contents of learning materials to students at school / class where he duties. Based on it, this research tries to develop active learning
strategy of modeling the way type} in tutorial activity at Mathematics Learning Course of Primary School. The purpose of this research are (1) to identify the effectiveness of using active learning strategy modeling the way in improving the interest of tutorial learning, (2) to identify the effectiveness of using active learning strategy modeling the way in improving the ability of students in transferring their knowledge during tutorial class, (3) to identify the effectiveness of using active learning strategy modeling the way in giving good result in mathematic learning course for primary school.

THEORITICAL REVIEW
According to Ginting (2008) tutorial method was very suitable to be applied in self-learning model as in distance learning where students were first given the module to be studied. Advantages of tutorial methods: (1) Students obtain individual learning services so that specific problems which they face can be served specifically as well, (2) A student could work with speeds appropriate to his or her own ability without having to be influenced by the speed of learning of other students. While the weakness of the Tutorial Method are: (1) It is difficult to implement classical learning because the tutor must serve the students in large number, (2) If it was still implemented, it is necessary to use "team teaching" with the division of task among team members, (3) If the tutorial was implemented to serve the students in large number, it is necessary appropriate learning strategies. The Steps of Learning Tutorial Methods include: (1) Planning Steps that include studying the module and identifying the difficult parts and developing learning strategies, (2) Preparation steps consist of preparing additional teaching materials and preparing simple questions as a bridge for solving difficult problems, (3) Implementation steps include identifying students who are facing difficulties in understanding the modules that have been given and the parts that are understood and implement the tutorials (4) The Evaluation and Closing Step consist of conducting Questioning activities to ensure that the student has overcome the learning difficulties and to understand the learning materials being studied and to provide independent tasks, including studying additional tasks with the aim of establishing and broadening students’ understanding of the material being studied.

According to Jhon Holt (in Silberman, 2005) stated that learning is better if students were asked to do the following: (a) Students delivered information in their own language, (b) Students gave examples, (c) knowing it in different circumstances, (d) Knowing the relationship between facts or ideas with others, (e) Using them in various ways, (f) Estimating the consequences, (g) Revealing the opponent. Modeling the way (Silberman, 2005) is a metamorphosis of the sociodrama method that is a method by dramatizing an action or behavior in social relationships. In other words, tutors provide opportunities for students to perform certain activities or roles as in life.

The strategy of active learning type of modeling the way has a predetermined procedure (Silberman, 2005), such as: (a) After the teacher’s explanation was completed, using the new learning materials discussed the students were asked to discuss it and then put into practice. (b) the students are divided into several groups to demonstrate the scenarios that had been made, (c) Each group was given the same time to practice and
discuss, (d) Each group had a turn to demonstrate the results of the discussions and exercises in front of the class. This method had advantages such as: (1) Educating students to solve their own social problems that they encounter, (2) Enriching the knowledge and experience of students, (3) Educating students of good language and can show their thoughts and feelings clearly and appropriately, (4) Accepting and respecting others, (5) Fostering the development of children's creativity. Method of Modeling The Way also had weaknesses, such as: (1) Problem solving submitted by students does not necessarily match with the existing situation in society, (2) Due to limited time, the opportunity to play reasonably unfulfilled, (3) shyness leads to mismatch in role play.

RESEARCH METHODS

The research in this article is an experimental study with the randomized design of Post Test Control Group Design to see the effectiveness of using learning model "Modeling The Way" and prove the research hypothesis. The research is conducted on two sample groups, namely the experimental group and the control group.

Figure 1. The Control Research Class Design
The research population in this article is students of Universitas Terbuka Medan Regional office (UPBJJ-UT Medan). Samples were taken from two study groups that were viewed from geographical location. Both groups were expected to represent the entire population, so the two groups are the study group Batubara (coastal area), and study groups Mandailing Natal (mountain area). The study was conducted on two representative classes selected randomly from each study group. One for the experimental class and one for the control class. So in this research consists of two experimental classes and two control classes.

The research design uses randomized Post Test Control Group Design as illustrated below:

```
<table>
<thead>
<tr>
<th>Class</th>
<th>Treatment</th>
<th>Postest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experiment</td>
<td>X</td>
<td>T</td>
</tr>
<tr>
<td>Control</td>
<td>Y</td>
<td>T</td>
</tr>
</tbody>
</table>
```

Description:   
T : Pos test
X : Treatment is learning by using modeling the way
Y : Treatment, is learning with conventional approach

Variables in this research are: (1) independent variable / treatment, is teaching using modeling the way learning strategy, (2) dependent variable is student learning outcomes after being given treatment (posttest score)., (3) control variable is the variable that has same between groups by materials, tutors and hours  (4) Uncontrolled variables are the economic background and health condition of the student, and the distance of the student's residence to the tutorial site. To know the effectiveness of learning strategy of Modeling The Way to the result of student learning and primary Student learning, data
was collected by using instrument of research that is (1) test which stated in task tutorial during face-to-face lecture (2) questionnaire of student opinion on experiment class about motivation and mastery of delivery of learning materials, (3) tests of primary student learning outcomes that are taught by students from each experimental class and control class. Before it is used, it is tested by giving tests to students who have studied mathematics learning course of primary student and primary school students who have studied the material to be tested. Each test will be tested to 30 respondents. The test results show a valid and reliable test, with moderate degree of difficulty and differentiated problem tends to be good. Furthermore, to answer the research problem and to test the hypothesis proposed in this research article, the data was collected and analyze by using descriptive statistical analysis and inferential statistics.

RESULTS AND DISCUSSION

Data on Student Learning Outcomes

From the research results obtained 130 data, is the score of tutorial tasks I and II students in the Mathematics Learning Course of Primary School. The data were obtained from the research samples scattered in four classes with details of 62 data obtained from the experimental class by using the method of modeling the way and 68 data obtained from control class by using conventional tutorial method (the common method used by tutor). Students' learning outcomes as listed in table 1.

Table 1. The students' Learning Outcomes

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>$\bar{x}$</th>
<th>SD</th>
<th>Me</th>
<th>Mo</th>
<th>High Score</th>
<th>Low Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Totally</td>
<td>130</td>
<td>81.75</td>
<td>2.70</td>
<td>87</td>
<td>85</td>
<td>100</td>
<td>60</td>
</tr>
<tr>
<td>Experiment Class</td>
<td>62</td>
<td>83.5</td>
<td>2.35</td>
<td>85</td>
<td>85</td>
<td>100</td>
<td>65</td>
</tr>
<tr>
<td>Control Class</td>
<td>68</td>
<td>80.0</td>
<td>3.05</td>
<td>79</td>
<td>80</td>
<td>100</td>
<td>60</td>
</tr>
</tbody>
</table>

Table 1 shows average score, the median and mode from experimental class using the modeling the way learning strategy is higher than the student class taught by using conventional tutorial method. While the standard deviation of the value of the tutorial task of the experimental class students is smaller than the control class. This shows that the distribution of student tutorial assignment scores that are being taught by modeling the way learning is better than the class of students taught by conventional methods. The difference in value distribution can also be seen from the following frequency distribution table.
### Table 2. Distribution of Frequency of Learning Outcomes of Experiment Class Tutorial

<table>
<thead>
<tr>
<th>No.</th>
<th>Interval</th>
<th>Frequency</th>
<th>Frequency Relative (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>61 - 68</td>
<td>3</td>
<td>4.84</td>
</tr>
<tr>
<td>2</td>
<td>69 - 76</td>
<td>10</td>
<td>16.13</td>
</tr>
<tr>
<td>3</td>
<td>77 - 84</td>
<td>20</td>
<td>32.26</td>
</tr>
<tr>
<td>4</td>
<td>85 - 92</td>
<td>21</td>
<td>33.87</td>
</tr>
<tr>
<td>5</td>
<td>93 - 100</td>
<td>8</td>
<td>12.90</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>62</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

### Table 3. Frequency Distribution of Learning Outcomes of Control Class Tutorial

<table>
<thead>
<tr>
<th>No.</th>
<th>Interval</th>
<th>Frequency</th>
<th>Frequency Relative (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>51 - 60</td>
<td>4</td>
<td>5.88</td>
</tr>
<tr>
<td>2</td>
<td>61 - 70</td>
<td>17</td>
<td>25.00</td>
</tr>
<tr>
<td>3</td>
<td>71 - 80</td>
<td>29</td>
<td>42.65</td>
</tr>
<tr>
<td>4</td>
<td>81 - 90</td>
<td>13</td>
<td>19.12</td>
</tr>
<tr>
<td>5</td>
<td>91 - 100</td>
<td>5</td>
<td>7.35</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>68</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

From Table 2 and 3, it is known that the average of tutorial assignment \( \overline{X} \) experiment class and control class are in same interval 3 class with relative frequency are 32.26% and 42.65% respectively. The relative frequency of the data below the average class value \( \overline{X} \) for the experimental class is 20.97%, lower than the control class (30.88%). Meanwhile, the relative frequency of data above the average class \( \overline{X} \) for the experimental class is 46.77%, higher than the control class (26.47%). This indicates that relatively more students in the experimental class (using modelling the way learning strategy) which scored above the average score than the control class students and the relatively few students in the experimental class which scored below the average score compared to the control class students. These results can also be seen from the following histogram:
The Mathematics Outcomes of Primary School Students

From the research results obtained 211 data, in the form of student learning outcomes on learning mathematics at level 4 dan level 5 primary school. The data obtained from the sample research spread in eight classes with details of 106 data obtained from the experimental class that was given learning by using the learning strategy *modeling the way* and 105 data were obtained from the control class by using conventional learning methods. The results as shown in the table 4:
Table 4. The Mathematics Outcomes of Primary School Students

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>(\bar{x})</th>
<th>SD</th>
<th>Me</th>
<th>Mo</th>
<th>High Score</th>
<th>Low Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Totally</td>
<td>211</td>
<td>81.75</td>
<td>2.70</td>
<td>87</td>
<td>85</td>
<td>100</td>
<td>60</td>
</tr>
<tr>
<td>Experiment Class</td>
<td>106</td>
<td>78.0</td>
<td>2.6</td>
<td>82</td>
<td>80</td>
<td>100</td>
<td>70</td>
</tr>
<tr>
<td>Control Class</td>
<td>105</td>
<td>74.0</td>
<td>3.2</td>
<td>80</td>
<td>75</td>
<td>100</td>
<td>60</td>
</tr>
</tbody>
</table>

Table 4 shows the average, median, and mode mathematics outcomes of Primary students taught by teachers using learning strategies of *modeling the way* (experimental class) is higher than mathematics outcomes of primary students taught by teachers using conventional methods (control class). While the standard deviation of mathematics outcomes of primary school students experiment class is smaller than control class. This suggests that the distribution of mathematics outcomes of primary students taught by learning strategy of *modeling the way* is better than the primary students class taught by conventional methods. Differences in the distribution of learning outcomes can also be seen from the following frequency distribution tables.

Table 5. Frequency Distribution of Mathematic Outcomes of Primary Experiment Class

<table>
<thead>
<tr>
<th>No.</th>
<th>Interval</th>
<th>Frequency</th>
<th>Frequency Relative (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>69 - 72</td>
<td>3</td>
<td>2.83</td>
</tr>
<tr>
<td>2</td>
<td>73 - 76</td>
<td>10</td>
<td>9.43</td>
</tr>
<tr>
<td>3</td>
<td>77 - 80</td>
<td>39</td>
<td>36.79</td>
</tr>
<tr>
<td>4</td>
<td>81 - 84</td>
<td>16</td>
<td>15.09</td>
</tr>
<tr>
<td>5</td>
<td>85 - 88</td>
<td>14</td>
<td>13.21</td>
</tr>
<tr>
<td>6</td>
<td>89 - 92</td>
<td>11</td>
<td>10.38</td>
</tr>
<tr>
<td>7</td>
<td>93 - 96</td>
<td>5</td>
<td>4.72</td>
</tr>
<tr>
<td>8</td>
<td>97 - 100</td>
<td>8</td>
<td>7.55</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>106</td>
<td>100</td>
</tr>
</tbody>
</table>
Table 6. Frequency Distribution of Mathematic Outcomes of Primary Control Class

<table>
<thead>
<tr>
<th>No.</th>
<th>Interval</th>
<th>Frequency</th>
<th>Frequency (%)</th>
<th>Relative (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>59 - 64</td>
<td>7</td>
<td></td>
<td>6.67</td>
</tr>
<tr>
<td>2</td>
<td>65 - 70</td>
<td>19</td>
<td></td>
<td>18.10</td>
</tr>
<tr>
<td>3</td>
<td>71 - 76</td>
<td>36</td>
<td></td>
<td>34.29</td>
</tr>
<tr>
<td>4</td>
<td>77 - 82</td>
<td>20</td>
<td></td>
<td>19.05</td>
</tr>
<tr>
<td>5</td>
<td>83 - 88</td>
<td>13</td>
<td></td>
<td>12.38</td>
</tr>
<tr>
<td>6</td>
<td>89 - 94</td>
<td>6</td>
<td></td>
<td>5.71</td>
</tr>
<tr>
<td>7</td>
<td>95 - 100</td>
<td>4</td>
<td></td>
<td>3.81</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>105</strong></td>
<td></td>
<td></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

From the frequency distribution table of the students' mathematics outcomes, it is known that the average grade \( \bar{X} \) of the experiment and control classes are same in the class interval 3 with the relative frequency of each being 36.79% and 34.29%. The relative frequency of the data below the average grade class \( \bar{X} \) for the experiment class is 12.26%, are lower than the control class (24.77%). Whereas, the relative frequency of data above the average class \( \bar{X} \) for the experiment class is 50.95%, are higher than the control class (40.95%). This suggests that relative more primary students in the experiment class (using the learning strategy of modeling the way) who scored above the average score than students in the control class and the relative is few students in the experiment class who scored below the average score compared with students in the control class. These results can also be seen from the following histogram:

Figure 5. Learning Histogram Value of The Experiment Primary School Class
Inferentially, this results are still proven through t test analysis but previously done first test the requirements of the use of analysis that is normality test and homogeneity test, and from result of testing requirement of data analysis known that research data is normal and homogenous distribution, so hypothesis testing has been done. Hypothesis testing is done on the results of student learning on mathematics learning course of primary school and on primary student learning outcomes in the class are taught by the students who become the research sample. From the calculation with t-test on the result of student learning on mathematics learning course of primary school, obtained for $t_{\text{count}} = 6.82$ and $t_{\text{table}} = 1.65$ at 5% significant level. This means $t_{\text{count}} > t_{\text{table}}$, thus the null hypothesis (Ho) is rejected and the alternative hypothesis (Ha) is accepted. It can be concluded that the use of learning strategy of modeling the way is better than conventional learning in student tutorial class. While the calculations with t-test on primary student learning outcomes are taught by students, obtained for $t_{\text{count}} = 9.82$ and $t_{\text{table}} = 1.65$ at 5% significant level. This means $t_{\text{count}} > t_{\text{table}}$, thus the null hypothesis (Ho) is rejected and the alternative hypothesis (Ha) is accepted. It can be concluded that the use of the learning strategy of modeling the way is better than conventional learning in the primary school students who are taught by UT students. This result is supported by questionnaire response by students about modelling the way learning strategy, that is 95.2% students strongly agreed that presentation by modeling the way learning strategy is interested, 90.3% students agree modeling the way is very useful in providing understanding, 98.4% students are agreed modelling the way giving more confident to students in delivering learning material to their primary school students and 91.9% students are agreed that they’re got new ideas in delivering mathematic learning using modelling the way learning strategy.

The results of this research are possible because the tutorial using the learning strategy modeling the way more shows the reality of learning in the classroom, so that students better understand the way of teaching that will be done in each class. The learning strategy of modeling the way makes the classroom tutorial more active, because
of learning with peer teaching so that students are more interested to follow the tutorial. This is also because students feel what is obtained in the tutorial class is very useful to apply in their primary student class. The results of this study support the results of research Andrijati (2010) which aimed to see improvements in quality of lectures primary school mathematics education 2 undergraduate PGSD Faculty of Education Unnes by using modeling the way learning strategy. Andrijati found that by using the modeling the way learning strategy, the quality of lectures primary school mathematics education 2 could be improved. Improving the quality of this lecture was marked by the increase of learning outcomes and student learning activities, as well as increased the lecturer's performance in studying. The results of this research also in accordance with other previous research that was generally done by the students in the framework of thesis writing. Ma'arif (2011) found out the average score of students learning outcomes of class VII MTs NU 07 Patebon Kendal academic year 2010/2011 using active learning model type of modeling the way was better than using conventional method. Ariana (2014) stated that based on the result of hypothesis testing, there was empirical evidence that the application of learning model of Modeling The Way in improving writing poster ability was more influential compared to Lecture model at SMP Negeri I Lima Puluh. Result of research of Mu'minin (2013) indicated that: (1) learning tool that used in active learning model with modeling strategy of the way got result of average rating equal to 90%, so learning device was categorized very feasible; (2) The result of student learning using active learning model with modeling strategy the way there was difference significantly with student learning result using direct learning model with average result of learning equal to 83 (experiment) and 78 (control).

Although this research had been best attempted, this research could not be separated from the limitations of research methods, field implementation, or in terms of writing the results achieved. Some limitations in this research included: First, in the implementation of research, the treatment was carried out by different tutors in the two tutorial locations under study. So the possibility of treatment conducted by tutors at each location was different although previously been done coaching. Secondly, the students who were the samples of the study were not strictly controlled, so that the students' early ability in learning and teaching ability gave a significant influence. Thirdly, students who were research samples are not strictly controlled outside of school, so the possibility of learning time from different learning experiences of each subject beyond the treatment provided affects the student's ability.

CONCLUSIONS AND SUGGESTIONS
Based on the results of research and discussions that have been described, then taken the conclusion of the use of modeling the way learning strategy can improve student learning outcomes in the course of mathematics learning of primary school which the impact can improve student learning outcomes raised by the students concerned. While the suggestions from the research results are: (1) For tutors in the course of Mathematics Learning of Primary School can use the learning strategy modeling the way in
implementing the tutorial, (2) For further researcher can examine the application of modeling the way learning strategy in other courses, to improve student learning outcomes.

References


WEB-BASED TRANSFER OF CREDITS PROCESSING SYSTEM WITH COURSE AUTO-SUGGEST ADVISING AND DATA VISUALIZATION

Joyce Mae A. Manalo

1University of the Philippines Open University (PHILIPPINES)

Abstract

The University of the Philippines – Open University regularly admits a number of transfer students and lifelong learners, most of whom have previously enrolled in other learning institutions. This means a lot of students apply for transfer of credits. Students fill out an application form with the courses they want to be credited from their previous schools and affix a copy of the required evidence. Each application is processed manually, from verifying the documents, to the evaluation of each course based on University standards, to computing the number of units earned. With the number of applications that need to be processed, this can be grueling, time-consuming, and inconsistent.

This paper presents an online system developed to speed up the process of credit transfer. Instead of filling out a form manually, the student can apply online as soon as they acquire the necessary evidence. The application is also processed online, and the results are sent immediately. Information is archived securely in a database.

But beyond the convenience gained from computerization, the system was also designed to improve the experience of both the student and the evaluators. Features such as text auto-suggest provide advising, assisting the student in choosing matching courses based on previously approved courses from past applications with similar attributes. The system also features a dashboard with visualizations on credit transfer data such as school performance, most common courses, application schedules among others, providing a decision-making tool for future policies on accreditation of prior learning.

Keywords: Accreditation, Prior Learning, Credit Transfer, Bologna Process

1 INTRODUCTION

Open Universities are always finding ways to open up education further. The core of openness is the dismantling of barriers to entry and make education more widely accessible. Accreditation of Prior Learning is one of the many ways Open Universities can bring education to the society. By allowing prior learning to be credited towards a degree, coupled with the open admission policies they are known for, Open Universities would be able to save a lot of time and resources, ultimately strengthening the human resources of Asia and beyond.

1.1 Accreditation of Prior Learning

Accreditation of Prior Learning (APL) is the evaluation of formal, non-formal and informal learning for the awarding of credits towards a degree. Formal learning is the transfer of credits earned in a Higher education institution (HEI), credited towards a degree earned in another HEI. Non-formal is the crediting of learning earned through courses that are structured but do not necessarily count towards a degree. These can be short courses, MOOCs, or other vocational/training courses. Informal learning is unstructured, experiential learning gained through industry or professional practice.
Depending on the country or region, there are many different terms used to describe accreditation, such as RPL (Recognition of Prior Learning), PLAR (Prior Learning Assessment and Recognition). This paper uses Accreditation of Prior Learning. Although some cases differentiate APL and APEL (Accreditation of Prior Experiential Learning), the use of APL in this paper covers all forms of prior learning, whether formal, non-formal, or informal.

1.1.1 Bologna Process, Examples of APL in Asia and the World

In 2005, the College of Nurses of Ontario in Canada added a Bachelor of Science in Nursing degree as a requirement to take the Nursing Examination and practice as a registered nurse. [1] Internationally Educated Nurses (IEN) from countries such as the US, India and the Philippines had to prove that their nursing degrees are equivalent to that of a Canadian degree. The IENs utilized a Prior Learning and Assessment and Recognition (PLAR) tool developed by Daphne Cockwell School of Nursing and the G. Raymond Chang School of Continuing Education at Ryerson University solely for this purpose [1]. That a tool needed to be developed for a single purpose illustrates how complex of a task accreditation can be, and how technology can be used to assist in facilitating the process.

Chao [2] and Zheng et. Al [3] both have discussed the European Bologna Process in the context of Asia and the ASEAN. The Bologna process is a collective effort of public authorities, universities, teachers, and students, together with stakeholder associations, employers, quality assurance agencies, international organizations, and institutions, including the European Commission. [4] The process is credited for the European Higher Education Area (EHEA), which harmonized higher education across different countries in Europe. Zheng et. Al focused on the China-ASEAN Free Trade Area (CAFTA), while Chao looked more into the Asia-Pacific region, this time through the lens of the Brisbane Communique.

The Bologna Process in Europe resulted in increased competitiveness of the region in higher education, as well as increased academic mobility [2]. Both Chao and Zheng highlighted that regions in Asia could use the same benefits. Zheng, in particular, highlighted how, as opposed to Europe, countries in the CAFTA consist of many third-world countries and a few first world countries. Undergoing the Bologna process and forming a cooperative region for higher education could help narrow the gap between the poor and the rich member countries, reduce brain drain and strengthen the overall quality of higher education in the region. While Chao agrees with the intentions of applying the Bologna Process to the Asian Region, he posed arguments related to the social, economic and political framework of the region which would make it difficult to emulate the process as it was done in Europe directly.

Regardless of the progress made in establishing a cooperative higher education region in Asia, the undertakings show the interest in, as well as the benefits of, having a mutual recognition of academic qualifications across different Asian countries, further strengthening the argument for accreditation in the region.

1.1.2 Accreditation in the Philippines

In the Philippines, there are several existing policies on accreditation. Arzadon [5], discussed the Philippine Qualifications Framework (PQL). The PQL describes the levels of educational qualifications and sets the
standards for qualifications outcomes. [6] The objective of PQL is similar to the aims that Asian and ASEAN Bologna process, which is to facilitate the mobility of workers to other Asian countries.

The Philippine Commission on Higher Education (CHED) also implements the Expanded Tertiary Education Equivalency and Accreditation Program (ETEEAP).

1.1.3 Accreditation Process
Depending on the country there are quite a few models for the accreditation process. Nyatanga[7] provided examples of a few of these models, namely the US and UK APL models, as seen below.

![Fig 1. UK (Left) And American (Right) APL Models. Reprinted from Good Practice in the Accreditation of Prior Learning (p. 7-8) by L. Nyatanga,1997, London, UK: Bloomsbury Publishing.](image)

While there may be some differences in how the stages/steps of the process are broken down, as well as how each level is explained in detail, the process is notably similar. Both models start with the identification of the possible credits to be earned. The process will move towards application and providing of necessary evidence, and will then be assessed and evaluated. It ends with the credits awarded and further recommendation given.

The Philippine ETEEAP model (Fig. 2) also goes through a similar process, with the steps broken down into further detail compared to the UK and American models above.
The CHED ETEEAP Flowchart goes into greater detail of the assessment methods and involves another set of people (panel of experts) to validate the assessment. Regardless, the CHED Model also follows a similar logic to the UK and American models, in that it requires the student to apply for accreditation, provide evidence, go through the appropriate assessment, before receiving credit and further academic advice.

All of the models above follow a certain pattern and can be simplified into a single, more general framework, such as in Fig. 3 below.
In the UK Framework, Stage 1 and Stage 2 would fall under pre-application, Stage 3 would fall under Application and Evidence Submission Stage 4 would fall under Assessment and Validation, and finally, Stage 6 would fall under Notification and Encoding. The same goes for the American Model, Step 1-2 would be the Pre-application, Step 3 would be the Application and Evidence Submission, Step 4 and 5 would be the Assessment and Validation, and Step 6 would be Notification and Encoding.

Finally, we have the ETEEAP. Unlike the two other models, the Pre-application and Application steps are combined into the first step in the ETEEAP Flow Chart. It then goes into great detail of the Assessment and Validation Step, and the Notification and Encoding Step, with each having a column of options respectively. Despite the difference in structure, it is clear that the process is still the same. The Simplified Framework for Accreditation of Prior Learning is general enough to apply to most situations of APL, be it formal, non-formal, or informal.

1.2 APL for Formal Education: Transfer of Credits

1.2.1 Transfer of Credits in the University of the Philippines Open University (UPOU)
The bulk of accreditation in UPOU is mostly of the formal type, or the Transfer of Credits from one HEI to another. As an open university, UPOU has more open admission policies compared to other constituent universities under the University of the Philippines (UP) System. This makes UPOU attractive to a lot of second chance learners who have studied in schools in the past but needed to stop for one reason or another. These students seek to have whatever courses they have taken at their previous schools credited towards their degree in UPOU.

The process of Applying for Transfer of Credits in UPOU closely resembles the processes described in subsection 1.1.3 in this article. The students apply for Transfer of Credits by accomplishing a form. In the form, they indicate the courses they wish to apply for transfer. To identify these courses, the student seeks advice from the Program Chair or studies the program curriculum. The student also submits a copy of the Transcript of Records (TOR) from the former schools. The courses previously taken as well as the grades received is reflected in the transcript, and it serves as proof that the students earned the units.

The application and Transcript are received at the Faculty level. The Faculty Secretary processes the transfer of credits application by carefully reading the Transcript of Records and evaluating each applied course. The results would depend on system policies stipulated in the Revised University Code Articles 359-366 [8] as well as policy within the University, Faculty, and Program.

Depending on the student’s prior level of education, a student may be required to take the Validation Exam (VE) to transfer the courses. According to Article 360 of the Revised UP Code [8], undergraduate students who have completed a 4-year or 2-year course in the past, or have earned 66 units, no longer need to take the VE. Students from other constituent universities also no longer need to take the VE [9]. The entire process is time-consuming, from Profiling/identification to Application and finally notification. Students seeking out advice from the university on what courses can be credited require the attention of the program chair and faculty secretary, taking up valuable time resources.
During the application process, the physical forms take the time to arrive, and mailing of physical evidence and documents is also an extra expense for the student as well. Once the forms arrive, the Faculty Secretary evaluates the application and documents. This would require manually encoding the courses approved as well as computing the number of units earned.

Finally, the students are informed of the results through email, and the courses are forwarded to the Office of the University Registrar (OUR) for verification. Once verified, it is added to the student’s record. If a student needs to take the VE, the student is notified of the courses approved on the condition of the VE, and the VE Committee Chair is informed as well. The VE Committee Chair would arrange for the VE schedules, either at the Learning Centers for local students, or administered online for students who are offshore. The OUR would hold the student’s record until the results of the VE.

1.2.2 Transfer of Credits System
This grueling Transfer of Credits Process can be made much easier simply by going digital. The student should be able to apply and send evidence online, and the encoding process can be shortened if not eliminated. This would make the process far less intimidating and inconvenient for the student and would enable the Faculty Secretary to focus on the assessment of the courses.

2 WEB-BASED TRANSFER OF CREDITS PROCESSING SYSTEM
A system was created to address the needs of UPOU for a more efficient processing system. The system is accessible online and simplifies mundane, repetitive tasks such as encoding of courses and counting of units.

2.1 Design and Conceptualization
The process for developing this system has been iterative, with possibly the first iteration only creating a digital form for online submission using free online form services. The other features were gradually added as the system is being used. Today the system runs as a standalone website with its database separate from other university systems. The goal is to eventually integrate the transfer of credits system with the Academic Information Management System used by the OUR.

Although the system was designed to address the immediate needs of UP Open University, it still follows the accreditation process and can be used to adapt to different situations with a few changes. Following the general model for accreditation in Figure 3, the system form simplifies the Application Phase, the unit counter and drop-down menus assist with the Assessment Phase, and the email module hastens the Notification Phase.

2.2 System Features
2.2.1 Online Application Form
Perhaps an essential feature of the transfer of credits system is the online form. The fields on the online form are very similar to the physical form. It asks for the student’s Name, Student Number, which is a unique identifier used by UP System for its students, email address to send the notification, the last school attended, as well as the program under which the student is applying to get credits.
The student should indicate each course applied along with the school it was taken in and the equivalent course in UPOU. As opposed to using a paper application form, the student can add as many courses without running out of space. There is a Total Units counter at the bottom of the form as a guide so that the student would not exceed the required number of units for the program.

One of the features of the Online Application Form is the Advising through Autocomplete. Based on previously approved similar applications, the system can make suggestions for the equivalent course. This assists the student in identifying courses that may be transferred. While this feature does not completely replace consultation with the Program Chair or a thorough review of the Curriculum, knowing which courses were previously approved would provide feedback on the courses chosen, without waiting for the application to be processed. This feature would also allow the students to fill-out the form faster.

As of writing, the application form is readily available and do not require login to access. Future versions of the system may integrate with the other student support systems and may utilize the same login access.

2.2.2 Evidence Upload

The system accepts PDF scans of the Transcript of Records. Students who already have scans of their transcripts no longer need to request for another copy from their school. The student has already submitted another copy to the University before admission, so it is no longer necessary to require the student to submit another physical copy.

The Online Application form and Evidence Upload can be seen in Fig 4.

Fig 4. Screenshot of Transfer of Credits System Online Application Form
2.2.3 Processing Tools

The Faculty Secretary processes the applications using the same system. Logging in is required to access the applications, ensuring the privacy of the information and evidence provided.

There are several options available, based on the existing policies, and the Faculty Secretary can select them based on an evaluation of the application. If a student needs to take a Validation Exam, for example, the Faculty Secretary may select “VE” and indicate the date of the VE. When the system generates the notification after processing, the date of VE is included, and the deadline for VE confirmation (one week before the validation exam) is adjusted accordingly. Selecting this option will also allow the notification to be sent to the Validation Exam Committee.

Similar to the application form, there is also a total unit counter based on the number of units required in the Program selected by the student. In Fig 5., the total units broken down into the specific domains of the Bachelor of Arts in Multimedia Studies program is displayed. A course may be approved by clicking the “Approved” check box, and this will add the total number of units for the course to the domain indicated by the Total Units counter.

![Figure 5. Screenshot of Processing an actual application for Transfer of Credits (BAMS) on the Transfer of Credits System (Name, student number, and email withheld)](image)

The Faculty Secretary also has the option to change the number of units input by the student, as well as the equivalent course field, based on the review of the Transcript of Records. The faculty secretary can correct some obvious input errors by the student on this interface.

Once the application is processed, clicking “Submit” will generate the appropriate notification letter based on the fields selected, containing the list of approved courses.
2.2.4 Email Notification
Once the Faculty Secretary clicks “Submit,” the system generates a notification letter. The letter is in PDF form and is similar to the notification sent to applicants using the manual application process. The notification is in a text editor, giving the Faculty Secretary to include additional message and advising, as well as last minute correction for errors.

The notification is sent to the email address given by the student, as well as the Program Chair and the OUR. The system is configured to use the email address of the Faculty Secretary. In case the student needs to take the VE, the VE committee chair is also added to the list of recipients.

2.2.5 Analytics
Another feature of the Transfer of Credits system is the analytics page. The page includes visualizations on some of the relevant information regarding the transfer of credits applications. It shows data on the number of applications, most applied course, and best performing schools. There is also a timeline showing the number of applications, which can help anticipate the number of upcoming future applications. The screenshot of the analytics page can be seen in Fig 6.
The page synthesizes information from all the past applications processed through the system, making them easy to understand and analyze. This was created for the purpose of assisting in decision-making at a higher level involving accreditation in the University.

2.3 Implementation

The experimental system has been running since September 2016, and has been used to process around 53 applications. This system is currently being used only by FICS, mostly by BAMS program, although a few graduate applications have been received through the system as well. The analytics for this system currently focused on those under the BAMS program. Not all applications during this period were submitted online, some students still submitted their applications manually.

There have been some issues encountered during the initial implementation of this system, mostly with the evidence upload. Some students have encountered errors regarding the file upload, as the files they tried to upload exceeded the file size limit of the system. Some students reported to have trouble with
scanning evidences with multiple pages as PDF. The file size limit was adjusted in response to this, and multiple file upload is being considered for future iterations.

3 IMPACT AND FUTURE WORK

3.1 Possibility of Expansion

Since the system is based on the simplified framework of APL, it is entirely possible for the system, with a few changes, to be adopted into by other HEIs for their use. The system can be tweaked depending on the specific needs of any program or university.

Another thing to consider would be the use of a mutual records system for transfer of credits across different HEIs. If for example, a student was able to receive credits in UPOU for a course taken in another HEI, that HEI could also accept transfer students from UPOU. By having a mutual records system, Transfer of Credits processing can be based on the evaluation of both parties, making it collaborative and consistent. If more Universities would adopt similar tools and allow them to the interface would each other, this could allow for a Bologna-like process to develop among the HEIs involved.

3.2 Policy Implications

If other HEIs adopt the system or something similar in Asia, not only would the system be able to support the APL and Transfer of Credits processing, but the data gathered from all participating HEIs might prove to be valuable. The reports generated using the system analytics could be used to inform policy-making should a Bologna-like process be pursued in the region.

Having a

4 CONCLUSION

The thesis of this paper is to show the state of APL in Asia, and how technology could assist with the harmonizing of HEIs, countries, and regions when it comes to accreditation, simply by following the simple yet general APL framework applicable to many situations. While the higher education collaborations and Bologna process in Asian regions are still underway, nothing is stopping us from developing and further enhancing the existing local and HEI level implementation of APL. As long as the general framework of APL guides the development, then any technology development of APL will no only solve immediate problems, but may also be worthwhile in the long run.

REFERENCES


Preparing an academic program for students on education using a distance learning system is somewhat different from preparing an academic program on face-to-face learning systems. This difference is mainly due to differences in characteristics possessed by students in distance universities when compared with the characteristics of students at conventional colleges (face-to-face). Starting the 2012 registration period. The Open University Agribusiness Study Program implements a new Practical Implementation Guide designed to be implemented independently by students of practicum participants. The results of the implementation of the new guidelines for Serang Regional Office are not very satisfactory, from 174 incoming reports of 18 (10.3%) reports that received a grade A or B were scored C or D. This study aims to obtain student perceptions of the new guidelines applied. The survey was conducted on students who took the lab during the 2012.1 registration by asking them to complete the questionnaire. The questionnaire asked three aspects of the practicum implementation: aspects of practical guidance, aspects of practicum materials and aspects of practical support services. Each aspect consists of several questions. From the results of questionnaires and additional interviews to some students it is found that students' perceptions of the practicum implementation are quite positive, it seems that the students only have difficulty in understanding the guidelines in writing the report. From the interviews it was found that the students expected the guidance to write a more detailed and systematic report. They said it would be easier if each part of the report was written in detail what they had to make and complete, if necessary, given the grading report grid.

**Keywords**: Practicum Guidelines of Agribusiness PS, Student Perception, Practicum Service.

### 1.1 INTRUDUCTION

Preparing academic program for students using distance learning is somewhat different from that which is using face to face learning. One of the differences between two learning methods is the characteristic of students. The characteristic observed is involved the individual characteristic or the environmental characteristic. From the individual characteristics, distant learner is tended to be older learner, has graduated for a long time, and have particular aims. From the environment side, the distant learner has been isolated from learning source physically. This happen because they have limited time, family problem and work.

The characteristic owned by the distant learner can be an obstacles to follow academic program. in general, Fahme DABJ (2011) classified obstacles faced distnat learner into three categories: 1) obstacle from the student itself; 2) obstacle from the instructure and 3)obstacle from admistration. Zane L. Berge, at all, 2002, mentioned six categories of obstacles: 1)technical obstacle; 2) supporting service obstacle; 3)social obstacle; 4) pre-requisite skill obstacle; 5) motivation obstacle and 6) time obstacle.

Academic program for distant learning must consider the characteristic owned by the student. Older student tended to bring the characteristic of consumer behaviour when they follow the program. Based on Arthur Levine and Jeffrey C. Sam (2002), four characteristics of older students are comfort, good service, good quality and cheap price.
Rahman (2006) said that the development of source material for distant learning is a continuity process involved many people with different skills. This process should compare traditional teaching technique with distant learning. Ansar (2002) explained that the material design is not only consider purpose, need and student characteristic but also the requirement needed by content and limited technique. Learning material should be periodically based on feedback from instructors, special content, and students.

