

Students' Awareness Level On Outcome Based Education (OBE) Implementation: A Preliminary Study At Kolej Komuniti Pasir Salak

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Abstract

Generally, Outcome Based Education (OBE) is an educational approach that involves restructuring the curriculum, assessment, and reporting based on the learning outcomes of a course offered at Community College. The Malaysian Qualifications Framework (MQF), under the Malaysian Qualifications Agency's (MQA) supervision, stipulates that implementing OBEs is mandatory to fulfil a program's accreditation. Therefore, this study was conducted to determine students' level of awareness and perception towards implementing OBE at Kolej Komuniti Pasir Salak (KKPS). This study is a quantitative survey that uses questionnaires as the main instrument. This questionnaire consists of two parts, Part A and Part B. Part A is the respondent's demographic information. Part B involves B1: Students' Awareness of the Implementation of OBE, B2: Students' Perception of KKPS Commitment in the Implementation of OBE and B3: Students' Awareness of the Implementation of OBE in the Learning and Teaching Process. The sample involved 100 KKPS students comprising four programs. The data obtained was analysed using the Statistical Packages for Social Sciences (SPSS) version 22.0 software, which involves descriptive analysis, i.e., mean score calculation. The analysis showed that students' awareness of the implementation of OBEs in KKPS was moderate, with a mean score of 3.43. The students' perception of KKPS commitment to implementing OBE is also moderate, with a mean score of 3.56. Next, the mean score for the student's awareness level of implementing the OBE in the teaching and learning process is 3.61, giving a moderate interpretation. In conclusion, KKPS needs to proactively raise awareness among students on OBE's importance in producing excellent graduates.

Keywords: Outcome Based Education; Awareness; Perception; Learning & Teaching

1.0 Introduction

Outcome Based Education (OBE) is an approach in the education system that focuses on the desired learning outcomes after the learning and teaching process occurs (Gardner et al., 2023). It can indirectly replace the conventional education system in learning to meet the revolution of a new era of more effective state education, as in Table 1. Therefore, OBE should involve the process of curriculum rearrangement, assessment, and delivery of study structure in ensuring mastery of teaching that is more than conventional learning activities (Tucker, 2004). Similarly, to the OBE paradigm created by Dr William Spady, known as the 'Father of Outcome-Based Education', the four main principles of OBE emphasized are focus on outcomes, high

expectations of outcomes, outcome settings before the development of learning content and widespread opportunities (Spady, 1994).

Table 1: Differences between OBE and Conventional Learning

Conventional Learning	Outcome-Based Learning (OBE)
Involve one-way communication between lecturers and students	Involve active two-way communication between lecturers and students
Lecturer-centered learning	Student-centred learning
Guided by the content of learning content	Guided by learning content with the involvement of innovation and creativity of students
Learning → Outcomes	Outcomes → Learning

Technical and Vocational Education and Training (TVET) is rapidly developing in line with the direction of employment that always meets the demands of the industry. It coincides with the requirements suggested by the Ministry of Higher Education (KPT), the local and international education accreditation agency. As is well known, it is a requirement set by MQA to fulfil accreditation. Therefore, implementing Outcome Based Education (OBE) in learning and teaching has been mandatory for all higher education institutions since 2007 to ensure that the graduates produced are of quality and in line with the needs of the country (Rahaffor, 2017). The growing demand for labour in the IR4.0 era proves that TVET education is important to drive Malaysia towards a developing country.

2.0 Problem Statement

Implementing OBE at Kolej Komuniti Pasir Salak in the learning and teaching process can help students better understand the learning outcomes of the courses that need to be achieved. However, there are still difficulties and obstacles in ensuring that the learning process can be implemented with the concept of OBE. Among the problems that can be identified are the still low level of students' understanding of OBEs and the lack of partnership on the importance of implementing OBEs in teaching. In addition, the lack of OBE exposure from lecturers and institutions contributes to the barrier factor of the OBE approach to students. Therefore, a preliminary study on students' level of awareness and perception towards implementing OBE at Kolej Komuniti Pasir Salak should be carried out. The results of this study can be used as a guide in the future to further strengthen students' awareness of the implementation of OBEs, especially during the learning and teaching process.

