Students' Learning Behaviors in Relation to Outcome-Based Education (OBE)

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Abstract

This study aimed to undergraduate students' opinions toward current teaching and learning management and to investigate their expectations regarding teaching and learning management based on the Outcome-Based Education (OBE) framework. The research employed a quantitative approach. The population consisted of undergraduate students enrolled at Suan Sunandha Rajabhat University during the second semester of the 2024 academic year. A total of 400 students were selected as the sample using Yamane's. Data were collected through a structured questionnaire and analyzed using descriptive statistics, including mean and standard deviation.

Findings showed high overall satisfaction (mean = 4.21, S.D. = 0.55) with both online and on-site learning methods. Students rated coordination by teaching assistants (TAs) particularly highly (mean = 4.25, S.D. = 0.58). Key factors influencing satisfaction included TA coordination with lecturers, TA problem-solving skills, effective communication channels, adequacy of learning equipment, and clear communication. The results suggest that higher education institutions should place greater emphasis on learner-centered approaches, clearly defined learning outcomes, and assessment aligned with OBE principles in order to respond effectively to students' expectations and enhance graduate quality.The study also explored student perceptions of readiness in different learning methods, clarity in grading criteria, and the structure of online, on-site, and on-demand formats.

Keywords: Behaviors, Learning ,Outcome-Based Education (OBE)

1. Introduction

The development of transformative processes that advance societal, economic, technological, political, and educational progress plays a critical role in national development. Education, in particular, functions as a key instrument for equipping individuals with knowledge and competencies that contribute to social and national prosperity. According to the Twelfth National Economic and Social Development Plan (2017–2021), Thailand prioritizes strengthening human capital, society, and the national economic system to build resilience and enhance the capacity to adapt to educational changes.

Lifelong learning has become an essential mechanism for driving national development. This policy emphasis has influenced all educational agencies to prepare for the demands of the twenty-first century. The Office of the Education Council, Ministry of Education (2016), proposed three major strategies to advance Thai education in the twenty-first century: (1) reforming teachers, faculty members, and educational administrators; (2) reforming curricula, instructional practices, and assessment systems; and (3) reforming educational

management and problem-solving mechanisms. As a result, educational institutions serve as the most crucial agencies for national development, with education functioning as a driving force toward sustainable growth (Boonphadung,S, 2021).

Education in the twenty-first century operates within rapidly shifting contexts shaped by technological disruption, economic transitions, and evolving labor market structures. These changes require universities to adjust their instructional models to better equip learners with essential competencies. Outcome-Based Education (OBE) has been widely adopted as a learner-centered framework for curriculum design and instructional management. Its fundamental principle is that students must demonstrate clearly defined and measurable learning outcomes upon graduation. Despite its widespread recognition, implementing OBE in Thai higher education presents several challenges, including instructional design, learning activity alignment, assessment methods, and the coherence between teaching plans and intended learning outcomes. OBE does not prescribe specific teaching or assessment methods; rather, it emphasizes creating opportunities for students to achieve the intended learning outcomes. Consequently, the role of instructors shifts toward that of facilitators, coaches, mentors, or learning designers. The concept was pioneered by William G. Spady—widely regarded as the "Father of Outcome-Based Education"—who formally introduced the term "OBE" in 1988 (Spady,G,1988). In the United States, OBE began gaining traction in the 1930s when state education boards implemented it in more than 300 colleges and 30 high schools. Schools participating in the initiative redesigned their curricula to promote higher-order thinking skills by relaxing conventional content requirements in exchange for explicit, detailed reporting of students' competencies. Experimental studies on OBE implementation in high schools revealed that graduates from OBE-based institutions achieved significantly higher levels of success compared to those from traditional curriculum schools (Adedoyin & Shangodoyin, 2010).

The Official of General Education and Innovative Electronic Learning,Suan Sunandha Rajabhat University is responsible for delivering general education courses designed to equip undergraduate students with essential skills for future professional success. Implementing outcome-based instruction in these courses presents both opportunities and challenges for faculty members and students, as teaching must align with course-specific learning outcomes. Recognizing the importance of learner perspectives, the present study seeks to explore students' expectations and viewpoints regarding OBE. As primary stakeholders, their insights provide critical evidence for enhancing the learning system to ensure its alignment with national and international academic standards and to improve the overall effectiveness of instructional practices.