This research aims are 1) describing the characteristic and students behavior agricultural program; 2) finding students perception on practicum service; 3) giving recommendation for improving practicum service in Open University (UPBJJ service). The methodology used is descriptive qualitative. From 111 questionnaire distributed to students and 92 questionnaire are counted using SPSS 20.

1.2 METHODOLOGY

The questionnaire given to 11 students of agribusiness program who followed practicum in 2012.1. from 111 questionnaire, 92 respondents gave send the answer back. To get the deep information, the researcher conducted interview to 29 students. The materials of interview include preparation, application and reporting. Preparation stage covered the difficulties in getting the guidance, difficulties in understanding the guidance, and difficulties in getting practicum instructor. The application talked about difficulties in finding a place, material and equipment for practicum, practicum supervision and practicum application. Reporting dealt with difficulties in writing process, time for writing and writing supervising.

Descriptive analytical used to find out students perception on difficulties agribusiness practicum service, whether academic problem or practicum material. Taken from the characteristic agribusiness program students who took practicum can be assumed that the characteristic can describe the difference in learning method. To describe students perception, it used cross tabulation and frequency which is analyzed by SPSS 20 version.

1.3 RESULTS

Respondents Demography Characteristic

Based on survey, 17.39% respondents only followed practicum on 2012.1. 82.61% respondents followed practicum in 2011.2 and 2012.1. from the data it can be concluded that most of respondents (82.61%) got experience using new guidance. In 2011, the number of 92 respondents proportion who followed the practicum in 2011.2 and 2012 can be shown below.
Based on the location of the respondent distribution, it can be found that the distribution of 4 districts in Banten Province is quite same. In Lebak and Pandeglang district, students’ presentation reach over 25%. This is rather different from Serang and Tangerang district, which is reached 20%. This is suitable from S1 agribusiness students distribution in Lebak and Pandeglang district. From frequency table, the most students were under 35 years (75%), students who were under 25 years were 31.6%, and most of the students were male (85.9%).

From occupation variable, most of the students (63.1%) has been a guide (state worker), and who has not got a job was 23.9%. Most of them (85%) got senior high school graduate, and the rest were diploma (D3). The data shown in table 1.

Table 1. Respondents Demography Characteristics

<table>
<thead>
<tr>
<th>Respondents’ demography characteristics</th>
<th>Total</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alamat</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lebak</td>
<td>24</td>
<td>26.1</td>
</tr>
<tr>
<td>Pandeglang</td>
<td>36</td>
<td>39.1</td>
</tr>
<tr>
<td>Serang</td>
<td>16</td>
<td>17.4</td>
</tr>
<tr>
<td>Tangerang</td>
<td>16</td>
<td>17.4</td>
</tr>
<tr>
<td>Total</td>
<td>92</td>
<td>100.0</td>
</tr>
<tr>
<td>Usia Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;25</td>
<td>30</td>
<td>32.6</td>
</tr>
<tr>
<td>25-35</td>
<td>39</td>
<td>42.4</td>
</tr>
<tr>
<td>36-45</td>
<td>17</td>
<td>18.5</td>
</tr>
<tr>
<td>46-55</td>
<td>6</td>
<td>6.5</td>
</tr>
<tr>
<td>Total</td>
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<td>100.0</td>
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<tr>
<td>Sex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>79</td>
<td>85.9</td>
</tr>
<tr>
<td>Female</td>
<td>13</td>
<td>14.1</td>
</tr>
<tr>
<td>Total</td>
<td>92</td>
<td>100.0</td>
</tr>
<tr>
<td>Marital status</td>
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<td></td>
</tr>
<tr>
<td>Married</td>
<td>50</td>
<td>54.4</td>
</tr>
<tr>
<td>Single</td>
<td>42</td>
<td>45.7</td>
</tr>
<tr>
<td>Total</td>
<td>92</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Respondents’ demography characteristics

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Total</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>State trainer PNS</td>
<td>10</td>
<td>10,9</td>
</tr>
<tr>
<td>Private trainer Non-PNS</td>
<td>48</td>
<td>52,2</td>
</tr>
<tr>
<td>Worker</td>
<td>8</td>
<td>8,7</td>
</tr>
<tr>
<td>Entrepreneur</td>
<td>4</td>
<td>4,3</td>
</tr>
<tr>
<td>No job</td>
<td>22</td>
<td>23,9</td>
</tr>
<tr>
<td>Total</td>
<td>92</td>
<td>100,0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Educational background</th>
<th>Total</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diplom</td>
<td>13</td>
<td>14,1</td>
</tr>
<tr>
<td>Senior High School</td>
<td>78</td>
<td>84,8</td>
</tr>
<tr>
<td>Total</td>
<td>91</td>
<td>98,9</td>
</tr>
<tr>
<td>Missing</td>
<td>1</td>
<td>1,1</td>
</tr>
<tr>
<td>Total</td>
<td>92</td>
<td>100,0</td>
</tr>
</tbody>
</table>

The result taken from the agribusiness students characteristic that the majority of students were 75% under 35 years. Most of them are male and they work as trainer (state or private).

Students’ behaviour and Knowledge of Practicum Guideline in Agribusiness program 2011

Indonesia Open University has many students who are spread in district and cities in Banten Province. They should know the information about new guideline in Garibussines 2011. The information about the guideline of practicum implementation can be taken from regional office in the city. This is related to how often the students come and have the information about technique of implementation practicum for individually or group, how to get the practicum guideline; and the effective way to sosialize new guideline.

From the visit frequency of students to office regional, 37% students visit office regional only one in a semester and 33,7% of students never visit the office. This happen since they have limited access to come to the office and they are depend on study group to solve their problem around the practicum. The complete data of students visit frequency can be seen in table 2.

<table>
<thead>
<tr>
<th>Tabel 2. Frekuensi Berkunjung Mahasiswa Peserta Praktikum PS. Agribisnis Ke UPBJJ-UT Serang</th>
</tr>
</thead>
<tbody>
<tr>
<td>The frequency of students visit</td>
</tr>
<tr>
<td>---------------------------------</td>
</tr>
<tr>
<td>In a week (once)</td>
</tr>
<tr>
<td>In a month (once)</td>
</tr>
<tr>
<td>In one semester (once)</td>
</tr>
<tr>
<td>More than once in six month</td>
</tr>
<tr>
<td>Never</td>
</tr>
</tbody>
</table>
From 92 respondents, 9.8% does not know how to find new guideline for implementation practicum in 2011. The complete information can be shown in table 3.

Table 3. The Respondents' Information of Practicum Guideline in Agribusiness 2011

<table>
<thead>
<tr>
<th>Knowledge/Information of Practicum Guideline</th>
<th>Frequency</th>
<th>Percentage</th>
<th>Valid presentation</th>
<th>Cumulative percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>Yes</td>
<td>83</td>
<td>90,2</td>
<td>90,2</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>9</td>
<td>9,8</td>
<td>100,0</td>
</tr>
<tr>
<td>Total</td>
<td>92</td>
<td>100,0</td>
<td>100,0</td>
<td></td>
</tr>
</tbody>
</table>

The source of information that students get for practicum guideline in 2011 taken from some source of access. Form the table 6, it tells that the majority of students know the guideline from the group work (34.89%). The second highest access of information source is taken from peer information (26.84%), and none of students take the information from Video Conference which is available in office regional. The complete data can be shown in table 4

Table 4. Students Source of information in getting practicum guideline in Agribusiness Program 2011

<table>
<thead>
<tr>
<th>Source of information</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pelma Staff 1st ground</td>
<td>12</td>
<td>8.05</td>
</tr>
<tr>
<td>2nd ground staff</td>
<td>16</td>
<td>10.74</td>
</tr>
<tr>
<td>Indonesia Open University Web</td>
<td>29</td>
<td>19.46</td>
</tr>
<tr>
<td>Staff of study group</td>
<td>52</td>
<td>34.90</td>
</tr>
<tr>
<td>Video Conference center office</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Classmate</td>
<td>40</td>
<td>26.85</td>
</tr>
</tbody>
</table>

From the data in table 5, it can be said that the effective facilities to introduce a new guideline (for example agribusiness practicum guideline) is using short message (SMS) (30.26%). Another effective way is mailing (sending a letter) 19.49%. Two methods is quite good since the students are spread all around the province. video conference which is available in center office and it was attended by 30 students in
2011 only reached 8.21%. This is because the students have limited time to visit regional office. The effective ways described can be shown in table 5.

**Table 5.** Effective facilities in introducing new guideline.

<table>
<thead>
<tr>
<th>Effective facilities</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Letter/mail</td>
<td>38</td>
<td>19.48</td>
</tr>
<tr>
<td>Short massage</td>
<td>59</td>
<td>30.25</td>
</tr>
<tr>
<td>UT Web</td>
<td>26</td>
<td>13.33</td>
</tr>
<tr>
<td>Video Conference</td>
<td>16</td>
<td>8.20</td>
</tr>
<tr>
<td>Visiting regional office</td>
<td>19</td>
<td>9.74</td>
</tr>
<tr>
<td>brochure</td>
<td>37</td>
<td>18.97</td>
</tr>
</tbody>
</table>

**Respondents’ perception on practicum guideline, material and service in agribusiness program**

Practicum facilities is reviewed from three aspects. First, practicum guideline, second is practicum material and third is access service for practicum. Those respondents are interviewed based on the three of aspects.

Form practicum guideline, respondents are asked whether the guideline is easy to be understood, accessible, and the explanation is readability. From the practicum material, respondents are asked whether the material is easy to be understood, is useful for their job, systematically design and the relation with last material. Form learning service, the practicum considered the accessibility of taking the service, accessibility of practicum place (laboratory), the accessibility material and equipment laboratory, and the suitable schedule, and score.

To examine those aspects, the students asked to choose range number 1 to 4. (1=strong disagree 2= disagree 3= agree 4= strong agree). The result of students’ answer described in table 6.

**Table 6.** Respondents’ perception on agribusiness guideline

<table>
<thead>
<tr>
<th>Practicum Guideline</th>
<th>Mean</th>
<th>Median</th>
<th>Presentase (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>STS</td>
<td>TS</td>
<td>S</td>
</tr>
<tr>
<td>The guideline is understandable</td>
<td>2.85</td>
<td>3.00</td>
<td>1.1</td>
</tr>
<tr>
<td>The guideline is accessible</td>
<td>3.00</td>
<td>3.00</td>
<td>1.1</td>
</tr>
<tr>
<td>The language of guideline practicum is understandable</td>
<td>2.94</td>
<td>3.00</td>
<td>1.1</td>
</tr>
<tr>
<td>The explanation of guideline is systemic</td>
<td>2.81</td>
<td>3.00</td>
<td>1.1</td>
</tr>
</tbody>
</table>
Table 6 showed that students' perception on practicum guideline is quite good. The satisfaction value generally reaches 2.80% with the median at 3.00. This lowest value of students' perception in four aspects is about the explanation of the guideline. The approximate value for this aspect is 2.81%. 23.9% of respondents stated their disagreement and 1% of respondents stated their strong disagreement. Same thing also stated by the respondents who is interviewed.

From the interview, most of the respondents stated that they got a problem when they write a report. They claimed that the practicum guideline did not describe the step of implementation of the practicum clearly. They also mentioned that the weakness of the guideline and the limitation has not been clear yet. For instance, the number of chapter and the content of report are not in detail. The students requested a checklist of observation in format writing practicum report, especially for evaluation and program of agricultural course.

The second lowest approximate value from the fourth aspects is how the practicum guideline is easy to understand. For this aspect, the approximate value 2.85%. 19.6% of respondents stated ‘disagree’ and 1% of respondents stated ‘strong disagreement’ for the readability of the practicum guideline. From the interview to 5 respondents, 5 students have difficulties in comprehending the guideline. This cause they don’t have any experience (they are not a trainer). The students who have difficulties in comprehending the guideline argued that the guideline did not give a clear explanation so they got different perception. The summary of interview result for students perception on practicum material shown in table 7

Table 7. Respondents’ Perception on Agribusiness Practicum Material

<table>
<thead>
<tr>
<th>Material Aspect in Practicum</th>
<th>Mean</th>
<th>Median</th>
<th>Presentase (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>STS</td>
</tr>
<tr>
<td>The practicum material is easy to understand</td>
<td>2.97</td>
<td>3.00</td>
<td>0.0</td>
</tr>
<tr>
<td>The practicum material support the work</td>
<td>3.15</td>
<td>3.00</td>
<td>0.0</td>
</tr>
<tr>
<td>The display of practicum material is systemic</td>
<td>2.81</td>
<td>3.00</td>
<td>0.0</td>
</tr>
<tr>
<td>All of material practicum is practice based on the guideline and the students’ ability</td>
<td>2.91</td>
<td>3.00</td>
<td>0.0</td>
</tr>
<tr>
<td>The previous practicum material can support in implementing the given practicum</td>
<td>3.00</td>
<td>3.00</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Table 7 showed that the satisfaction of students on practicum material is good enough. Almost all aspects get the mean over 2.9% with the median 3.00. Only one aspect got 2.81%, that is the display of practicum material. 27.2% of respondents stated ‘disagree’ that the practicum material is systemic. This shows that the display of practicum material is not systemic so it needs a revision.

Service learning aspect in regional office emphasized on the accessibility in doing agribusiness practicum; the accessibility of practicum place; the accessibility of practicum material; the implementation
of practicum is based on schedule; and the score is good for the students. The perception of students shown in table 8.

**Table 8. Respondents' Perception on Practicum Learning Service in Regional Office Serang**

<table>
<thead>
<tr>
<th>Practicum Learning Aspect</th>
<th>Mean</th>
<th>Median</th>
<th>Presentase (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>STS</td>
</tr>
<tr>
<td>The service to do the agribusiness practicum is accessible</td>
<td>2.73</td>
<td>3.00</td>
<td>5.4</td>
</tr>
<tr>
<td>The place for practicum is accessible</td>
<td>2.75</td>
<td>3.00</td>
<td>2.2</td>
</tr>
<tr>
<td>Practicum material is accessible</td>
<td>2.76</td>
<td>3.00</td>
<td>1.1</td>
</tr>
<tr>
<td>Agribusiness practicum is on schedule</td>
<td>2.88</td>
<td>3.00</td>
<td>1.1</td>
</tr>
<tr>
<td>The score given is on schedule</td>
<td>2.39</td>
<td>2.00</td>
<td>5.4</td>
</tr>
<tr>
<td>The score is fit for students</td>
<td>2.37</td>
<td>2.00</td>
<td>8.7</td>
</tr>
</tbody>
</table>

The accessible of practicum service, place of practicum, the practicum material, and the implementation of the practicum is on schedule get the mean over 2.5% with the median is 3.00. This means that the service of learning is good enough.

The lower score from the practicum service is the score that accepted on time. This aspect go 2.39% and the median is 2.00. 5.4% of respondents stated ‘strong disagree’ when they asked about the aspect. It means that only 5.4% received the score on time while the 51.1% respondents stated ‘disagree’. The lowest score is from the aspect of scoring accepted is based on expectation. This aspect reach 2.37 with the median 2.00.

**Respondents' Perception on Practicum guideline, material and service learning based on students' occupation**

This research viewed the differences students perception between those who work as trainer and those who do not work as trainer. For those reasons, the aspects is tested the deviation. The result of deviation test shown in table 9.
Table 9. Chi-Square test on guideline practicum aspect, practicum material, and service learning based on students occupation (trainer and nontrainer)

<table>
<thead>
<tr>
<th>Compared variable</th>
<th>Value</th>
<th>df</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupation – guideline practicum is understandable</td>
<td>9,166</td>
<td>3</td>
<td>0,027 *</td>
</tr>
<tr>
<td>Occupation – guideline practicum is accessible</td>
<td>4,459</td>
<td>3</td>
<td>0,216</td>
</tr>
<tr>
<td>Occupation – language and guideline practicum are</td>
<td>10,960</td>
<td>3</td>
<td>0,012 *</td>
</tr>
<tr>
<td>understandable</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Occupation – the systemic of Practicum guideline is</td>
<td>6,064</td>
<td>3</td>
<td>0,109</td>
</tr>
<tr>
<td>good enough</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Occupation – Practicum Material used is understandable</td>
<td>11,211</td>
<td>2</td>
<td>0,004 *</td>
</tr>
<tr>
<td>Occupation – practicum material support work</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Occupation – the display of Practicum material is</td>
<td>0,507</td>
<td>2</td>
<td>0,776</td>
</tr>
<tr>
<td>systemic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Occupation – all practicum material can be practiced</td>
<td>1,754</td>
<td>2</td>
<td>0,416</td>
</tr>
<tr>
<td>based on the guideline and students ability.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Occupation – the previous courses taken by the students</td>
<td>2,455</td>
<td>2</td>
<td>0,293</td>
</tr>
<tr>
<td>support in doing practicum</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Occupation – Service learning is accessible</td>
<td>3,449</td>
<td>3</td>
<td>0,321</td>
</tr>
<tr>
<td>Occupation – the place of practicum is accessible</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Occupation – material and equipment is accessible</td>
<td>2,865</td>
<td>3</td>
<td>0,413</td>
</tr>
<tr>
<td>Occupation – The implementation of practicum is on</td>
<td>4,444</td>
<td>3</td>
<td>0,217</td>
</tr>
<tr>
<td>schedule</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Occupation – The score of practicum received by students</td>
<td>5,511</td>
<td>3</td>
<td>0,138</td>
</tr>
<tr>
<td>on time</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Occupation – Score of practicum is based on expectation</td>
<td>5,541</td>
<td>3</td>
<td>0,138</td>
</tr>
<tr>
<td></td>
<td>5,541</td>
<td>3</td>
<td>0,136</td>
</tr>
</tbody>
</table>

Note: * (significant)

Table 9 shows the difference on students perception are based on three aspects, they are ‘practicum guideline is understandable’, language in guideline of practicum is understandable’ and ‘practicum material is understandable”. Based on students’ occupation, 58 respondents (63%) from 92 work as trainer(state and private); while 34 respondents (37%) work as nontrainer.

After doing chi-square test, it shows the relation between 1) students occupation with the practicum material; 2) the language in guideline practicum is understandable; and 3) material practicum is understandable. After finding the relation between some variables, then those variables are tested using “Mann-Whitney” with the probability is 0,05%. The result shown in table 10. The distribution of students’ perception on those aspects based on students’ occupation described in table 11, 12, and 13.

Table 10. the result of Mann-Whitney test on practicum guideline and material in Agribusiness Program based on Students’ Occupation (trainer and nontrainer)

<table>
<thead>
<tr>
<th>Compared Variables</th>
<th>Significance Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupation – practicum guideline is understandable</td>
<td>0,006</td>
</tr>
<tr>
<td>Occupation – Language in Practicum Guideline is</td>
<td>0,008</td>
</tr>
<tr>
<td>understandable</td>
<td></td>
</tr>
<tr>
<td>Occupation – Practicum material is accessible</td>
<td>0,001</td>
</tr>
</tbody>
</table>
Based on the number on EXACT.SIG (1-tailed) column, i.e. 0.006, 0.008 and 0.001 is under 0.05, it can be concluded that

1. The ability to comprehending practicum guideline related to students’ occupation (as a trainer) is better than those who are not working as a trainer;
2. The ability to comprehending the language used in practicum guideline related to students’ occupation is better than those who are not working as a trainer;
3. The ability to comprehending practicum material related to the previous and students’ occupation as a trainer is better than those who are not working as a trainer.

Table 11. Students-Trainer and Students'-non trainer Perception on Understanding the Guideline

<table>
<thead>
<tr>
<th>Practicum Guideline Is Understandable</th>
<th>Students' Occupation</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Trainer</td>
<td>Non-Trainer</td>
</tr>
<tr>
<td>Strong disagree</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Percentage</td>
<td>1.8%</td>
<td>0.0%</td>
</tr>
<tr>
<td>disagree Percentage</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td>disagree</td>
<td>10.5%</td>
<td>35.3%</td>
</tr>
<tr>
<td>Percentage</td>
<td>45</td>
<td>21</td>
</tr>
<tr>
<td>agree Percentage</td>
<td>78.9%</td>
<td>61.8%</td>
</tr>
<tr>
<td>Percentage</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Strong agree</td>
<td>8.8%</td>
<td>2.9%</td>
</tr>
<tr>
<td>Percentage</td>
<td>57</td>
<td>34</td>
</tr>
<tr>
<td>Total Percentage</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Table 12. Students-Trainer and Students-non trainer ' Perception on Language used in Guideline

<table>
<thead>
<tr>
<th>The Language Used</th>
<th>Students' Occupation</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Trainer</td>
<td>Non-Trainer</td>
</tr>
<tr>
<td>Strong disagree</td>
<td>1.8%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Percentage</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>disagree Percentage</td>
<td>3.6%</td>
<td>26.5%</td>
</tr>
<tr>
<td>Percentage</td>
<td>47</td>
<td>23</td>
</tr>
<tr>
<td>agree Percentage</td>
<td>83.9%</td>
<td>67.6%</td>
</tr>
<tr>
<td>Percentage</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Strong agree Percentage</td>
<td>10.7%</td>
<td>5.9%</td>
</tr>
<tr>
<td>Total</td>
<td>57</td>
<td>57</td>
</tr>
<tr>
<td>Percentage</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>
From the three tables, it shows that students whose the profession as a trainer is better to comprehending and practicing the guideline rather than the students whose the profession is not a trainer. In line with the interview, 82.76% comment that they do not have difficulties in comprehending the guideline. It is related to their occupation as a trainer, so that the course support the job. 5 respondents (17.24%) claim that they get difficulties in comprehending the guideline. this happen since their job is not a trainer. They also say that the guideline is not clear enough so that they are difficult to understand.

In general, the students’ perception on guideline, material, and learning service shows positive trend. Students’ perception tested using Chi-Square and continue testing using Mann_Whitney to find the relationship in three aspects with the probability of testing is 0.05. Since the score on EXACT.SIG (1 tailed) is 0.006, 0.008 and 0.001 is under 0.05, so H0 is rejected. From this test, it can be concluded that 1) The ability in comprehending practicum guideline of students-trainer is better than those use are not working as trainer (students-non trainer); 2) the ability in comprehending the language used in practicum guideline of students-trainer is better than those who are not working as a trainer (students- non trainer); 3) The ability in comprehending practicum material of students-trainer is better than those who are not working as a trainer.

**Students’ Practicum Report**

From the interview with the respondents, it shows that most of agribusiness students (79.31%) face a problem in writing report. They claim that in practicum guideline is not sufficient to guide the students to make a good report. The students argue writing procedure in report and limitation in each chapter is not clear. This showed by the number of chapter and the content of chapter are not described comprehensively. They suggest to give a check list in observation field in practicum report, particularly for Programa and evaluasi Penyuluhan Pertanian course. In terms of the quality of supervisor, the students state that the supervisor can help them in writing the report by giving good supervising. Moreover, the supervisor help the students in collecting practicum data. When the students asked whether they have much time to spend their time to write, all of the students say that they do not have a problem to allocate the time in writing the report.
The result of the interview with the report examiner describes that the weakness of students in writing the report is on the way the discuss the finding. Most of the students only rewrite the result of observation without giving deep analysis or relating the result with the current theories.

1.4 CONCLUSIONS

1. The characteristic of agribusiness students in regional office is 25-35 years old, male and live in Pandeglang. Most of the students work as a non-state agricultural trainer with the qualification of their education is senior high school.

2. The students behavior in visiting to regional office in one semester shows that they only visit once. Most of the students get the information about new practicum guideline in 2011 from group study. The effective facility to introduce the new guideline is by using short message (SMS).

3. The students’ perception in guideline showed from the trend of the problem faced by the students. They find the practicum guideline made is not systemic and detail. The language used in practicum guideline is considered hard to be understood by those who are not working as trainer. They hope the guideline can be more specific and clearer.

RECOMMENDATION

From the conclusion, it can be suggested that the report framework should be made in detail. The writer of the guideline can give some key words of aspects that should be mastered by the students. If it is necessary, the writer can put the score for each aspect. In line with students’ weakness in the writing report (particularly in discussion section) it should be giving a solution. One of the way that can be an effective solution is by giving the examples of how a good discussion is.

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ASSESSMENT AND ACCREDITATION IN OPEN AND DISTANCE EDUCATION

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Indira Gandhi National Open University, INDIA

Abstract

Indian higher education system encompasses both - conventional face-to-face and open and distance education. In fact over the years, Open and Distance Learning (ODL) system has emerged as an important mode for providing education to diverse sections of society because of its inherent flexibilities and affordability, coupled with applications of new technologies. Presently ODL has gained significant momentum in providing need based higher education to those who because of one or the other reason could not continue their education in the formal system of education.

One of the major challenge facing ODL is quality. Quality in educational institutions is ensured through the process of accreditation. Accreditation is a standard process followed across the world for ensuring quality for an institution, programme, or course of study. It involves rigorous assessment of certain established standards by the accrediting authority. National Assessment and Accreditation Council (NAAC) is the accrediting agency for higher education in India. Assessment criteria includes full range of services offered to learners from registration, course content, delivery, learning outcomes, evaluation systems, to programme completion. The assessment criteria for the formal system cannot be applied to ODL system because of inherent difference in pedagogical and organizational issues. Therefore, the criteria for ODL system though may be similar, will differ in approach. The present paper attempts to evolve the criteria of Assessment and Accreditation for ODL Institutions. This will help in establishing the guarantee of quality and reassure the learner.

Therefore, ODL to strengthen its position as a viable mode of providing quality education, needs to undergo the process of Accreditation which will enhance recognition, prestige and credibility of the degrees, diplomas and certificates awarded by the accredited institute and ,therefore, improve their employment opportunity.

Keywords: Assessment; Accreditation; ODL; Parameters, Quality.

1. Introduction and Background:

India has the third largest higher education system in the world, next to the United States and China. This system consists of largely two modes i.e. face-to-face and Open and Distance Education(ODE). Gross Enrolment Ratio (GER) of a country represents the educational reach in a country. The Government of India has set the target to increase the GER to 30% by the year 2020. To meet this target, Open and Distance Education (ODE) can play a crucial role. In India, ODE system has emerged as an important mode for providing education to diverse sections of society because of its inherent flexibilities and affordability, coupled with applications of new technologies.

Presently ODE has gained significant momentum in providing higher education to those who because of one or the other reason could not continue their education in the face to face system of education. It has been catering to the educational needs of socio-economically disadvantaged and marginalized sections of society.

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the society by offering need based quality education at the door steps of the learners as per their convenience. Because of the diverse nature of Indian society in terms of social, cultural, economic and geographical parameters, ODE is no more an option but is emerging fast as a compulsion for the higher education system.

The ODE system has grown many folds since its inception in 1982, from 6231 learners to 2104291 in the year 2013-14 (Srivastava & Rao, 2015).

With advancing globalization, adherence to accreditation and standardization is becoming an integral part of higher education to ensure excellence and value system among institutions. Accreditation is a standard process followed across the world for ensuring quality for an institution, programme, or course of study. It involves rigorous assessment of certain established standards by the accrediting authority.

As Accreditation implies that an institution, programme, or course of study has met certain established standards after having been put through a rigorous assessment of these standards by the accrediting authority, thus it offers a guarantee of quality and reassurance to the learner.

Accreditation ensures a commitment to quality and an assurance of quality maintenance. It benefits both the learner and the institution from the prestige that is attached to accreditation. Accreditation enhances the recognition, prestige and credibility of the degrees, diplomas and certificates awarded by the accredited institute and therefore improve their employment opportunity.

Across the world institutions, both formal and ODE are continuously going for accreditation by the Accrediting agencies as an indicator of their quality and associated status.

Most of the countries in the world have single accrediting agencies for both face to face system and ODE, however as the ODE has unique teaching and learning system, countries are adopting accreditation agencies specific to ODE system. Some of the countries having dedicated accreditation agencies for ODE are

1. USA : Distance Education and Training Council (DETC); International Accreditation Organisation (IAO);
2. Australia: Australasian Council on Open, Distance and E-Learning (ACODE);
3. Hong Kong : Hong Kong Council for Accreditation of Academic & Vocational Qualifications (HKCAAVQ);
4. United Kingdom : Open & Distance Learning Quality Council (ODLQC);
In case of ODE system in India, which is one of the largest system in the world with fifteen open universities and with enrollment of more than three million learners does not have any accrediting system. Due to unavailability of Accreditation system, the Indian ODE system is still struggling for acceptance; recognition and equivalence.

Though the formal system of higher education has already developed a mechanism for assessment and accreditation of the institutions which ranks various universities and institutions on the basis of certain parameters. This is done by National Assessment and Accreditation Council (NAAC), an autonomous body established by the University Grants Commission (UGC) in 1994. Similarly to accreditate the technical institutions, National Board of Accreditation (NBA) was established by AICTE.

However, NAAC or NBA do not cater to accreditation of ODE institutions. In fact TNOU, a state level open university in India, had applied to NAAC for accreditation, but were denied due to absence of assessment and accreditation system for open universities in India.

Therefore, it is necessary to develop a system of assessment and accreditation for ODE institutions. Such a system should be based on a broad framework of quality indicators or parameters for self-assessment, peer-assessment. Therefore, procedures, guidelines and mechanism for assessment and accreditation of the ODE Institutions and programmes need to be developed and implemented by an autonomous organization.

Keeping in view of the above facts a study was conducted to identify the relevant standards and parameters for assessment and accreditation of ODE system in India.

2. Methodology:

Delphi methodology was adopted to identify the various parameters for Assessment and Accreditation.

The Delphi method includes well planned and systematic approach to reach conclusions deductively and involves team of experts. The process involves multiple phases of discussion and analysis to reach from multiple opinions to a conclusive decisions (Rowe and Wright, 1999).

The team of experts from various ODE institutions across India was formed to conduct the study. The experts met at various intervals to discuss and review the assessment and accreditation parameters and procedures. After each review phase, the results obtained were analyzed qualitatively.

3. Results and Discussion:

3.1. Identification of Accreditation Parameters

Initially the team of experts prepared a draft of the "Framework for Assessment and Accreditation of ODL Institutions in Higher Education" through review of the system of accreditation adopted by various accrediting agencies in the field of open and distance education. The following accrediting agencies/institutions were referred to identify the accreditation parameters applicable to Indian ODE system:

1. Distance Education and Training Council (DETC);
2. International Accreditation Organization (IAO);
3. Australasian Council on Open, Distance and e-Learning (ACODE);
4. Hong Kong Council for Accreditation of Academic &Vocational Qualifications (HKCAAVQ);
5. Open & Distance Learning Quality Council (ODLQC);
6. Baldrige Criteria In Accrediting Organizations;
7. National Assessment and Accreditation Council (NAAC)
8. Handbook of Accreditation (unpublished) by Distance Education Council (Erstwhile).

Many common parameters emerged from the review, based on foundations and core components of ODE which include- Access, Equity, Quality, Cost-effectiveness, Innovation, Credibility, Learner Satisfaction, Learner Placement, Effective Learning, Continuous Improvement, Excellence, Leadership, Use of technology, Barrier Free Environment and Flexibility.

On the basis of discussion on the standards of above agencies sixteen parameters for accreditation of ODL institutions were identified which were applicable to Indian ODE scenario.

1. Institutional Mission and Vision
2. Effectiveness of the Mission to Society
3. Employability Factor
4. Meeting Regional and Local Educational Needs
5. Human, Physical, Virtual and Financial Resources, Leadership and Governance
6. Process for preparing Learning Resources and Mechanisms for Adaptation of SLM
7. Program Delivery Mechanism and Mode of Interaction with the students
8. Research
9. Admission Process (online/offline) and Learner Support System
10. Use and Effectiveness of LSS at HQ/RC/SC
11. Library Facilities and Students Access to the same.
12. Learners’ Feedback and Use of ICT in learners’ feedback
13. Quality of Counselors/ Tutors
14. Mode of Counseling/ Contact Sessions for Laboratory Based Subjects
15. Institutional Constraints/limitations and innovations to overcome the same
16. Capacity building, including institutional mechanisms for faculty development programmes

As the list of parameters was quite comprehensive the team prepared the list of sub-parameters for further discussion.

The detailed list of sixteen parameters along with its sub-parameters were discussed in another meeting of experts from the ODE institutions. The expert team discussed at length and consolidated the sixteen parameters in to 9 parameters. All the sixteen parameters mentioned above were considered but some were put as the sub parameters of these nine parameters. The consolidated nine parameters which emerged out of the discussions are as follows:

I. Governance, Leadership & Management
   The areas included under this parameter seek to attain information on overview of institutional leadership, planning, ethos and management of all the resources. Leadership with professional competency and integrity strives to meet the vision and mission of the organization. They plan and manage the organizational resources in an optimized way. This parameter aims to identify the well defined documents and Standard Operating Procedures (SOPs) pertaining to practices for effective Governance, Leadership, planning & Management.

II. Resources
   The key areas included under this parameter seek to attain information on Human, Physical, Financial, ICT and Learning resources. These resources are necessary for day to day functioning of the organization. Optimal utilization of these resources is essential and needs careful planning and implementation. The criteria falling under this parameter seeks information on quantity and quality of the institutional resources followed by their management and upgradation.
III. **Curricular Aspects**

Curriculum is the essential ingredient of any education system regardless of the education level. This parameter deals with the curriculum design, development and implementation aspect in an ODL institution.

The parameter takes a look into the curriculum being followed by the ODL institution. This include the curriculum which is designed and developed by the university or it is assigned by a university or marginally supplemented or enriched by an institution, or totally remade (this is depending on the freedom allowed in curricular design and development) and aligns with the mission of the ODE institution.

Also the practice of ODE institution in initiating a wide range of programme options and courses keeping in view the emerging national and global trends besides the relevance at the regional and local level.

The issues of need assessment, academic flexibility, career orientation, multi-skill development and involvement of stakeholders in curriculum updation, are also gauged under this parameter.

IV. **Pedagogy**

Pedagogy refers to the skill of imparting knowledge to the learners using a variety of instructional designs and strategies. The teachers employ interactive and participatory approach creating a feeling of responsibility among learners and makes learning a process of construction of knowledge. The learner-centered pedagogy through appropriate methodologies facilitates effective learning.

This parameter deals in the pedagogical components used in ODL for learning transaction to take place which includes induction and counseling procedures, interactive learning contents and hands-on training.

V. **Learner Support Services**

Learner Support Services (LSS) describe the range of systems established and support services rendered by the institution to work towards facilitating learners to complete their course effectively and efficiently. LSS should be dynamic and responsive to learners needs. It encompasses all the services and assistance by the institution in the process of learning. An effective LSS at all the levels viz. Headquarters (HQ), Regional Centers (RC) and Study Centers (SC), ensures effective teaching learning process. This parameter includes information on various services areas – IT Applications, Physical Infrastructure, Libraries, Laboratories, Placement Services, Student Services and Feedback. (Will it be different for OUs and DDEs).

VI. **Assessment & Evaluation**

Assessment and evaluation process aims to gauge the knowledge and skills acquired by learners at various levels of the programmes. It also reflects the extent of attainment of learning/programme objectives. At the same time, it provides feedback to teachers to plan appropriate activities for enhancing student performance and competence. This parameter is related to assessment of learning and evaluative processes which includes number of examination centres, methods of paper settings and moderations etc. It also includes reforms of the institution to increase the efficiency and effectiveness of assessment and evaluation system.

VII. **Technology support**

Technology has become an integral part of institutional functioning especially learner support services and institutional management services. Technology support in these areas will improve the institutional efficiency in terms of learner’s satisfaction and its own management. This criterion seeks information on policy on technology based teaching and learning and management and sensitization of the users for adoption of technology based services. It further seeks information on
availability of technology tools to support these services, technology professionals to manage these services and appropriate security and safety measures.

VIII. Research, Extension & Collaborations

Research is one of the most critical components of any academic institution. It is the foundation of all the existing knowledge and building block for new ideas, methods, techniques and innovations across disciplinary and multidisciplinary areas. In an academic institution, research is not only to create new knowledge but it is also used to educate learners who will become the next generation's Scientists, engineers, teachers, and leaders in government and industry. Research has greatly impacted social, cultural, economic environment, therefore, it is very critical to the development of society.

It is also equally important to implement the outcomes of research for wider use and application. Extension activities are the bridge between the institution and the community. Outreach and extension efforts of an institution represents an ongoing exchange between the University and the larger society, and it makes the purpose of research not only for creating new knowledge but also to use it for betterment of people.

For the wider dissemination of the research, it is also important for academic institutions to promote cooperation and collaboration amongst the university at the local, regional, national and international levels. This is important to expand the student experience, faculty growth and contributions, and the impact of institutional research.

This parameter take into account the research activities carried out at institutional levels, incorporation of research components in curriculum, Linkages among stakeholders, research infrastructure, extension and continuing programme and various types of collaboration.

IX. Innovations & Best Practices

Innovations in the work place are very important in order to enhance the efficiency, productivity and sustainability of the institution. Promoting innovation in all spheres of the institution is also critical due to competitive and challenging environments. This necessitates that creativity and innovation are promoted.

Best Practices are a set of working methods or practices that have demonstrated improvement in the work processes and better efficiency in the outcome. With the emergence of technology and new learners’ needs, there are potential areas emerging in ODL system which needs to be formalized and best practices for the same have to be established.