2.1 Objectives of The Study

The objectives of this study are:

- i. Identify students' awareness of the implementation of Outcome Based Education (OBE) at Kolej Komuniti Pasir Salak

- ii. Identify students' perception of Kolej Komuniti Pasir Salak's commitment to the implementation of Outcome Based Education (OBE)
- iii. Identify student awareness of implementing Outcome Based Education (OBE) in learning and teaching.

2.2 Framework of The Study

Figure 2 is a conceptual framework for the study to be carried out. It is intended as a guideline as well as the direction of the study to meet the objectives set.

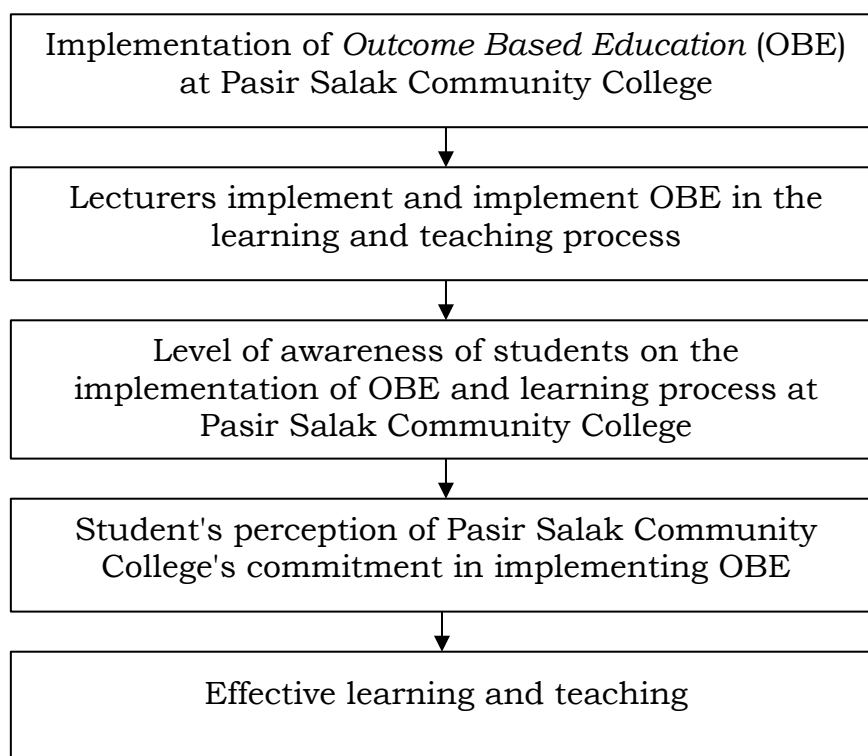


Figure 2: Conceptual framework of study (Arifin, 2013)

3.0 Literature Review

The OBE implementation cycle focuses on four main elements: Plan, Do, Check and Action. In order to provide an outcomes-based education system (curriculum, facilities, assessments, etc.), the essential elements of OBE need to be understood to determine maximum learning outcomes in line with the OBE framework (Macayan, 2017). Therefore, the term 'outcome' in OBE can be interpreted as a learning outcome that will be measured at the end of the assessment process throughout the course of Community College and refers to the skills students can perform after graduation. Based on the learning outcomes that have been determined, curriculum development will be carried out and followed by the learning and teaching process in the classroom. The applicable assessment process will be analysed to identify the level of achievement of the Lesson Learning Outcome (LLO), Course Learning

Outcome (CLO), Program Learning Outcome (PLO) and Program Educational Objectives (PEO) programs involved.

A dynamic learning and teaching system must be applied by implementing a continuous improvement process or Continuous Quality Improvement (CQI). The learning model can be adjusted to current needs through the CQI process to ensure that the predetermined learning outcomes are achieved (Bezinović, 2005). Among the CQI implementation steps outlined by the Department of Polytechnic Education and Community College (JPPKK) in monitoring the implementation of OBE is through the T&L Monitoring System. This system involves 4 main assessment domains, namely Domain 1 (Teaching and Learning Preparation), Domain 2 (Implementation of OBE in learning and teaching), Domain 3 (Competence and Professionalism of Lecturers), and Domain 4 (Class Management). Each lecturer is responsible for emphasising and strengthening the understanding of OBE among students so that the OBE cycle process can be completed and the achievement of learning outcomes can be measured, as in Figure 1.