2. Research Objectives

This research study was aimed to

1) To study students' expectations regarding the current instructional practices with those of an Outcome-Based Education (OBE) instructional approach.

3. Conceptual Framework

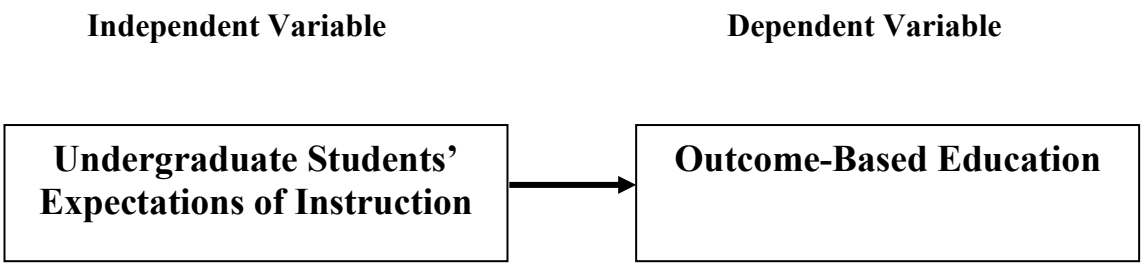

Figure 1. Conceptual Framework of the Study

The conceptual framework illustrated in Figure 1. the present study aims to examine undergraduate students' expectations regarding instructional practices. The investigation focuses on students' perceived needs, encompassing key factors such as instructor-related attributes, students' learning requirements, as well as assessment and evaluation practices.

4. Methodology

The research methodology of this research focuses on 5 steps of the precess of research: research objectives, data collection and data analyzing, findings and discussion and conclusion. The best approach to was the use of quantitative. The population of this study consists of undergraduate students enrolled in general education courses at Suan Sunandha Rajabhat University. However, by using Taro Yamane (1976) , the proper sample size was about 400.

This study conducted a systematic collection and analysis of sentiment from comments provided by 400 undergraduate students engaged in a general education course delivered via an on-demand format. The data collection process involved the accumulation of 400 distinct comments, which corresponded to one comment per student participant.

In this research, the researcher conducted a quantitative divided into three sections: (1) demographic information, (2) students' perceptions of current instructional practices, and (3) students' expectations toward Outcome-Based Education (OBE) instructional practices, collecting data and opinions from a sample group of undergraduate students enrolled in the second semester of 2024 at Suan Sunandha Rajabhat University. The research tool used was a questionnaire created based on concepts, theories, and research related to online teaching and learning. Data was collected in the form of primary data through the questionnaire and secondary data by studying documents and articles related to the research, local newspapers, or publications concerning online teaching and learning, as well as relevant websites. The collected data was analyzed using descriptive statistics with the SPSS (Statistical Package for Social Science) software, utilizing statistics such as mean and standard deviation.

5. Result

Analysis of Students' Perceptions and Expectations Toward Outcome-Based Education (OBE).

The analysis revealed that students' perceptions of current instructional practices differ substantially from their expectations for future OBE-oriented instruction. The key findings are summarized as follows:

1. Alignment Between Current Perceptions and Desired Learning Outcomes

- Students indicated that current instructional practices effectively stimulate curiosity and motivation to learn ($\bar{x}$ = 4.55) and enable them to apply knowledge in real-life situations ($\bar{x}$ = 4.45).
- However, students perceived that the existing teaching approaches do not fully support competency-based learning outcomes, particularly in developing practical skills and the ability to solve complex problems.

2. Expectations for Future OBE-Based Instruction

- Students expected future instructional systems to more clearly align learning activities with OBE learning outcomes, such as laboratory-based practice, simulation activities, and problem-based learning (PBL) projects.
- The highest-rated expectation was related to collaborative activities between instructors and students ($\bar{x}$=4.65), indicating a strong preference for participatory and experiential learning.
- Students also expected assessment practices to more accurately reflect actual competencies for example, through performance-based assessments,presentations,and behavioral competency evaluations rather than traditional written examinations.

3. Analysis Between Current Practices and Desired Expectations

A noticeable gap emerged between the existing instructional environment and students' expectations for OBE-aligned teaching. The gap highlights the need for enhanced learning activities, stronger integration between teaching methods and intended learning outcomes, and assessment practices that authentically measure student competencies.