This parameter take into account the innovations, best practices and green initiatives based activities being undertaken by the institutions.

After the consensus on the parameters for the Accreditation, the process of Accreditation was discussed.

3.2. Identification of Accreditation Process:

The stepwise process of accreditation is provided in table-1.
<table>
<thead>
<tr>
<th>Steps</th>
<th>Actions</th>
<th>Time frame</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step I</td>
<td>Submission of Letter of Intent (LoI) along with SAR-IP</td>
<td>Throughout the year</td>
</tr>
<tr>
<td>Step II</td>
<td>Placement before the Screening Committee of the Accreditation Body and communication of decision of Screening Committee to Applicant Institution</td>
<td>Within three months of receipt of LOI</td>
</tr>
<tr>
<td>Step III</td>
<td>Submission of the SAR-IP and SAR-CI and representative sample course materials to the Accreditation Body</td>
<td>Within four – six months from receipt of decision of the Screening Committee</td>
</tr>
<tr>
<td>Step IV</td>
<td>Constitution of Peer Team and visit of Peer Team to the applicant Institution</td>
<td>Within three months from receipt of SAR-IP and SAR-CI and representative sample course materials</td>
</tr>
<tr>
<td>Step V</td>
<td>Submission of Final PRR to Accreditation Body by Peer Team</td>
<td>Within one week of the Peer Team visit</td>
</tr>
<tr>
<td>Step VI</td>
<td>Final decision by the Accreditation Body</td>
<td>Within three month of Submission of Final PRR</td>
</tr>
</tbody>
</table>

4. Conclusion:

ODE is going through a critical phase in India where it is significantly needed by the large number of learners belonging to diverse socio-economic and geographic background. On other hand the stakeholders including policy makers, employers and learners are seeking quality and credibility of this system to ensure that the human resources developed through ODE system is at par with the conventional system of education.

Therefore, to meet the above requirements there is an immense need of quality assurance in ODE system, which can be done through implementing assessment and accreditation process to the ODE...
system. This study has tried to identify the standards and parameters for assessment and accreditation applicable to Indian ODE system.

Based on the many rounds of discussion by experts of open and distance education, nine parameters: Governance, Leadership & Management; Resources; Curricular Aspects; Pedagogy; Learner Support Services; Assessment & Evaluation; Technology support; Research, Extension & Collaborations ; and Innovations & Best Practices. These parameters were further divided into sub-categories to make the assessment more objective.

The study also recommended a process to conduct the Assessment and Accreditation process in an ODE institution. The above parameters and procedures may be adopted on pilot basis to test its validity and reliability in Indian ODE system.

References:
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Research of learning evaluation based on open education
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Abstract
Learning evaluation is a vital part of the open education. This research based on the teaching essential characteristics of the open education, analyses problems of the open education learning evaluation, by the mean of the direction, contents and methods. Aiming at the concern on the quality of distance higher education, the research explores the transformation of open education learning evaluation standard. We would like to think of deepening the reform of the learning evaluation in open education, which base on the actual situation of Yunnan Open University.

Key words: Open education, Learning evaluation, Distance education

The important role and position of learning evaluation in education teaching activities is no doubt. Learning evaluation is a significant part of education teaching activity, which is the process of judging, analyzing and measuring the learning process and results of students. In recent years, with the continuous development of the Open University in China, the basic framework of the education training mode and the corresponding teaching mode has made remarkable progress, however, the exploration of learning evaluation in the open education is a bit weak, especially in evaluation criteria, evaluation methods and the effectiveness of evaluation. According to the actual feedback, distance and open education is not as expected for learners to provide personalized education teaching and examination, which has not completely out of the traditional mode of higher education, especially in examination form of open education, namely on the learning evaluation of performance evaluation. Based on the analysis of the orientation, content and manner of learning evaluation in open education, this paper analyses the problem which has existed in the learning evaluation of distance and open education in China, discusses the features and essence of open education, and tries to construct an evaluation model that conforms to the autonomous learning of open education.

Existing problems in learning evaluation of distance and open education

(I) The contradiction between the quality education orientation and test-oriented of learning evaluation in open education
Compared with the ordinary higher education, distance and open education more emphasis on the students’ autonomous learning, advocating the student and learning as the center, in order to cultivate the independent spirit and practical ability as fundamental education concept. In this respect, distance and open education should emphasize cultivating students' quality. Therefore, all teaching activities of education should be aimed at cultivating students’ innovative spirit and practical ability and strive to achieve quality education. However, the actual situation is still that the test score is the only basis to students for graduating. Due to the lack of correct understanding of the quality education in open education, some schools and teachers change teaching into the
test counseling. At the same time, many learners accustom to rote learning, which translates to good grades, but does not encourage creativity, even with the chaotic exam disciplines. Consequently, the function of the exam is strengthened while the process of autonomous learning is weakened. The open education has been dissimilated as a test for a diploma, which contradicts the education concept.

(II) **The contradiction between the applied talent training objective and the academic learning evaluation**

The talent training objective of open education is based on the practical talent therefore the education teaching links should be practical, needed and effective. In aspect of learning content, it is important to emphasize the practicality of knowledge rather than the academic. It attaches importance to applicability rather than theory, and emphasizes skill rather than information. At least for now, however, open education course exam is still mainly on knowledge, the academic content and rote learning topic accounts for a big proportion of the score, and run counter to the concept of open education, which is not conducive to cultivate the students' professional skills, innovation ability and independent spirit.

(III) **The contradiction between the open teaching and the learning evaluation**

With the support of modern technology, distance and open education can help learners study anytime, anywhere, for no limit of time and space. It has made progress for Open education in “open object”, “open time” and “open space”, at the same time we must rely on the faultless teaching support service system and personalized courses assessment service in order to have independent chosen right of professional, course, learning mode and teachers for learners. Yunnan Open University, for example, in the aspect of teaching support service system, as well as autonomous learning resources, we has made great progress, however, relative lag on personalized course assessment service. Compared with the open teaching, the learning evaluation has not changed from the exam framework of traditional education, which mainly manifested in:

1. **The unity of exam time**
   
   Autonomous learning is not only choosing the learning time, learning form and the location of study, but also choosing the time to exam. It’s not real autonomous learning if there is no right of choosing time to exam.

2. **The methods of learning evaluation is traditional**

   Taking an example of Yunnan Open University, the learning evaluation in open education including the final exam and the formative assessment, adopts the combination of paper-based examination and computer-based testing. In fact, this method is similar to the traditional education evaluation method, and there is no substantial difference between the two methods.

3. **The unidirectional learning evaluation**

   In the teaching model which taught only by teachers in class, the students’ learning evaluation is a top-down and one-way evaluation mainly by teachers, with passive and no power for students. Modern distance and open education is different from traditional teaching mode, which the teacher is no longer a dominant force in the process of teaching, but regrettably it still did not get rid of the traditional framework of education examination all the same a one-way evaluation.
The single, one-way evaluation mode disadvantages giving full play to the education function that the evaluation should have.

We should deepen our thinking on the reform of learning evaluating in open education

(i) The criteria of learning evaluation in open education is different from regular higher education

This strategy has been widely recognized that the higher education in china is being transformed from specialization to popularization, with helps of the distance and open education. But with the deepening of open admission and the growing number of students, there are more and more concerns and questions about the quality of distance and open education. First, the development of open education is fast and the number of students is soaring, which certainly will lead to the decline of teaching quality. Second, there is no unified entrance examination in open education, for some people, students will be worse than those pass the entrance examination. But when we blame the opening admission that lead to poor students and questions about teaching quality, what kind of criteria are we based on? The unified ruler is used to measure the "fitness" of open education with the standard education quality and talent evaluation standard. This is the main sticking point that restricts the learning evaluation model of open education. The open education learning evaluation must be reformed, and a new learning evaluation model must be sought which adapts to the characteristics of open education. Under the background of the popularization of education, the education is no longer the mode of teaching to the test, but it should be the way to improve the quality of social activities. Therefore, the evaluation standards need to change academic type into achievement type that the individual gets incremental changes in the process of learning (such as personal knowledge structure, cultural values, understanding and problem solving skills) as the evaluation indexes. The improvement of personal knowledge structure, cultural values, understanding and problem-solving abilities based on the original foundation is a kind of quality and a new kind of diversified learning evaluation standard.

(ii) Further expand the openness of learning evaluation

1. First of all, learning evaluation should open the test time, which help students can independently arrange study process so as to decide when to take an examination and anywhere.

2. Change one-way learning evaluation into multi-directional learning evaluation. Students not only need to do a self- assessment about learning process and outcomes, and also can make different comments about other's learning situation. And even, all of students’ learning situations will be shared on the internet, the public can also participate in the evaluations.

3. Open contents of Evaluation. The exam should reduce rote memorization, with abilities and comprehensive qualities-oriented, and pay attention to the assessment of students' comprehensive ability that can flexibly use theory knowledge and skills, analyze and solve problems.
Implementing Self-Directed Learning in ODL

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ABSTRACT

Studying in an open and distance learning (ODL) institution requires students at Universitas Terbuka (UT) to be a self-independent learner. Eventhough UT provides learning support such as face-to-face (F2F) tutorial and online tutorial, the majority of UT students are studying independently. As ODL students who are mostly also working students, UT students needs to have the ability to be self-directed learners. The skills for self-directed learning, which include managing study time, practicing effective reading, and recording the results of their studying was taught by tutors in the first session of the F2F tutorial. This study aimed to find out whether the tutors actually taught the concept of directed learning as scheduled, whether the students implemented self-directed learning, and whether the skills for directed learning changed the students’ study habits. The subjects of the study were tutors and students in the Teacher Education and in the Non Teacher Education Programs. The findings showed that all tutors interviewed taught the effective reading strategies to students.

Keywords: self-directed learning, self-independent learner, face-to-face tutorial, ODL, Universitas Terbuka, Open University of Indonesia

Background

In addition to the learning ability, the skills to manage study time is important to the success of students studying in higher education. Research findings found that one of the factors affecting student persistence in the open and distance learning (ODL) context were the ability to plan their study time (Doherty, 2006; Fozdar, et al., 2006; Holder, 2007; Roblyer, 1999) and the motivation to learn (Aragon & Johnson, 2008; Doherty, 2006; Holder, 2007; Roblyer, 1999).

Due to the likelihood of student withdrawal in ODL, Universitas Terbuka (UT), the Open University of Indonesia, provides student support in the form of face-to-face (F2F) and online tutorials. For students in the Teacher Education Program, they are required to attend F2F tutorial especially designed for them. However, for students in the Non Teacher Education Program the F2F tutorials are offered optionally based on request, except for students on scholarships who are required to attend F2F in order to facilitate them to complete their study program on time. Meanwhile, online tutorial is provided free of charge for the students although not every students may have access to the Internet. Due to the lack of internet access in several parts of the country, although participation in online tutorials was reported to increase the rate of study completion and student success at UT (Belawati, 20015), UT continued to offer F2F tutorials for those who need this form of student support. F2F meetings were scheduled 8 sessions each semester. Thus, for the rest of the semester UT students are required to study independently.

Since 2014, UT have trained the F2F tutors about the concept of self-directed learning and effective learning, which are required to be taught to students. Training students about the self-directed learning needs to be done since UT have a very heterogen students in terms of their learning ability due to the implementation of open entry system at UT. The open entry system
caused UT to accept all prospective students who hold high school diploma without selection in terms of student ability, gender, age, social economy status, race, religion, or educational background (Belawati, 2002). As a result of this open entry system, the preknowledge or intellectual ability of the students varies highly. There were students who were able to completely do the self-directed learning without any help from the tutors, there were those who still need the tutors' to explain the course materials, and those who need to be facilitated by their tutors extensively. The disparity in ability can be quite a challenge for the tutors in helping students learn.

In the regular classroom, the difference in students' ability perhaps can be solved by providing extra hours for reviewing the course materials with the help of the teaching assistant. In the ODL context like UT, providing assistance to students is given by tutors in the form of training them the concept of self-directed learning, in order to teach students to self-regulate their own learning and to study more effectively. Self-directed learning means studying on their own initiative, whether in a group or by him/herself. Learning how to be self-directed learners needs to be trained so that students can study more regularly, outside the tutorials time in order to increase their potential to be successful in ODL. The training of directed learning was provided in the form of orientation on study time management, effective learning strategy, and recording the results of studying in the forms of concept maps, summary, or outlines. With this orientation, it is expected that students can practice the skills of self-directed learning when studying, such as making a study schedule, meeting the study schedule, and making summary of the course materials when studying.

This article is written based on a study funded by UT about the implementation of the concept of self-directed learning at UT, which was conducted in 2016 to find out (1) whether the tutors taught the students how to be self-directed learners and (2) whether students practiced the directed learning consistently when studying.

The sample of the study were bachelor students in the Non Teacher Education Programs (in the Faculty of Mathematics and Sciences; Faculty of Law, Social, and Political Sciences; and Faculty of Economics) and bachelor students in the Faculty of Teacher Education who attended F2F Tutorials in the Regional Center of Bogor. The sample were selected from each F2F tutorial group in Bogor Regional Center, 3-5 students from each group.

The research instruments were developed especially for this study, consisted of instrument for tutors and instrument for students, both covered questions on the student orientation held on the first session of the F2F tutorials. Questions for tutors covered problems faced in training the students about the self-directed learning. The instrument for tutors also included questions regarding their biodata, such as Tutor ID, gender, age, education level, program of study, course taught, job, identity of study group, subdistrict/regency, experince in tutor training, telephone number.

Demography data included in the instrument for students consisted of program of study, age, job, marital status, gender, education level, identity of tutorial group, subdistrict/regency, and telephone number. Information gathered about F2F tutorial consisted of orientation of F2F Tutorial, the concept of self-directed learning taught by the tutors, effective learning strategy, and whether students practiced the self-directed learning skills when studying.

Observation and interviews were conducted on the first session of the tutorial meetings. Interviews were selected among tutors of courses which were usually considered difficult by the students, such as Mathematics and Statistics. The tutors were interviewd about how they taught
students about the concept of self-directed learning, what problems they encountered and the solutions they came up with. Students were interviewed to verify the information gathered from the tutors. In addition, students were asked about the problems they were having when implementing the skills for self-directed learning and how they solved the problems.

Results and Discussions
The observations and interviews were done in 15 tutorial groups, 8 for Non Teacher Education Programs and 7 for Teacher Education Programs. Tutors being observed and interviewed were those who had participated in tutor training program. There were 57 tutors participated in this study, 23 of those (40.35%) were interviewed for the purpose of this study and the rest (59.65%) were only being observed. Twenty nine of them (50.88%) were tutors for Non Teacher Education Programs and 28 (49.12%) were tutors for Teacher Education Programs. Thirty five of the tutors were female (61.4%). Mostly (75.4%) worked as teachers. Only 14 (24.6%) tutors worked in non teaching area, such as in the government office at the subdistrict or regency level, consultants, staff in the parliament office, journalist, or other professions.

Levels of Education of Tutors and Number of Courses (n=57)

<table>
<thead>
<tr>
<th>No</th>
<th>Information</th>
<th>Σ</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>S1 (bachelor degree)</td>
<td>6</td>
<td>10.5</td>
</tr>
<tr>
<td>2</td>
<td>S2 (master)</td>
<td>49</td>
<td>86.0</td>
</tr>
<tr>
<td>3</td>
<td>S3 (doctor)</td>
<td>2</td>
<td>3.5</td>
</tr>
<tr>
<td></td>
<td>Σ Total Respondents</td>
<td>57</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Courses Taught</th>
<th>Σ</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 course</td>
<td>18</td>
<td>31.58</td>
</tr>
<tr>
<td>2 courses</td>
<td>27</td>
<td>47.37</td>
</tr>
<tr>
<td>3 courses</td>
<td>12</td>
<td>21.05</td>
</tr>
<tr>
<td>Σ Total Respondents</td>
<td>57</td>
<td>100</td>
</tr>
</tbody>
</table>

The number of students participated in this study was 111. They came from several tutorial groups in the subdistrict and regency at Bogor Regional Center, such as from the city of Bogor, regency of Bogor, city of Sukabumi, regency of Sukabumi, Depok, and Cianjur. The students represented various programs of study from 4 faculties at UT.

Distribution of Respondents (Students) by Program of Study/Faculty (n=111)

<table>
<thead>
<tr>
<th>No</th>
<th>FAKULTAS</th>
<th>PROGRAM STUDI</th>
<th>Σ</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Faculty of Economics</td>
<td>Accounting</td>
<td>22</td>
<td>19.8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Management</td>
<td>8</td>
<td>7.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Economics &amp; Development Study</td>
<td>7</td>
<td>6.3</td>
</tr>
<tr>
<td>2</td>
<td>Faculty of Law, Social, and</td>
<td>Government</td>
<td>15</td>
<td>13.5</td>
</tr>
<tr>
<td></td>
<td>Political Sciences</td>
<td>Library</td>
<td>4</td>
<td>3.6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Communication</td>
<td>12</td>
<td>10.8</td>
</tr>
<tr>
<td>3</td>
<td>Faculty of Teacher Education</td>
<td>Primary Teacher Education</td>
<td>34</td>
<td>30.6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Early Childhood Teacher</td>
<td>2</td>
<td>1.8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Faculty of Mathematics and</td>
<td>City Planning</td>
<td>8</td>
<td>7.2</td>
</tr>
<tr>
<td></td>
<td>Natural Sciences</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Σ Total Respondents</td>
<td>111</td>
<td>100</td>
</tr>
</tbody>
</table>
Out of 111 students, only 79 (71.71%) were interviewed. Forty seven (42.3%) were male students and 64 (57.7%) were female students. The majority of the students (66.7%) aged between 21-25 years old and not married (61.3%). This means that the respondents were those among the university age group or productive age group.

### Age of Students (n=111)

<table>
<thead>
<tr>
<th>No</th>
<th>Age</th>
<th>∑</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>&lt; 20 years</td>
<td>5</td>
<td>4.5</td>
</tr>
<tr>
<td>2</td>
<td>21 - 25 years</td>
<td>74</td>
<td>66.7</td>
</tr>
<tr>
<td>3</td>
<td>26 - 30 years</td>
<td>9</td>
<td>8.1</td>
</tr>
<tr>
<td>4</td>
<td>31 - 35 years</td>
<td>4</td>
<td>3.6</td>
</tr>
<tr>
<td>5</td>
<td>36 - 40 years</td>
<td>13</td>
<td>11.7</td>
</tr>
<tr>
<td>6</td>
<td>&gt; 40 years</td>
<td>6</td>
<td>5.4</td>
</tr>
<tr>
<td></td>
<td>∑ Total Respondents</td>
<td>111</td>
<td>100</td>
</tr>
</tbody>
</table>

With regard to research question 1—whether tutors taught about self-directed learning to students attending F2F tutorials—the observation in the tutorial session and interviews showed that all tutors did teach their students about the concept of self-directed learning on the first session of F2F tutorials. The students also confirmed that the tutors taught them about how to be a self-directed learner. However, the observations showed that the tutors actually did not explain about the concept of self-directed learning, they taught the students about the effective learning strategy such as how to develop a concept map and summarize the learning materials when studying. This means that the tutors did teach the students about effective learning strategy, but not the concept of directed learning. It might indicate that the tutors themselves have not understood the concept of self-directed learning. Meanwhile, ODL students need to self-regulate themselves in order to succeed in their study (Pintrich and DeGroot, 1990). In this case, students need to be able to manage their time. Time management includes making a plan to study, follow the study plan made, and able to seek relevant resources (know where to ask when facing problems).

According to Guglielmino, Long, & Hiemstra (2004, *self-directed learning* takes place when the learner is responsible to determine what to study, when to study, and how to study. Based on a study conducted by Darmayanti (2000), the majority of UT students had a low or average self directed learning readiness score, which means that the they preferred to a structured learning situation like in a regular classroom than in an ODL context. Puspitasari and Islam (2003), also reported that UT students had an average self directed learning readiness. This means that the students had the potential to study self directedly, but they preferred to study in a regular classroom if they had a choice. Thus, students need to optimize their potency of elf directed learning so that they can achieve thier fullest potential to be succesful.

UT students, according to Puspitasari dan Islam had a significantly higher self directed readiness score compared to that of high school students. Meanwhile, students holding a bachelor degree had an above average self directed readiness score compared to that of students who had a highschool diploma that had an average self directed readiness score. However, students GPA of 2.73 (maximum 4.0) in 2016 (Accreditation Document for the Management of Programs of Study, 2017) also showed that the achievement of UT students was not very high compared to the demand of employee recruitment that often requires a GPA of 3.50. The success of a student
is not only determine by his/her ability to study but also by his/her regularity in learning. That is why it is important for the tutors to promote self directed learning to the students.

Regarding the research question 2—whether students implement the self directed learning when studying—it turned out that only students who got scholarship from the government (Bidikmisi fellowship) that made a study schedule on purpose. Students with Bidikmisi scholarship were recent high school graduates who received a fellowship from the Ministry of Research, Technology, and Higher Education due to their high achievement in high school but cannot otherwise continue to higher education because they came from a low socioeconomic status family.

The Bidikmisi students in fact was asked to make a study schedule for difficult courses such as Introduction to Social Statistics, Micro Economics, Monetary Economics, etc. The skills of making a study schedule was taught on the Study Orientation for New Students especially designed for the Bidikmisi students. Other students did not make a study schedule. Even students in the Teacher Education Program who were all teachers who were supposed to have accustomed to have a regular schedule did not make a study schedule for their own benefit and only studied for the tutorial sessions. This phenomenon indicated that the findings in Darmayanti study (2000) was still relevant, in which the majority of UT students preferred studying in a regular classroom setting, even for students who were active teachers.

The results of the study indicated that 42.3% of the respondents did make a study schedule and 75.68% of the respondents made a summary or concept map when studying. When interviewing students, it was found that students who made a study schedule always made a summary or concept map when studying. On the other hand, not every student who made a summary or a concept map when studying also made a study schedule. The majority of the students stated that they did not make a study schedule due to their busy work schedule and thought they could not meet the study schedule even if they made one.

### Students Activity When Studying (n=111)

<table>
<thead>
<tr>
<th>N0</th>
<th>Activities</th>
<th>Σ</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Making a Study Schedule</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Yes</td>
<td>66</td>
<td>42.3</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
<td>45</td>
<td>57.7</td>
</tr>
<tr>
<td></td>
<td>Total Respondents</td>
<td>111</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Making a Summary/Concept Map</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Yes</td>
<td>84</td>
<td>75.68%</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
<td>27</td>
<td>24.32%</td>
</tr>
<tr>
<td></td>
<td>Total Respondents</td>
<td>111</td>
<td>100</td>
</tr>
</tbody>
</table>

When asked about the implementation of self directed learning when studying, a student responded:

“I don’t really understand the concept of self directed learning. As far as I know, our tutors asked us to make a summary or concept map when studying. So, in my mind making concept map or summary is self directed learning....”

The student’s respond when asked whether they implemented self-directed learning skills described that she perceived the concept of self-directed learning as reading modules, making
summary, or making a concept map, and having discussions with peers or the tutors. As well, the tutors have misunderstood the concept of self directed learning as to be having a good learning strategy. Some tutors in the tutorial groups of Bidikmisi have assigned the students to make a study schedule as a participative assignment, not with the intention to encourage students to get used to the regular study habit. Making a study schedule actually can be a good start to initiate the self-directed learning. By making a study schedule, a student is taking an initiative to plan his/her own studying and expected to follow the schedule without having to be told to study. This activity can confirm Guglielmino, Long, dan Hiemstra (2004) who stated that someone is considered to be able to learn self-directedly when he/she is able to determine what to study, when to study, and how to study it.

Out of 66 students who claimed to make a study schedule, 38 (57.58%) could showed the study schedule they made at the time of the interviews. This means, among the total respondents (n=111), only 34.23% can display the study schedule that they prepared. Even though, the percentage of students preparing a study schedule was quite low, this plan to study indicated a positive sign that the awareness for self directed learning has grown among students. However, due to the limited sample size, the awareness of the importance of self directed learning found in the Regional Center of Bogor cannot be generalized to the student population all over Indonesia. Further research needs to be conducted to learn whether or not UT students in this digital era have generally have the ability to self directed their learning.

Managing study time for ODL students is one of the most important factors for the success of the study. Students are expected to plan their study time, but often have to do other things instead of studying, such as doing job related tasks, doing community related commitments, entertaining their children, doing family chores, etc. Procrastinating and being busy at work caused students to study all the course materials and do assignments in a limited time. Without time management skills, a student will tend to study in the last minutes before the examination. This will decrease the possibility to achieve better.

"... we are very busy teaching, especially at the time of the examination ... we have so many marking to do, writing student reports, not to mention having housework like taking care of small children. ... we will make the time to go to the tutorial meetings for the tutors will explain the learning materials to us... It’s difficult to follow a study schedule because we are very busy at work and at home. I am thankful if I have sometime to read the modules, hopefully I can make a summary. I tried to make a study schedule, but I skip the schedule too many times …"

This awareness for self directed learning needs to be promoted in various forms. UT needs to make an intervention to help the students enhance their learning habits and their skills to manage their study time. Students need to be educated about the importance of studying regularly and more effectively in order to increase the possibility to succeed in their study. One of the ways to accustom students to have more regular study habit is to prepare a weekly study schedule. Meanwhile, practicing effective reading can be done by making summary and concept map when studying the course materials. However, out of 111 respondents only 84 students (75.68%) made a summary or a concept map when studying, while 27 (24.32%) did not make any notes while studying the modules/learning materials.

With regard to the ways the tutors taught the effective learning strategies, based on the observation and interviewees, the tutors have done so, in accordance with what have been directed in the tutor training. In this case, tutors have taught the students to make summary and concept map and also trained them how to read effectively by summarizing a paragraph or two
from the course materials. Based on the interviews, some tutors assigned students to make a summary or concept map as a participative assignments in the tutorial sessions. Unfortunately, not all students understood the purpose of the assignments so that they made summary and concept map just to complete the tasks, not as a means to understand the learning materials better.

"….It's too hard when all tutors assigned us to make a summary or a concept map every week, it conflicted with our tasks at school. If I didn’t want to get a good grade, I wouldn’t do the weekly assignment …. "

**Conclusion**

The results of this study described that not all students was aware about the importance of having the skills for self-directed learning to be able to succeed in their study at UT. Therefore, UT need to develop some interventions to help the students become aware about the importance of self directed learning when studying at UT. In this case, the purpose to develop the awareness of the students for self directed learning is not directly related to improve the students’ GPA, but it is emphasized more on the development of the students’ habit to study more regularly. The habit to make notes or make a summary about the course materials being studied in order to understand the course materials better needs to be continuously nurtured. One of the effort to nurture the regular study habit is to assign students to read the course materials dan make a summary or a concept map as a participative tasks in every tutorial sessions. Based on the interviews with students, some tutors did not give any feedback when students submitted their participative tasks and assignments. In this case, UT needs to enforce that all tutors must provide constructive feedback to the participative tasks so that students recognise their understanding about the course materials being discussed.

The strategies to enhance the students self directed learning need to be continuously taught considering that the ability to self regulate is an important factor to the students’ success (Azevedo, Guthrie, & Seibert, 2004; Pintrich and DeGroot, 1990; Zimmerman, 2002). The study of Oetoyo dan Puspitasari (2015) showed that students who used a study schedule when studying had the potential to be more successful in their study, indicated by the increase in their GPA, although the increase was not statistically significant, as compared to the control group whose GPA decreased in the same semester.

The implementation of self-directed learning taught by the tutors in the first tutorial session bring about an improved study habit for students who made a study schedule and followed the schedule accordingly. Without realizing it these students have implemented the some aspects of self directed learning. This finding was in line with what Zimmerman (1990) dan Schunk (2008) proposed in that students can be considered to have the ability to self-regulate their learning when they already have the ability to manage themselves to study, take the inisiative to study, and actively try to achieve thier study goals.

This research study have not aimed to see the impact of the implementation of self directed learning on the improvement of the student achievement, but more on the effect to improve their study habit. Indeed, the behavior changes and the habit of self directed learning cannot take place in a short time. Darmayanti, Rachmatini, Karim, and Nurhayati (2011) stated that ODL students needed the support from the higher education institution to improve their self directed learning ability. The habit for self directed learning need to be trained and nurtured every semester so that the students can experience the benefits of self directed learning to their achievement. The changes of behavior to become self directed learners is expected to be transferable to the students real life, in which all human being need to engage in a longlife learning in order to
improve the quality of their life and the society at large. The orientation on how to implement the skills of self-directed learning for students is also important to be trained for students who only participate in online tutorial since UT student participation in online tutorials was reported to have increased the rate of student course completion and achievement (Belawati, 2005).

Based on the findings we can agree that not all tutors have understood the concept of self directed learning or self-regulated learning. Students who can self-direct or self-regulate their own learning have the ability to plan what to study, follow the study schedule they have planned. Students can implement the self directed learning by making their own study schedule which consider the availability of time, course load, and their capability to read the course materials. By following the study schedule the students can direct their own learning every week without being told to study by their tutors. UT needs to do something in the tutor training to correct the tutors’ perceptions on the concept of self directed learning so that they can teach the students about the concept of self-directed learning and the strategies of effective reading, which is part of self regulated learning.

Eventhough the majority of Bidikmisi students did make a study schedule, they need to understand that making a study schedule and follow it through is an important part of the self-directed learning skills, not just a task to complete. Making a study schedule must be part of their study plan. In this case, tutors can help providing feedback to improve the study schedule and the notes that they have made as the results of their study, either in the form of a summary of the modules or a concept map. This way, UT students will gradually understand the course materials better as a result of having study regularly by implementing effective reading/studying strategies.

REFERENCES


IMPACT OF MASSIVE OPEN ONLINE COURSES ON COLLEGE ENGLISH EDUCATION AND ITS FUTURE---A CASE STUDY OF YNOU

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Abstract

Massive Open Online Courses (MOOCs) have been rapidly developing globally. In recent years, MOOCs and flipped classroom have drawn great attention from educators around the world. In China, these new learning models are being practiced by more and more college English teachers and students in their teaching and learning. To better understand the impact of MOOCs on current and future higher education globally, this paper reports a survey study of Yunnan Open University (YNOU). There are totally 32 teachers and 145 students answered the questionnaires, meanwhile 10 teachers randomly chosen were asked to take part in the in-depth interviews which were recorded and analyzed.

The survey results demonstrate that the learning model of MOOCs has positive effects on college English. But as a new learning method, the MOOCs have encountered some difficulties and troubles. Multilateral efforts, which include improving teacher’s professional development and providing technical support for learning such as the use of computers and WIFI, should be made to improve the effectiveness of MOOCs materials. Gradually, the college English teaching, management and evaluation system will be changed. In the end, five suggestions have been put forward for college English teachers and faculty members at YNOU, taking the impact of MOOCs on college English education into consideration, especially opportunities and challenges of MOOCs bringing about for traditional classroom practices and adult programme management, three stages are initiated for the construction of integration of MOOCs and college English.

Keywords: Massive Open Online Courses (MOOCs); college English education; case study;

1 INTRODUCTION

Modern open and distance education is characterized by web-based instruction, web-based assessment and research. Web-based learning support services are considered as the most essential inputs for learners which offer ground for them to produce considerable outputs so as to achieve better learning outcomes. From the year of 2011, Massive Open Online Courses (MOOCs), as a new network education mode, have been rapidly developed globally. Cousera, edX and Udacity are ‘three carriages’ of global MOOCs platforms, attracting many universities to join, including some famous home universities like Peking University, Tsinghua University and so on. In recent years, MOOCs and flipped classroom have drawn lots of attention from educators around the world because of its great impact on online learning.

In China, east-west universities’ course sharing alliance had been established in 2013, thus the year of 2013 has been considered to be the first year of China MOOCs (Wulin Ma & Jiasheng, Hu, 2013), and 2013 is also the beginning year of MOOCs and college English teaching research (Linlin Huang, 2015). MOOCs-assisted teaching is widely acknowledged as new learning models to enhance and improve students’ learning by all kinds of means, and it is assumed that the new mode of services will play a greater role in

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stimulating and facilitating students’ learning. They are being practiced by more and more college English teachers and students in their teaching and learning.

To better understand the impact of MOOCs on current and future higher education globally, this paper reports a survey study of Yunnan Open University (YNOU). There are totally 32 college English teachers and 145 students answered the survey questionnaires, meanwhile 10 teachers randomly chosen were asked to take part in the in-depth interviews which were recorded and analyzed.

For constructing a successful integration of MOOCs and college English courses, this paper examines the current situation of how MOOCs impact college English education with special focus on improving college English teaching quality at first. Secondly, potential problems are summarized together with corresponding possible solutions proposed so as to assist the feasibility and effectiveness of conducting MOOCs online. Lastly, suggestions have been put forward for college English teachers and faculty members at YNOU, challenges, opportunities and future constructions of integrating college English MOOCs resources will be discussed.

2 RESEARCH QUESTIONS

In the study, quantitative questionnaire and qualitative semi-structured interviews conducted by the means of hard paper, phone and QQ Forum aim to answer the following three questions, when possible, face-to-face as well.

1) What is the current situation of the impact of MOOCs into college English curriculum in YNOU?

2) What are the specific problems of the integration of MOOCs into college English curriculum in YNOU?

3) How can we conduct effective integration of MOOCs into college English curriculum in YNOU?

3 THE DEFINITION OF MOOCs

As the term MOOCs is shortened for Massive Open Online Courses, they are the integration of information technology and multiple intelligence, and they are mostly free online courses to the public. Therefore it is very important to make a clear explanation about its connotative meaning.

According to Wikipedia, the first letter ‘M’ stands for Massive, referring to large scale of audience, massive numbers can be hundreds, thousands or millions. The second letter ‘O’ represents Open, its resources open to every student who is willing to learn. The third letter ‘O’ is a short for Online, providing online courses 24 hours and automatic online evaluation system, to breakthrough the traditional learning mode of time and space restrictions. The last letter ‘C’ abbreviates for Courses, the learning material is a complete course system, including curriculum objectives, curriculum requirements, curriculum tasks, curriculum evaluation and so on. Based on the theory of open and sharing, the global spread of high quality education resources can be realized with MOOCs.

4 CURRENT SITUATION OF THE IMPACT OF MOOCs ON COLLEGE ENGLISH TEACHING

With the ever-increasing number of computers and the declining cost of using them, it becomes possible to take the advantages of MOOCs in students’ learning process, so does College English course.

4.1 Profile of YNOU
Yunnan is a frontier province located in the southwest of China with its English interpretation ‘South of the Colorful Clouds’, indicating its distance to the central capital of China and its distance to average level of education as well. YNOU is the only Open University approved by the State Council in the Midwest region of China, and it aims to provide high quality distance education, with no exception of the utility of MOOCs resources for students from all walks of life in the area. YNOU offers MOOCs-based learning for both teachers and students with a lot of advantages:

First of all, it can provide teachers with information about how well MOOCs are conducted and it also can offer opportunities for students’ self-study at their own pace through the use of the multimedia. Secondly, open and distance education in YNOU, where tutors and students meet for tutorials only once every week or every month or even once a semester in some remote areas, it is more difficult to collect information by using the traditional means, online learning MOOCs materials will completely fill this gap. Thirdly, big data era and information have many advantages, such as 4V specialties: Volume, Variety, Velocity and Value, indicating that based MOOCs are also high capacity, great variety, fast speed, time-saving, high efficiency, time and space free (Wulin Ma and Xiaojiang Li, 2014). Lastly, it provides a platform for building up a networked learning environment, and is to change the traditional learning environment into a new, multiple and ecological one.

In the case of YNOU’s distance education, it provides a complete and multifunctional system of assuring equal education opportunities in the Midwest, serving as an educational supply depot for all learning needs. Learners can study anywhere, at anytime, through YNOU’s learning platform and system. Among total more than 100,000 open and distant learning students, the majority are adult students whose College English is the toughest course. Difficulties come from both sides, on one hand, they are not used to face and realize information technology is an inseparable part of today's world; on the other hand, they try to engage in with MOOCs in their courses, especially in the field of College English studies.

### 4.2 Feedback of the Utility of MOOCs in College English Course

In the study, quantitative questionnaire and qualitative semi-structured interviews were conducted. Totally 32 college English teachers and 145 students answered the survey questionnaires, among them 10 teachers with experience of online learning services were randomly chosen for interviews. The feedback is as followed:

#### 4.2.1 Positive Results of the Utility of MOOCs in College English

The survey results demonstrate that the learning model of MOOCs has positive effects on college English from the following aspects.