The framework for this research consists of constructing and handing out questionnaires among students to measure the perception of Outcome Based Education that has been implemented in the learning and teaching process.

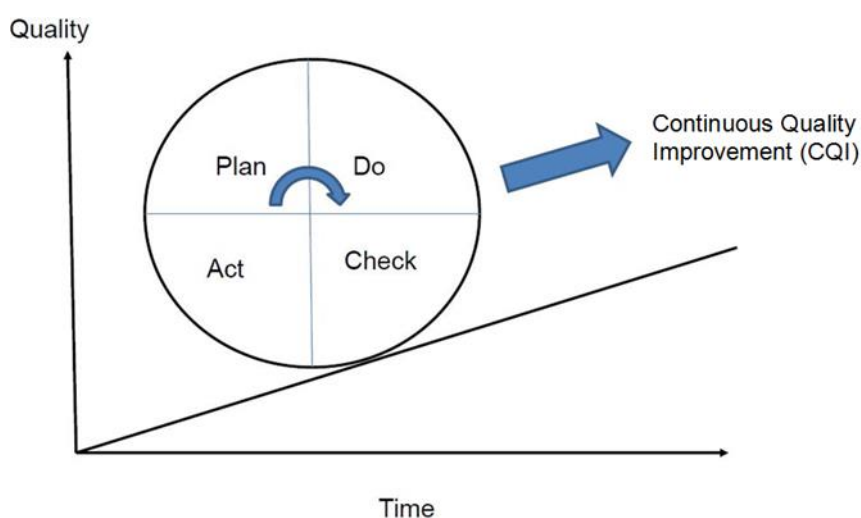


Figure1: Cycle of PDCA

4.0 Methodology

4.1 Research Design

The study employed a quantitative survey method, with questionnaires as the primary tool. This method uses measurements based on mean scores to identify students' level of awareness and perception towards the implementation of OBE at Kolej Komuniti Pasir Salak.

4.2 Research Sample

The study sample consisted of 100 students from semester 1 to semester 3 of Kolej Komuniti Pasir Salak. These students consist of four programs: Sijil Teknologi Maklumat, Sijil Servis Kenderaan Ringan, Sijil Pengendalian Acara and Sijil Pemprosesan dan Kawalan Mutu Makanan.

4.3 Research Instrument

This study uses a questionnaire adapted from (Rhaffor, 2017), which consists of two parts: Section A and Section B. Section A contains 4 items about the respondents' demographic information. Part B contains 17 items involving research elements, as in Table 2.

Table 2: Research Elements and Questionnaire Items

Research Element	Items in the Questions	Number of items
Section B1: Students' Awareness of OBE Implementation in KKPS	<ul style="list-style-type: none"> • Awareness of OBE implementation • Awareness of OBE components (PEO, PLO & CLO) 	7
Section B2: Students' Perception of KKPS Commitment in OBE Implementation	<ul style="list-style-type: none"> • Commitment of management and lecturers to ensure the achievement of OBE 	5
Section B3: Students' Awareness of the Implementation of OBEs in the Learning and Teaching Process (T&L).	<ul style="list-style-type: none"> • Learning and teaching methods • Awareness of the assessment methods used 	5
Total		17

The questionnaire was given to the respondents in the form of Google Forms. Respondents needed to answer Part B items based on the 5-point Likert Scale score, as shown in Table 3.

Table 3: Likert Scale Score

Scale	1	2	3	4	5
	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

4.4 Data Analysis

The data were analysed using Statistical Package for the Social Science (SPSS) Version 22.0. Descriptive analysis methods, i.e., percentages, were used to describe the respondents' demographic information. The mean score was used to interpret respondents' perceptions of implementing OBE in KKPS. Table 4 shows the interpretation of the mean score from (Neuman, 2012).