Table 1. Data Formatting and Analysis Results

Opinions of undergraduate students.

Comparison of Students' Current Perceptions and Future Expectations Toward OBE-Based Instruction

Detail	Current Perception	Future Expectation	Agreement	Remark
1. Learner	4.24	4.65	High	Practical and experiential learning activities need to be strengthened.
2. Application of				Instruction should

Practical Skills	4.35	4.55	Moderate	be adjusted to incorporate more active learning strategies.
3. Competency-Based Assessment	4.35	4.55	High	Reduce reliance on memorization-based examinations and increase the use of authentic assessments.
4. Alignment of Learning Activities with Intended Learning Outcomes	4.35	4.55	High	Implement clearer alignment between teaching strategies and OBE learning outcomes.
Total	**4.29**	**4.53**	High	

* Example from dataset of 400 comments

The analysis of undergraduate students' perceptions and expectations toward Outcome-Based Education (OBE)–based instruction reveals that overall, students currently perceive the instructional practices at a moderately high level (Mean = 4.29), while their expectations for future instruction are at a higher level (Mean = 4.53). This indicates a clear expectation for improved instructional alignment with OBE principles. In the Learner dimension, students reported a high level of current perception (Mean = 4.24) and an even higher expectation for future practices (Mean = 4.65). The qualitative remark suggests that students desire more practical and experiential learning opportunities, highlighting the need to strengthen hands-on and learner-centered activities.

Regarding the Application of Practical Skills, both current perception (Mean = 4.35) and future expectation (Mean = 4.55) reflect moderate agreement. Students indicated that instructional methods should be adjusted to incorporate more active learning strategies, suggesting a shift toward more interactive and skills-oriented learning environments. In the area of Competency-Based Assessment, the mean scores for both current perception (Mean = 4.35) and expectation (Mean = 4.55) show a high level of agreement. Students expressed a need to reduce the emphasis on memorization-based examinations and to increase the use of authentic, performance-based assessments aligned with competency development. Lastly, for Alignment of Learning Activities with Intended Learning Outcomes, students rated both the current situation (Mean = 4.35) and future expectations (Mean = 4.55) at a high level. The remarks emphasize the importance of clearer alignment between teaching strategies and OBE learning outcomes, suggesting that students value coherence and consistency within the instructional process.

Overall, the results suggest that although students generally perceive OBE-based instructional practices positively, they hold even higher expectations for future improvements, especially in practical learning, active instructional strategies, authentic assessments, and enhanced alignment with learning outcomes.

Table 2. Data Formatting and Analysis Results
Opinions of undergraduate students

Detail	Mean	S.D.	Agreement
1.Students' perceptions of the learning process correspond to their knowledge acquisition in alignment with their individual learning needs.	4.45	0.52	Highest
2. Various educational backgrounds.	4.36	0.46	Highest
3. Apply the knowledge imparted by the instructors in real practice.	4.34	0.44	Highest
4. Lecture and students work together to apply learning and activities with each other.	4.65	0.42	Highest
5. Evaluation of knowledge of teachers and students can be done effectively.	4.24	0.48	Highest
Total	4.41	0.46	Highest

* Example from dataset of 400 comments

From Table 2, The analysis of students' perceptions revealed an overall high level of agreement (Mean = 4.41, S.D. = 0.46). Among the individual items, the highest mean score was found in the statement indicating that lecturers and students work together to apply learning and conduct activities collaboratively (Mean = 4.65, S.D. = 0.42), suggesting strong support for interactive and cooperative learning practices.

Students also strongly agreed that their perceptions of the learning process correspond to their knowledge acquisition in alignment with their individual learning needs (Mean = 4.45, S.D. = 0.52). This finding indicates that students perceive the curriculum and instructional activities as relevant and supportive of their personal learning goals. The item referring to students' diverse educational backgrounds received a high level of agreement (Mean = 4.36, S.D. = 0.46), demonstrating students' recognition of varied prior experiences contributing to the learning environment.