Firstly, it can promote students’ learning interests. MOOCs-based teaching offer different level of learning materials for various needs, so as to deal with the specific difficulties, thus learning interests will be greatly motivated. Secondly, it will help learners’ critical thinking development in the flipped classroom. Flipped class, as a form of MOOCs-based teaching, was advocated by Baker, teachers used network tools in teaching after class while doing cooperative discussion and problem solving in class (Baker, 2000). Students often have more hands-on activities both outside and inside the classroom, more chances for communication and to help each other with the assigned tasks. Thirdly, the students’ listening and speaking ability are improved under this new mode of learning. The flipped class videos are first created for the students who cannot go to school on time (Jonathan, 2012); they can listen to the videos whenever they are free. The class requires learners to listen and watch the relevant videos before class, then to finish the cooperative assignments, listening and speaking abilities are automatically improved. Lastly, teachers can benefit a lot from the processes of learning, teachers’ subject literary attainments, ICT accomplishment, and classroom management capacity are also improved.
4.2.2 Problems of the Utility of MOOCs in College English

Based on the investigation, the potential problems for utility of MOOCs in college English as far as modern technologies are concerned intensively. As a new learning method, the MOOCs based learning has encountered some difficulties and troubles as followings:

1) Poor Command of Computer Skills

Some of the students understand the value of MOOCs as a means to improve their second language learning skills gradually. However, others might see their poor command of computer skills as the biggest obstacle to learn to use MOOCs as part of the supporting system, especially for those who are not familiar with this new learning mode. Most of the YNOU learners are not skilled in computer, such as taking part in the online activities, downloading the learning materials, participating in the online discussions and so on.

Due to various reasons, many students have unsuccessful experience in uploading their learning record and assignments. The main cause for this situation is that all the students are required to upload their learning record and assignments to the platform of OUC or YNOU. This makes the learning path very crowded, things are even worse if internet access has problems.

2) Difficult Access to Computers

Because of not enough computers, more than half of the learners have been interviewed that they do not have easy access to computers. Since the number of computers in YNOU is limited, WIFI devices and net working speed is not very accessible sometimes, and the Learning Management System is still in the process of development. Over half of the learners do not have easy access to the internet; they complain that they are given enough time online. Although WIFI devices are very common in most places of Yunnan, most students are working far from the branch schools so that it is really not easy for them to get access to computers, and they might not necessarily have the internet anywhere meeting the requirements of the courses.

3) Difficulty in Preparing Learning Materials

MOOCs-based teaching requires lots of preparation before class. Teachers should work more to choose appropriate video materials to activate learners’ motivation, to make the specific teaching resources for the learning difficulties. Then the most important and the toughest job is how to prepare the exact materials? Some teachers do not know the principles of organizing text and multimedia; some have difficulties in how to assign teaching tasks before and in the class; the others have confusions about how to evaluate learners’ outcome. Besides, some students have difficulties in learning the recorded videos on their own before classes. Nearly 80% of the students think the major difficulty they have with the system is that they do not have enough time for self-study, which lead to more troubles among students in the classroom.

4) Time-consuming Course Design

Most college English learners in using MOOCs reach the consensus of that learning through service system is a very time-consuming process if they are not so familiar with computer skills and not easy to get access to computers or internet. In addition, it took college English teachers too much time for class preparation and video recordings, and many teachers complain about having increased burdens at the beginning of the reform.
During the evaluation process, teachers should check the learners’ assignment online, answering the questions both online and offline, and offering feedback at anytime. In comparison with the traditional mode, this complex course design is really time-consuming. Tutors have many new responsibilities added to their old ones required by traditional ways of teaching; all the extra time and efforts invested by the staff members involved in the application of the design should be taken into consideration in terms of the new type of workload.

All in all, teachers should be encouraged to exploit MOOCs resources as a means to developing language skills and English classroom teaching quality. To this end, MOOCs materials can be introduced not only as a new dimension in college English teaching but also as a potential and possible solution to the above problems often mentioned by YNOU English teachers as a conundrum.

4.3 Opportunities and Challenges of MOOCs on College English

Taking the impact of MOOCs on college English education into consideration (Bates, 2014; Daniel, 2012), especially opportunities and challenges of MOOCs bringing about for traditional classroom practices and undergraduate/graduate program management, five suggestions will be put forward to improve the English course learning outcomes of YNOU distance learners.

At first, attitudes toward utility of MOOCs in college English should be changed. As Dowens (2016) points out, the utility of MOOCs in college English, modern learners cannot learn by online MOOCs resources individually not only because of their ages but because of their attitudes towards modern technology. Reluctant learners are not willing to study through this system to some extend. Only enthusiastic learners can achieve the aim to meet the requirements of distance learning with web-based learning support services, to study online automatically and freely.

Secondly, teachers’ teaching mode should be changed. Since the utility of MOOCs in college English, the traditional mode of learning is being challenged, ‘One Chalk One Blackboard’ situation cannot be found anymore. i.e., sitting in the classroom and listening to lectures, distance learners do not feel safe and comfortable with the new through the web-based multimedia learning system. Vast volume and fast speed computers can deal with lots of the target culture information. Teachers can integrate the target teaching content by using some multi-dimensional signals such as multimedia graphs, images, authentic and auto kinetic effect so as to increase learners’ sense of freshness, to enlarge learners’ knowledge capacity, and to promote learners to understand the teaching content at a further step (Jianlin Chen, 2010).

In addition, the advantages of MOOCs can offer the ground of extending the perception of some specific knowledge points, deepening the degree of learners’ cognitive competence. The ‘sea’ (vast) resources online can support education informatization in terms of recourses integration and optimization. For instance, the world-class open courses like “Happiness” and “Justice” provided by Harvard University have great help on building western cultural value. Courses from British BBC world service and TED may show the real English accent, motivating the multidimensional English output.

Thirdly, more efforts should be put into improving learning surroundings. Adequate training should be provided to the participants who are poor at using a computer before the learning system is introduced. Multi-media classrooms with Internet access should be set up extensively. The use of smart phones, emails, face books, Skype, Wechat, QQ forum and offering students online help should be intensified to keep their pace of learning. Multilateral efforts, which include improving teacher’s professional development and providing technical support for learning such as the use of computers and WIFI, should be made to improve the effectiveness of MOOCs method. Gradually, the college English teaching, management and evaluation system will be changed.
Fourthly, formulating related management policies might be a key countermeasure to improve the perceived job relevance and encourage college English teachers’ practice of applying MOOCs in teaching; external control includes supports in funds, technology and the latest learning support services for MOOCs as well as to improve the perceived output quality.

Poor computer skills, difficult access to Internet and computers, unsuccessful upload experience will torture the utility of MOOCs in college English study by the new mode. Given students support concerning technical support, learning process management, learning strategies, emotional factors and learning cooperation are promoted and well-served; all the above mentioned problems can be solved gradually. Combining study on the computers with study through various MOOCs resources for the course, such as the course books, videos, multimedia courseware etc., from easy to complex, avoiding upload materials at rush hours, all these will definitely help to achieve the purpose of MOOCs-based learning and save time for utility of MOOCs in college English eventually.

Lastly, tutor’s workload should be reduced from a long term practices. Because of “adults prefer face-to-face learning rather than learning through the use of video or audio communications” (Stroot et al, 1998), it is not surprising that most of the tutors think that the use of MOOCs has increased their workloads and they are really troublesome. Only few of the tutors are able to provide frequent and synchronous online help to students as this is a very time-consuming and demanding job. In addition, tutors have to get online to check students’ learning process and mark students’ written assignments uploaded as well. From a long term point of view, once tutors are accustomed to the new mode of using MOOCs in college English, tutor’s workload will be reduced.

5 THE CONSTRUCTION OF MOOCs-BASED COLLEGE ENGLISH TEACHING

With the increasing use of the Internet in distance education, the possibility of conducting learning support services online is becoming greater. Teaching English with MOOCs to EFL teachers should be an important part of teacher professional development programmes because it is more concerned with how language can affect personal and social change than it is with how to teach language more effectively.

From the stance of EFL teacher in Chinese context a number of means are tried to improve second language learners’ abilities, and College English, in contrast to other courses, remains a kind of “being stuck”, therefore it is very important to improve language ability by the utility of MOOCs. The following three stages, pre-class, online class and post-class, are proposed to construct MOOCs-based College English teaching in this paper.

5.1 Pre-class Construction

In this process, the key point for teaching is getting familiar with videos of micro lectures, multimedia courseware, and internet videos, then to integrate these MOOCs resources’ into organizing classroom content. As for teachers, choosing the most appropriate resources is a very tough job. At first, make sense of the right materials to meet the exact teaching objectives and teaching content, so as to pave the way of good material preparation before class. Secondly, get to know learner’ difficulties to make a targeted video clips to solve the major teaching difficult problems. Thirdly, make a resources plan for different level of learners to help them prepare the class work in advance with great pleasure and relaxed feelings.

5.2 Online Class Construction
In this process, the key point for teaching is to change student as automatic learner. Learning through the new mode is unprecedented and unstoppable; students have to learn on their own most of the time. The critical role of MOOCs-based college English teaching is to break through the traditional mode into an interactive and automatic one, which activates learners’ motivation at the most. This is undesirable as Wenden (1991) argues that two key attitudes underlie learner autonomy: the first is learners’ attitudes towards their own role in learning. The second is their attitudes towards their ability to learn and take responsibility for learning.

Firstly, teachers should pay more attention to the explanation of MOOCs resources, understanding learners’ attitude to MOOCs at a further step, in order to construct a complete teaching mode of “explore-acquire-answer-feedback” in college English classrooms. Then teachers should try this pedagogy in the hope of diversifying their teaching methods, and enhancing classroom dynamics and interactivity for optimal instructional outcomes.

Secondly, teachers can assign students into different groups, and guide them to follow the questions for cooperative learning designed by MOOCs materials. Cooperative works among students are more encouraged. Lastly, teachers can strengthen the content understanding by making good use of the flipped class and fragmental resources, leading students into a targeted classroom discussion, to form an automatic learner by autonomous learning, group discussion and communicative interaction.

5.3 Post-class Construction

In this process, the key point for the construction is the evaluation of MOOCs resources into College English teaching. The teachers should make a justice evaluation on students’ learning outcome and learning plan through MOOCs materials.

Firstly, personalized learning environment is created to obtain a free and open evaluation so as to get an effective and fair appraisal system. Secondly, teachers should know the learning situation of every student at the post class stage, carrying on a timely reflection and filling the gap between learning outcome and teaching objectives. Thirdly, teachers should take the advantage of the evaluation of MOOCs resources and teaching problems, in order to initiate a reasonable and scientific learning plan at the coming new stage.

6 CONCLUSION

This paper is devoted to the discussion of the employment of MOOCs in the target foreign language class by putting forward some feasible approaches and suggestions. Despite numerous studies done in supporting services, there has no research dealing with the utility of MOOCs with college English in YNU. Therefore, it is worth and feasible trying to use and perfect them in the real situation. I conclude this paper by discussing some wider implications of utility MOOCs with college English teaching.

MOOCs resources have many advantages by bringing the free and open idea of networked learning into College English course. For constructing a successful practice of MOOCs into English teaching, five corresponding possible solutions are summarized and three potential stages proposed so as to assist the feasibility and effectiveness of conducting MOOCs-based teaching.

Within the three stages’ integration of MOOCs and English course construction, the learners’ achievement will be greatly improved, increasing practical value in class, and so this integration is proved a good approach in modern English teaching.
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CONTENT EXPERT PERSPECTIVE ON LEARNING MATERIAL QUALITY: AN EXAMPLE AT STATISTICS STUDY PROGRAM OF INDONESIA OPEN UNIVERSITY

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ABSTRACT

This study discusses the results of the evaluation of the quality level of a number of self-instructional print material (SIPM) at Statistics Study Program of Indonesia Open University (Universitas Terbuka/UT) based on the assessment of their quality by content experts on 21 courses. The evaluation format uses the seven quality criteria on the nine chapters: the conformity with the development of the recent science, the integrity of concepts, the consistency of thinking paradigms, coherence of coverage, competence level, theoretical-practical relevance, and the relevance of the task/test. The quality of SIPM is also analyzed over chapters. It uses Multiple Factor Analysis (MFA) technique. Three dimensions represent 74% compromise variability of SIPM quality: rate of content eligibility (60%), then rate of conformity (68%), and then rate of task/test effectiveness (74%). The results show that there is no difference in content eligibility subject over topics. The most dominant criteria determining the content eligibility dimension is the presentation of a consistent and balanced method of thinking paradigm on the overall SIPM. There is a contrasting condition between criterion of SIPM quality in the conformity and the task/test effectiveness dimension.

Keywords: Self-instructional print material, conformity, test effectiveness

INTRODUCTION

Universitas Terbuka (UT) is an open university, established in 1984 as the 45th state university to widen opportunity and access to university education, for in-service teachers, working adults and recent high school graduates. UT was founded as a part of the government’s national strategies to improve access and participation in higher education. In 2017, UT enrols more than 286,000 students, residing in different parts of the country, with over 90% of whom are working adults. UT has major roles to play in developing high-calibre human resources needed for the nation’s competitiveness and sustainable development. Since its foundation, UT has enrolled over 1.2 million students and has produced over 800,000 alumni, working in various fields of the profession.

Learning materials serve as major learning resources for distance learners, and quality learning materials help students learn effectively at a distance. A course team approach is used to design and develop UT learning materials, involving content experts from partner universities, UT’s own academic staff, and instructional designers and media specialists (Mutiara, Zuhairi, & Kurniati, 2007). Preparation for production of printed learning materials are done internally, while the large-scale reproduction is outsourced externally, and for the non-printed materials all production and reproduction processes are done internally. The learning materials go through a systematic quality assurance mechanism in each stage of design, development and production, in order to ensure that distance students have high quality learning materials for use in their autonomous and independent as well as structured and guided learning activities throughout the course of their learning endeavour at a distance.

UT students learn from the course materials delivered by the institution and from other learning resources accessible from other institutions. UT has developed multimedia learning materials for its students, with the printed materials as the major media supplemented with audio-cassettes, video programs, television programs, audiographic programs, computer-assisted instruction, web-based materials and online tutorials. Learner support is provided to facilitate student learning, such as tutorials, counselling, study groups as well as administrative services. Students’ needs for tutorials are provided and facilitated by regional offices.
In distance education the course materials serve as the major learning resources for students. The availability of high quality learning materials are crucial to facilitate the students' learning process at a distance. Distance education systems have been established to expand access to learning, using a variety of technology. The philosophy of distance education is based on the value that it removes barriers to learning, and it allows for flexibility for students to learn what they want, when they want, and where they want (COL & Freeman, 2005). A variety of technology has been used to deliver knowledge for students to learn.

Printed learning material's reliability in achievement of subject competence is expected to be higher for PLM whose substance of material is feasible and its quality is consistent on the overall PLM (on each subject). This research evaluates SIPM material's quality on all SIPM material, from subject to topic. This research also identifies factors or dimensions that determine the differentiation of SIPM material's worth from one another.

By method, this research presents one application of MFA technique to evaluate the material quality of PLM that is observed repeatedly from chapter to chapter. MFAs are used against multivariat data structures that are repeatedly measured at the same observation. This simple analytical technique can explain the role of observations and variables on the whole system (known as compromise) (Abdi et al, 2013). According to this technique, the overall material quality of SIPMs is a compromise of a number of criteria measured over chapters. This technique produces dimensions of the compromise of SIPM quality, explains the role of criteria-variables, and explains the material quality positions of each SIPMs.

DESIGNING, DEVELOPING AND PRODUCING PRINTED LEARNING MATERIALS

Effective design of instruction is essential, as in distance education it is the institution rather than the teacher teaches. The learning materials should thus be designed to be user-friendly for the learners' self-study and independent learning activities. Designing effective instructional systems for distance learning involves activities which include identifying needs and goals, analysing instruction, developing materials and planning delivery system, piloting the materials, and revising the materials.

Learning materials serve as the major learning resource materials for distance students, in which the students learn from the printed learning materials (PLM) and have the options to choose from a variety of media that suit their learning needs and circumstances.

These variety of media include printed materials, audio cassettes, video cassettes, television programs, CD-ROM software, web-based supplement, Computer Assisted Instructional (CAI), and audio graphic programs. Learning materials development in UT involves a course team approach, comprising course authors, course reviewers, instructional designers, media specialists, and course managers. The course authors are responsible for writing the original manuscript of the course materials, and they are responsible for the content of the course. Course authors write courses referring to the basic course outline, while the course reviewers are responsible for reviewing of the course materials, and ensuring the quality standards of the content based on the basic course outline.

Instructional designers are responsible for ensuring that every printed material consists of several babes, depending on the number of semester credit unit of the course. Each babe consists of the following components: general and specific instructional objectives, introductory section, the content of the course comprising topics and subtopics, exercises, summary, formative tests, feedback, list of references, and glossary of terms. Instructional designers are also responsible to ensure that the babes are designed to be self-instructional to facilitate students to learn the materials independently with minimum assistance from the tutors (UT, 2005). The UT media specialists are responsible for identifying appropriate nonprinted media for use to support student learning at a distance. Non-printed media enrich the learning materials to facilitate the students' understanding of the concepts and topics discussed in the printed materials.

The variety of non-printed materials provide students with greater flexibility to acquire knowledge. The course managers are responsible for ensuring the development process of the course materials in accordance with the requirement and schedule set by the institution. This course development process begins with the course writing, course review, editing, and finalising the course manuscript ready for
printing. The UT learning materials are systematically designed to be self-instructional, interactive and communicative in accordance with instructional design principles. They are self-instructional in a sense that they encourage students to learn the content actively and independently. They are interactive and communicative in that they include dialogues between author(s) and the students, they use communicative language, so that students have a feel that they have direct interaction with their own teachers.

Distance students have to familiarise and internalise themselves with independent learning style, and therefore the printed learning materials should include sections where students have to engage themselves in active learning, instead of passive reading. For example, students can be actively involved in working on a project, conducting small-scale research, solving cases, pronouncing words and sentences in foreign language courses, doing exercises, and taking self-assessment questions.

The course materials allow for students to have feedback from their tutors for their work and learning activities. They are also designed to enable students to do self-assessment on the exercises and formative tests on their own or in collaboration with their peer groups. In this way, distance students will be able to overcome the lonely feelings of the independent and autonomous learning processes (A. Suparman, 2007; Zuhairi, Zubaidah, & Daryono, 2008). In other words, UT printed materials are designed to consider not only the systematic presentation of the content but also other aspects relating to the precise communication process, delivery process, and pedagogical matters. The UT printed materials are designed in such a way to represent teaching and learning in the face-to-face mode of instruction, and it is designed to motivate the students in self-directed learning.

Hence, the content of the materials must focus on encouraging learners to study independently (Yunus & Pannen, 2004). The learning materials are structured in ways that they stimulate students’ independent learning activities, guide students’ learning of the content, and direct students to be able to understand the concepts through a variety of exercises and self-assessment. UT utilises academic resources from other institutions of higher education, and it prefers to outsource the development of course materials involving external course authors and material reviewers in writing and reviewing the materials. The course authors and material reviewers consist of senior academics and experts from well-reputed state and private higher education institutions, such as University of Indonesia (UI), Bandung Institute of Technology (ITB), Gadjah Mada University (UGM), Diponegoro University (UNDIP), Padjadjaran University (UNPAD), Bogor Agricultural Institute (IPB), Education University of Indonesia (UPI), and Hasanuddin University (UNHAS).

**SELF-INSTRUCTIONAL PRINT MATERIAL**

The main media of the Open University learning system is printed and non-printed materials. Self-instructional print material (SIPM) is a printed learning material and a major component for learning in UT. SIPM has a very tight structure and contains solid information and knowledge. Its design is to anticipate students if he only uses SIPM as the only source of learning (Pribadi & Syarif, 2010).

UT students use SIPM for self-study because it is easy to understand and provides a certain ability after learning it. SIPM should represent all aspects of learning, clearly described with language or instructional sentences, can measure students’ understanding, with feedback on student learning outcomes. Quality learning materials should have a number of criteria (Suparman et al, 2012), such as validity and reliability learning material.

Seven factors must be considered for learning materials as effective (Malati, 2003), as follows: content accuracy (content validity and alignment), accuracy of coverage (depth of material, wholeness of concepts discussed in the field of science), digestibility (ease of understanding by users), language usage (language selection, word selection, effective use of sentences, and meaningful paragraph forming), customization (packing and laying of information), illustrations (interesting, motivational, communicative, and helpful messages), and completeness of components (complementary components and evaluation of learning outcomes).
ASSESSMENT OF CONTENT FEASIBILITY ON SIPM

The assessment of content eligibility is part of the initial stages of formative evaluation of learning materials. Formative evaluation aims to find the specific weaknesses in learning materials. Formative evaluation of learning materials is the process of providing and using information for SIPM quality improvement program, from material review, one-to-one evaluation, group evaluation, and field evaluation (Suparman, 2012).

Review of the material is done by an expert outside the instructional developer on the accuracy of the content. The material expert is expected to assess the following: the validity of the content and its relevance to instructional purposes; the accuracy of the formulation of general instructional objectives; the relevance of specific instructional objectives with the public; the accuracy of the formulation of specific instructional objectives; test relevance with instructional objectives; technical quality of writing test; relevance of instructional strategies with instructional objectives; product relevance or instructional materials with instructional tests and objectives; and, technical quality of instructional products.

The Open University develops a number of instruments for reviewing the quality of learning materials. One of them is Questionnaire Submission of SIPM by expert that is instrument with controlled documentation code AJ10-RK02-R01 developed for review of SIPM content eligibility (Pusmintas, 2008). This instrument contains an assessment of the seven criteria for the quality of the SIPM content. Each of the criteria is scored by an expert in the form of a scale of compliance level and an explanation of advantage/disadvantage, comments, and/or suggestions.

METHODOLOGY

SIPM content eligibility assessment is conducted in statistics study program by a content expert using the SIPM Assessment Questionnaire (AJ10-RK02-R01). During the year 2008-2012 has generated expert assessment for 21 SIPM courses, each expert assesses one SIPM. All SIPM consists of nine chapters. Each chapter is given a score of compliance level for each criterion, the higher the score indicates the higher the criterion fulfillment level. The score and the criterion level fulfillment interval are as follows: score 1 if the learning material only meets less than 50% criteria; score 2 if the learning material meets less than 65% criteria, score 3 if the learning material meets less than 80% criteria, and highest score of 4 if chapter material meets 80% or more criteria.

The list of seven criteria is as follows: (K1) Material in accordance with the development of science, praxis in science/technology, (K2) Material explains a concept/principle thoroughly, (K3) Material presents a consistent and balanced method of thinking or paradigm, (K4) Materials are arranged logically, regularly and coherently, (K5) Degree of difficulty/depth of material according to program (S1) level, (K6) Material helps analyze the interrelationship between reality and theory or between theory and discussed, and (K7) tests relevant to the material.

Each SIPM has 63 criteria scores in each chapter. The score variables are coded according to chapter names and criteria. For example, M1K1 is the first-chapter appraisal variable on K1 criteria, and so on, up to 63 combined variables of nine chapters with seven criteria.

This data has the same one observational structure and is evaluated repeatedly nine times (chapters) for seven criteria. It is therefore necessary to evaluate how the level of the SIPM quality changes or remains on chapter to chapter. This data analysis uses Multiple Factor Analysis (MFA) technique (Abdi, Williams, & Valentín, 2013; Pagès, 2014). The process of data analysis using R version 3.3.3 with FactoMineR packages.

MFA is a popular method to analyze multi-block variable which is measured in the same observation. This technique is broadly and deeply peeled by the developer. It is also accompanied by the example and the program to analyze the process that uses R Program (Pagès, 2014). This analyses application is broadly accepted and performed by previous authors in some fields, such as quality control (Zarraga & Goitsolo, 2009) and economy (García Lautre & Abascal Fernández, 2004).
DISCUSSION AND RESULT

The role of chapter and criteria

MFA provides the first three components that achieve 74.0% total of inertia, respectively for each component (dimension) are 60.4%, 7.4%, and 6.2% of inertia. The MFA also produces component loading to explain the role of the criterion variable in the components of material quality. Loading each variable shows the effect of variables on the component. The role of the variable to the component is measured by its contribution. These contribution can be summed to measure the total contribution of both criteria and chapters. The total number of contributions for all variables is equal to one for each component. The total contribution of each criterion and the total contribution of all criteria in each chapter toward dimensions is presented in Table 1.

Table 1. Total Contribution of Chapter and Criteria (%)

<table>
<thead>
<tr>
<th>(a) Chapter contribution*</th>
<th>Dim 1</th>
<th>Dim 2</th>
<th>Dim 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>M1 - Chapter 1</td>
<td>10,5</td>
<td>8,8</td>
<td><strong>18,6</strong></td>
</tr>
<tr>
<td>M2 - Chapter 2</td>
<td>11,5</td>
<td><strong>10,8</strong></td>
<td>7,5</td>
</tr>
<tr>
<td>M3 - Chapter 3</td>
<td>11,6</td>
<td>10,1</td>
<td>6,4</td>
</tr>
<tr>
<td>M4 - Chapter 4</td>
<td>12,2</td>
<td>5,2</td>
<td>9,8</td>
</tr>
<tr>
<td>M5 - Chapter 5</td>
<td>10,0</td>
<td><strong>24,6</strong></td>
<td>12,0</td>
</tr>
<tr>
<td>M6 - Chapter 6</td>
<td>11,4</td>
<td>3,7</td>
<td>10,3</td>
</tr>
<tr>
<td>M7 - Chapter 7</td>
<td>12,0</td>
<td>5,2</td>
<td>8,5</td>
</tr>
<tr>
<td>M8 - Chapter 8</td>
<td>9,0</td>
<td><strong>20,6</strong></td>
<td><strong>18,8</strong></td>
</tr>
<tr>
<td>M9 - Chapter 9</td>
<td>11,8</td>
<td>11,0</td>
<td>8,1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(b) Criteria contribution**</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>K1 - Material in accordance with the development of science, praxis in science/technology</td>
<td>10,8</td>
<td><strong>32,6</strong></td>
<td>13,3</td>
</tr>
<tr>
<td>K2 - Material explains a concept/principle thoroughly</td>
<td>14,1</td>
<td>11,2</td>
<td>10,1</td>
</tr>
<tr>
<td>K3 - Material presents a consistent and balanced method of thinking or paradigm</td>
<td><strong>17,4</strong></td>
<td>8,8</td>
<td>12,5</td>
</tr>
<tr>
<td>K4 - Materials are arranged logically, regularly and coherently</td>
<td>14,8</td>
<td>3,8</td>
<td>9,4</td>
</tr>
<tr>
<td>K5 - Difficulty/depth of material according to under graduate program</td>
<td>14,0</td>
<td>14,3</td>
<td>14,1</td>
</tr>
<tr>
<td>K6 - Material helps analyze the interrelationship between reality and theory or between theory and discussed</td>
<td>15,0</td>
<td>6,6</td>
<td>15,4</td>
</tr>
<tr>
<td>K7 - Tests relevant to the material</td>
<td>13,9</td>
<td>22,7</td>
<td><strong>25,1</strong></td>
</tr>
</tbody>
</table>

*) Total criteria contribution in a chapter; **) Total contribution of a criterion

The criteria of a consistent and balanced method of thinking or paradigm contributed 17.4% to the first component, then the criteria of interconnection between theory or theory with practical (15.0%), four other criteria (contributing an average of 14%), and the smallest contribution of developmental suitability criteria (10.8%). The criteria of conformity with the development of science contribute the largest (32.6%) to the second component, then the task/test criteria (22.7%), the depth of competence (14.3%), the whole concept (11.2%). Criteria of task relevance/test contribute the largest (25.1%) to third dimension, four criteria (K1, K3, K5, and K6) contribute to an average of 14%, and two other criteria (K2 and K4) contribute to an average of nearly 10%.
Comparison of the role of the chapters (Table 1) to the dimension is represented by plot contribution in Figure 2. Each chapter contributes relatively equal to the first dimension, but differs to the second and third dimensions. The contribution of each chapter differs clearly to the second and third dimensions, i.e., between four chapters (M3-M4 and M6-M7) in contrast to the other five chapters. The most important chapter M8 determines the second dimension (along with M5) and the third dimension (along with M1).

In addition to inertia and dimension loading, the MFA also produces a score factor to explain the position of SIPM observations on the material quality dimensions. The scoring factors are presented as b-plots (in Figure 2) which project the position of each SIPM in two main dimensions of material viability, (a) SIPM positions in first and second dimensions, and (b) SIPM positions in the second and third dimensions.

The SIPM projection in plot (a) appears to separate SIPM positions 13 and 10. The material quality condition of these two SIPMs is in sharp contrast with the others. Projection of SIPM positions according to the second and third dimensions of the plot (b) separates SIPM number 9 and 13.
The Dimensions of SIPM Quality

SIPMs separated by the first dimension (Fig. 2-a) are generally SIPMs with low criteria scores. SIPMs 10 and 13 are located in far area because the scores of all the criteria are lower than the average of each criterion in each chapter. The SIPM positions in the first dimension explain the quality of the content of SIPM on all criteria.

The total contribution values of each chapter to this dimension are consistent (uniform) from chapter to chapter. The largest contribution of this dimension is given by the consistent and balanced method of presentation or thinking paradigm (Table 1). This criterion becomes the main criteria in assessing the consistency (and alignment) of SIPM on each subject. Consistency is not only on one or more of the subject matter of the chapters, but on the whole of SIPM.

Based on the individual position of SIPM and the role of the criteria, the first dimension is identified as content eligibility (and material coverage). This dimension relates to the validity of the content and its alignment, breadth and depth of matter, and the integrity of the concept (Malati, 2003). This dimension is consistent throughout the material which means that the SIPM with a high score is eligible to use and reliable for the achievement of the course competencies. In Figure 2 it is shown that SIPM is generally reliable for the achievement of subject competencies, except for SIPMs 10 and 13.

In Figure 2, the second dimension separates SIPM positions from SIPM having a high degree of conformity (K1 criterion). The position of SIPM number 13 indicates a high level of development but contrasts with other criteria conditions. This second dimension is identified as a level of material upgrades with other criteria depending on the subject matter in the chapter.

The third dimension separates the SIPM-SIPM from SIPM which has a high test/assignment criteria score (criteria K7). The position of SIPM number 9 and 13 indicates a high level of task effectiveness/ test but contrasts with other criteria conditions. This third dimension is identified as the effectiveness of the task/test with other criteria depending on the subject matter in the chapter.

Thus, the three main dimensions of SIPM material quality according to expert material judgments are the extent of content scope quality, level of updating, and level of task/test effectiveness. According to the criteria contribution, the first dimension (content and coverage quality level) of SIPMs is determined by the criteria of a consistent and balanced paradigm of thought in each chapter as well as between SIPM chapters. Unlike the first dimension, the second dimension (level of update) of SIPM material is different in each chapter and is generally contrasted with the content eligibility condition and the scope of the effectiveness of the task/test. Meanwhile, the third dimension (the level of task effectiveness/test) also varies in each chapter, as well as in contrast with the content eligibility condition and the scope of the material and the present condition.

Majority of reviewers opined that quality of content (content eligibility) was consistent due to links among topics and logically sequence. This indicate that the quality of content (or content eligibility) is at the same level over chapters. Freeman (2004) also described the indicators of quality of self-instructional material such as learners' needs, abilities, logical link and sequence. Further Holmberg (1995), pointed out the elements required for effective writing of material such as activities, feedback or assessment questions, writing style (narrative), easy language, attractive presentation and using daily life examples and illustrations. During this study researchers focused these aspects required for self-instructional material in distance learning system. Fortunately majority of respondents of this study opined that material was consonant with social demands.

As self-instructional material is indispensible in distance learning system and its quality can affect the learning of students (Sultana, 2016). It is established fact that all types of material either print, non print or self instructional are developed effectively on basis of clarity and relevance of the objectives. And objectives provide the standards and required criteria (Evans, Haughey, & Murphy, 2008). They also asserted that logical link of material makes the quality material and this material will enhance the learning of students.

Overall findings of this study will help the writers, course coordinators, reviewers and editors to make the self-instructional print material significant, accordance to recently development on sciences/technology, and effective self-assessment task/test. As the distant learners mostly rely on this material for their quality learning.
CONCLUSION

The main dimensions of the SIPM quality at UT’s Statistics Study Program are: the content eligibility, validity component, relevance component, and self-assessment/task effectiveness. The content eligibility of SIPM is equal from one topic to another on the entire SIPM. The most dominant criteria to determine SIPM quality is the presenting method or thinking paradigm which is consistence and balance. Meanwhile, the rate of conformity and test effectiveness varies in each chapter, as well as contrast to each other.

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A STUDY OF FACTORS RELATED TO NON-COMPLETION OF ONLINE TRAINING PROGRAMME

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Abstract

Due to rapid growth of technology in recent years, online learning and training have become popular in education and training sectors. Learners and trainers are encouraged to learn through e-content, synchronous & asynchronous interactions, online assessment, collaborative learning with peer groups at any time and any place. Indira Gandhi National Open University (IGNOU), India delivered an online training programme called Academic Counsellor Training Online (ACT-Online) for its academic counsellors who are engaged in tutoring and counselling process of distance education programmes. The ACT-online training programme is 90 hours professional development programme. The online training environment includes interaction between mentor and participants and participants to participants, individual and group activities, engagement through online discussion board collaboration and so on.

Since launch of the programme, more than 1560 participants registered for the online training programme. However, initially during first 3 years 722 participants could have been authenticated and activated for the training programme. It was noted that 456 participants have completed the programme successfully, whereas 266 have not completed the programme. The present researcher was curious to know the reasons or factors behind non-completion of the programme. So the main objective of the research study was to examine the factors that worked as barriers to online training for the academic counsellors. A questionnaire was developed, validated with the experts and administered to 266 participants who have not completed the programme. The paper discussed the factors evident from the study and provides recommendations which will be useful for those who plan online training.

Keywords: Online Training, Academic Counsellors, Barriers and Collaborative learning

1. BACKGROUND

Global development in open and distance education through institutional mechanism of single mode and dual-mode universities, corporate distance learning initiatives, consortia, and virtual universities got accentuated during the past decade; and today there is proliferation of converged and blended modes and strategies such that it is becoming difficult to demarcate the legitimate ones from the rest. While on the one hand the demarcation is blurred and on the other hand access and equity within the ODL is getting facilitated by tremendous developments in information and communication technology, one important dimension has come to the fore - the role of human resource development for quality assurance.

Training and continuing professional development of ODL functionaries are important for success of this system. All full time and part time functionaries including the academic counsellors have very significant roles to perform for the development of this system.

Generally, the open universities and distance learning institutes seek services of conventional teachers from universities, colleges, schools, and also personnel attached to the industries, health sectors, agriculture, defence, non-government organisations, and so on, for purposes of academic counselling. Obviously, they need orientation to the concept and theory and special training for practice of ODL.

Keeping this in view, a training programme entitled “Academic counsellors Training online (ACT-Online)” (www.ignouonline.ac.in/actonline) has been developed at IGNOU. It focuses upon the theory and practice of ODL and the use of Information and Communication Technology (ICT) in ODL for effective and qualitative student support services. The design and the contents of this programme cover various areas of ODL theory and practice, as well as the use of ICT, highlighting the need for capacity building in open
and distance education institutions across the country and overseas. In addition, the programme has been designed in such a way that any outside classroom and outside classroom contexts should find it very useful to improve the quality of instructional transaction, interaction, and engagement.

![Figure 1: ACT-Online Website](image)

Academic Counsellor's Training - Online (ACT-Online) programme is designed specifically for those who are engaged in or wish to be engaged in the tasks of providing tutoring/counselling and other technology-mediated support to the distance learners. The ACT-Online is grounded in both the theory and practice of ODL. Some of the important contents covered in this programme are: ODL concept, models, development, student support, tutoring and counselling, importance of assignment, evaluation of assignment, development of learning skills, support to the educationally disadvantaged students, use of new technologies for student support.

The ACT-online programme has 90 hours or three ‘credits’ workload. The minimum duration of the programme is 45 days and the maximum duration is 90 days. In order to fulfil the objectives of the programme, the curriculum has been designed and developed. The curriculum is divided into three parts, namely Part-A, B, and C. Part-A covers the basic knowledge of ICT for academic counsellors. Part-B provides the knowledge of Open Distance Learning (ODL) concepts, theories, tutoring, counselling, assessment and so on. Part-C engages with various activities, case studies, evaluation of assignments, and collecting feedback from students. The ACT-Online has been developed in fully online environment. The contents have been uploaded in the website which the participants can download and study in asynchronous mode. The contents are properly hyperlinked which includes text materials, PowerPoint presentations and video clips and a few others. The online training environment includes interaction, individual and team-based activities related to cognitive and psychomotor domain, online discussion board, and collaboration.

2. **REVIEW OF LITERATURE**

A study [4] demonstrated some variables and obstacles that influence the learners’ use of technology, such as computers and the Internet. The female participants claimed that they encountered some problems in using computers to teach English in class. The variables were of technical, physical, and administrative
nature, such as the unavailability of sufficient technical support, proficient training on how to use the computers purposefully, absence of facilities or equipment, and the lack of encouragement from their administration. Other factors reported by the participants were environmental, such as the lack of moral, physical, technical, and professional supports. Finally, the researcher also pointed out that the technical and professional skills that might affect and limit the students’ use of technology.

A group of researchers explored organisational barriers in small to medium enterprises (SMEs) and their adoption of e-learning [6]. The authors found that the level of sophistication of general information communication technology (ICT) used in the organisation was a predictor of the extent to which e-learning would be utilised. This finding indicates that organisations readiness is key to the adoption of e-learning and that unless an organisation is mature in its use of ICTs generally, e-learning is not likely to be used in the organisation.