Table 4: Interpretation of Mean Score of 5-point Likert Scale

Mean score range	Interpretation
1.00 – 2.39	Low
2.40 – 3.70	Moderate
3.71 – 5.00	High

Source: (Neuman, 2012)

5.0 Results and Discussion

5.1 Demographic Information

The total number of respondents is 100 people, consisting of 32 male students and 68 female students. Table 5 shows the demographic information of the respondents.

Table 5: Demographic Information of Respondents

Profile	Demographic	Percentage (%)
Gender	Male	32
	Female	68
Race	Melayu	83
	Indian	14
	Chinese	2
	Others	1
Program	Sijil Teknologi Maklumat	25
	Sijil Servis Kenderaan Ringan	11
	Sijil Pengendalian Acara	12
	Sijil Pemprosesan dan Kawalan Mutu Makanan	52
Semester	Semester 1	16
	Semester 2	72
	Semester 3	12

5.2 Students' Awareness of OBE Implementation in KKPS

The findings of the student's level of awareness of OBE implementation in KKPS are shown in Table 6.

Table 6: Mean Score of Students' Awareness Level of OBE Implementation in KKPS

Bil	Item	Mean Score	Interpretation
B1	I know that KKPS is implementing Outcome Based Education (OBE), which focuses on student achievement.	3.63	Moderate
B2	I am aware of the Program Educational Objectives (PEO) for the program I attend in KKPS.	3.53	Moderate

B3	I am aware of the Program Learning Outcomes (PLO) for the program I attend at KKPS.	3.59	Moderate
B4	I am aware of the methods used to measure Program Educational Objective (PEO).	3.25	Moderate
B5	I am aware of the methods used to measure Program Learning Outcome (PLO).	3.31	Moderate
B6	I am aware of the methods used to measure Course Learning Outcome (CLO).	3.40	Moderate
B7	I am aware of the learning domains (cognitive, affective, and psychomotor) specified to each CLO for the courses I attend.	3.30	Moderate
	Average mean score	3.43	Moderate

The analysis shows that item B1 (I am aware that KKPS is implementing Outcome Based Education (OBE), which focuses on students' achievement) has the highest mean score of 3.63. This finding is followed by item B3 (I am aware of the Program Learning Outcomes (PLO) for the program I attend in KKPS), with a mean score of 3.59. Next, item B2 (I am aware of the Program Educational Objectives (PEO) for the program I attend in KKPS) and item B6 (I am aware of the methods used to measure Course Learning Outcome (CLO)) have mean scores of 3.53 and 3.40 respectively. The lowest mean score is reflected in item B4 (I am aware of the methods used to measure Program Educational Objective (PEO) with a mean score of 3.25. This finding is followed by item B7 (I am aware of the learning domains (cognitive, affective, and psychomotor) specified to each CLOs for the courses I attend) and item B5 (I am aware of the methods used to measure Program Learning Outcome (PLO)) with respective mean scores of 3.30 and 3.31. According to Rhaffor (2017), students need to be exposed to measurement methods of OBE as early as Orientation Week, which is promoted through various media such as posters and banners. Students need to be aware that their achievements are not only measured after the completion of each course but also measured after the completion of their study program. The analysis shows that the overall mean score is 3.43, meaning that students' awareness of implementing OBE in PPCC is moderate. Therefore, KKPS needs to organize more programs or activities continuously to increase students' awareness of the importance of OBE.

5.3 Students' Perception of KKPS's commitment to OBE implementation

Table 7 shows the mean score for students' perception of KKPS's commitment to implementing OBE. The findings show that item B11 (I believe all lecturers put effort into improving their teaching methods) yields the highest mean score of 3.85. Item B12 (I believe that lecturers work hard to ensure all students attain the learning outcomes of their courses) has a mean score of 3.80. This result shows lecturers' high commitment to ensuring students

achieve the learning outcomes set in the course. Ag. Damit et al. (2018) in their study stated that lecturers are the main driving force in the implementation of OBE in institutions. Next, item B9 (All lecturers explained the Course Learning Outcomes (CLO) at the beginning of the semester) has a mean score of 3.57. The mean score for B10 (Information on OBE is accessible to everyone in KKPS) is 3.35. The lowest mean score points to B8 (I have been briefed on Outcome Based Education (OBE)) with a mean score of 3.32. The total mean score of 3.43 signifies that students' perception of KKPS's commitment to implementing OBE is moderate. Therefore, KKPS needs to give lecturers and students more exposure to OBE through continuous training or courses. According to a study by Chee Keong et al. (2010), support from management plays a vital role in ensuring that OBE can be implemented in an institution.