Furthermore, students expressed high agreement with the importance of applying knowledge imparted by instructors in real practice (Mean = 4.34, S.D. = 0.44), reflecting the perceived value of practical, hands-on learning. Lastly, the item regarding the effectiveness of evaluating both teachers' and students' knowledge also received a high level of agreement (Mean = 4.24, S.D. = 0.48), indicating confidence in the evaluation processes used within the course.

Overall, all items were rated at the highest level of agreement, demonstrating strong positive perceptions across all aspects of the learning process. The dataset was analyzed using comments from 400 respondents.

6. Conclusion

The expectations of undergraduate students regarding teaching and learning were found to be at the highest level (mean = 4.41, S.D. = 0.46). When examined item by item, the highest-rated aspect was the collaborative application of learning and interactive activities between instructors and students (mean = 4.65, S.D. = 0.42). Other notable aspects included students' perceptions that learning aligns with their needs (mean = 4.45, S.D. = 0.52), the development of various skills through diverse learning experiences (mean = 4.34, S.D. = 0.67), and the effectiveness of assessment and evaluation conducted by instructors (mean = 4.24, S.D. = 0.48), (Thepsang,S, (2023).

Outcome-Based Education (OBE) has been recognized as a key approach in learner-centered instruction. OBE focuses on enabling students to acquire the knowledge, skills, and attitudes aligned with predetermined learning outcomes. This approach emphasizes flexibility in learning methods, assessment, and time management, with a core feature being the design of instruction guided by clear learning objectives. OBE shifts traditional paradigms toward learner-centered practices, enhancing instructional quality, preparing students for independent learning, helping them achieve desired outcomes, and readying them for future employment.

In a study by Saipin Thongpad and Chansanee Chimngam (2020) on factors affecting readiness in preparing course details (TQF3) according to OBE principles among academic staff at the Faculty of Science, Mahidol University, the objectives were to examine readiness and factors influencing the preparation of TQF3 according to OBE. The study involved 125 academic staff from departments including Mathematics, Chemistry, Biology, Biotechnology, Botany, and Physics. Data collection instruments included questionnaires and tests, with analysis conducted using descriptive statistics (frequency, percentage, mean, standard deviation) and inferential statistics at a 0.05 significance level.

The findings indicated that academic staff were highly prepared in terms of skills and moderately prepared in terms of attitudes and knowledge comprehension. Hypothesis testing revealed no significant differences in readiness based on gender, age group, or workload. However, differences in years of experience, academic rank, or certain perceptual factors significantly affected knowledge comprehension. Additionally, departmental affiliation significantly influenced both skills and knowledge comprehension.

In summary, undergraduate teaching and learning should focus on learner-centered activities. Instructors need to understand the nature of adult learners, possess content knowledge, design diverse and integrated learning experiences, and employ technology to support learning. Higher education institutions should establish clear learning outcomes across knowledge, skills, ethics, and personal attributes while developing diverse learning resources, enabling students to reach their full potential and graduate as quality professionals. Key factors include:

1. **Learner-Centered Instruction:** Instructors should understand the nature of learners, who are adults or emerging adults, and adapt teaching strategies to their learning characteristics. Individual learner analysis should consider learning styles, self-efficacy, and expectations. Learning experiences should be designed to be learner-centered, including content integration, guided learning, and metacognitive approaches.

2. **Learner Assessment:**
    - **Pretests:** Assess prior knowledge before instruction.
    - **Assignments:**Provide tasks throughout the course for practice and self-development.
    - **Learning Evaluation:**Assess performance at the unit level and across the curriculum.
3. **Technology and Learning Resources:**
    - **Information Technology:** Use online systems, distance learning, and virtual group meetings to increase flexibility.
    - **Resource Development:** Universities should develop resources supporting lifelong learning and foster connections with communities, industries, and professional networks.
4. **Course and Curriculum Management:**
    - **Curriculum Design:** Align curricula with external conditions, national and international workforce needs, and stakeholder expectations.
    - **Program Learning Outcomes (PLOs):** Define outcomes across four domains: knowledge, skills, ethics, and personal attributes.
5. **Role of Higher Education Institutions:**
    - Quality assurance: Institutions must promote, supervise, monitor, and evaluate teaching and learning to ensure the production of graduates who meet quality standards.
    - Instructor development: Institutions should encourage continuous professional development for instructors, grounded in good governance and the advancement of teaching competencies.

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