Authors of a study [7] stated that if organisations planning the implementation of e-learning, they should address, (i) validity and usefulness of e-learning, (ii) provide opportunities to engage actively with the material, and potentially with other learners, (iii) implementation of a quality learning product that can then be experienced by the individual learners. By awareness of the potential barriers to e-learning implementation, organizations will be well placed to capitalise on the benefits technology can bring to the learning environment.

Three barriers that affected and limited the use of computer technologies in learning English were identified [12]. These barriers are skill, equipment, and motivation. Among these barriers, skill had the highest effect, whereas motivation showed the least effect. A mixed-method of study on the use of Computer Assisted Language Learning (CALL) in learning English was identified by the researchers [16]. The results revealed that valuable information on the barriers and obstacles to the use of CALL that affected the participants. The barriers include technical support, heavy workload, difficulties in the adaptation of using such technologies, the frequent breakdown of computers, their limited professional skills in using computers, and other barriers related to Internet access and connection.

Earlier authors of this study [9] noted lack of training as a barrier was one of the top three barriers of e-learning. Poor Internet access and networking in the university and lack of technical support, lack of instructional design support for e-learning, faculty workload, lack of institutional policy for e-learning, lack of role models and lack of professional prestige were important barriers to e-learning ([14], [10]).

3. OBJECTIVES

The main objective of the research study was to examine the factors that worked as barriers to online training for the academic counsellors.

4. METHODOLOGY

Since launch of the programme, more than 1560 participants registered for the online training programme. However, initially during first 3 years 722 participants could have been authenticated and activated for the training programme. 456 participants have completed the programme successfully. 266 participants who have not completed the training were considered as sample.

A questionnaire was developed to identify factors work as barriers to online training. This questionnaire administered to the participants who have not completed the online training programme. The content validation was done by same experts. Components in barriers towards online training are Time Management, Skill required to cope with online environment, Guidance from the instructor, and Personal problem. To achieve the objective of the present study, data were collected from the drop out participants of online training programme using a 16 item questionnaire. Out of 266 participants 200 responded to the questionnaire. The items in the questionnaire are listed below:
Table 1: list of Items in the Questionnaire Identified Barriers to Online Training

<table>
<thead>
<tr>
<th>Item no</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Change of occupation/ professional</td>
</tr>
<tr>
<td>2.</td>
<td>Not prepared for online training</td>
</tr>
<tr>
<td>3.</td>
<td>Cannot reasonably arrange learning time and tasks</td>
</tr>
<tr>
<td>4.</td>
<td>Lack of management skills</td>
</tr>
<tr>
<td>5.</td>
<td>Cannot adopt the collaborative learning</td>
</tr>
<tr>
<td>6.</td>
<td>Difficulties (online access ability and internet connectivity)</td>
</tr>
<tr>
<td>7.</td>
<td>Lack of guidance</td>
</tr>
<tr>
<td>8.</td>
<td>Unsatisfied with feedbacks of assignments</td>
</tr>
<tr>
<td>9.</td>
<td>Do not know who to turn to solve when problems arise</td>
</tr>
<tr>
<td>10.</td>
<td>Unable to obtain the necessary teaching information</td>
</tr>
<tr>
<td>11.</td>
<td>Course contents do not meet the learning needs</td>
</tr>
<tr>
<td>12.</td>
<td>Lack of practice</td>
</tr>
<tr>
<td>13.</td>
<td>Courses too difficult to carry on</td>
</tr>
<tr>
<td>14.</td>
<td>Too busy with family</td>
</tr>
<tr>
<td>15.</td>
<td>Too busy with work</td>
</tr>
<tr>
<td>16.</td>
<td>Fear of failure</td>
</tr>
</tbody>
</table>

5. RESULTS AND DISCUSSION

5.1 Factor Analysis

Factor analysis is a useful tool for investigating variable relationships for complex concepts such as socioeconomic status, dietary patterns, or psychological scales. It allows researchers to investigate concepts that are not easily measured directly by collapsing a large number of variables into a few interpretable underlying factors. The key concept of factor analysis is that multiple observed variables have similar patterns of responses with a common factor that is called a latent factor. For example, people may respond similarly to questions about income, education, and occupation, which are all associated with the latent variable socioeconomic status. In every factor analysis, there is the same number of factors as there are variables. Each factor captures a certain amount of the overall variance in the observed variables, and the factors are always listed in order of how much variation they explain. Exploratory factor analysis (EFA) is used in this study which identifies complex interrelationships among items and group items that are part of unified concepts. The researcher makes no "a priori" assumptions about relationships among factors.

5.2 Factors work as barriers to online training

Exploratory factor analysis with ordinal data of 200 cases was done using SPSS R-menu. The output of the analysis is given in the following tables. To determine the number of factors that explain the correlations among the set of variables, polychoric correlations were estimated by a two-step method. Due to the weak internal consistency, the items 1, 6, 10, 12, 14 and 15 (mentioned in the table 2) were removed and only 10 items were selected for factor analysis. The factor analysis of the data was preceded by reliability test. The value of the reliability coefficient (Cronbach's Alpha) for two scales are 0.85 and 0.58 which indicates high internal consistency.

The correlation matrix used for simulations of parallel analysis was also the polychoric one estimated by a quick two-step method. To perform a parallel analysis it is necessary to simulate random correlation matrices with the same number of variables and cases of the actual data. The number of factors to retain according to different rules is displayed in following table 2.
The factor analysis and the mean of their eigenvalues is computed and compared to the eigenvalues produced by the actual data. The criterion for factor extraction is where the eigenvalues generated by random data exceed the eigenvalues produced by the actual data. The data distribution and a principal component analysis were performed to each permutation with the 95th percentile for each set of eigenvalues computed and compared to the eigenvalues produced by the actual data.

An orthogonal rotation of the factors, varimax rotation, was also performed for factor rotation. One of the goals of factor analysis is to balance the percentage of variation explained with the limitation of the number of factors to extract. In this analysis two factors account for 66.08% of the variance in all the variables. The following table 3 shows the cumulative % of variance extracted from the analysis.

Table 3: Variance Explained (extracted)

<table>
<thead>
<tr>
<th></th>
<th>Sums of Squared Loadings</th>
<th>% of Variance</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4.529</td>
<td>45.287</td>
<td>45.287</td>
</tr>
<tr>
<td>2</td>
<td>2.079</td>
<td>20.792</td>
<td>66.079</td>
</tr>
</tbody>
</table>

The loadings obtained on each variable after rotation is displayed in table 4. These loadings are helpful in resolving the structure underlying the variables. Loadings lower than 0.5 were omitted.

Table 4: Sorted Rotated Factor Loadings

<table>
<thead>
<tr>
<th></th>
<th>F1</th>
<th></th>
<th>F2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Standardized Cronbach alpha</td>
<td>.850</td>
<td></td>
<td>.582</td>
<td></td>
</tr>
<tr>
<td>V2</td>
<td>.804</td>
<td></td>
<td>.170</td>
<td></td>
</tr>
<tr>
<td>V3</td>
<td>.836</td>
<td></td>
<td>.181</td>
<td></td>
</tr>
<tr>
<td>V4</td>
<td>.713</td>
<td></td>
<td>-.138</td>
<td></td>
</tr>
<tr>
<td>V5</td>
<td>.631</td>
<td></td>
<td>.044</td>
<td></td>
</tr>
<tr>
<td>V11</td>
<td>.651</td>
<td></td>
<td>.258</td>
<td></td>
</tr>
<tr>
<td>V13</td>
<td>.655</td>
<td></td>
<td>.156</td>
<td></td>
</tr>
<tr>
<td>V16</td>
<td>.564</td>
<td></td>
<td>-.024</td>
<td></td>
</tr>
<tr>
<td>V8</td>
<td>.310</td>
<td></td>
<td>.702</td>
<td></td>
</tr>
<tr>
<td>V7</td>
<td>.073</td>
<td></td>
<td>.665</td>
<td></td>
</tr>
<tr>
<td>V9</td>
<td>-.115</td>
<td></td>
<td>.536</td>
<td></td>
</tr>
</tbody>
</table>

To have a better idea which variables load on each factor, a factor diagram is displayed in figure 2. Each item is assigned to the factor with the higher loading. In table 4, the two coefficients displayed show the good reliability of the two factors. Finally, two factors were associated as barrier towards online training.
In table 5, the two coefficients displayed show the good reliability of the two factors. Finally, two factors were worked as barriers towards online training.

Two factors and its variables with loadings are displayed in the following table 5. The two factors are named as factor 1: personal and factor 2: Organisational.

Table 5: Factors and its Loadings

<table>
<thead>
<tr>
<th>Factor 1: personal</th>
<th>Factor 2: Organisational</th>
<th>Factor loadings</th>
<th>Factor loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not prepared for online training</td>
<td>Unsatisfied with feedback of assignments</td>
<td>.804</td>
<td>.702</td>
</tr>
<tr>
<td>Cannot reasonably arrange learning time and tasks</td>
<td>Lack of guidance</td>
<td>.836</td>
<td>.665</td>
</tr>
<tr>
<td>Lack of management skills</td>
<td>Do not know who to turn to solve when problems arise</td>
<td>.713</td>
<td>.536</td>
</tr>
<tr>
<td>Cannot adopt the collaborative learning</td>
<td>-----</td>
<td>.631</td>
<td>-----</td>
</tr>
<tr>
<td>Course contents do not meet the learning needs</td>
<td>-----</td>
<td>.651</td>
<td>-----</td>
</tr>
<tr>
<td>Courses too difficult to carry on</td>
<td>-----</td>
<td>.655</td>
<td>-----</td>
</tr>
<tr>
<td>Fear of failure</td>
<td>-----</td>
<td>.564</td>
<td>-----</td>
</tr>
</tbody>
</table>
Factor 1: Personal

In factor 1, 7 variables have shown higher loadings. All the variables indicate personal barrier, as expressed by the respondents. So we can name the factor as ‘Personal’. The respondents expressed that they have not prepared for online training, cannot reasonably arrange learning time and tasks, Lack of management skills, cannot adopt the collaborative learning, course contents do not meet the learning needs, and courses too difficult to carry on. They also feel that they have fear of failure as e-learning is new to them.

Factor 2: Organisational

In factor 2, only 3 variables have shown higher loading. The variables indicate barriers towards organisation. The respondents expressed that they have unsatisfied with feedback of assignments received, lack of guidance and they do not know who to turn to solve when problems arise.

6. BARRIERS TO ONLINE TRAINING

Barriers towards successful and efficient adoption of technology seem to comprise internal and external sources [11]. Internal sources are related to the faculty member attitudes toward technology and their actual competency level of the emerging technologies. On the other hand, external sources include: the inaccessibility and unavailability of the needed software and hardware, the lack of associated technical and institutional support, and finally the lack of time and funding across internal and external sources. Many researchers identified number of factors associated as barriers to online learning. The result of our study also revealed two major factors named as personal and organisational barriers to online training.

So far the personal barriers are concerned, the respondents expressed that they were not prepared for online training. Continuous training, motivation and reinforcement will facilitate them to overcome barriers to participate online learning. Personal interest can be reinforced by making provisions for functional infrastructure, continuous training followed by definite provisions for implementation towards course development and learner support, and intellectually challenging online learning design [10].

An important variable in the personal factor is lack of time management. Many of the previous studies revealed lack of time is one of the important barriers to online learning ([4], [5], [15], [2], [13]).

The participants expressed fear of failure as e-learning is new environment for learning and integration of collaborative learning and online course contents too difficult to carry on. Continuous training and motivation will remove the fear as the participants experienced online learning for the first time.

So far the organizational barriers are concerned, the respondents expressed that they were not fully satisfied with feedback of assignments from the instructors. This revealed that the instructors of e-learning/online training need continuous training to perform in an online environment. Due to workload of the instructors, guidance and providing feedback to the participants may be getting delayed. Previous research studies identified workload as one of the barriers to online learning ([1], [7], [3], [8]).

7. CONCLUSION

Summarizing participants’ apprehension towards online learning, personal and organizational barriers were reported as areas that cause barriers in online training. Collaboration and interaction are major barriers to participate an online training. Motivation and instructor-participants interaction are two important aspects need to strengthen to overcome the personal barrier. If participants motivated themselves, it is possible to overcome their lack of time management. Participants did not mentioned technology as barrier rather they have concerned about feedback of assignments received from the instructor and also guidance from the instructor. As far as the online environment is concern, it facilitates to reach the participants fast for their learning. Organization should take of fast feedback mechanism to overcome the barriers to reduce the non completion rate in the online training.

REFERENCES


Understanding plausible variables affecting student persistence in open distance learning (ODL) outlooks were explored in this report. It was aimed at exposing associated factors and their attributes, how and in what routines they interrelated as remarked by Universitas Terbuka overseas students. The study was accomplished under mixed-methods: exploratory-design. It was qualitatively identified first that six variables involved: persistence; epistemological and technological; situational, institutional and dispositional factors. They were quantitatively categorized as the dependent, moderating and independent variables respectively. Instruments in unified list of queries for review and focus-group discussion (for qualitative) and questionnaires related to the six variables involved (for quantitative) were developed. Ultimate of qualitative approach was aimed at establishing research framework and the hypotheses. Questionnaires were developed to mobilize data by elaborating variables engaged into 24 dimensions with 72 statements (Likert Scale, 1-5). Simple random sampling technique was chosen by distributing 750 questionnaires to 1,976 students registered in 2016. Three hundred six of them were completed and then processed. Data were processed using structural equation model (SEM) to validate 12 established hypotheses and ten of them were statistically validated. The results confirmed that the most prominent influence to persistence was technological factor followed by institutional and situational. Epistemological was mainly influenced by dispositional followed by situational and institutional. Correspondingly, technological was affected by institutional followed by dispositional and situational; technological was also affected by epistemological. Variably, persistence were insignificantly affected by both epistemological and dispositional. Further detailed review is required searching for motives underpinning the divergent corollaries.

Keywords: ODL, persistence, technological influence, exploratory-design, SEM

5 RATIONAL BACKGROUND

In their previous reports Sembiring (2013), Sawitri and Sembiring (2013) and Haliman, Susanty and Sembiring (2014) reviewed persistence with respect to Universitas Terbuka students in Indonesia during 2012–2014. Prior to these reports, investigation on persistence in broader sense to various attitudes had also been completed to understand associated factors relatable to persistence which might be encouraged as impediments (Brindley, 1988; Becher, 1989; Garland, 1993; Fernandez, 2008; and
Sembiring, 2008). They have made studies and then considered situational, institutional, dispositional and epistemological barriers as number of plausible impacts related to persistence. Newly, technological control was also included as an influential factor to persistence particularly in Universitas Terbuka within the frame of an open distance learning (ODL) outlooks (Sembiring, 2015; Ibrahim, Sembiring & Sapriati, 2016).

Despite many institutions had tried toward goals of achieving higher completion rate (Brindley, 1995), it was reasonable to say that most of them were still losing students than they would like to. It remains as the fact that persistence is still a central issue in ODL environment. This implies that with the growth of ODL came the problem of exceedingly high attrition rates (Parker, 2003).

To date, Universitas Terbuka has 40 regional offices all over Indonesia to serve 297,897 students worldwide; 1,976 of them were resided overseas (Universitas Terbuka, 2017). Regional Office for Overseas Students had been established to manage students scattered out in 34 countries with 51 city for exams. In terms of achievement, having 1,976 students in 2016 was certainly blameless since within these four years back there was always slight improvement in student body. Nonetheless, it was still below the initial target; 3,000 students for 2016 academic year. There are several motives why the target were not achieved yet. One of them is related to the question of persistence especially within ODL framework.

It was then fascinating to explore what was the reasons for overseas students to persist in Universitas Terbuka milieu. The main objective of the study was therefore to understand and discover associated plausible factors as the significant influences and they were affecting persistence, including with their associated characteristics. It was also of interests to visualize on how they are all interrelated one another and in what behavior.

6 RESERACH DESIGN AND METHODOLOGY
Regional Office for Overseas Students manages student registered twice per year limited to six out of 34 programs in bachelor degree for simplicity reasons. In 2016 for instance, there were 1,976 registered students; they were the population of this study. Exploratory design, as part of mixed methods, was utilized where qualitative procedure implemented first then sequentially followed by the quantitative. Instruments in the form of unified list of queries and questionnaires were developed with respect to the six variables involved as inspired by Tjiptono and Fandi (2011). The lists of queries were established for qualitative purpose with intent to construct the conceptual and operational frameworks through review, interview and/or focus-group discussion sessions. Four recognized experts as resource persons for qualitative approach were purposely chosen; and eligible respondents for quantitative approach to acquiring data were randomly selected as suggested by Cochran (1977) and Sugiyono (2012). The ultimate of the frameworks lead to establishing the hypotheses and statistically scrutinized afterwards.

The questionnaires as continuance of and relatable to the qualitative frame were distributed (750 sets) to gather data from respondents; 1,976 students domiciled overseas. Survey was conducted by following Fowler (2014). Three hundred six of distributed questionnaires were completely returned and finally processed. SEM was then utilized to scrutinize and analyze obtained data in conjunction with discovering the power of relations among variables and dimensions engaged (Hair, Black, Babin & Anderson, 2009; Sugiyono, 2012). The results were arranged in figures and tables completed under Lisrel version 8.80 (Wijayanto, 2008).
Here, the Tinto’s and Bean & Metz’s Model initiated by Tinto (1975) and elaborated by Bean and Metzner (1985) were considered as theoretical groundwork establishing the frame. Study of persistence in ODL setting was seen as important aspect. Rovai (2003) pointed out there was no simple formula to understand persistence for it was complicated response to multiple factors and being unique to most of adult learners. It was not plausible to attribute attrition to any single factor. There were numerous factors mixed up all together, including interactions amongst related factors engaged. This eventually leads to the preposition that understanding factors influencing persistence, specifically at the regional level of the Universitas Terbuka, becomes crucially crucial.

7 Conceptual and Operational Frameworks

Study on persistence at an earlier stage integrated an input-process-output perspectives as the initial frame. Talent development frame was familiarized and student involvement in higher education resulted in the development of certain talent inherent to student and system (Astin, 1970). There was a focus on establishing foundation for further studies on variables affecting persistence. It was suggested that when students become totally involved, level and intensity of their involvement in institutional milieu will affect eagerness to persist in program they involved. Later, involvement theory was introduced where students learn by becoming really involved and learning is therefore actual reason to persist.

Various theoretical models of persistence had emerged and they were perceived based on psychological paradigms. Determinants of successful persistence can be broken down into experiences: (i) prior to entering university along with individual traits and (ii) during in university; there were several details highly relevant on this experiences. Dropout decision was affected by goal and institutional commitment. Goal and institutional commitment were influenced by family background, individual attributes and pre-university education. Goal commitment shapes academic integration in performance and intellectual development. Institutional commitment inspires social integration in peer and faculty interaction. Performance and intellectual development were connected with peer and faculty interaction.

Based upon those foundations, they were developed into student attrition model. The model illustrated intent to persist (dependent variable) was affected by five independent factors (Rovai, 2003). Those factors consisted of education, background and defining elements, environmental and academic/psychological outcomes. Attributes of academic factor consisted study habit, advising, absenteeism, course availability, and program fit. Background and defining factors comprised age, residence status, educational goal, ethnicity and previous grade point average (GPA). Environmental factor involved finance, employment, family responsibility, outside encouragement and opportunity to transfer. Academic outcome enclosed current GPA. Psychological outcomes included utility, stress, satisfaction, goal and an institutional commitment; these elaborative notions were harmoniously comparable to Roberts and Styron, Jr. (2009).

Garland (1993) clarified that persistence was affected by major points. They were described as situational, institutional, dispositional and epistemological barriers. Situational impediment reduces from person life situation. Institutional obstacle involved administrative and certain academic services. Dispositional hindrance was related to the psychological and social natures. Likewise, epistemological constraint was interrelated with difficulty level of subject matter. These four main controls were
considered to be having effects on persistence. They were categorically relevant to Universitas Terbuka outlooks in Indonesia (Sembiring, 2008).

To illustrate in a more clearly way, variables involved and the dimensions attached will be comprehensively described further. Conceptually, inspired by Bean (2001), student intent to persist was defined as student actively enrolls each semester until the graduation; and they graduated on time. It was operationally referred to as student engaged regularly in registration, tutorials activities, exams and auxiliary activities that support their academic achievement through various study group activities. Conceptually, instigated by Reyes-Rueda (2011), personal or situational variable was student environmental factors that potentially affect their behavior to continue the study. Here, it was operationally illustrated as various aspects that might interfere student success, especially in coping with barriers on environment, time, finance and information technology issues. Correspondingly, dispositional in the conceptual stage was described as an internal factor which might influence their behavior in terms of intelligence or agility. It was operationally justified as ability to recognize knowledge on goals, multiple roles, learning styles and specific psychological aspect, adult pride.

Institutional characteristic, as indicated by Rovai (2003), was conceptually defined as kind of services given to students soon after an admission. Operationally, scheduling procedures, instructional design issues and related institutional assistance were defined as the institutional impacts or barriers. In the conceptual framework, epistemological was defined as reflection of congruence between student cognitive, affective characteristics and the nature of the knowledge presented in the subject matter (Garland, 1993). For operational needs, portions on academic content, the gap on the know-how, individual interest and prerequisite interfere student accomplishment were articulated as epistemological attributes.

<table>
<thead>
<tr>
<th>No</th>
<th>Variables</th>
<th>Dimensions</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Persistence (Y)</td>
<td>Re-registration (Y1), Tutoring activities (Y2), Examination (Y3), Participation in study group (Y4)</td>
<td>Six main variables: Y, X1, X2, X3, X4, X5 are the dependent, independent and moderating variables</td>
</tr>
<tr>
<td>2</td>
<td>Situational (X2)</td>
<td>Student environment (X11), roles (X12), Financial support (X13), General study skills (X14)</td>
<td>Each variable has four dimensions and each dimension is measured by three questions; Likert Scale (1 to 5). Total questions: 72</td>
</tr>
<tr>
<td>3</td>
<td>Institutional (X2)</td>
<td>Institutional procedures (X21), Schedule (X22), Instructional design problems (X23), Academic and non-academic counselling (X24)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Dispositional (X3)</td>
<td>Personal goal (X31), Multiple roles (X32), learning style (X33), Adult pride (X34)</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Epistemological (X4)</td>
<td>Content-wise (X41), Prerequisite knowledge (X42), personal interest (X43), Expectancy gap (X44)</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Technological (X5)</td>
<td>Availability (X51), Accessibility (X52), Affordability (X53), Comfortableness (X54)</td>
<td></td>
</tr>
</tbody>
</table>

In the conceptual level, technological factor was defined as a prerequisite being able to enter and accommodate ODL delivery mode (Sembiring, 2016). Anyone who is involved in ODL mode ought to recognize this requirement. In operational sense, technological influences in relations to persistence in ODL ambiance was associated with availability, accessibility, affordability and comfortableness connotation. Now, ODL and technology can no longer be separated, they were an integrated entity in the era of ICT.
Having described all related theoretical groundworks and then defined them in the conceptual and operational levels, they are simply summarized as exhibited in Table 1.

Having determined variables, dimension and related conceptual and operational definitions, the qualitative approach comes to the proposition in the configuration of unified hypotheses. They are systematically illustrated in Figure 1; denoted as the initial operational framework. This framework will be statistically scrutinized under SEM afterwards, with respect to the results of hypotheses testing and loading factors analysis to deduce quantitative upshot as a part of quantitative procedure.

Figure 1 obviously highlighted 12 hypotheses involved, consisting of five primary and seven secondary hypotheses. The primary hypotheses: students persistence (Y) is directly and positively affected by situational (H1), epistemological (H2), institutional (H3), technological (H4) and dispositional (H5) influences. The secondary hypotheses: epistemological (X4) is affected by situational (H6), institutional (H8) and dispositional (H10); besides, technological (X5) is affected by situational (H7), institutional (H9) and dispositional (H11); technological (X5) is also affected by epistemological (H12).

Next, we come to the implementation and will be elaborated further by conforming the quantitative result to the associated argument and furthermore compared them to qualitative framework established earlier.

8 IMPLEMENTATION, RESULTS AND DISCUSSIONS

Before conforming the end results, it is informative to first illustrate the characteristics of students returning questionnaires as eligible respondents (Table 2). The study was conducted at the Regional Office for Overseas Students jurisdiction. Population was 1,976 students enrolled in 2016.

They were mostly living in Hong Kong, Malaysia, Singapore, South Korea and Taiwan. They were registered at least a semester beforehand so they have had experiences on the program they involved.
in. This is to provide better perspective on the context of the study before discussing results and inferring the remarks.

Essentially, respondents have full time job; implied they were not full time students. Besides, more than 90% of them already had at least two consecutive semester experiences; implied they were familiar with the system. About 58% of them were 25 to 34 year of age; implied less than 30% were in the age of regular students. In other words, most of them can be categorized as adult learners, non-full time students and therefore sensitively retained adult pride senses in the context of dispositional influences.

Table 2: Respondents Characteristics

<table>
<thead>
<tr>
<th>Study Group</th>
<th>Hong Kong: 22</th>
<th>Taiwan: 21</th>
<th>South Korea: 26</th>
<th>Malaysia: 18</th>
<th>Singapore: 14</th>
<th>Others: 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study Group</td>
<td>Middle East: 0</td>
<td>Europe: 0</td>
<td>USA: 0</td>
<td>Australia: 0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Study Program</td>
<td>English: 37%</td>
<td>Management: 30%</td>
<td>Communication: 23%</td>
<td>Business: 9%</td>
<td>Others: 1%</td>
<td></td>
</tr>
<tr>
<td>Semester</td>
<td>1 = 8%</td>
<td>2 = 39%</td>
<td>3 = 22%</td>
<td>4 = 25%</td>
<td>5* = 6%</td>
<td></td>
</tr>
<tr>
<td>Profession</td>
<td>Public: 1%</td>
<td>Private: 3%</td>
<td>Industry: 24%</td>
<td>Informal: 64%</td>
<td>Others: 8%</td>
<td></td>
</tr>
<tr>
<td>GPA (%)</td>
<td>0.00-1.99: 11</td>
<td>2.00-2.49: 46</td>
<td>2.50-2.99: 31</td>
<td>3.00-3.49: 8</td>
<td>3.50-400: 4</td>
<td></td>
</tr>
<tr>
<td>Age (Year)</td>
<td>19-24: 29%</td>
<td>25-29: 38%</td>
<td>30-34: 20%</td>
<td>35-39: 9%</td>
<td>≥ 40: 4%</td>
<td></td>
</tr>
<tr>
<td>Gender (%)</td>
<td>Female: 69%</td>
<td>Male: 31%</td>
<td>Status (%)</td>
<td>Married: 42</td>
<td>Unmarried: 58</td>
<td></td>
</tr>
</tbody>
</table>

Now move to the SEM outputs consisting of the results on hypotheses and the loading factors of the framework. They are described in the following details, including in the related figure and table (Figure 2 and Table 3).
Figure 2 explicated that ten out of 12 hypotheses were directly and positively validated by the analysis. They are: (1) situational to persistence (H1=3.14), (2) institutional to persistence (H3=4.43), (3) technological to persistence (H4=7.18), (4) situational to epistemological (H6=24.86), (5) institutional to epistemological (H8=18.19), (6) dispositional to epistemological (H10=31.35), (7) situational to technological (H7=14.16), (8) institutional to technological (H9=21.32), (9) dispositional to technological (H11=14.07) and (10) epistemological to technological (H12=7.13); as the tvalue ≥ 1.96 (for α=5%). This implied that two hypotheses epistemological to persistence (H2=1.62) and dispositional to persistence (H5=1.34) were not significantly validated by the analysis; as the tvalue ≤ 1.96 (for α=5%).

After looking at hypotheses, the next output was on the method of estimated model to discern the loading factors measurement of the initial operational framework (refer back to Figure 1). This result should be revealed to perceive conformation on the level of influential powers amongst variables and dimensions engaged as well as their behaviors. If we noticed on the output of statistical processes, illustrated in Figure 2, at least there were five essential remarks need to be carefully particularized prior to deducing final remarks.

First, three of main variables positively and directly affected persistence. They are orderly as follows: (1) technological (X4=0.53), (2) institutional (X2=0.43) and (3) situational (X1=0.11) factors. These upshots was partly supported by Garland (1993) and Sembiring (2008 & 2015) particularly on the technological, institutional and situational controls. This specific output provokes us to believe that barriers to persistence in ODL to certain extent can be controlled. How we can control them? By providing various support services with the help of appropriate technological support. Given services provided are institutionally dependable in one hand and most of students are personally well-prepared with ODL mode on the other hands then technological influences might effectively control barriers on epistemological and dispositional in the frame of ODL. This is great evidence for stakeholders to reflect on. High completion and low dropout rates are optimistically no longer stay as big problems for they can be appropriately mediated by technological controls in harmony with ODL outlooks.

Second, on the influencing dimensions represent technological factor. They were found and ordered as follows: (1) confortable (X54=0.93), (2) affordable (X53=0.91), (3) accessible (X52=0.90) and (4) available (X51=0.84). These four dimensions were absolutely pertinent to dealing with technological provision that support persistence positively. On the influencing dimensions represent institutional, they were found and ordered as follows: (1) schedule (X21=0.84), (2) instructional design problems (X23=0.81), (3) institutional procedures (X21=0.79) and (4) counseling services (X24=0.70). These four dimension were crucial factors should be cautiously provided and maintained by the University with respect to persistence. On the influencing dimensions represent situational, they were found and ordered as follows: (1) time management (X12=0.91), (2) personal milieu (X12=0.84), (3) related financial support (X13=0.82) and (4) IT skills (X14=0.76). These implied that students should be repeatedly cautioned they must literate and being alert on technological advancement especially related to their educational needs. Additionally, they should be able to effectively manage their own time as they were having multiple roles and also adult learners with intrinsic adult pride.
Third, despite epistemological and dispositional were statistically excluded, students placed influencing dimensions represent epistemological orderly as follows: (1) personal interest within the program \(X_{41}=0.79\), (2) substantial expectancy gap \(X_{44}=0.77\), (3) the content of subject matter \(X_{41}=0.71\) and (4) prerequisite knowledge of the subject \(X_{42}=0.67\). Correspondingly, students positioned influencing dimensions represent dispositional orderly as follows: (1) multiple roles \(X_{32}=0.78\), (2) adult pride \(X_{34}=0.72\), (3) individual learning style \(X_{33}=0.70\) and (4) personal goal \(X_{31}=0.67\). This positive evident was quite relevant to Sembiring (2016). To some extends, this effect can be explained as the respondents (Table 2) were domiciled overseas (Hong Kong, Singapore, South Korea, Taiwan and Malaysia) in the country where ICT facilities are advanced compared to common condition of most students within the country.

So, the epistemological and dispositional barriers seem to be substituted by technological, institutional and situational (personal) factors for overseas students. These implied that epistemological and dispositional influences were real and exists. Now, it might no longer be problems on condition students were able to manage their time productively and the University at the same time is able to reassure associated services needed by students were technologically friendly, affordable, accessible and available at all level of services.

Fourth, it was proper to observe details of relations of independent and moderating variables related to and the rank of each variable engaged with respect to persistence as dependent variable. Epistemological \(X_4\) was respectively influenced by dispositional \(X_3=0.42\), situational \(X_1=0.33\) and institutional \(X_2=0.21\) factors. Serially, technological \(X_5\) was also influenced orderly by institutional \(X_3=0.31\), dispositional \(X_2=0.26\) and situational \(X_1=0.18\). Two essential aspects need to be explained further. First, despite persistence was insignificantly affected by dispositional but to certain extent it was affected indirectly through moderating variable (technological factor). Second, conversely, persistence was not affected both directly and/or indirectly by dispositional and epistemological factors simultaneously. It entails that statistically there were insignificant relations on dispositional and epistemological to persistence despite epistemological was affected by dispositional and technological was influenced by epistemological.

This result was quite anomalous as most previous comparable study conducted in Universitas Terbuka context with similar framework but different respondents tend to show persistence influenced by dispositional and epistemological, either directly or indirectly (Sembiring 2008; Sawitri & Sembiring, 2013; Haliman et al., 2013). It needs further inquiry prudently implemented to find reasons how and why this quantitative upshot conversely resulted compared to the previous equivalent studies including to the established qualitative framework of this study.

Fifth, it was conclusively enlightening to disclose rank of dimensions on dependent variable, i.e., persistence \(Y\). In operational framework, it was initially defined that persistence was characterized by students doing reregistration processes regularly, active participation in the tutoring services, attending exam with intent and fully getting involved in study group activities. Students empirically identified the most critical dimension related to persistence was active participation in the tutorial programs \(Y_2=0.86\). The other identified dimensions were successively involvement in study group \(Y_4=0.78\), attending exams enthusiastically \(Y_3=0.75\) and doing reregistration consistently \(Y_1=0.68\). Keywords on
persistence behold by most overseas students was active participation both in tutorial and study group activities.

The study group activities were not always relatable to academic activities although it has implicit effect to their spirit to accomplish study on schedule. It might involve non-academic activities mostly in the social context. Meeting with friends coming from similar cultural background and having social engagement after being highly committed to their full time job, out of the country and being separated far away from home and family for some times.

It appears that this kind of spirits were pertinent in relations to persistence perceived from respondents characteristics (Table 2) to complement the tutorial activities. Tutorial activities are also referred to as face to face (classroom tutorials) supplemented to the online tutorials. In other words, even technological factor might positively be mending academic gap but face to face interaction is still considered to be pertinent as compared to the technological influences. This is a part of social needs as socially human being at the same time.

Now, we consult to the goodness of fit of the tested framework viewed from statistical angle. This is vital to recognize whether or not the framework were reliable to be applied as a point of reference to inferentially deduce final remarks; refer to Table 3. The values were all providentially dependable as they were greater than that of standard error of measurements and the RMSEA was less than required cut-off value.

If we notice the Notes in Table 3, it implied the statistical output is methodologically reliable to be used as proper consequences.

<table>
<thead>
<tr>
<th>Goodness of Fit</th>
<th>Cut-off Values</th>
<th>Results</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>RMR</td>
<td>≤ 0.05 or ≤ 0.1</td>
<td>0.088</td>
<td>Good Fit</td>
</tr>
<tr>
<td>RMSEA</td>
<td>≤ 0.08</td>
<td>0.077</td>
<td>Good Fit</td>
</tr>
<tr>
<td>GFI</td>
<td>≥ 0.90</td>
<td>0.950</td>
<td>Good Fit</td>
</tr>
<tr>
<td>AGFI</td>
<td>≥ 0.90</td>
<td>0.940</td>
<td>Good Fit</td>
</tr>
<tr>
<td>CFI</td>
<td>≥ 0.90</td>
<td>0.950</td>
<td>Good Fit</td>
</tr>
<tr>
<td>NFI</td>
<td>≥ 0.90</td>
<td>0.930</td>
<td>Good Fit</td>
</tr>
<tr>
<td>NNFI</td>
<td>≥ 0.90</td>
<td>0.980</td>
<td>Good Fit</td>
</tr>
<tr>
<td>IFI</td>
<td>≥ 0.90</td>
<td>0.960</td>
<td>Good Fit</td>
</tr>
<tr>
<td>RFI</td>
<td>≥ 0.90</td>
<td>0.950</td>
<td>Good Fit</td>
</tr>
</tbody>
</table>

This also entailed that from methodological direction, referring to the qualitative results previously obtained, the tested framework was just about perfectly approved by the quantitative end despite the two influences (epistemological and dispositional) were statistically excluded by the analysis.

9 CONCLUDING REMARKS
Perceptually, Universitas Terbuka overseas students regarded technological, institutional and situational influences as three viable obstructions respectively to persistence. This outcome was validated by
apprising observed survey of 306 students in 2016 academic year mainly domiciled in Hong Kong, Singapore, Malaysia, South Korea and Taiwan (Table 2). Partly, this result is comparable with the effects implied by Parker (2003) and Ojokheta (2010). Surprisingly, epistemological and dispositional factors were excluded as two main influences to persistence. Further enquiry needs to be carried out to uncover plausible substantial motives how and why the different ending contrariwise was transpired. This is crucial as several prior finding suggested content-wise (dimension of epistemological) and multiple roles (dimension of dispositional) had direct effects to persistence.

This finding however can still be used to measure outcomes of those decisions in aggregate. Faculty and management are under increasing pressure to demonstrate direct evidence of student learning and the impact of their interactions within the frame of persistence. While every element of the University is focused on student side, there are particular divisions or group of staff with initiatives rely on and contribute to the theory and practice of persistence. Correspondingly, it is crucial for the University to externally gear up existing and prospective students to apprehend these outcomes. Internally, the management shall get ready for relevant support mechanism to avoid non-persistence students in the future.

Lastly, further inquest on persistence is obviously required to be implemented on a regular base with appropriate improvement both in the theoretical and operational framework as well as in methodological quality. This is to adopt possible shifts in student need and aspiration to ensure higher education is open to all through flexible quality education is empirically occurred; as this is the tagline of the University (Universitas Terbuka, 2014). This dream was also previously prompted by Austin (1985) and Bean (2001).

ACKNOWLEDGEMENT

I would like to express my great gratitude to all the 39 Directors of Universitas Terbuka Regional Offices throughout Indonesia for their sincere supports to make this paper is finally accomplished.