Table 7: Mean Score of Students' Perception of KKPS Commitment in Implementation of OBE

Bil	Item	Mean Score	Interpretation
B8	I have been briefed on Outcome Based Education (OBE)	3.23	Moderate
B9	All lecturers explained the Course Learning Outcomes (CLO) at the beginning of the semester.	3.57	Moderate
B10	Information on OBE is accessible to everyone in KKPS	3.35	Moderate
B11	I believe all lecturers put effort into improving their teaching methods	3.85	High
B12	I believe that lecturers work hard to ensure all students attain the learning outcomes of their courses	3.80	High
	Average mean score	3.56	Moderate

5.4 Students' Awareness of the Implementation of OBE in the Learning and Teaching Process.

Table 8 shows the mean score of students' awareness of implementing OBE in the learning and teaching process. The analysed data shows that item B13 (I believe that understanding the Course Learning Outcomes (CLO) can help me do better in Continuous Assessment or Final Assessment) has the highest mean score of 3.71. This finding is followed by item B15 (I understand the relationship between assessments (quizzes, tests, assignments, practical, examinations, etc.) and achievement of learning outcomes) and B14 (I am aware of the assessment criteria used by lecturers to assess students in class) which has means 3.66 and 3.58 respectively. The mean score for B17 (I am exposed to case studies or real industrial practices in class) is 3.56. The lowest mean score is B16 (I have the opportunity to demonstrate my communication skills during class), with 3.53. Hence, activities that can improve students' communication skills must be implemented and increased during teaching

and learning. The overall mean score of 3.61 signifies students' awareness of implementing OBE in the learning and teaching process is moderate. The OBE curriculum has demanded the introduction of the course content, instructional strategies, learning experiences, and evaluation methods for efficient teaching and learning processes (Gurukkal, 2020).

Table 8: Mean score of Students' Awareness of the Implementation of OBE in the Learning and Teaching Process

No.	Item	Mean Score	Interpretation
B13	I believe that understanding the Course Learning Outcomes (CLO) can help me to do better in Continuous Assessment or Final Assessment.	3.71	High
B14	I am aware of the assessment criteria used by lecturers to assess students in class.	3.58	Moderate
B15	I understand the relationship between assessments (quizzes, tests, assignments, practicals, final examinations, etc.) and the achievement of learning outcomes.	3.66	Moderate
B16	I have the opportunity to demonstrate my communication skills during class.	3.53	Moderate
B17	I am exposed to case studies or real industrial practices in class	3.56	Moderate
	Average mean score	3.61	Moderate

6.0 Conclusions

Overall, this preliminary study successfully obtained feedback from respondents to achieve the study's objectives. KKPS has implemented the initial steps to apply the concept of OBE to students. However, the findings of this study reflect that the student's level of awareness and perception of the implementation of OBE in KKPS is at a moderate level. KKPS needs to take more proactive actions to increase students' awareness of the importance of OBE. Among the improvement measures that can be implemented at KKPS in the future are:

- i. OBE needs to be briefed to students as early as during Orientation Week.
- ii. OBE training and courses should continuously be provided for lecturers and students to strengthen their understanding of OBE.
- iii. Appoint an OBE Coordinator to ensure that OBE-related activities are continuously ongoing.

The improvement recommendation for future studies is to examine the relationship between the management's commitment and students' awareness of OBE through correlation analysis. A further study that

emphasizes the impact of implementing programs or activities related to OBE can also be carried out. Besides that, implementing OBE can also be measured from the lifelong learning perspective. It is one of the contributions in producing a skilful society in education, social, economic and community leadership (Aris et al., 2020).

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Author Contributions

Nurul Syahirah M. N.: Conceived and designed the research framework questionnaire, completed the survey and wrote the paper.

Sulaihah D.: Assisted in performing the survey, analysed and interpreted the data, and wrote the paper.

Conflicts Of Interest

The authors declare no conflict of interest.

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