Exploration of the Reform of a Blended Teaching Model Under an Outcome-Based Approach

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Abstract: This paper, proposes practical teaching recommendations based on the integration of blended teaching and outcome-oriented education through a case study. Through an in-depth exploration of projects such as creating individual resumes, the study reveals that the blended teaching model, while providing a personalized learning experience, complements the philosophy of outcome-oriented education. Utilizing online learning platforms to stimulate students’ interests in self-directed learning and continuously optimizing teaching methods through a comprehensive performance assessment and practical skill development provide students with a more practical and holistic learning experience. This research offers valuable insights and guidance for future educational practices, presenting actionable teaching approaches for schools and educational institutions.

Keywords: Blended teaching; Outcome-based education; Practical skills; Teaching recommendations

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1. Introduction

In response to escalating challenges in traditional education due to technological advancements, the study focuses on the transformative potential of blended teaching and outcome-oriented education [1]. Blended teaching, combining face-to-face and online learning, offers adaptability, while outcome-oriented education prioritizes practical skills over knowledge accumulation [2]. These models present an innovative educational approach fostering holistic student development. Motivated by the limitations of traditional methods in meeting diverse learning needs, the study explores the combination of blended teaching and outcome-based education. This study aims to establish a strong theoretical foundation by examining how blended teaching enhances outcome-based learning. The study provides practical insights, rigorously evaluates its impact on academic achievement and practical skills, and addresses challenges in implementing this combination, driving educational innovation and holistic student growth [3].
2. Literature review

This article aims to offer a comprehensive analysis of blended teaching models and outcome-based education, including their core concepts, strengths, challenges, and performance \[^{[1,2,4]}\]. Through an extensive literature review of practical applications, this paper seeks to provide theoretical backing for the development of a research framework and establish a basis for the seamless integration of blended teaching and outcome-oriented education \[^{[5]}\].

2.1. Blended teaching mode

Previous research on the blended teaching model has covered a wide range of fields, providing a rich theoretical basis for this study. Blended teaching, by definition, combines traditional face-to-face teaching with online learning to offer students a more flexible and personalized learning experience. The literature review will explore the definition of blended learning as well as how previous research has expanded upon its strengths and challenges. This includes examining the advantages of blended teaching in terms of student engagement, self-directed learning, and the limitations of traditional teaching methods, while also focusing on potential management, technology, and assessment difficulties that may arise \[^{[4]}\].

2.2. Outcome-based education

A literature review on outcome-based education will offer a comprehensive understanding of the fundamental principles of this educational philosophy. Outcome-based education emphasizes the development of students’ practical skills and problem-solving abilities, focusing on tangible learning outcomes rather than mere knowledge accumulation. The literature review will encompass an in-depth analysis of the theoretical foundations of outcome-based education, relevant research studies, and practical implementations. This will provide theoretical support for future research endeavors while summarizing previous empirical findings in promoting students’ holistic growth \[^{[2]}\].

3. Research framework

The research framework of this study starts from the intersection of blended teaching models and outcome-based education. It clarifies the theoretical basis and key concepts underpinning the research. Building on an in-depth understanding of previous studies, this paper constructs a theoretical framework to systematically explore how blended teaching can integrate with outcome-based education concepts.

Specifically, the framework provides an in-depth analysis of blended learning’s potential to nurture practical skills and problem-solving skills. It also examines how clearly defined learning objectives and assessment criteria can achieve outcome-oriented education goals.

By establishing this well-delineated research framework, we aim to give clear direction to the inquiry process. We also hope to shed light on synergistically blending teaching modalities with outcome-focused education philosophies \[^{[5]}\].

4. Design and implementation of an outcome-oriented blended teaching model: A case study of resume writing

In the Fundamentals of Computer Science course, students will learn how to create professional resumes using Word through a blended teaching approach. The core goal is to improve their proficiency in using Microsoft Office.
4.1. Curriculum design
Students will learn to utilize Word tools by creating resumes. The curriculum will emphasize the following aspects:

4.1.1. Learning objectives
The first task is to establish distinct learning goals. We stress building real-world skills – specifically cultivating proficiency in using Microsoft Office. By the end of the course, each student should have the ability to create their own resume using Word. These concrete, observable benchmarks align with outcome-based education principles.

4.1.2. Task breakdown
To achieve the learning objectives, the resume creation process is broken down into discrete steps. Students will learn the functions of Word systematically and gain hands-on skills. Completing the modular components equips students with the practical competencies and concrete deliverables central to outcome-based learning. The step-by-step approach ensures students can utilize Word tools in professional contexts.