REFERENCES


INNOVATIVE ASSIGNMENT RUBRICS FOR ODL COURSES: DESIGN, IMPLEMENTATION AND IMPACT

Rames Mariapan

1Open University Malaysia (MALAYSIA)

Abstract

Assignments are generally used to evaluate learner’s learning and skill acquisition at a certain instructional period of a course. The usage of rubrics which is a tool or guide listing specific criteria for grading in assignments has been helpful for the academic members to assess learners' assignments in an objective, efficient and consistent manner. In open and distance learning (ODL) institutions, the assignments go through a few stages with the involvement of various stakeholders starting from the development of the assignments by the subject-matter experts, the moderation of the assignments by the moderators, discussion of the assignments to the learners facilitated by classroom and online tutors, writing and submission of the assignments by the learners and marking of the assignments by the graders. As such it is pertinent that the various assignment stakeholders involved in these stages have a common understanding of the learning target and consistent expectation of what the final outcome or performance should be, based on the assignment rubrics. This is furthermore important for ODL courses, whereby learners who have limited classroom interactions or learners who do self-managed learning can solely rely on the rubrics to get a clear picture of what is expected from their assignment. Thus merely using rubrics as a scoring or a grading tool is a reflection of an undervalued teaching tool. The purpose of this paper is to emphasize that innovative assignment rubrics specifically designed for ODL courses have the potential to be a one-stop platform that connects all the assessment stakeholders. Providing exploratory details of the causal need, purpose, design and implementation of the rubrics, the paper presents the impact of usage of such innovative rubrics which helped to minimize various interpretations and confusing expectations of the assignment outcome.

Keywords: Assessment, Self-Managed Learning, Assignment Rubrics

10 INTRODUCTION

Assessment is the process of measuring and evaluating a learner’s academic achievement for a particular course through continuous assessments and examination [1]. Assessment has always been an integral part of the learning process regardless whether it is traditional and conventional learning or open and distance learning (ODL). Most of the ODL institutions have a combination of formative evaluation via written assignments and summative evaluation via term-end examination [2]. Formative assessment or evaluation in the form of written assignments or essay represents a very flexible test format for assessing ODL learners and enables the stakeholders to monitor whether outcome-oriented or outcome-based learning took place [2] [3]. Four main features of formative assessment that facilitates these are embedment of assessment activities within teaching and learning processes; diversity of ongoing and authentic assessment conduct; ongoing formative feedback; and clarity of expected outcomes through the assessment rubrics [4]. By simple definition, assessment rubrics comprise a set of criteria and weightings used for grading [5]. A common definition of rubrics would be a document that articulates the expectations for an assignment by listing the criteria or what counts and
describing levels of quality from excellent to poor [6]. There are two general methods for rubrics design, which are holistic scoring rubrics and analytic scoring rubrics. Holistic scoring rubrics rate or score the product or process as a whole without scoring parts or components separately, whereas analytic scoring rubrics rate or score separate parts or characteristics of the product or process first, and then sum up these part scores to obtain a total score [7]. Much has been written on the needs of rubrics for ODL assignment and research has indicated that highest percentage of students strongly agreed that clear guidelines for course assignments and rubrics are important in contributing to their learning satisfaction [8]. Other than saving time taken for grading and providing meaningful feedback, rubrics if used properly, can promote better learning discussion experiences and encourage learners to fulfill two main attributes of ODL, which are to become self-motivated and independent learners [9].

11 PROBLEM
The reason rubrics were introduced in Open University Malaysia’s (OUM) course assignments, were to guide learners on how to do their assignments and make grading simpler and structured for graders or examiners [5]. Hence from May 2010 semester, all the subject-matter experts were given instruction and guide to develop assignment questions accompanied with rubrics. As an ODL institution, OUM only hires limited number of full-time academics, as such 80% of these subject-matter experts consist of external academics from other higher learning institutions that mostly have traditional classroom setting. Although the intention to use rubrics was noble, OUM moderators had to spend time ‘fixing’ the rubrics received from the external subject-matter experts for some of the courses, as the rubrics developed by them were open to various interpretations and confusing expectations of the assignment outcome. Most of the external subject-matter experts developed the rubrics based on traditional classroom setting, however simply transferring assignment rubrics from the traditional classroom to the ODL environment is not always the best decision [10]. A lot of past researches indicated that rubrics can facilitate improvements if combined with other meta-cognitive learning activities, but there is limited evidence supporting the claim that the use of rubrics by itself for self-learning leads to improvements in performance [11]. Rubrics will normally contain criteria with descriptions directed at learners, however rubrics can also contain descriptions directed at other stakeholders such as graders for guidance and comment banks associated with the criteria [12]. Rubrics can both teach and evaluate, but many rubrics received from the subject-matter experts only emphasized on evaluation whereby it indicates in which level the learners fall into, but did not show or teach learners how to achieve the highest level of performance [6] [10].

12 OBJECTIVE
The objectives of this paper are to:

- Propose a new standard of assignment rubrics to minimize various interpretations and confusing expectations of the assignment outcome among all stakeholders;
- Enhance the assignment rubrics to function not only as a grading tool but also as an assignment guiding tool for self-managed learning (SML) among ODL learners; and
- Implement the above innovations on the assignment rubrics.
13 JUSTIFICATION FOR INNOVATION

Assignment rubrics come in various forms with some having complex descriptions of what learners need to achieve, where else some with simple and specific descriptions [9]. In traditional learning setting, the lecturers and tutors, who are the subject-matter experts whom had crafted the rubrics and will eventually mark the assignments, have the opportunity to physically explain and deliberate on these descriptions in the classroom so that the learners have an understanding of what is expected from them [10]. However in ODL setting, the learners do not have the same privilege as they have limited classroom or totally rely on online learning, whereby the discussion on assignment expectation and rubrics might be limited or might not be as comprehensive and interactive as in classroom setting. Another challenge is that assignment rubrics goes through various processes in ODL setting from development, moderation, teaching, learning and grading by various and different stakeholders, which exposes various interpretations [2]. Thus the ultimate aim of this paper is to create assignment rubrics that are suitable for ODL courses which enhances common understanding of the assignment outcome. In order to support this ‘common understanding’ functionality, the rubrics has to be focused on not only grading but also on guiding, which can be done by innovatively enhancing the criteria of the rubrics as well as standardizing the level of performance descriptions of the rubrics. These innovative assignment rubrics can be useful for various ODL institutions in supporting their learners for formative assessment especially in assignment writing.

14 DESIGN

14.1 Rubrics in OUM

OUM has been using assignment as a component of continuous assessment since its establishment. As a move to improve assignment submission and grading, OUM has incorporated the usage of assignment rubrics in the assignment questions starting May 2010 semester [5]. The move is also in conjunction with the implementation of online Assignment Submission System and Assignment Grading System. The Assignment Submission System enables learners to view or download their assignment questions together with the rubrics from OUM's online learning management platform. The learners will submit the soft copy of their completed assignment via this system. Where else the Assignment Grading System allows appointed graders to view learner’s assignments and mark them according to the embedded rubrics in the system. The general rubrics structure used by OUM is as per shown in Fig. 1.

<table>
<thead>
<tr>
<th>Levels of Criteria or Criteria</th>
<th>Levels of Performance Columns or LoP Columns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Criteria</td>
<td>Weight-age</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>
Prior to publishing the assignment questions and rubrics online, a few processes take place each semester. First, the assignment questions and rubrics are developed by the appointed subject-matter experts a few months earlier before the start of the semester. Then the assignment questions and rubrics go through moderation process done by OUM’s internal academics or lecturers. It is during this process that the assignment questions and rubrics are edited, corrected and modified if necessary to be error free and elicit clear understanding of the expectations. Once moderated, the assignment questions and rubrics are published via OUM’s online learning management platform to be used by face-to-face (classroom) tutors, online tutors and learners for teaching and learning. Finally OUM’s appointed graders will mark the assignments submitted by the learners. Fig. 2 given below depicts the various stakeholders in various processes or stages involving assignments in OUM.

### Fig. 1: Structure of rubrics

| Objective | 1.0 | No xxxx xx | Xxx xxxxx xxx | Xxx xxxxx xxx | Xxx xxxxx xxx | Xxx xxxxx xxx | 4 |
|-----------|-----|------------|--------------|--------------|--------------|--------------|
| Discussion of xxxx xxxxxx xxx | 2.5 | No xxxx xx | Xxx xxxxx xxx | Xxx xxxxx xxx | Xxx xxxxx xxx | Xxx xxxxx xxx | 10 |
| Analysis of xxxx xxxxxx xxx | .. | No xxxx xx | Xxx xxxxx xxx | Xxx xxxxx xxx | Xxx xxxxx xxx | Xxx xxxxx xxx | .. |

Prior to publishing the assignment questions and rubrics online, a few processes take place each semester. First, the assignment questions and rubrics are developed by the appointed subject-matter experts a few months earlier before the start of the semester. Then the assignment questions and rubrics go through moderation process done by OUM’s internal academics or lecturers. It is during this process that the assignment questions and rubrics are edited, corrected and modified if necessary to be error free and elicit clear understanding of the expectations. Once moderated, the assignment questions and rubrics are published via OUM’s online learning management platform to be used by face-to-face (classroom) tutors, online tutors and learners for teaching and learning. Finally OUM’s appointed graders will mark the assignments submitted by the learners. Fig. 2 given below depicts the various stakeholders in various processes or stages involving assignments in OUM.
Although the subject-matter experts were given Assignment Kits which contain guidelines on how to develop the rubrics, the rubrics that some of them had developed were either too simple or missing crucial details. Such rubrics may have been allowed to be published and distributed in traditional learning setting as the subject-matter experts who will in turn be the classroom lecturers or tutors, have the luxury to explain the intended meaning and expectations of the rubrics clearly to their learners. However as mentioned earlier, such situations may not happen in ODL setting whereby the face-to-face tutors and online tutors who comprise of many and different individuals, teach various number of learners spread around the region. With such imperfect rubrics, the graders are at lost on how to mark the learners’ assignments, as the descriptions in the rubrics do not reflect learners’ work. Thus the moderators play an important role to modify the assignment rubrics appropriately in order to minimize various interpretations and confusing expectations among various stakeholders. This modification process takes a lot of time and the main issues during moderation are discussed as per following.

14.2 Issues

14.2.1 Number of Points Needed

Some subject-matter experts had developed assignment rubrics’ Levels of Performance (LoP) which indicates that learners need to provide a certain number of points and elaborate or explain those points as given in Fig. 3.
<table>
<thead>
<tr>
<th>Criteria</th>
<th>Weight-age</th>
<th>Weak</th>
<th>Low</th>
<th>Fair</th>
<th>Above average</th>
<th>Excellent</th>
<th>Max Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company ABC strategies using Competitive Forces (CF) Models</td>
<td>..</td>
<td>No explanation</td>
<td>Provides 2 CF models with poor explanation</td>
<td>Provides 3 CF models with fair explanation</td>
<td>Provides 4 CF models with good explanation</td>
<td>Provides 5 CF models with excellent explanation</td>
<td>..</td>
</tr>
</tbody>
</table>

Where do the graders tick or grade if learners provided 4 CF models but only 2 CF models had good explanation?

Fig. 3: Number of points needed to be elaborated

The description of number of points given in the LoP Columns confuses the graders. Since the description of performance for Level 1, 2 and 3 shows:

- Level 1: *Provides 2 CF models with poor explanation*
- Level 2: *Provides 3 CF models with fair explanation*
- Level 3: *Provides 4 CF models with good explanation*

The graders were undecided or have difficulty to grade if the learners provided *4 CF models but only 2 of their CF models had good explanations*. The learners may not fulfill Level 3 requirement fully, but their effort is also not reflective of Level 1 and 2, thus the graders were unable to tick a suitable level for the learners.

14.2.2 A lot of Descriptions in the LoP Columns

Some of the assignment rubrics’ LoP developed by the subject-matter experts had a lot of description of performance that the learners need to meet for a particular criteria, as shown in Fig. 4.
Describe any 2 types of data storage being used at your workplace.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Weight-age</th>
<th>Weak</th>
<th>Low</th>
<th>Fair</th>
<th>Above average</th>
<th>Excellent</th>
<th>Max Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
</tr>
<tr>
<td>No data storage is stated</td>
<td>• Only 1 type of data storage is stated</td>
<td>• Only 2 types of data storage are stated</td>
<td>• Only 2 types of data storage are stated</td>
<td>• Only 2 types of data storage are stated</td>
<td>• Only 2 types of data storage are stated</td>
<td>• Only 2 types of data storage are stated</td>
<td>• Only 2 types of data storage are stated</td>
</tr>
<tr>
<td>No description of the data storage</td>
<td>• No description of the data storage</td>
<td>• No description of the data storage</td>
<td>• No description of the data storage</td>
<td>• No description of the data storage</td>
<td>• No description of the data storage</td>
<td>• No description of the data storage</td>
<td>• No description of the data storage</td>
</tr>
<tr>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
</tr>
</tbody>
</table>

Where do the graders tick or grade if learners only met 2 of the description in the LoP. Where else, the other LoPs are NOT suitable to reflect the learner’s work!

Fig. 4: More than one description of performance in LoP Columns

Such description of performance has also posed problems to the graders, whereby as per example given in Fig. 4, for Level 3:

- Description 1: 2 types of data storage are stated
- Description 2: Only 1 type of the data storage is described
- Description 3: Example of the data storage is given

Thus if the learners meet all the three descriptions of the performance, then only the learners fulfill Level 3 of the criteria. Problem arises if the learners only met two of the description and did not manage to meet the third criteria. In this case, the graders were also unable to tick a suitable level for the learners, as the other LoPs do not match the learners’ efforts.

14.2.3 Simple Criteria and LoP

Most subject-matter experts developed the assignment rubrics with criteria that only had simple description of what is required from the learners for the particular section. Thus the descriptions on how to perform or write the essay section effectively, were supposed to be indicated at the LoP Columns. However most subject-matter experts also developed the LoPs with simple description of performance. This turns the assignment rubrics into a very weak or simple guide for writing the assignment without thoroughly informing the learners on what they need to demonstrate in each section. Some subject-matter experts too, write the description of performance for each LoP (other than Level 4 or Excellent Level) in a manner of guessing how the learners would not score the particular criteria of the section. Thus moderators had to fix each of the LoP to reflect the degree of which the learners were able to demonstrate the learning outcomes for the particular section. Looking into this scenario, it was decided that the moderators are spending too much time on fixing the LoP Columns which were previously
suggesting to the learners on how not to score excellent level marks (other than Level 4 or Excellent Level) and the learners too, spending too much time relating how best they can score the particular criteria by analyzing the Level 4 or Excellent Level of the LoP as shown in Fig. 5.

Why moderators have to work on columns (Low/ Fair/ Above Average) which are telling learners on how not to score Excellent marks?

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Weight</th>
<th>Weak</th>
<th>Low</th>
<th>Fair</th>
<th>Above average</th>
<th>Excellent</th>
<th>Max Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>..</td>
<td>..</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>..</td>
</tr>
<tr>
<td>Company ABC using Competitive Forces (CF) Models</td>
<td>..</td>
<td>No explanation</td>
<td>Provides 2 CF models with poor explanation</td>
<td>Provides 3 CF models with fair explanation</td>
<td>Provides 4 CF models with good explanation</td>
<td>Provides 5 CF models with excellent explanation</td>
<td>..</td>
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<td>..</td>
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<td>..</td>
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</tbody>
</table>

Why learners need to read 2 parts (Criteria & Excellent Column) in order to score?

Fig. 5: Various LoPs referred in assignment rubrics

14.3 New Design of Assignment Rubrics

14.3.1 New Approaches Taken

After going through the issues such as various interpretation, confusing expectations and the need to have appropriate criteria and LoPs to reflect proper learning outcome among the assignment stakeholders, it was decided that a new standard of assignment rubrics has to be developed. The decision came after several meetings among OUM moderators (internal lecturers) on the issues faced by them with assignment rubrics and measures to improve them. Starting May 2014 semester, these requirements were imposed to support the new assignment rubrics for non-programming Information Technology (IT) courses at OUM:

- All assignments should only use Analytic Scoring Rubric as it is more suitable for non-programming IT courses as it allows evaluation of specific dimension and elements of learners’ response for each criteria [7] [13].
• Description of the criteria in the assignment rubrics has to be strengthened and should be detailed enough in order to guide the learners to complete the assignment [14].
• Since the criteria will be detailed enough, the words in the LoP Columns will be standardized and customized to only indicate how near or far the learner’s are from achieving the requirements of the rubrics according to the criteria.

14.3.2 Analytic Scoring Rubric
Previously most of the subject-matter experts developed analytic kind of scoring rubrics for the non-programming IT courses’ assignments, however there were a few holistic scoring rubrics too, submitted by them. Starting May 2014 semester, all subject-matter experts were requested to submit their assignment questions accompanied with analytic scoring rubrics only. Based on past researches, analytic scoring rubrics would be more suitable for the non-programming IT courses’ assignments as this type of rubrics provide some objectivity to the evaluation of learner’s performance on specific sections and learning outcomes, helps in clarify and avoids confusing assignments and are suitable to provide a common ground for tutors and learners in understanding the assignments [4] [7] [9]. Analytic scoring rubrics also are considered most suitable to support the next initiative which is strengthening of the criteria description.

14.3.3 Strengthening of the Criteria Description
One of the most significant changes to the rubrics was the strengthening of the criteria description in which the criteria will have explicit and clear descriptions of what is expected for the particular section of the assignment rather than simple descriptions [15]. In order to do this, the criteria section will contain detailed descriptions (like a checklist) of what learners are supposed to do for this section of the assignment (teach) and what they need to fulfill (taken from Level 4 or Excellent Level). In other words, the criteria description will be enhanced and will also have a merger of description taken from the Excellent Level as shown in Fig. 6.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Weight-age</th>
<th>Weak</th>
<th>Low</th>
<th>Fair</th>
<th>Above average</th>
<th>Excellent</th>
<th>Max Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company ABC using</td>
<td>No expla-</td>
<td>Provides 2 CF models with poor expla-</td>
<td>Provides 3 CF models with fair expla-</td>
<td>Provides 4 CF models with good expla-</td>
<td>Provides 5 CF models with excellent expla-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competitive Forces (CF)</td>
<td>nation</td>
<td>ination</td>
<td>ination</td>
<td>ination</td>
<td>ination</td>
<td>ination</td>
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<tr>
<td>Models</td>
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</tr>
</tbody>
</table>

The new rubrics will have a merger of the descriptions from the Excellent Level to the Criteria.
The new criteria will look like Fig. 7 below.
### Previous Rubrics

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Weight</th>
<th>Weak</th>
<th>Low</th>
<th>Fair</th>
<th>Above average</th>
<th>Excellent</th>
<th>Max Marks</th>
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<tbody>
<tr>
<td></td>
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<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>..</td>
</tr>
<tr>
<td>Company ABC using Competitive Forces (CF) Models</td>
<td>..</td>
<td>No explanation</td>
<td>Provides 2 CF models with poor explanation</td>
<td>Provides 3 CF models with fair explanation</td>
<td>Provides 4 CF models with good explanation</td>
<td>Provides 5 CF models with excellent explanation</td>
<td>..</td>
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<td></td>
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<td>..</td>
</tr>
</tbody>
</table>

### New Rubrics

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Weight</th>
<th>Weak</th>
<th>Low</th>
<th>Fair</th>
<th>Above average</th>
<th>Excellent</th>
<th>Max Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>..</td>
</tr>
</tbody>
</table>
| Discussion of 5 Competitive Forces (CF) Models in Company ABC by touching on the following details:  
• Strategies used for each model  
• Relevant examples for each model | .. | No answer or wrong answer was given. | Provided vague answer or answer that poorly met the details of the criteria. | Provided limited answer or answer that basically/minimally met the details of the criteria. | Provided good answer that mostly met the details of the criteria but it can be improved further. | Provided in depth answer that clearly met the details of the criteria. | .. |
|          | .. | .. | .. | .. | .. | .. | .. |

**Fig. 7: Example of new Criteria with detailed description**

All the requirements have to be clearly stated in the Criteria column, thus learners do not need to read any other columns in terms of guidance. The other columns (Low – Excellent) will have standardized descriptions and are only to show where the learners’ marks fall. With these changes, the moderators are no longer expected to spend time moderating Low to Excellent Level columns extensively, instead
they just have to spend time on the Criteria column during moderation and do the changes or corrections if necessary.

14.3.4 Standardization of LoP Columns

One of the problems faced with the previous semester rubrics was that the LoPs submitted by some of the subject-matter experts did not have consistent leveling between each level or does not show appropriate incremental improvement between LoPs, as the subject-matter experts were too focused on what could have the learners done wrong for the particular section of their assignment in the LoPs (other than the Excellent Level). Other than this, the previous assignment rubrics’ LoPs had descriptions that indicates certain number of points or a lot of description of performance that the learners need to meet, which posed difficulties for the graders to mark learners’ assignments (if the learners only partially meet the LoPs). Thus the new strategy was to standardize the descriptions in the LoPs, which now can be easily done since the Criteria section is explicit enough, as shown in Fig. 7. To avoid confusion and overlapping between the description in the Criteria and LoP Columns during new assignment rubrics development, subject-matter experts were informed that the descriptions in the Criteria section are specific pointers of what is required, where else the words in the LoP Columns are more of scales (poorly, minimally, good, in-depth, etc.). The descriptions in the Criteria section can use words such as suitable, appropriate, relevant, etc. but should avoid using the words that represent scales such as great, intricate, deep, good, excellent and others.

As shown in Fig. 8, by having standard descriptions in the LoP Columns, the previous problem of the grader being undecided on which marks or rubrics to tick for learners who only partially fulfills a certain LoP, no longer arises.

<table>
<thead>
<tr>
<th>New Rubrics</th>
<th>Weight-</th>
<th>Weak</th>
<th>Low</th>
<th>Fair</th>
<th>Above average</th>
<th>Excellent</th>
<th>Max Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Criteria</td>
<td>age</td>
<td>0</td>
<td>1</td>
<td>2</td>
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<td>4</td>
<td></td>
</tr>
<tr>
<td>Discussion of 5 Competitive Forces (CF) Models in Company ABC by touching on the following details: • Strategies used for each model • Relevant examples for each model</td>
<td>..</td>
<td>No answer or wrong answer was given.</td>
<td>Provided vague answer or answer that poorly met the details of the criteria.</td>
<td>Provided limited answer or answer that basically/ minimally met the details of the criteria.</td>
<td>Provided good answer that mostly met the details of the criteria but it can be improved further.</td>
<td>Provided in depth answer that clearly met the details of the criteria.</td>
<td>..</td>
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</tbody>
</table>

If a learner provided 5 CF models but the elaboration was not long enough then the marks could fall in Above Average Column.
As per the description of the Criteria section in Fig. 8, learners have to discuss about 5 Competitive Forces (CF) Models in Company ABC by elaborating the strategies used and relevant example for each model. Since the new LoP Columns do not have the words such as “Provides 4 CF models with good explanation” or “Provides 5 CF models with excellent explanation” as shown in Fig. 3 previously, the grader is no longer bounded to mark or tick on the LoP Column that does not represent the learners’ effort for the particular assignment section. If a learner provided 5 CF models but the elaboration was not long enough, then the marks could fall in Above Average Column. However there were concerns that the standard descriptions in the LoP Columns, do not provide adequate formative feedback to the learners in relation to their writing performance for the particular assignment section, but this would not be an issue in OUM as the Assignment Grading System allows the graders to provide specific feedback in the Overall Comments section as shown in Fig. 9.
The new standard of assignment rubrics was suggested based on several meetings that OUM moderators (internal lecturers) had, to discuss their experiences and challenges endured in fixing the previous rubrics submitted by the subject-matter experts. In the IT cluster, there are two types of courses, which are programming (inclusive of mathematics) and non-programming courses. The programming courses’ assignments such as C and Java, have structured and specific answers, thus the previous rubrics did not pose any problem of misinterpretations. However, for non-programming courses’ assignments, which have a mixture of restricted and extended responses sections in the assignment, the new standard of assignment rubrics were very much needed.

In order to improve the understanding and clarity of the rubrics, it was decided that improvement efforts should start from the beginning, which is during the assignment question and rubrics development by the subject-matter experts. As such a new guideline for rubrics was introduced in May 2014 semester and included in the Assignment Kits. Using the same concept of modules or textbooks created by OUM for its ODL learners, that supports self-managed and self-regulated learning, the new guideline for rubrics for subject-matter experts was developed in the form of a self-guided manual to train them on how to prepare ‘good rubrics’ suitable for ODL learners as well as to understand why such rubrics are important and how are the rubrics different from other conventional rubrics. The self-guided manual is aptly named as Rubrics Formulation Guide (RFG), which the subject-matter experts can read on their own pace before working on creating the assignment question and rubrics.
The RFG was created, not only to train the subject-matter experts on what kind of rubrics to produce but also why such rubrics is needed for ODL learners as well incorporating answers for questions that might be predictably popping up in the subject-matter experts’ minds when they read the guideline. The contents of the guideline were decided after a few brainstorming sessions among the OUM moderators and the predictive questions were also discussed in such sessions. The RFG content are divided into (I) How to Develop the New Rubrics Criteria and Levels of Performance (LoP) Columns, (II) Assigning of Appropriate Weightage & Maximum Marks for the Rubrics, (III) Frequently Asked Questions (FAQs), (IV) Examples of Assignment Questions with Rubrics and (V) Rubrics Templates for Subject-matter Experts for Rubrics Development. The Rubrics Templates consist of sample descriptions (in English and Bahasa Malaysia) for the Criteria and LoP Columns for Introduction and Conclusion sections, sections which need illustration and sections which need the learners to provide discussions, recommendations, justifications, etc. The Rubrics Templates section (only), can be accessed by public at https://drive.google.com/open?id=0B6cnrxakGFneSDEzRXd5by1uMHC.

Past researches had also emphasized that clarity and appropriateness of language are central concerns among the stakeholders of the assignment rubrics [6]. As such the RFG had also included the new instructions that requests subject-matter experts to use past tense (example: was, were, provided, discussed, etc.) or past future tense (example: there is still room to improve, etc.), since the rubrics will also function as a grading tool to show how the learners has fared for their assignment work.

16 IMPACT

The new guideline for rubrics, RFG included in the Assignment Kits and distributed early May 2014 semester, had positive responses from the subject-matter experts. Although the subject-matter experts claim that the time taken to develop the assignment rubrics according to the new requirement, took a longer time as compared to previous semester rubrics, they understood and appreciated the improvement done for the rubrics. However, some of the subject-matter experts did raise two main concerns which are, the detailed criteria in the rubrics might function as an answer scheme and expose the answers to the learners and the standardized version of the LoPs might not be a comprehensive feedback needed by the learners. The subject-matter experts were assured that these concerns had been taken into consideration earlier during the development of the RFG. For the first concern about revelation of answer through detailed criteria, in the RFG's FAQ section, it had been mentioned that the details in the criteria, only function as a guideline or focused scope for the learners to follow or write in which without these details, the learners might have provided inaccurate answers or explanations that are off-target. As for the second concern, that the learners might not get comprehensive feedback as the descriptions in the LoP Columns are quite standard and general, the subject-matter experts were briefed that OUM’s Assignment Grading System has an Overall Comment section whereby the graders can provide customized and specific feedback according to the learner’s performance for each assignment section.

After the implementation of the new rubrics for May 2014 semester, the moderators had given encouraging response. Based on the feedback received from 10 OUM’s internal lecturers under IT cluster, who also functioned as moderators, it was indicated that the time taken to moderate the assignment rubrics had drastically reduced. On average basis, previously it took about 3 hours to moderate each assignment question and rubrics, however after the implementation of the new rubrics, it only took 1 hour on an average for the moderation. This is due to the improved rubrics design
whereby the moderators no longer spends much time moderating the LoPs Columns which had standardized description, the focus now is only on the Criteria column which needs to be checked whether the description clearly exhibits the learning outcome for the particular section and contains clear details that guide the learners on how to achieve them.

However the 10 moderators who also teach at OUM’s Sri Rampai Learning Centre, claimed that the time taken to discuss about how to write the assignment and explain each section of the assignment rubrics in the classroom and online forum, did not significantly change as compared to previous semesters. This was also echoed by 2 external part-time tutors who teach at Sri Rampai Learning Centre, when they were asked about the impact of the new assignment rubrics. Upon clear deliberations, it was found out that the learners were always eager and spend time to get information regarding how to write the assignment and get good score, regardless of the type of assignment question any semester, however for May 2014 semester, the discussion this time did not involve much time for the tutors to explain or dissolve about any misinterpretations, confusion or lack of details in the rubrics as compared to previous semesters.

In terms of grading, the clarity of the assignment performance expectations among the learners showed improvement. As compared to the previous semester, there were significant drop for the application of remarking of assignments among May 2014 semester learners. Table 1 shows the total number application for remarking made by learners for the non-programming courses’ assignments from January 2014 semester until September 2015 semester.

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</thead>
<tbody>
<tr>
<td>Remarking application</td>
<td>48</td>
<td>35</td>
<td>21</td>
<td>19</td>
<td>16</td>
<td>13</td>
</tr>
<tr>
<td>Percentage of reduction for remarking application</td>
<td>↓ 27%</td>
<td>↓ 40%</td>
<td>↓ 10%</td>
<td>↓ 16%</td>
<td>↓ 18%</td>
<td></td>
</tr>
</tbody>
</table>

In January 2014 semester, a semester before the implementation of the new rubrics, there were total of 48 applications submitted by learners who were dissatisfied with their assignment results. However for the May 2014 semester, the semester in which the new rubrics were implemented, the application for remarking dropped to 35 application, a 27% drop from the previous semester and the following September 2014 semester showed a higher drop of 40% (21 applications). This shows that the gap between expected performance and actual performance among learners has been reduced as the rubrics criteria has provided a clearer guidance and the LoP Columns no longer have simple or confusing descriptions.

17 CONCLUSION

Formative assessment such as written assignment is an integral part of ODL assessment. In terms of ODL setting, assignment is well positioned to support ODL learners as it allows them to apply their experience and knowledge in the written form. It is of utmost pertinence that assignment by itself must be reliable and consistent in relaying the targeted outcome of learning, so that the ODL learners can gain the most benefit of this assessment. Thus, ODL learners need formative assessment instruments.
which are more objective in nature and outcome-orientated or outcome-based. Rubrics descend nicely into place in answering or representing such assessment instrument. However, merely providing rubrics will not bring ODL teaching and learning participants anywhere. Rubrics by themselves need to be “rich” in order to guide the learners objectively and independently, while at the same time reflecting representative grade. On other words, rubrics should guide and grade. The innovative rubrics presented here can support both, in addition to minimizing various interpretations across the assignment stakeholders.

As outcome-based assessment is now very popular among ODL institutions, it is aptly suitable to consider widespread of usage of rubrics as a one-stop assessment platform for guiding and grading. Assessment rubrics which have been used to make the teaching-learning process effective and measure the learning outcomes, would be one of the most effective ways to implement outcome-based formative assessment. It is hoped that this paper will give birth for more innovative rubrics that can support ODL assessment in general and outcome-based assessment in specific.

REFERENCES


The effect of NFD toward reliability and level of difficulty of multiple-choice question at Universitas Terbuka, Indonesia

Diki Diki, Eko Yuliastuti, Suratni Suratni
Universitas Terbuka, Indonesia

Parameters of quality of multiple-choice question (MCQ) are reliability, difficulty index (p), and distracter effectiveness (DE). DE reduces quality of test items. Meanwhile, reliability of each test item is measured by rpbis. Previous study revealed that an increase of 10% in Non functioning distracter (NFD) would decrease the test reliability by 1. This study aims at measuring the effect of DE toward reliability of multiple-choice question (MCQ) test at Universitas Terbuka (UT), Indonesia. The sample is MCQ test at faculty of mathematics and natural sciences, Universitas Terbuka, Indonesia (Indonesia Open University). The researchers are conducting item analysis to gain p, rpbis, and NFD index. The measurement of relationship between p, DE, and NFD index is conducted through regression analysis. The result showed that DE affects significantly rpbis. However, DE does not always affect level of difficulty. Therefore, UT should consider NFD in the test development.

Key words: non-functioning distracter, multiple-choice question, distracter efficiency, reliability, level of difficulty.

Introduction
Universitas Terbuka (UT-Indonesia Open University) is the primary distance learning higher education institution in Indonesia. It was established in 1984. There are four faculties, which are Faculty of Law, Political and Social Sciences, Faculty of Economics, Faculty of Education and Teacher Training, and Faculty of Mathematics and Natural Sciences.

One core activity of UT is examination. Most examination methods are multiple-choice question (MCQ). In one examination in 2014, there were 37,247 students taking exams at UT. There were 1,627,382 test scores that were processed at the university (Adnan, 2015).

Literatur study
Multiple choice question (MCQ) consists of a stem and options. One options is the answer, while other options are distracters. If a distracter is chosen by one or more examinees, it is called functioning distracter. If a distracter is not chosen by less than 5% of examinees or less, it is called non-functioning distracter (Abdulghani et al, 2014; Deepak, et al, 2015).

Quality of MCQ consists of psychometric parameters. The parameters are reliability, difficulty index (p), and discrimination index (DI) (Abdulghani et al, 2014; Rahma, 2017).

Non-functioning distracters is a distracter that is not chosen by less than 5% of the student. Previous studies showed that a set of MCQ may include one or more NFD. Rahmaetl. al (2017) found that 38% of items of a set of a test has one NFD, 25% has
two NFD, 33% has three NFD, and 2% has four NFD. On the other hand, Namdeo & Rout (2016) reported 16% of items has three NFD.

NFD influences level of difficulty of the test items. Abdulghani et al (2014) reported that NFD increases easiness of the item. They investigated the correlation between NFD and difficulty indices.

Similar results were also reported by Deepak et al (2015). They found that items with NFD have lower reliability. Previous study revealed that correlation between consistency and NFD is that an increase of 10% in NFD would decrease the test reliability by 1% (Deepak et. al, 2009). However, the study of Deepak et al used five-options MCQ, instead of four-options MCQ used at UT.

According to Namdeo & Rout (2016), a good quality MCQ should have no NFD (DE was 100%), in addition to good P (30% - 70%), and high DI (≥ 0.25). However, Namdeo and Rout did not study the effect of NFD toward difficulty, and reliability.

In addition, non-functioning distractor reduces quality of test items. Hingorjo & Jaleel (2013) found that having NFD did not reduce discriminatory indices. They found that items with one NFD has better discriminatory power (DI) than items with all four functioning distracters. The best discriminating items were those with three NFD.

However, the study of Hingorjo and Jaleel did not observe the effect of NFD toward reliability, DI, and p. They did a cross sectional study of MCQ.

Item analysis is a process of evaluating students’ responses to the test material by collecting and summarizing the responses. The most important result of an item analysis is its validity and reliability (Abdulghani et. al, 2015). For example, item analysis produces difficulty index, discriminatory index, and reliability index.

This study is to analyze the effect of NFD number in each items toward P, DI, and rpbis. Previous studies, such as Abdulghani et. al (2015) did a study of NFD regarding its effect toward P, DI and reliability. However, the MCQ has five-option, instead of four that is used in UT. This study also tried to validate the study of Hingorjo & Jaleel (2013) who found that NFD did not affect P, DI, and reliability. As opposed to Hingorjo & Jaleel (2013) who used cross sectional method, this study used regression analysis.

Rationale for the study
The study about NFD may contribute to the improvement of the MCQ quality
No studies regarding NFD at Universitas Terbuka

Research question
  1. To what extent do NFD affects pand reliability
  2. What is the rate of NFD in the MCQ examination of PANG4312 course
  3.

Aims of the study
The study is to measure the effect of NFD toward test quality. Therefore, the researcher did a statistical analysis to find out the effect of NFD number toward Pand rpbis.

**Methodology**
The study did statistical analysis to find a relationship between NFD and psychometric indices of MCQ conducted at UT. The authors conducted regression analysis to find out if the NFD affect reliability and level of difficulty (Deepak, 2015).

The hypothesis of this study about the effect of DE toward item reliability was:

- **H0**: DE does not affect item reliability
- **H1**: DE affect item reliability

Meanwhile, the hypothesis of this study about the effect of DE toward item difficulty was:

- **H0**: DE does not affect item difficulty level
- **H1**: DE affect item difficulty level

We also measured mean, standard of deviation, and standard error of measurement. Effectiveness of distractors (DE) is measured by the number of NFD in each MCQ. If the question has no NFD, the DE is 100%. If a question has one NFD, the DE is 66%. If the question has two NFD, the DE is 33%. If the question has three NFD, the efficiency is 0% (Namdeo et. al, 2015).

Test reliability is measured by rpbis or the point biserial correlation, is a correlation between item and total test score. The value falls between -1 to 1. The positive value means students with higher total score are more likely to answer the item correctly. The negative value means students with higher score are more likely to answer the item incorrectly (Deepak et. al, 2015).

Difficulty index (P) is based on the number of correct answer out of total answer. This is a ratio of students who answer the item correctly to the total number of students taking the exam. Items with P < 0.02 is very difficult. Items with P between 0.21 and 0.69 is moderately difficult. Items with P between 0.7 and 0.9 is easy, while items with P > 0.9 is very easy (Abdulghani et. al, 2014; Haladyna & Downing, 1989).

There were six samples of this study. Each sample was an examination set. Those samples were BIOL4110 2014.2, BIOL4110 2015.2, PANG4214 2015.2, PANG4214 2015.2, BIOL4417 20151, and BIOL4223 2015.2. Each examination set consists of 45 item. Total students participating in those test were 1491 students. The researcher gained the examination result from the Examination Center of UT.

**Result and discussion**
In the sample of BIOL4110 2014.2, there were 458 students. KR20 was 0.609. There were 11 items with 1 NFD and 1 item with 2 NFD.
The regression analysis for the effect of DE toward reliability showed that $F$ was 3.336, $R^2$ was 20.6%, while $p$ was 0.02 which was < 0.05. The regression model statistically significantly predicts the outcome variable. DE positively affects reliability. This result is in line with the result of Deepak et. al (2015) that if the DE is higher, the reliability will be higher.

The regression result for the effect of DE toward difficulty level showed that $R^2$ was 27.3%, $F$ was 16.631, and sig t was 0.00. The result shows that DE positively affects level of difficulty. This result is in line with the result of Abdulghani et al (2014) that an increase in DE will improve difficulty index.

In the sample of BIOL4110 2015.2, there were 524 students with KR 20 was 0.60. The regression analysis for the effect of DE toward reliability showed that $F$ was 5.336, $R^2$ was 11 %, while $p$ was 0.03 which was < 0.05. The regression model statistically significantly predicts the outcome variable. DE positively affects reliability. This result is in line with the result of Deepak et. al (2015) that if the DE is higher, the reliability will be higher.

However, DE did not affect level of difficulty. The sig t was 0.14, which was greater than 0.05.

In the sample of PANG4214 2015 2, there were 128 students and KR20 was 0.69. There were 8 items with one NFD each. The regression result for the effect of DE toward reliability showed that $F$ was 5.035, $R^2$ was 12.9%, and sig t was 0.04. The result shows that DE positively affects level of reliability. This result is in line with the result of Abdulghani et al (2014) that an increase in DE will improve difficulty index.

In the sample of BIOL4417 20151, there were 250 students and KR20 was 0.69. The regression result for the effect of DE toward reliability shows that $F$ was 6.394, $R^2$ was 12.9%, and sig t was 0.015. The result shows that DE positively affects level of reliability.

The regression result for the effect of DE toward difficulty level showed that $R^2$ was 10.5%, $F$ was 5.035, and sig t was 0.03. The result shows that DE positively affects level of difficulty. This result is in line with the result of Abdulghani et al (2014) that an increase in DE will improve difficulty index.

In the sample of BIOL4223 2015.2 the NFD did not affect reliability, since sig t was 0.69. However, NFD affect difficulty level, with sig t of 0.00. KR 20 was 0.35 and the student number was 131 and KR20 was 0.61.
Conclusion

The result of this study supports the finding of Deepak et. al (2015) that incidence of NFD affects reliability of test item. In addition, this study used regression analysis, as opposed to Deepak et. al who used correlation.

On the other hand, NFD does not always affect difficulty level of the item. Previous study of Abdulghani (2013) disclosed otherwise. For example, NFD affected difficulty level in BIOL4110 2014.2. However, the result in BIOL4110 2015.2 showed otherwise.

This study showed that the test development at UT should take into account the distracter effectiveness. Test developers should avoid making non-functioning distracters. The NFD reduces item reliability. The incidence of NFC also make the item easier.

References:


Curriculum Evaluation of the Public Administration Program as a Supporting Tools for Assessment and Accreditation of the Program

By Dr. Ari Juliana, M.A. & Drs. Ayi Karyana, M.Si.

Abstract

The curriculum of a study program should be reviewed periodically to remain relevant to the learning objectives and labor market needs. Similarly, the curriculum of the Public Administration Program in the Indonesia Open University must be constantly adjusted to the demands of stakeholders. The study of curriculum evaluation was conducted in 2016, utilizing evaluative approach that is CIPP model (Context, Input, Process and Product). The CIPP model is used to evaluate the curriculum since the purpose of evaluation is to improve the curriculum structure of the Public Administration Program.

The results of the study show that: 1) The curriculum of the study program is considered to be accurate and in accordance with the determined aspects of Context, Input, Process and Product; 2) The results of analysis of all components indicate that the evaluation of the curriculum is considered positive for improving the curriculum structure of the program; 3) The context aspect: the highest proportion states that the core courses reflect the knowledge field of the Public Administration program; 4) The input aspect: the highest proportion states that the structure of the Public Administration program curriculum is in accordance with government policy, in this case the policy set by the Ministry of Research, Technology and Higher Education; 5) The process aspect: the highest proportion states that the learning process develop student independence in doing academic tasks, such as course assignments and tutorials. Students have a good understanding that self-study on Public Administration program has become a requirement of students according to the learning system adopted by Open University; 6) the product aspect: it shows the highest proportion on the statement related to the GPA, which gives an explanation that the student is very concerned about the achievement of maximum GPA score. However, it has also been found - in very small numbers - negative responses from students and alumni to statements on aspects of context, inputs, processes and products, such as those related to the completeness of supporting facilities and infrastructure in UT’s Regional Centers.

Keywords: evaluation, curriculum structure, public administration program

Introduction

The Public Administration study program of the Indonesia Open University (Universitas Terbuka or UT) was established on September 4, 1986, and is under the Department of Administrative Sciences. In 2016 based on the National Accreditation Board of Higher Education decision on the accreditation values and ranking of undergraduate program, this study program earns accreditation of rank A, valid from 9 April 2016 until 9 April 2021.

The objectives of the Public Administration study program at UT are: (a) to produce graduates capable of using concepts and theories in the field of public administration to analyze and solve problems in the public sector; (b) to produce and disseminate research supporting the

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development of administrative science; (c) to produce a program of community service in accordance with the field of public administration; and (d) to generate cooperation with various parties that can support the improvement of the quality of science programs of Public administration. Therefore, the curriculum of the Public Administration Science program which is aligned with the objectives of the Public Administration Science program.

The curriculum is the overall plan and regulation of graduate learning achievement, study materials, processes, and assessment of learning used as guidelines for the implementation of study programs in the education system, especially higher education. The curriculum of Public Administration Science program is designed and arranged dynamically. This is done in order to keep up with changes and developments of external user demands internal the system and conditions.

The external demand is the condition of user needs of public administration science program, including the demands of a new paradigm of global education utilizing the distance learning system. While the internal conditions are related to the organization ability of public administration science program. Any changes that occur in the internal conditions, such as changes in institutional organizational systems, lecturer quality, number of students, learning assistance and teaching materials services, the development of information and communication technology (ICT) that leads to the use of various personal media that more accessible and to be easily adjusted into the study program curriculum. Therefore, the involvement of stakeholders, both graduates and graduate users, becomes an important part in the evaluation and preparation of curriculum development of public administration science program at Universitas Terbuka. The stakeholders of the program and curriculum whom interviewed are students, lecturers, parents, business and industry, and government.

State Act 35 number 12 year 2012 paragraf 2 on Higher Education (Pasal 35 ayat 2 Undang Undang Nomor 12 tahun 2012 tentang Pendidikan Tinggi), states that the higher education curriculum is developed by every university with reference to the National Standards of Higher Education for each course of study that includes the development of intellectual intelligence, noble character, and skills. The shift of the discourse of naming the curriculum of higher education from Competence Based Curriculum (CBC or KBK) to the Indonesia National Higher Education Qualification Framework (KKNI) has several important reasons, includes: (a) the naming of CBC is not fully constituted by the regulations, so it is still possible to continue developing. This is in accordance with the rules of the curriculum itself that are constantly evolving to adapt to current and future conditions; (b) The CBC development based on the agreement on the preparation of graduate competence by representatives of study program organizers to be drafted the curriculum. This agreement generally does not fully refer to definite parameters, allowing curriculum developers to agree on graduate competencies whose depth or level of achievement is different from that of other curriculum developers, although at the same study program at the same level; (c) the absence of measuring parameters in the CBC system makes it difficult to assess whether a higher education program is lower or lower than other. That is, no one can guarantee whether the Diploma 4 program curriculum for example is higher than the Diploma 3 program in the same study program if that is composed from different groups; (d) The Indonesia National Qualification Framework (KKNI) provides the measurement parameters of the qualification ladder of the lowest level (1) to the highest level (nine level/9). Each level of KKNI is in line with the level of learning achievement of the study program at a certain level, the correspondence for higher education is level 3 (three) for Diploma 1 (D1), level 4 (four) for Diploma 2 (D2), level 5 (five) for Diploma 3 (D3), level 6 (six) for Diploma 4 (D4) / Bachelor Degree (S1), level 7 (seven) for profession (after graduate), level 8 (eight) for Strata 2 (S2), and Level 9 (nine) for Strata 3 (S3). Learning Achievements at each level of KKNI are outlined in a description of attitudes and values, abilities, knowledge, responsibilities and rights with concise statements called generic descriptors. Each descriptor
indicates the depth and level of learning achievement according to the study program level; (e) K-DIKTI as a form of development from Competency-Based Curriculum (KBK) using KKNI qualification level as learning outcome (CP) and as material for curriculum of a study program; (f) the main difference between K-DIKTI and CBC is on the certainty of study program level because CP obtained has a certain size.

Management of the Public Administration Study Program refers to the guidelines or institutional rules such as the Strategic Plan and the Operational Plan at any time possible to adjust to higher education developments and policies. Evaluation of the program is conducted based on the results of the meeting of leaders, result of previous accreditation, assessors input Higher Education-National Accreditation Board (BAN-PT), as well as the audit conducted by the UT’s Quality Assurance Center (Pusmintas) and the External Auditor concerned academic management.

Based on the backgrounds described above, the main problems to be studied through this paper are: (1) Is the curriculum of Public Administration Science program in accordance with the development of science and the demands of society, (2) What factors influencing the curriculum, (3) Do the learning achievement as stated in general competence (TKU) and special competencies (TKK) of graduates according to stakeholder requirement seen from four aspects of evaluation that is context, input, process, and product (CIPP), (4) Is the Public Administration program curriculum evaluation supports the assessment and accreditation of the program?

Chronology of Indonesia Higher Education Curriculum

The higher education curriculum is a set of plans and arrangements regarding content, study materials, as well as instructional materials and how they are delivered, and assess; Used as a guideline for the implementation of learning activities in universities. The curriculum contains graduate competency standards that are structured in key competencies, support services and who support the achievement of the objectives, the implementation of the mission, and the realization of the vision of the study program. The curriculum includes courses / modules that support achievement of graduate competence and provide flexibility to the students for broaden their insights and deepen their expertise in accordance with their interests, and equipped with description of course, course materials, syllabus, lesson plan and evaluation.

The curriculum is designed based on relevance to purpose, coverage and depth material, organizing that encourages the formation of hard skills and skills personality and behavior (soft skills) that can be applied in various situations and condition. In the Higher Education Curriculum Handbook (2014), it is explained that before the year 2000 curriculum development process in public and private universities (PTN & PTS) arranged according to the 5 (five) annual (S1) or 3 (three) yearly traditions (D3 level) which always marks the end of the task of one curriculum device. Other than that, also caused by the change of strategic plan of Higher Education that contains the vision and mission. Most of the reasons for curriculum change come from HEI internal problems itself. But in the current global situation, where the acceleration changes occur in all sectors, it will be difficult for people to hold back development of science, technology and art (IPTEKS). In the period before the year 1999 (pre-millenium era) IPTEKS changes that occurred may not be as great as post-millennium. If understood more deeply based on the education system that has been described above, then if there is a change in the demands of the working world already naturally the process within the college needs to adapt. The reason is that should be developed to make improvements to the college curriculum at Indonesia.

In the Handbook it is explained also, after the ratification of the treaty and global commitments (AFTA, WTO, GATTS) by the Republic of Indonesia Government, the more the
World melt in touch and interact. Various quality parameters are installed to standardize the quality and quality of graduates in different parts of the world. Various agreements and agreements between ASEAN countries are set forth. Roadmap of the development of free mobility of professional labor among countries in ASEAN has been unfolded. The development of the roadmap began since 2008 with harmonizing various regulations and systems to strengthen institutions development of Human Resources (HR). Furthermore, in 2010 start Mutually Recognition Agreement (MRA) for various occupations and professions.

Some areas of the profession that already have MRAs are: a) engineers, b) architect, c) Accountant, (d) land surveyors, (e) medical doctor, (f) dentist, (g) nurses, and (h) labor in Tourism. On the basis of the principle of quality, equality as well as the understanding of the qualifications of various fields of work and profession in the global era, qualifying parameters on a regular basis international graduates of education in Indonesia is indispensable. Besides the reason for the demands a new paradigm of global education, internally, the quality of education in Indonesia itself especially higher education has a very high disparity. Between undergraduate alumni of one study program with other does not have the equal qualifications, even on graduates from the same study program. Moreover, it can not be distinguished between graduates of academic type, with vocational and profession. The chaos in educational qualifications makes the academic accountability of higher education institutions declined.

**Indonesia National Qualification Framework**

In the Higher Education Curriculum Handbook (2014) mentioned that in 2012, through Presidential Regulation No. 8 of 2012 on the Framework Indonesian National Qualification, encouragement and support to develop A qualification measure of Indonesian education graduates in the form of a framework qualification, which became known as the Indonesian National Qualification Framework (KKNI). Regulation of the President of the Republic of Indonesia Number 8 Year 2012 in Article 1 stated that: The Indonesian National Qualification Framework, hereinafter abbreviated as KKNI, si a competence qualification skill that can match, Equalize and integrate between education and field Job training and work experience in the context of recognition Work competence in accordance with the structure of work in various sectors.

The KKNI is also structured as a response to the ratification made by Indonesia on dated December 16, 1983 and updated January 30, 2008 against the convention UNESCO on the recognition of diploma and higher education (The International Convention on the Recognition of Studies, Diplomas and Degrees in Higher Education in Asia and the Pacific). In this case with the existence of KKNI, other countries can Use it as a guide to perform performance equality assessments learning as well as qualified workers who will either study or work in Indonesia or vice versa if will accept student or labor from Indonesia.

Chronologically, since 1994 through the Decree of the Minister of Education and Culture of the Republic of Indonesia Number 056/U/1994 on Guidelines for Formulation Higher Education Curriculum and Assessment of Student Learning Outcomes, where the curriculum which offered more emphasis on the mastery of IPTEKS mastery, therefore Referred to as a Content-Based Curriculum. In the curriculum model, the eye is set national compulsory lectures on existing courses. Then in 2000, Dover mandate UNESCO through the concept of the four pillars of education, that is learning to know, learning to be, learning to be and learning to live together (Dellors, 1996), Indonesia Reconstruct its curriculum concept from content-based to Competency-Based Curriculum. The curriculum of the 2000 and 2002 era prioritizes the achievement of competence, as a form of effort to bring education closer to labor market and industry conditions.
The Competency Based Curriculum consists of core and institutional curriculum. In implementing the CBC, the main competence is determined by the agreement together among universities, professional communities, and graduate users. While the competence of supporters and others, set by the college itself. With the impetus of global development that is currently required recognition of Achievement of learning that has been synchronized internationally, and develop KKNI, then the curriculum since 2012 has shifted by giving size equalization of learning achievement. The curriculum is still basing on achievement of equivalent abilities to maintain the quality of graduates. Curriculum. This is known as the Higher Education Curriculum. In Figure 1 illustrates the comparison of Indonesia Higher Education Curriculum from time to time.

Figure 1
Changes in the Concept of Indonesia Higher Education Curriculum

According to Johnson (1974), the curriculum has a diverse meaning both inter state and inter-institutional education providers. This is due to the presence different interpretations of the curriculum, which can be viewed as a plan made by a person or as an event or actual influence of a series of events. Meanwhile, according to the Minister of Education Regulation and Culture of the Republic of Indonesia Number 49 of 2014 on National Standards Higher Education stated that the curriculum is a set of plans and arrangements on graduate learning achievements, study materials, processes, and assessments which is used as a guideline for the
implementation of the study program. If associated with the higher education system, the curriculum can act as: (a) the source of the policy management of higher education to determine the direction of education; (B) Philosophy that will color the formation of society and academic climate; (C) patrons for learning patterns, reflecting the study materials, delivery and assessment learning; (D) atmosphere or climate formed by the result of managerial interaction Higher Education (PT) in achieving its learning objectives; (E) quality referrals from quality assurance process; And (f) the measure of the success of PT in producing graduates which is beneficial to society. It appears that the curriculum does not just mean as a document solely, but a very crucial process in education.

According to Sukmadinata (2000), there are three concepts about curriculum, curriculum as substance, as a system, and as a field of study. The first concept, the curriculum as a substance. The curriculum is seen as a learning activity plan or as a goal to be achieved. The curriculum points to a documents containing the formulation of objectives, teaching materials, teaching and learning activities, schedule, and evaluation. A curriculum can also be described as a written document as a result of mutual agreement between the curriculum and the holder compiles education policy with the community. The curriculum in this view includes a certain scope, a university, a county, a province, or an entire country.

The second concept, the curriculum as a system, the curriculum system. The curriculum system is part of the education system, and the community system. This curriculum System including personnel structure, and working procedures on how to construct a curriculum, implement, evaluate, and refine it. As The Results of a system, the curriculum is the compilation of the curriculum, and the function of the curriculum system si how to keep the curriculum in order to stay danamis. The third concept, curriculum as field of study is the field of curriculum study. This is a field of expert studies curriculum and educational and teaching specialists. The purpose of the curriculum as a field of Study is to develop the science of the curriculum and curriculum system. They ari explore the curriculum field, learn basic concepts about the curriculum.

Through library studies and various research and experimental activities, they are discovering new things that can enrich and strengthen the field of curriculum study. According to Sukmadinata (2000), this includes the old view, the curriculum is “a collection of subjects to be submitted by teachers, lecturers or learned by students. This assumption has existed since the days of Ancient Greece. In the Environment or a particular relationship this view is still used today, as it is proposed by Azia (1976) that the curriculum as "... a racecourse of subject matters to be mastered". Another opinion is expressed in Webster's New International Dictionary (1993), that the curriculum is: "a course, as a specific fixed course of study, as in school or college, as one leading to a degree ". Many parents and even teachers, if asked about the curriculum will provide answers around the field of study or the lesson. More specifically perhaps the curriculum is defined only as the content of the lesson. According do Beauchamp (1975), the curriculum as a field of study form a theory, that is theory curriculum as: “a set of related statements that give meaning to a school, curriculum by pointing it the relationships by its elements and by directing its development, its use, and its evaluation.”

Public Administration Program Curriculum

The curriculum is a set of plans and arrangements regarding goals, content, and Teaching materials as well as ways used as guidelines for the organization of Activities Teaching and learning to achieve curricular goals. To achieve curricular goals, PS S1 Public Administration Science, requires every student of S1 Science the public administration is able to master and apply those competences has been designed in the course of study. Competencies that must be taken by students then grouped into the form of competency analysis of the course. Public
Administration Science program of UT apply the pattern of using shared teaching materials, and the other educational institutions writing the course materials handbook (modules), as books that must be learned and studied independently.

The Public Administration Science program is offered for those who wish to deepen their insights related to Public Administration matters, among others are:

1. **Government Apparatus**: Groups that are very interested in this program are those who work in Government agencies, because the subject matter is largely related to problems and administration of Public Administration such as material about Public Administration system, personnel administration, government administration, Regions and villages, central and regional relations or regional finances.

2. **Non Government Organization Employee**: In the community also found employees of non-governmental organizations or institutions (NGO) who want to learn public administration courses.

3. **Individual**: Individual communities can take the lecture of the Public Administration Science School for improving his knowledge and expand his horizons in the field of Public Administration Science which can be exploited for his personal development, for example those who’s si His work is not tied to a particular organization or office.

4. **Employees of private companies**: Public Administration Science field can be utilized by private company apparatus as knowledge and as a comparison material with activities and Management a private organization that usually moves in the business world.

In the era of free market competition but directed at specific abilities that are reflected in certain competencies. For answered the doubt, the Indonesian Association for Public Administration (IAPA) as a professional organization, from the results of the congress ever held, recommends 5 (five) competencies for Public Administration Science program, such as experts in: Public Organization, Public Management, Public Policy Analyst, Service Management and Development Administration. Public Administration Science program advisable to take all or part of the competence accordingly. With the needs, abilities and challenges of each college. In the curriculum according to Neil (1980), there are four kinds of concepts, namely: Academic, humanistic curriculum, social and technological reconstruction. In The humanism, the curriculum is something that can support the development of children within aspects of his personality. The curriculum is seen as a process capable of fulfilling the individual's need to achieve integration in development towards actualization and or self-realization. The Social Curriculum Reconstruction, problems faced by students in community life. Conception of this curriculum argued that education is not only the effort, but rather is a joint activity, interaction, and cooperation. In view of technology, the curriculum is a technological process to produce demand demands energy capable of making decisions.

**Research Methodology**

This study utilizing quantitatif approach of evaluative research by studying and applying CIPP model (Context, input, process, product). The research objectives are to evaluate and to gain a deep understanding of the curriculum of public administration program:

1. **Context**
   a. To know the suitability of Public Administration Science curriculum with needs of stakeholders.
b. To know the achievement of curricular goals with current curriculum arrangement (core courses and supporting courses).

c. To know the achievement of graduate competency related to quantity and quality course material (instructional material) in accordance with curricular goals.

d. To know the factors that influence the curriculum.

2. Input

a. To know the educational background of Lecturer of Public Administration Science program today.

b. To know the educational background of the student at the beginning of entry into a graduate student of Public Administration Science program.

c. To know the accessibility of students to the learning materials on Public Administration Science program.

3. Process

a. To know the implementation of learning support services that include: tutorials, Scientific writing guidance, library services, and availability of Open Educational Resources (OER) in Public Administration Science Program.

b. To know the suitability of the methods or strategies used for the learning support in Public Administration Science Program?

4. Product

To evaluate The learning outcomes, the method of reviewing and adjustment of the curriculum to achieve qualification of learning achievement (learning outcome).

This research was conducted at 7 (seven) regional centers (UPBJJ-UT), namely: Banjarmasin, Bengkulu, Pangkal Pinang, Bandung, Batam, Purwokerto, and Jember. The selection of the study sites is based on the student statistical data that indicating these sites are the locations that hold the face-to-face tutorials for the Public Administration Study Program, while other locations after confirmation with the regional centers do not organize face-to-face tutorials for this program, although based on SRS data the number of students is significant enough to be studied.

Data were collected using questionnaires, interview guides, observations, and documentation studies. The sample is taken from seven UPBJJ-UT which have a large number of Public Administration Science Program students which is spread in UPBJJ-UT Banjarmasin (21 person), UPBJJ-UT Bengkulu (11 person), UPBJJ-UT Pangkalpinang (8 person), UPBJJ-UT Bandung (66 person), UPBJJ-UT Batam (88 people), UPBJJ-UT Purwokerto (16 person), and UPBJJ-UT Jember (69 person). The number of students who become respondents is 279 students. Academic experts 2 (two) persons, and agencies (employers) as many as 32 persons. While the alumni are 70 persons.

Curriculum Evaluation Analysis Based on Student Feedback

Evaluation of the suitability of the curriculum is seen from the context aspect. The distribution table shows the highest proportion in the ninth statement about the core or major courses reflecting the science of the science of Public administration of 81.8%. Respondents responded positively. The subjects listed in the core or core curriculum structure reflect the science of the science of Public administration, and are rated positively by the respondents who provide significant direction on the assessment of the core course. The interesting thing in the statement of the suitability of the curriculum is seen from this context aspect, the students there are still not convinced by the suitability of the content or structure of the curriculum of the Public Administration Science Program with the needs of the work world, the suitability of the curriculum content of the Public Administration Science Study program with the community...
needs, the curriculum of the Public Administration Science program with the public or public
demands to be able to graduate on time, and the suitability of the subject matter quality in the
curriculum structure with curricular objectives, and the quantity of courses contained in the
curriculum is sufficient to achieve the curricular objectives.

The data of respondents shows that the perception of students about the Evaluation of the
suitability of curriculum from the input aspect in its implementation is shown with the highest
score (79.6%) found in statement number 15 that is conformity with government policy. The
curriculum structure of the FISIP University Public Administration FISIP Open in accordance
with government policy, in this case with the policies set by the Ministry of Research and
Technology, and Higher Education. This means that the content of courses spread in the
structure of the curriculum strictly refers to government policy. In the context of the proposed
statement to the student, the current curriculum structure as stated in the Catalogue of the Open
University of 2016 is in conformity with government policy. In this statement there is a
component whose small distribution value is indicated by a percentage of 0.4%. Seen in the
statement number 18 which reads the completeness of facilities and infrastructure at UPBJJ-
UT (the operational place of study program services in the region) is low. Total frequency
distribution of student perception seen from aspect of input equal to 77.2%.

The perceptions of students relating to evaluation of the curriculum suitability from the
product aspect, showing the highest proportion on statement number 41 is the Grade Point
Average (GPA) to date, which means that students are very concerned about the achievement
of cumulative achievement index. Data from these respondents indicated that large number of
respondents want to get a maximum GPA. The Public Administration Sciences program of
Universitas Terbuka using scale of 4 (four). The GPA implementation is calculated on average
from all students spread across regional centers are still below 3.00, average less than 2.5. Other
information obtained from respondents related to aspects this product of student mastery on
the substance of the subject is still a problem 88.9%, less good, final semester examination
results obtained per 83.1% semester still less meet the standards (average value can be C and D).

**Curriculum Evaluation Analysis Based on Alumni Feedback**

Related to curriculum of the Public Administration Science program 81.4% alumni responded positively. The courses listed in the curriculum structure are considered positive for achieving the objectives of curricular. The interesting thing in the statement of the suitability of the curriculum is seen from the context aspect, alumni there are still not sure core / main courses reflect scholarship study program Science Public Administration. The alumni on the statement number 14, amounting to 5.7% did not give an opinion. Total distribution of perceptual frequency of alumni seen from the context aspect of 77.5%.

The result of data analysis of respondents shows that the perception of alumni about evaluation of the curriculum conformity of the input aspect in its implementation is shown with the highest score (78.2%) is in the statement of number 15 that is conformity with government policy. The curriculum structure of the Public Administration science program according to the alumni in accordance with government policy, in this case with the policy set by the Ministry of Research and Technology, and Higher Education. This means that the content of courses spread in the structure of the curriculum strictly refers to government policy. In the context of the statement submitted to the alumni, the current curriculum structure as specified in the UT 2016 Catalog is in conformity with government policy. In this statement there is a component whose value is not very agreed indicated by a percentage of 1.4%. Seen in the statement number 16 which reads the suitability of lecturer / tutor qualification course of Public Administration Science as the executor of programs and activities. Meaning alumni doubt the relevance of lecturer / tutor. Total frequency distribution of respondent perceptions alumni seen from the input aspect of 75.3%. Respondents from the alumni are related to the evaluation of the curriculum appropriateness of the aspects the process shows the highest proportion in the 33 statements of 83.2% gives an explanation that the time of the final exams of each semester (UAS) each the applied course is now in accordance with the condition of the students. Final Exam Time Semester is held on Saturday and Sunday. Respondents alumni have been able to understand very well that UAS conduct on The Public Administration Science of UT has adjusted its exam times does not interfere with student activity on weekdays.

The perception of alumni respondents is related to the evaluation of the suitability of the curriculum from the product aspect shows the highest proportion on the statement number 39 is the result of final exams semester (UAS) obtained per semester, yang meaningful experience of alumni respondents are very concerned achievement index achievement cumulative. Data from these alumni respondents gave an indication that most respondents are very concerned about the maximum GPA. At the Public Administration Science, which adopted using scale 4. In the reality, the avarage GPA of all alumni spread throughout UPBJJ-UT is still below 3.00, which is an average of less than 2.75. Other information gained of alumni respondents related to this product aspect of student mastery on the substance of the course is still unfavorable, this is indicated by the frequency distribution number of 2.9%, and the final exam results obtained per semester 2.9% semester still not meet the standard (average value can be C and D). The total distribution frequency of perception of alumni respondents from product aspect is 46.1%.

**Curriculum Evaluation Analysis Based on Institution Responses**

Respondents who came from the institution amounted to 32 people. The information provided relates to the substance of the study program curriculum and can be used for the purposes of improving teaching materials services and learning assistance services. The evaluation of the curriculum conformity seen from the context aspect shows the highest
proportion in the fourteenth statement about the subject matter can be studied and in accordance with the character of the open and distance education students 79.7%. Respondents responded positively. The subjects listed in curriculum structure reflects the character of the students of public administration science courses, and assessed positively by respondents who come from agencies, and provide significant direction on the assessment of the courses contained in the curriculum structure. Interesting Hing in the statement of the suitability of the curriculum seen from this aspect of the context, the responden derived from the existing agencies are still not convinced by the suitability of the content / curriculum structure of public administration science courses with the needs of the world of work, this component indicated by 3.1%.

Related to the elective courses reflecting the needs of the students of the Public Administration Science program, suitability of subject matter course of Public Administration Science with character high school students are open and distance, and the quantity of that course contained in the curriculum is sufficient to achieve the curricular objectives shown by the frequency distribution of 25%. Total frequency distribution of student perceptions seen from the context aspect of 76%.

Data shows the agency's perception of the evaluation of the curriculum conformity of the input aspects in its implementation is shown with the highest score (78.9%) contained in the statement number 24 is the agency's understanding of the mechanism of the manner of taking / registering semester each semester. Compliance with government policy of 78.1%. The Public Administration Science curriculum structure of UT in accordance with the government policy, in this case with the policy set by the Ministry of Research, Technology, and Higher Education. This means the scattered content of the course in the structure of the curriculum strictly refers to government policy.

In the context of statements the current curriculum structures submitted to respondents from agencies, as stated in the Open University Catalog 2016, is in conformity with government policy. Total frequency distribution of perceptions students viewed from the input aspect of 75.5%. Student perceptions relate to evaluating the suitability of the curriculum from the aspect process, showing the highest proportion of (i) statements of 100% appreciate the execution time of final exams semester (UAS) every course and the time of the implementation of the services of facial tutorial activities (TTM) of 100% as well. Components whose distribution values need special attention can be seen from the percentage in each of the statements of the letters d, and e, respectively by 28.1%.

The total frequency distribution of perceptions respondents from the institution from process aspect amounted to 84.4%. The institution respondents stated that graduates mastering the substance of the course, so that Nast of agencies do not hesitate to recruit UT’s graduates: 84.4% of respondents said yes, and as many as 15.6% of respondents stated “on”. Semester achievement index as well as the GPA recommended by each Agency the semester is 3.50 to 4.00 on a scale of 4.

**Curriculum Evaluation Analysis Based on Academic Expert Feedback**

**Evaluation of Curriculum from Context aspect (Source 1)**

Based on the observation of the curriculum of the Public Administration Science in the Open University Catalog 2016, and compared to the needs, Vision of Mission and Purpose (VMT) of user agencies, the curriculum can now be said to be appropriate. The curriculum has been equipped with a complete curriculum structure and teaching materials. However, in order to comply with the regulations stipulated by the government regarding the curriculum (Permenristekdiktidikti 44 of 2015 on SNDikti and KKNI), the PS needs to update the terms currently used in the preparation of the curriculum. For example, the term curricular goals is adjusted to be a learning achievement. The basis used in setting learning achievement is CBC
(KKNI) and SN Dikti. Achievements of learning in KKNI include: attitudes and values, abilities, knowledge and responsibilities/rights/powers. Four formulation of learning achievement in KKNI is a measure of internalization of knowledge, attitudes, skills, ability of a person obtained through formal academic level, informal, non formal and / or work experience. Referring to the description of learning achievement formulation in KKNI, the formulation of learning achievement in Graduate Competency Standard (CPSKL) of SN Dikti is expressed in three formulas: knowledge, attitude, and skill which is divided into general skills and special skills.

To find out what is the content/structure of the Public Administration Science curriculum has been in accordance with the demands or standard of company, then the program is necessary first set the graduate profile. The profile of graduates describes the figure of graduates expected from Public Administration Science Administration. Competence of graduates of the Public Administration Science course can only known when the product graduates are asked to the graduate users. Therefore, it is necessary to trace alumni to the user. The user judgment basis can use the BAN-PT format regarding the opinions of graduate users on graduate performance.

The contents of the curriculum can be said to suit the needs, VMT user instances graduates, if graduates can work according to their field of knowledge of >80%, career increases, and have a change in knowledge, attitude and skills (general and special) according to the expected graduate profile.

The curriculum structure for student achievement index is adequate with the standar competence of work in institutions or companies, need to be rethought, because currently many employee receiving institutions that require a minimum grade point average (GPA) of 3.00. Therefore, the curriculum structure needs to be supplemented with semester's Learning Plan (RPS), textbooks, and learning achievements for each course. Through this effort, students know what to learn in each course, in order to obtain maximum value.

The curriculum structure for the competence of curriculum of Public Administration Science delivers graduates able to graduate and can implement workplace skills, needs to be done by determining the full and clear assessment materials, determining the courses and the weight of each course credits precisely, and charting the course accurately. This is where the importance of the sequence of courses is done precisely. Basic courses are given first, before the advanced courses, so students are not disheartened in choosing a course. Conformity of curriculum content 1 Public Administration with the demands of job competence in productive working age / producing graduates in productive age. Surely this can only be seen by doing tracking alumni who bersistem and sustainable. Information obtained from the alumni tracking results can be used to measure the suitability of the curriculum content to the needs of the labor market.

The suitability of the curriculum of Public Administration with the development of science and technology. Based on the details of the structure of the curriculum, it appears that the existing curriculum structure has been left behind with the development of science and technology. Such as the absence of reference to courses advocated by the association of IAPA, which has provided mandatory compulsory courses in the Science of Public Administration. Therefore, the program needs to conduct periodic evaluation of the curriculum by looking at the various developments that occur. Including for example, there are currently new books from Nicholas Henry (2013) "Public Administration and Public Affairs" where there are currently six Public administrative paradigms (Public Administration as Governance).

Overall, the core courses are now reflective of Science course of Science of Public Administration. However, because the IAPA association requires certain courses that have been agreed as the core subjects of each Public Administration Science Program, then courses that do not yet exist and are mutually agreed upon by the association need to be included, in this case the Decision Making Class, and the Bureaucracy course is not yet in the structure of
or competencies of the world of work, because given the diverse background of students, both institutional and territorial origin, the vast coverage area (all over Indonesia, even abroad), should be accommodated in the curriculum structure with elective courses in accordance with student interests. This level of conformity will be higher, if in the curriculum structure provides many elective courses, so that students can choose courses in accordance with the wishes or needs of the workplace. Selection of selected courses needs to be done through alumni and user tracking studies.

On the structure of the Public Administration Science curriculum, elective courses not yet clear. It should be clarified and clarified elective courses are provided and at least double of the number of elective courses that must be taken. For example, students take elective courses 12 credits, then the elective courses that must be provided is 24 credits. The clarity of elective courses in the curriculum structure is required so that students are not wrong in choosing elective courses (eg not excessive units).

Students of public administration science program spread all over Indonesia and abroad. When looking at the current curriculum and associated with the character of regional development, the curriculum structure has not reflected the character of regional development. Therefore, to realize this need, structure the curriculum needs to accommodate selected courses focused on the character regional development.

The quality of elective courses in the curriculum structure is unclear, so it has not can be given an opinion. Adequacy of elective courses is also unclear, making it difficult to give an opinion. Course material is essentially very easy to learn. However, compliance with regional character still needs to be improved, so that the material can improve the productivity and innovation of government in the region.

**Curriculum Evaluation of Input Aspects (input)**

Curriculum structures currently do not seem to be in accordance with government policies/agencies/companies. The curriculum should refer to SNDIKTI (Permenristek Dikti no. 44 tahun 2015) and KKNI. Although it is a university (PT) with an open and distance education system, the availability of facilities and infrastructure at UT Central remains important. Of course, facilities and infrastructure are not necessarily the same as conventional PT. Facilities and infrastructure that need to exist for example, an institution building equipped with a complete and up-to-date system of complete education system, as well as lecturer work facilities. While facilitation and facilities for face-to-face lecturers and students at UT Center may not be necessary. Completeness of facilities and infrastructure at the UPBJJ level is very necessary, because the UT students are associated with the institutions of each region. Completeness of facilities and infrastructure also shows the extension and authority of UT in the regions. The credits allocation for the core course must be adjusted to the number of credits to pass. If to pass the required 144 credits, then the course is at least 75 percent. Allocation of elective courses maximum 25 percent. Based on the curriculum structure, the substance of the core course needs to be adjusted to the development of science and technology and the needs of the labor market, as well as government regulations related to SNDIKTI and KKNI. In the structure of the curriculum, it is not explicitly stated which courses include the elective courses. Obviously this is very difficult for students in taking and choosing elective courses. Therefore, the structure of the curriculum needs to be improved and confirms the core courses and electives.

**Curriculum Evaluation of Process Aspects**

Open University and Public Administration Science program needs provide the best possible information and services to students as Wells Community. This is because students
and prospective students come from various backgrounds, as well as regions inside and outside the country. Therefore, to improve the quality of graduates, the whole process mentioned is still very necessary.