4.2. Teaching methods
To fully engage students in a blended environment, the following teaching approaches will be utilized:

4.2.1. Online learning platforms
Resume-building video tutorials, templates, and learning resources will be available on online platforms. This allows self-directed learning to stimulate intrinsic motivation - aligning with the autonomy and initiative principles of outcome-based models. Students can also participate in online discussions and ask questions.

4.2.2. Group assignment
Students will be organized into small teams to create one resume per group. Each member will be accountable for distinct sections, promoting task division. Teachers will guide each group to ensure comprehension and utilization of Word functionalities. This design develops teamwork skills while achieving collaborative task completion goals, underscoring outcome-based emphasis on tangible deliverables.

4.3. Implementation process
To ensure effective blended learning, the following measures will be taken:

4.3.1. Pre-class preparation
Teachers will upload tutorials and templates to the online platform before class. This self-directed preparation aligns with the active participation principles of outcome models, allowing students to preview materials at their own pace.

4.3.2. Face-to-face lessons
In class, teachers will interact face-to-face - guiding software walkthroughs, addressing online content questions, initiating group projects, and clarifying collaborative task requirements. This real-time feedback ensures comprehension and skill development per outcome tenets.\(^1\)
4.3.3. Online and collaborative work
Students will learn Word functionalities online and participate in team assignments. Teachers will regularly review progress via the platform, providing necessary guidance and comments. This stresses the cooperative achievement of common learning goals.

4.3.4. Post-class debrief
After class, groups will present their resumes and reflect on their experiences working in a group. Teachers will then evaluate their work and provide further guidance. This session spotlights the concrete results achieved through the module - aligning with the outcome-based models’ emphasis[3].

This blended approach helps students develop practical skills, proficiency in using Microsoft Office, and teamwork skills while embedding outcome-oriented concepts into tangible skill-building. As a result, students gain both real-world competencies and develop work ethics.

5. Comprehensively evaluating blended and outcome-based approaches
This study will concentrate on assessing learning outcomes to thoroughly gauge the effectiveness of the learning model. The subsequent multi-layered framework is designed for the resume-building module:

5.1. Constructing an evaluation system
A robust assessment framework will be established to monitor the achievement of outcome-based learning within a blended learning context. The key dimensions for the resume project are as follows:

(1) Knowledge Mastery and Application: Word functionality comprehension and skill application.
(2) Problem-solving Abilities: The ability to overcome real-world difficulties.
(3) Teamwork and task division: Appraising collaboration, communication, and delegated roles.

5.2. Selecting measurement instruments
Diverse tools will be utilized including exams, project/peer reviews, and self-assessments, providing well-rounded data sources. Grades assess theory while reviews emphasize real-world situations, teamwork, and timely feedback.

5.3. Discussion
Thoroughly analyzing outputs in research can unveil tangible competencies gained. For instance, an examination of problem-solving processes can demonstrate the concrete impact of blended teaching on these crucial skills. Discussions will highlight outcome-based results. This framework and multimodal approach will evaluate the synergistic development of both theoretical knowledge and practical skills.

6. Exploring the interaction between blended and outcome-based approaches
Outcome-based concepts can be incorporated into blended learning flexibly.

6.1. Adjusting teaching strategies
Online platforms will supply self-directed learning materials to spur intrinsic motivation. Discussions and question-and-answer sessions will encourage students to actively identify and resolve knowledge gaps, aligning with outcome-based models’ emphasis on initiative. This ultimately builds autonomous learning and problem-
solving skills.

6.2. Comprehensively Evaluating Performance and Skill Building
Through analyzing the connections between achievement and competency gains, blended learning and outcome-based education can be combined effectively. For instance, if there is strong project performance but weaker exam scores, it suggests a need to enhance theoretical teaching. This holistic assessment ensures balanced progress across technical, practical, and conceptual domains.

7. Conclusion
This study draws on integrated blended and outcome-based approaches, offering practical suggestions through applied use cases. The analysis indicates that these models are complementary, combining personalized experiences with an outcome philosophy. Online platforms enhance self-directed engagement, and ongoing evaluations continuously refine strategies toward tangible abilities and holistic development.

This exploration provides valuable guidance for educational institutions aiming to integrate innovative and outcome-based teaching. It presents practical teaching solutions that emphasize real-world skills and conceptual knowledge within a student-centered paradigm. This approach prepares learners for professional environments while embedding key philosophies.

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Author contributions
Yan Dong Yu and Yu Ge Yao conceived of the idea, developed the proforma, and drafted the manuscript. All authors read and approved the final manuscript.

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