**Evaluation of the Curriculum of Product Aspects**

Each graduate must master the substance of the course. In each course has been mentioned the Achievement of Learning which is the product of a poses of learning. Therefore, to know the mastery of the substance of the course, the exam course should be able to evaluate the ability of students in achieving the achievement of the learning set. The easiest indicator to see student achievement is the student IP / graduate. Through high IP, graduates can compete with other college graduates in entering the workforce. As an open university, it is very difficult for UT to know the achievement of students / graduates outside IPK. Therefore user-recommended IPs are an important benchmark of student achievement. A decent graduate IPK is at least > 2.75. Even if possible > 3.0. This is remembering for students who have not worked, the selection to get a job is usually seen first from the applicant's GPA. In addition, UT graduates can compete with graduates from conventional PT. The courses recommended should primarily refer to the results of the science association's decisions. In PS S1 of Public Administration Science, there has been Indonesian Association of Public Administration (IAPA), which has set the core course, including learning achievement according to KKNL. Based on the existing S1 curriculum of Public Administration Sciences, it is necessary to add: (a) Decision Making Theory; and (b) Bureaucracy. In addition, the names of courses need to be improved in accordance with the development of science. For example, Public Service Management becomes Public Service Management, Government Administration Ethics, and the Ethics of Public Administration.

**Evaluation of Curriculum from Resources 2**

Higher Education as an investment, become the power of nation's competitiveness in the national and global arena. The change of paradigm (state of the art) of Higher Education from "Old Industrial Education" to "New Entrepreneurial Education", as well as the challenges and problems faced are national college outcomes far behind with universities in other parts of the world. The curriculum is a core part in the development of Public Administration Science Program to respond to the development of market demand dynamics (stakeholder) and issue and the development of state of the art Science Public Administration. The curriculum development plan can no longer be limited to the curriculum contents but also includes the development of learning process, creative capability and the use of the latest technology and information. Thus the study program that develops the curriculum should pay attention to the principles of competence, benefits, flexibility (flexibility), and continuous improvement. Issues as a market signal (need assessment) among others can be put forward as follows:

1. the need to respond to widespread public policy issues, policy discretion, and security assurance of employees and public officials rules (vulnerable to political pressure). Likewise Issues of public policy, demands for the birth of innovative, flexible and impartial legislation Products policies that involve the community.
2. Shifts in public management; from government centric to role engagement stakeholders (governance system, collaboration, partnership, participation).
3. The need for the use of good public management tools (functions) based on Food governance.
4. The need to respond to the issue of social change as a consequence of information disclosure (global, regional, national, local), and conflict horizontally.
5. The emergence of entrepreneurial governance, strengthening the issue of decentralization, function-based organizations, and partnerships.
The curriculum is a set of plans and arrangements regarding goals, content, and teaching materials as well as ways used as guidelines for the implementation of teaching and learning activities to achieve certain educational goals. Observing the vision and mission that have been formulated not yet clearly described, the excellence of Science Public Administration. These advantages can be actualized in the form of competence or specific graduate profile. Specific advantages are very important to answer questions from various circles (users), what is the actual skills (competence, profile) of graduates of PS S1 Public Administration Science UT. In the era of free market competition, HE no longer only offers PS that only prints a generalist graduate, but also directed to specific skills that are reflected in certain competencies. To answer these doubts, the Indonesian Association for Public Administration (IAPA) as a professional organization, the congress recommends 5 (five) competencies namely experts in: Public Organization, Public Management, Public Policy Analyst, Management and Development Administration. However, in this context (also in BAN-PT accreditation assessment criteria as necessary) is also intended to map outcomes in more detail in the planning periods (annual operations), five years (Strategic Plan), as well as long-term planning. To provide reinforcement on the application of Science (skill) on the structure of the Public Administration Science curriculum, it is necessary to affirm the course accompanied by a practicum, including the Office Administration Course and Public Policy subject.

Conclusion

This paper is an evaluative study by examining and applying the CIPP model (Context, Input, Process and Product). The evaluation concept of CIPP model is used with the view that the important objective of the evaluation is not to prove but to improve the curriculum of the Public Administration Study Program of Universitas Terbuka.

The results of the study show that: (1) most of the student respondents acknowledge the accuracy of curriculum conformity from aspects of the context, input, process, and product of the service as promised. The results of the analysis of all components indicate that the evaluation of the curriculum is considered positive to be performed and evaluated to improve the curriculum structure of the Public Administration Study Program; (2) the curriculum evaluation analysis of the context aspect shows the highest proportion of the core. Students of The Public Administration Science program give a positive response. The courses listed in the core curriculum structure reflect the science of the public administration science program, and are rated positively by the respondents who provide significant direction on the assessment of the core courses; (3) the curriculum evaluation analysis of the input aspect shows the highest proportion of conformity with government policy. The curriculum structure of the Public Administration program in accordance with government policy, in this case with the policy set by the Ministry of Research and Technology, and Higher Education; (4) the curriculum evaluation analysis of the process aspect shows the highest proportion in the statement of student independence in doing the subjects, tutorials and other academic tasks. Students have been able to understand well that independent study at Universitas Terbuka has become a requirement of students according to the learning system adopted by Indonesia Open University; (5) the curriculum evaluation analysis of the product aspect shows the highest proportion of cumulative Achievement Index (Grade Point Average/GPA) related statements, which gives students an explanation of the achievements of the cumulative achievement index. Data from these respondents indicated that most respondents wanted to get a maximum GPA; (6) the analysis result of alumni, institution and all observed components shows that the evaluation of the curriculum is considered positive to be done and reevaluated to improve the curriculum structure of the Public Administration Program; (7) The curriculum evaluation
using the CIPP model, which takes into account input from stakeholders (internal and external) will obtain accurate results, which can be used to improve the program curriculum and improve student access, and (8) there is component statement of context, input, process, and product aspects that are responded negatively by informants and respondents (students, alumni, institutions), although in small numbers.

**Recommendations for Public Administration Science Program of UT**

1. Public Administration Science Program of Universitas Tebuka for 2017 activities have started to develop the courses in accordance with the vision, mission, goals, and profile of graduates. Therefore, subjects that are no longer in accordance with the development of public administratif program, such as Urban Planning, Introduction to Anthropology, Basic Social and Cultural Sciences are shifted into elective courses or even eliminated.

2. In order for graduates to have competence in line with other universities, the curriculum of the public administration program needs to be adjusted to the core curriculum set by the public administration program association. This is intended if graduates wish to continue their studies in conventional PT, then the courses that have been taken can be transferred to the interested universitas curriculum.

3. The subjects that are recommended should primarily refer to the results of science association decisions. In the public administration science there is an Indonesian Association of Public Administration (IAPA), which has set the core courses, including learning outcome in accordance with Indonesia National Curriculum Framework (KKNI). The names of the courses need also to be adjusted in accordance with the development of science. For example, Public Service Management becomes Public Service Management, Government Administration Ethics, and the Ethics of Public Administration.

4. The existing curriculum of public administration program need to be add new courses to support learning outcome, namely: 1) Theory of decision-making; 2) Bureaucracy and governance; 3) Theory of social change and development; 4) Public management; 5) Organizational communication; 6) Theory of public administration; 7) Public Service Management; 8) Development Administration.

5. To strengthen the application of science (skills) on the structure of curriculum, the public administration program, it is necessary to accompany a certain courses by lab work, such as the office administration course and public policy officer.

**REFERENCES**


**Journal**


**Documents**


Abstract

E-Portfolio provides an online facility for the students to set their learning goals and align them with the outcome of their chosen academic program. It provides a comprehensive online evidence-based documentation of the learning journey of the students and opportunities to reflect on their strengths and weaknesses from time to time to keep track with their progress. They can look back, revisit and review their past projects and experienced fulfillment in knowing their accomplishments and the extent of their improvement in achieving their goals. According to UNESCO(2011), these are the skills that can be used throughout a lifetime to participate in a learning society as a lifelong learner. Although many teachers who are using open source Learning Management System(LMS) would consider integrating e-Portfolio into it, very few would have the opportunity to do so. There are technical skills and interoperability issues involved to integrate e-portfolio system into the LMS that limit them for pursuing it. This paper explored the existing tools of Moodle to develop outcome based e-portfolio and assessed its effectiveness. Mixed methods were used to document, try-out and evaluate the processes. The research paper offers strategies for teachers and students who are using Moodle on how it can be optimized not only for instructional activities and assessment but as outcome based e-Portfolio. Moodle could be optimized and efficiently used to prepare student and class e-portfolios thereby improving the attainment of the graduate outcomes of the students.

Keywords

e-Portfolio, Moodle, Outcome-Based, Open-source LMS
Developing portfolio online provides a lot of benefits for the learners, teachers and school administrators towards outcome-based education. It provides opportunities for the learners to document their achievements, keep track of their performance, and evaluate their attainment of the skills that are needed for them to become competent in their chosen program. Teachers find it convenient that they can access the outputs of the students anytime and anywhere for grading purposes and provide them with a more comprehensive assessment and tracking of the extent that the individual student has achieved the course competencies. These allow them to work in close collaboration with their students and provide them with a more personalized learning activities that suit their learning status. The school administrators are provided with opportunities to monitor the implementation of the program educational objectives and develop interventions when there are gaps towards the achievement of the program outcomes. The electronic portfolio becomes a tool for collaboration among the learners, teachers and school administrators to support the student’s journey in becoming competent professionals.

According to UNESCO(2015), at every stage of the life of every person should have lifelong learning opportunities to acquire the knowledge and skills they need to fulfill their aspirations and contribute to their societies. Portfolio management process provides opportunities for students to set their long-term personal and career goals, integrate their school’s graduate outcomes into their personal vision-mission, assess and reflect their status periodically, and develop action plans to improve their capabilities and competencies. These exercises when regularly performed develop the forward-looking and reflective thinking skills of the students that are necessary to become active and lifelong learners. Electronic Portfolio can be developed not only as a tool for assessment of competencies but opportunity to develop the skills of the students to become lifelong learners.

School administrators and teachers who are using open-source Learning Management System(LMS) would consider integrating e-Portfolio into their system for outcome-based learning and assessment, but few would have the opportunity to do so. Some would not have the resources to develop an e-portfolio system while the available open source e-portfolio system would have added technical requirements and skills involved to integrate e-portfolio system into the LMS. This research paper explored the capabilities of Moodle to develop outcome-based e-portfolios. The practices developed by the researcher could be utilized by Moodle users to accomplish an e-portfolio to support their LMS for outcome-based education.
Methods and Procedures

This paper used the mixed method in developing and testing the design of an outcome-based e-Portfolio. Case method was used to document the observation, processes and best practices developed in the outcome-based e-portfolio. While the quantitative method was used in performing the analysis of the profile of the participants and their evaluation of the e-portfolio practices. The developed e-Portfolios through Moodle cloud were tried out by the two sections of the third year Bachelor of Science (BS) in Information Technology students in their Content Management Course. The researcher considered the OBE framework of the Commission on Higher Education (2014) in the Philippines in the development of the design of Outcome-Based e-Portfolio. The Design Process was developed using the Plan, Do, Check and Act (PDCA) Model. The research study was completed in one year school year. The design and development of e-Portfolios were done in the first semester of the academic year 2016-2017. There were two sets of e-portfolio developed: Class e-Portfolio and the Student Individual e-Portfolio. These were tried-out in the Content Management Class in the second semester of the academic year 2016-2017.

The e

![Figure 1. CHED OBE Framework](image-url)
Discussion and Analysis

There were forty-one (41) student-participants in the study who were from the BSIT program. Twenty-two (20) students were from Section A and twenty-one (21) students were from Section B. They were the students of the researcher in the Content Management course.

Table 1. Profile of the Participants

<table>
<thead>
<tr>
<th>Gender</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>36</td>
<td>(87.80 %)</td>
</tr>
<tr>
<td>Female</td>
<td>5</td>
<td>(12.20 %)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>18</td>
<td>8</td>
<td>(19.51 %)</td>
</tr>
<tr>
<td>19</td>
<td>20</td>
<td>(48.78 %)</td>
</tr>
<tr>
<td>20</td>
<td>6</td>
<td>(14.63 %)</td>
</tr>
<tr>
<td>21</td>
<td>1</td>
<td>(2.44 %)</td>
</tr>
<tr>
<td>22</td>
<td>1</td>
<td>(2.44 %)</td>
</tr>
<tr>
<td>23</td>
<td>3</td>
<td>(7.32 %)</td>
</tr>
<tr>
<td>24</td>
<td>2</td>
<td>(4.88 %)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Residence</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuguegarao City</td>
<td>22</td>
<td>(53.66 %)</td>
</tr>
<tr>
<td>Cagayan</td>
<td>14</td>
<td>(34.15 %)</td>
</tr>
<tr>
<td>Isabela</td>
<td>4</td>
<td>(9.76 %)</td>
</tr>
<tr>
<td>Outside Region 2</td>
<td>1</td>
<td>(2.44 %)</td>
</tr>
</tbody>
</table>
There were two sets of e-portfolio developed in this research. The class e-portfolio and the student’s individual portfolio. The class e-portfolio includes the summary analyses of the information that are found in the individual e-portfolio of the students in the class. The class profile such as the summary of the students’ learning styles, personal information, personality test, multiple intelligences test, and the links to the student's e-portfolio could be accessed from here.
The Class e-Portfolio has the class summary of the self-assessments of the students’ graduate outcomes, institutional outcomes, program educational objectives, program competencies, 21st-century competencies, and their strengths and weaknesses. It also has the summary of their loved one's assessment of their strengths and weaknesses. The class summary can be accessed not only by the students and faculty but the program coordinator and dean. The information and data gathered here were bases for the development of enrichment and intervention activities.
The individual e-portfolio consisted of five areas which were as follows: Portfolio Main Page, student’s personal and professional background, academic journey, socio-cultural development, spiritual development, community outreach activities and miscellaneous. The Main Page consisted of the learner’s vision-mission, personal and career road map, analysis of his strengths and weaknesses, and action plans. The student took online tests such as learning style, multiple intelligences, personality, Intellectual Quotient(IQ), and Creativity tests. The results of the tests and the student’s reflections on them were documented in the e-portfolio. The student also asked his parents, guardians, friends, and classmates to share their assessment of his strengths and weaknesses and used these as inputs in the development of his action plan.

The second part of the student’s e-portfolio consisted of his background. This part included his family tree, family history, place of his origin and his insights, and reflections of his childhood days. The third part was the student’s academic journey of the student, which contained his reflections and documentations of his experiences in elementary, high school and college. The BSIT program objectives and outcomes were presented as a survey in which the student needed to evaluate himself every end of the school year on the extent of their achievements. It also has a
listing of all courses in the BSIT curriculum whereby each course has a self-survey tool of the course objectives and outcomes. There is a checklist of competencies and self-survey must be done every end of the semester on the courses completed. There is a page for every course where the student can upload documentations of his learning processes and outputs in the course. The projects are peer-assessed by his classmates.

The third, fourth and fifth areas of the student’s e-portfolio were the documentations and reflections on sociocultural, spiritual and community extension activities of the students. These sectors that are needed to be developed for the holistic development of the student. The last area was miscellaneous in which the student has a choice what are other areas to be documented and reflected. In all these areas, the students set his goals and outcomes and evaluate their attainment at the end of the school year.
Moodle Tools that were utilized in the e-Portfolio

<table>
<thead>
<tr>
<th>Moodle Tools</th>
<th>Student’s Individual Portfolio</th>
<th>Class e-Portfolio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Survey</td>
<td>✓ Assessment of Program Objectives and Outcomes ✓ Assessment of Course Objective and Outcomes ✓ Assessment of 21st century skills</td>
<td>✓ Learning Style Assessment ✓ Personality Assessment ✓ Multiple Intelligences ✓ Assessment of Course Objective and Outcomes ✓ Assessment of Program Objectives and Outcomes ✓ Assessment of 21st century skills ✓ Questionnaire</td>
</tr>
<tr>
<td>Page</td>
<td>✓ Vision ✓ Mission ✓ Photos and Video Documentations Reflections and Insights</td>
<td>✓ Manual and Instruction to the students</td>
</tr>
<tr>
<td>Wiki</td>
<td>✓ Reflections and Insights</td>
<td>✓ Peer Assessment of Student’s Strengths and Weaknesses</td>
</tr>
<tr>
<td>Workshop</td>
<td>✓ Peer Evaluation of Projects/output</td>
<td>✓ Peer Evaluation of e-Portfolio</td>
</tr>
<tr>
<td>Links</td>
<td>✓ Resources and social media accounts</td>
<td>✓ Resources and individual e-Portfolio</td>
</tr>
<tr>
<td>Assignments</td>
<td>✓ Strengths and Weaknesses ✓ Assessment of parents, friends and loved ones ✓ Activity Plan</td>
<td>✓ Activity Plan ✓ Vision-Mission ✓ Roadmap</td>
</tr>
<tr>
<td>Forum</td>
<td>✓ Comments and Suggestions</td>
<td>✓ Discussion and Brainstorming ✓ Inquiries</td>
</tr>
<tr>
<td>Database</td>
<td>✓ Checklist of competencies ✓ Personal Information ✓ Peer evaluation</td>
<td>✓ Personal Information</td>
</tr>
</tbody>
</table>
Strategies developed in using Moodle for e-Portfolio Development and Implementation

While exploring the Moodle features and tools to develop e-Portfolio, the researcher was able to develop and try-out the following strategies:

1. Course creation process can be done to develop the student’s individual e-Portfolio. Each course created is converted into an e-Portfolio. After completing the design of e-Portfolio, create a back-up of the course for each student.

2. Wiki can be utilized for students to share their evaluation of the strengths and weaknesses of their classmates. The teacher can create Wiki for each student in the Class e-Portfolio. The student can open the Wiki of each of his classmates and type his evaluation. At the end of the evaluation, the student can view what his classmates have typed about himself.

3. The survey can be used to determine the class profile of the students regarding their learning style, multiple intelligences, creativity test, personality test and the like. In the class e-portfolio, the teacher requires the students to answer the online survey form after they have undergone the tests.

4. The survey can also be used to assess program and course objectives and outcomes in the individual e-portfolio and track the progress. The teacher creates a user for each semester. For example, John_1styr_1st sem, John_1styr_2nd sem, John_2ndyr_1stsem, John_2ndyr_2nd sem, etc. Each semester, the student is given a different user account so the assessment in the past will be retained in his e-Portfolio and he can visualize the development or improvement when he makes a new evaluation. The analysis in the survey will provide a graph of the student’s achievement of the outcome from the past semester to the current one.

5. The workshop can be an effective tool to conduct peer evaluation online of the projects or outputs.

6. Students can personalize their e-portfolio design and use the template that suits their personality. The teacher can teach the students how to edit the site template.

7. The teacher can create a forum, assignment, folder or file for each output uploaded by the student. After the uploading, you can open a Wiki for typing the insights and reflections of the student. If you want that the reflections can be read by the other students, a forum must be created, instead.

8. For each activity in the e-Portfolio, the teacher can assign outcome that is to be developed and check the level of achievement of the outcomes at the end of the activity. These practices would produce an inventory of the outcomes the student has achieved.
## Table 2. Benefits of utilizing e-Portfolio for the student-participants

<table>
<thead>
<tr>
<th>Benefits of Utilizing e-Portfolio</th>
<th>Weighted Mean</th>
<th>Qualitative Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have become more aware of my vision in life</td>
<td>4.83</td>
<td>Extremely Agree</td>
</tr>
<tr>
<td>I have deeper understanding of the vision-mission of the school for me</td>
<td>4.76</td>
<td>Extremely Agree</td>
</tr>
<tr>
<td>I have valued my studies more through the e-portfolio activities</td>
<td>4.71</td>
<td>Extremely Agree</td>
</tr>
<tr>
<td>It has help me become a self-directed learner</td>
<td>4.68</td>
<td>Extremely Agree</td>
</tr>
<tr>
<td>I have developed appreciation of myself and my achievements</td>
<td>4.68</td>
<td>Extremely Agree</td>
</tr>
<tr>
<td>I have become more pro-active in my studies</td>
<td>4.63</td>
<td>Extremely Agree</td>
</tr>
<tr>
<td>I have become more mature in my outlook and perspective in life</td>
<td>4.63</td>
<td>Extremely Agree</td>
</tr>
<tr>
<td>I have developed my reflective thinking skills better</td>
<td>4.63</td>
<td>Extremely Agree</td>
</tr>
<tr>
<td>I have valued the learning activities and output that we developed in the class</td>
<td>4.59</td>
<td>Extremely Agree</td>
</tr>
<tr>
<td>I know better how can I improve my strengths</td>
<td>4.56</td>
<td>Extremely Agree</td>
</tr>
<tr>
<td>I have become more aware of my mission in life</td>
<td>4.49</td>
<td>Extremely Agree</td>
</tr>
<tr>
<td>I have deeper understanding of my strengths and weaknesses</td>
<td>4.49</td>
<td>Extremely Agree</td>
</tr>
<tr>
<td>I know how better how I will be able to overcome my weaknesses</td>
<td>4.46</td>
<td>Extremely Agree</td>
</tr>
<tr>
<td>I have developed my communication skills through writing my reflections and insights</td>
<td>4.39</td>
<td>Extremely Agree</td>
</tr>
<tr>
<td>I have improved on how I deal with my classmates and teachers</td>
<td>4.20</td>
<td>Extremely Agree</td>
</tr>
</tbody>
</table>

At the end of the try-out of the e-portfolios, the students were asked to assess the benefits they have derived from their use. The access given to them was anonymous in the survey to ensure the objectivity of their answers. The top three benefits they had realized in the use of e-portfolio were as follows: they have become more aware of their vision in life; they have realized better the vision-mission of their school for them, and they have valued their studies more. They extremely agreed that they have become self-directed learners and developed greater appreciation of themselves and their achievements.

The e-Portfolio Design Process and practices were evaluated by the Information Technology Department’s Dean, Associate Dean and all the faculty members, and five teacher-education experts of St. Paul University Philippines. All the evaluators considered the e-Portfolio Design Process to be useful and relevant in implementing outcome-based learning. Since the faculty members of the University had been trained on Moodle, it will not be difficult for them to adopt LMS for an outcome-based e-Portfolio.

**Conclusions:**

Moodle which is an open-source e-learning platform has tools and features that can be optimized to develop electronic portfolios. The e-Portfolios that are developed through Moodle can be effectively integrated into the Learning Management System as not only an Outcome-
Based assessment, but they can be used as Outcome-Based learning activities. The e-Portfolios developed in this study can support the development competencies of the students to become life-long learners. The design process developed in the research study can be adopted not only in Moodle but other open-source LMS.

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CHED (2014), Handbook on typology Outcome-Based Education and Sustainability Framework and Institutional Sustainability Assessment


THE EFFECT OF ONLINE TUTORIAL ACTIVITY ON GRADE OF PDGK4104 COURSE AT UNIVERSITAS TERBUKA

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Abstract

This research is designed to know the effect of online tutorial participant among the student achievement of PDGK4104 course on primary Teacher Education at Faculty of Teaching and Education Universitas Terbuka. The hypothesis of this research shows the influence level of student participation in online tutorial among student achievement. This research constitute by quantitative descriptive. The population in this research are online tutorial participants of PDGK4104 Class P1, P6 and P7 at the time of registration 2015.2 Sampling technique using purposive sampling. Online tutorial activity data consist of participating (X1) task value (X2) and discussion value (X3) which is obtained from tutorial report of PDGK4104 at the time of registration 2015.2 final value (Y) obtained from Test Center Office - LPBAUSI Universitas Terbuka. Total of 62 students were used in this research. Data is processed by multiple regression so that obtained regression equation. Y=0.3999+0027 X1 + 0024 X2 + 0024 X3. From the results of this research can be concluded that participant’s discussion and tutorial online task are influential on student achievement.

Keywords: Study Achievement Activity online tutorial

1. INTRODUCTION

Open Education, by its very nature, refers to an education practice that demonstrates openness in the learning implementation that involves the students, learning media, learning sources and learning methods. Such open platform typically applies life-long learning that provides the students with broad learning opportunities throughout life with the flexibility of time and space (Estimuwarni, 2013). Farisi (2012) conceptualizes Open Education based on two aspects – institutional and personal aspects. On an institutional basis, Open Education separates teacher and student in space and possibly in time through multimedia and multiple sources. On a personal basis, Open Education enables students to learn at their own pace and determine the course loads according to their preferences.

Open Education typically offers learning support services where students have access to the materials, resources, registration, learning processes and learning outcomes. In general, learning support services refer to any support for students’ learning experience (Belawati, 2000). At Universitas Terbuka (UT), the learning services come up with similar goals – accommodating student interactions with learning materials and through numerous group activities as well as fostering tutor-student interactions with tutorial modules. The utilization of learning resources and guided learning with instructional approaches in turn encourage optimal self-directed learning environment for satisfactory learning outcomes (Budiwati, 2007).

As an integral part of the learning support services at UT, online tutorials come with two modes – face-to-face tutorials and long-distance tutorials. While the former have students attend on-campus classes at specific times and days, the latter strictly depend on such media as radio, television, Internet and correspondences through which students undertake the tutorial experience (Adnan & Padmo, 2009). Face-to-face tutorials may require learning with computers and probably softwares, but long-distance tutorials entail a greater deal of technology.
Online tutorials, also known as tuton, provide access to tutorials to students who are unable to attend a scheduled in-person tutorial session. Oftentimes, such students take up online tutorials owing to scheduling conflicts and travel time and cost. UT sees this as a better fit than campus-based tutorials, which has the potential to take tutorial experience to a greater progress (Adnan & Padmo, 2009). The students must ensure they meet the tutorial requirements as online tutorials contribute 30% to final course grades (Universitas Terbuka, 2015).

PDGK4104 (Perspective of Elementary Education) is offered in a course packet in semester 1 in Elementary Teacher Education program of study, Faculty of Education and Science, Universitas Terbuka. A mandatory face-to-face tutorial is not assigned in this course; students must instead sign up for online tutorials that offer greater flexibility and opportunity to achieve the same quality education as face-to-face tutorials.

However, while the total number of students in Basic Education Program (Pendas) is relatively high, the rate of student participation in online tutorials remains low. For example, only 42 students registered in PDGK4104 in 2015.1 were reported to have completed initiation and assignments. The same pattern can be seen in PDGK4206 (Elementary Mathematics Education) where only 33 out of 172 registered students attended the initiation and completed their assignments. These results suggest that a great number of students did not strongly feel that they needed tutorials and that tutorials devoted to particular courses did not seem to attain the desired effect.

This study was intended to measure the effect of the rate of student participation in online tutorials on the final course grades in PDGK4104, PGSD, FKIP-UT. Results in this study extended prior work in highlighting the role of online tutorials in students’ academic achievements. The results suggest essential implications as the correlation between students’ tutorial drawbacks and impaired academic achievements has grown stronger over time, both because students who have poor involvement in online tutorial fail to meet the standardized final scores and because the demands for sustained participation elevate as students proceed to the subsequent semesters. Such correlation will be important to pursue in the approaching researches.

2. RESEARCH METHOD

2.1 Research Approach

Quantitative-descriptive design was used to measure the effect of online tutorials on student academic achievements in PDGK4104, PGSD, FKIP-UT.

2.2 Research Hypothesis

This study aimed to test whether the rate of student participation in online tutorials enhanced student academic achievements in PDGK4104, PGSD, FKIP-UT.

2.3 Research Variables

The research variables were students’ learning achievements and the rate of students’ participation in online tutorials, which consisted of understanding the initiation, being engaged in discussion and completing assignments in week 3, 5 and 7.

2.4 Population and Sample

The population included students in online tutorials for PDGK4104 class P1, P6 and P7 during 2015.2. Purposive sampling was used to sample the students who participated in at least two of the total
assessed activities, which were assignment, engagement and discussion. Of all the students enrolled in the online tutorials for PDGK4104, 62 students were eligible samples.

2.5 Method of Data Collection

The data was collected using probability-incidental sampling, which identified the whole students of PDGK4104 class P1, P6 and P7 during 2015.2. The data included the three activities in online tutorials – engagement, discussion and assignment. The data of learning achievements was obtained from Universitas Terbuka Testing Center.

2.6 Data Analysis

The data above were processed using multiple regression with the following equation:

\[ Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 \]

Where:

- \( Y \) = Learning achievements
- \( X_1 \) = Engagement in Online Tutorials
- \( X_2 \) = Discussion Scores
- \( X_3 \) = Assignment Scores

3. RESULTS AND DISCUSSION

3.1 Results

The following tables represent the analysis results which would be analyzed in Discussion.

3.1.1 Analysis of Respondents’ Descriptions about Final Grades

Of the 62 students who attended online tutorials for PDGK4104, 15 students (24.2%) earned scores 1.00; 27 students (43.5%) earned 2.00; 14 students (22.6%) earned 3.00; and 6 students (9.7%) earned 4.00.

<table>
<thead>
<tr>
<th>Table 1. Data of Final Grades (Y)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>Valid</td>
</tr>
<tr>
<td>1.00</td>
</tr>
<tr>
<td>2.00</td>
</tr>
<tr>
<td>3.00</td>
</tr>
<tr>
<td>4.00</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Source: Primary data, processed in 2016

3.1.2 Analysis of Respondents’ Descriptions about Engagement
In terms of student engagement, 53 students (85.5%) earned scores 0–19 and 9 students (14.5%) earned 20–39.

Table 2. Data of Engagement (X1)

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 - 19</td>
<td>53</td>
<td>85.5</td>
<td>85.5</td>
<td>85.5</td>
</tr>
<tr>
<td>20 - 39</td>
<td>9</td>
<td>14.5</td>
<td>14.5</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>62</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Primary data, processed in 2016

3.1.3 Analysis of Respondents' Descriptions about Discussion Scores

In terms of students' discussion scores, 50 students (80.6%) earned 0–19 and 12 students (19.4%) earned 20–39.

Table 3. Data of Discussion Scores (X2)

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 - 19</td>
<td>50</td>
<td>80.6</td>
<td>80.6</td>
<td>80.6</td>
</tr>
<tr>
<td>20 - 39</td>
<td>12</td>
<td>19.4</td>
<td>19.4</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>62</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Primary data, processed in 2016

3.1.4 Analysis Of Respondents’ Descriptions about Assignment Scores

In terms of students' assignment scores, 15 students (24.2%) earned scores 0–19; 8 students (12.9%) earned 20–39; 11 students (17.7%) earned 40–59; 13 students (21.0%) earned 60–79; and 15 students (24.2%) earned 80–100.

Table 4. Data of Assignment Scores

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 - 19</td>
<td>15</td>
<td>24.2</td>
<td>24.2</td>
<td>24.2</td>
</tr>
<tr>
<td>20 - 39</td>
<td>8</td>
<td>12.9</td>
<td>12.9</td>
<td>37.1</td>
</tr>
<tr>
<td>40 - 59</td>
<td>11</td>
<td>17.7</td>
<td>17.7</td>
<td>54.8</td>
</tr>
<tr>
<td>60 - 79</td>
<td>13</td>
<td>21.0</td>
<td>21.0</td>
<td>75.8</td>
</tr>
<tr>
<td>80 - 100</td>
<td>15</td>
<td>24.2</td>
<td>24.2</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>62</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Primary data, processed in 2016

3.1.5 The effect Between Variables
Multiple linear regression was used to measure the effect of engagement, discussion scores and assignment scores on the learning achievements. The following results were obtained from the data analysis using SPSS 19.0:

### Table 5. The Output of Multiple Regression

<table>
<thead>
<tr>
<th>Coefficients&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>(Constant)</td>
<td>.399</td>
<td>.218</td>
</tr>
<tr>
<td>Engagement (X1)</td>
<td>.027</td>
<td>.013</td>
</tr>
<tr>
<td>Discussion Scores (X2)</td>
<td>.024</td>
<td>.008</td>
</tr>
<tr>
<td>Assignment Scores (X3)</td>
<td>.023</td>
<td>.002</td>
</tr>
</tbody>
</table>

<sup>a</sup> Dependent Variable: Final Grades (Y)

Source: Primary data, processed in 2016

The analysis came up with regression equation: $Y = 0.399 + 0.027 X_1 + 0.024 X_2 + 0.024 X_3$, which indicates that engagement, discussion scores and assignment scores had positive effects on the learning achievements.

#### 3.1.6 Partial T-Test

Based on Table 5, the t-test reveals that:

a. $T_{Cal.}$ of engagement (X1) toward the learning achievements (Y) is 2.122 with significance value of 0.038, which indicates a significant t-value (less than 0.05). As such, X1 had a significant effect on Y.

b. $T_{Cal.}$ of discussion scores (X2) toward the learning achievements (Y) is 3.058 with significance value of 0.003, which indicates a significant t-value (less than 0.05). As such, X2 had a significant effect on Y.

c. $T_{Cal.}$ of assignment scores (X3) toward the learning achievements (Y) is 9.878 with significance value of 0.000, which indicates a significant t-value (less than 0.05). As such, X3 had a significant effect on Y.

#### 3.1.7 Simultaneous F-Test (Anova)<sup>b</sup>

F-test evaluates either whether the independent variables could explain the dependent variable or the independent variables had significant effects on the dependent variable simultaneously. Anova table below reveals the effects of the independent variables (engagement, discussion scores and assignment scores) on the dependent variable (learning achievements) as a whole.

### Table 6. The Output of F-Test
ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>33.219</td>
<td>3</td>
<td>11.073</td>
<td>36.022</td>
<td>.000a</td>
</tr>
<tr>
<td>Residual</td>
<td>17.829</td>
<td>58</td>
<td>.307</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>51.048</td>
<td>61</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Assignment Scores (X3), Engagement (X1), Discussion Scores (X2)
b. Dependent Variable: Final Grades (Y)

Source: Primary data, processed in 2016

The model above generated $F_{Cal}$ of 36.022 with a significance value of 0.000 (less than 0.05), which is likely classified as meaningful predictors. As a whole, engagement, discussion scores and assignment scores had significant effects on the learning achievements.

Finally, the hypothesis that the rate of student participation in online tutorials had a positive and significant effect on students’ academic achievements in PDGK4104, Elementary Teacher Education, Faculty of Education and Science Universitas Terbuka was accepted.

3.1.8 Coefficient of Determination (R Square)

The degree of correlation of engagement, discussion scores, assignment scores and learning achievements as a whole (or simultaneously) was identified by the square of simultaneous correlation coefficient, also known as R, in Table 7.

Table 7. The Output of Simultaneous Correlation

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.807a</td>
<td>.651</td>
<td>.633</td>
<td>.55444</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Assignment Scores (X3), Engagement (X1), Discussion Scores (X2)

Source: Primary data, processed in 2016

The simultaneous correlation coefficient is 0.807 with R square of 0.651. As a whole, each of the predictors had a moderate degree of correlation. In other words, the degree of the effects of engagement, discussion scores and assignment scores on the learning achievements defined by the simultaneous correlation coefficient ($R^2$) was able to account for 65.1% of the learning achievements. The remaining 34.9% accounted for other factors not included in this model.

3.2. Discussion

A positive and significant effect, both partial and simultaneous, of the student participation in online tutorials on the academic achievements was evident in the multiple regression model. Engagement, discussion scores and assignment scores were all significant factors in predicting the students’ academic achievements. Specifically, as the rate of the student participation in online tutorials increased, the drawbacks associated with the academic achievements lessened.

Results from the analysis of students’ descriptions indicate that the majority of students’ engagement and discussion scores were low. Of the 62 students, the highest percentage of engagement was 85.5% that comprised 52 students on a 0–19 score scale. This percentage was slightly higher than that of
discussion scores which generated 80.6% that made up 50 students on a similar scale. It is also worth noting that the highest percentage of assignment scores stood at 24.2% (15 students) both on 0–19 and 80–100.

As previously mentioned, students need to score above 30% both on the online tutorials and final examinations (UAS) to help boost UAS scores. In other words, the scores of online tutorials can affect those of UAS unless they go below 30% (Haryanto, 2014). To that end, students must meet all the tutorial obligations – initiation (engagement), discussion and assignment. Each of the categories makes up a different contribution to the scores of online tutorials; initiation, discussion and assignment are worth 20%, 30% and 50%, respectively.

Myriad factors were found to have resulted in the low participation of students in the online tutorials. Budiwati (2007) points out students’ access to and skills in technology-based learning, students’ responses to tutors in discussions, tutorial management and Internet availability in the learning setting as to why students can or cannot fully participate in such tutorials. Lee (2014), in addition, claims that the students’ satisfactions from the tutorial experience were closely related to comprehensible assignment guidelines, plain rubrics, constructive feedbacks and tutors’ subject-matter expertise.

4. CONCLUSION AND SUGGESTIONS

4.1 Conclusion

The results that both partial t-value and simultaneous f-value were less than 0.05 suggest that the combination of achievements in online tutorials and those in UAS is likely to substantially promote gain in academic feat. The correlation between online tutorials and academic feat has become obvious since students who fail to perform well in the online tutorials will not meet the required learning outcomes. This will get worse as the academic demands increase in the subsequent semesters.

4.2 Suggestions

Results from this study also support the need to develop propositions as to how the student participation in online tutorials can be enhanced.

1. Universitas Terbuka needs to provide tutors with a range of professional training and development aimed at optimal student academic feat.

2. Additional researches on the development of online tutorials are necessary to pursue as this study, though promising results have been reported, has yet to cover all of the domains in such area.

BIBLIOGRAPHY


