

Implementation of Outcome Based Education Physical Education Study Program for Elementary School Teacher Education

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Abstract. The objective of this research was to assess the effectiveness of implementing Outcome-Based Education in Physical Education courses for students enrolled in the Elementary School Teacher Education study program at Universitas Negeri Medan.. The concept of implementing Outcome Based Education is part of the achievements of the Indonesian Curriculum whose implementation prioritizes the potential of subjects and student competencies to have adequate skills in career development. The research method applied is survey. The study's findings showed that the development of outcome-based education had an achievement rating of 94, which is in the very good category. The study's conclusion demonstrates that the application of outcome-based education in physical education is consistent with the goals and substance of the information delivered in fulfilling the lecture's objectives, namely generating student skills with digital learning abilities and graduates who can explore physical education in elementary schools.

Keywords: *Implementation; Outcome Based Education; physical education*

1 Introduction

The integration of the MBKM (Merdeka Belajar-Kampus Merdeka) initiative within the Indonesian National Qualifications Framework curriculum serves as an educational approach aimed at equipping students to navigate societal, cultural, and workplace changes, as well as rapidly advancing technological developments. It is essential to nurture student competencies that are highly adaptable and responsive to the evolving demands of the contemporary era [1]. Structure and Curriculum Content of the PGSD FIP UNIMED Study Program implemented the IQF curriculum starting in 2016, while from 2005-2015 it used the Competency-Based Curriculum (KBK) which was developed based on the Republic of Indonesia The development of higher education curricula and the evaluation of student learning outcomes are addressed in Minister of National Education regulations, specifically in documents numbered 232/U/2000 and 045/U/2002.

The establishment of an outcomes-based curriculum in higher education led to the introduction of RI Presidential Regulation (Perpres) Number 8 of 2012, which established the

Indonesian National Qualifications Framework (KKNI). The KKNI serves as a competency qualification framework that harmonizes, equalizes, and integrates education and vocational training, aiming to recognize work competence aligned with various industry sectors. The PGSD FIP Unimed Study Program implements the IQF curriculum, which aligns with the Indonesian National Qualifications Framework as outlined in Presidential Regulation No. 8 of 2012, and complies with Government Regulation No. 4 of 2014 regarding the implementation and management of higher education, as well as Permenristekdikti No. 44 of 2014-2015, which establishes the National Higher Education Standards. The curriculum also aligns with the Strategic Plan of Medan State University for the period 2016-2020 [2].

The curriculum of the Elementary School Teacher Education Study Program at FIP Unimed is designed according to the KKNI (Indonesian National Qualifications Framework) and is based on the following elements: (1) The Study Program's Vision: The vision aims to achieve excellence in the fields of education, research, and community service at the national level in 2024. The PGSD Study Program's vision focuses on becoming a leading program that emphasizes the enhancement of teaching and educational processes based on the IQF (Indonesian National Qualifications Framework). The curriculum aligns with the demands of the digitalized era of learning in the context of the fourth industrial revolution, aiming to produce graduates who are modern, professional, characterized by strong values, and technologically competent. These graduates should attain satisfactory academic performance and be readily employable in the field of education. (2) The Study Program's mission is (a) to improve excellent educational services to students and the community; (b) increasing science and technology research and development in the implementation of education in elementary schools; (c) increasing community service activities as a manifestation of education and learning; (d) enhancing cooperation programs with various relevant institutions at the national and international levels; and (e) creating a conducive academic atmosphere and culture for the academic community both internally and externally. (3) The aims of the Study Program are (a) to produce teachers who are modern, professional, with character and technology based with a satisfactory grade point average; (b) produce research products and develop science and technology related to elementary schools and produce learning models according to the characteristics of children based on local wisdom; (c) disseminating science and technology related to elementary schools through community service activities in the form of training, seminars and mentoring at the elementary school level; (d) establishing cooperation in the field of education at the elementary school level with various relevant institutions at the national and international levels to improve the quality of education; and (e) the formation of a conducive academic atmosphere and culture to guarantee quality service and optimal performance for the academic community both internally and externally [3].

The implementation of the MBKM-based curriculum involves a cyclical process that aligns with the National Higher Education Standards (SN-Dikti). These standards encompass eight key areas, including graduate competences, learning content, learning processes, assessment procedures, lecturer qualifications and educational staff, facilities and infrastructure, management protocols, and learning financing. The Internal and External Quality Assurance Systems play a crucial role in quantifying achievements and ensuring adherence to these educational standards through continuous and comprehensive evaluations.

The results-based education (OBE) paradigm centers all aspects of the educational process around its objectives. By taking into consideration inputs like funding, facilities, and other factors, results-based methodologies have been employed in the educational system. Process observers concentrate on systems for managing, planning, and transferring knowledge throughout learning. The elements of OBE are: (1) Clearly stated learning objectives that must

be attained before the learning process is complete;(2) curriculum design;(3) learning opportunities;(4) the assessment process is tailored to the learning achievement and assessment of each student to ensure that learning objectives are met [4].

The lecture process is presented in the form of theory and practice, with an emphasis on practice. In general, this course material contains an understanding of the anatomy and physiology of the body and the concept of motor movement, through understanding the elements of theory and practical principles, and is developed in several designs. The theory presented is then developed by students according to the objectives of graduate learning outcomes as the basis for actualizing the application of children's growth and development values [5].

The Course Learning Outcomes (CPMK), the acquisition of logical, critical, systematic, and inventive thinking skills is fostered through engaging in scientific research and the production of designs or artistic creations in the realms of science and technology. These endeavors prioritize the incorporation and application of humanistic values within the context of school education, serve as the basis for the use of the lecture material. basic principles, compiling their scientific conceptions and research findings based on scientific principles, practices, and ethics into a thesis, publishing articles in reputable national scientific journals, and gaining international recognition through scientific presentations or equivalent [6].

The materials applied are (1) Basic Concepts of Elementary Physical Education; (2) Basic Movement 1 (locomotor and Non-locomotor); (3) Basic Movement 2 (Manipulative and Non Manipulative); (4) Stretches for Children; (5) Basic Motion Combinations through the Game; (6) Traditional Sports for Elementary Schools; (7) Folk Games for Elementary Schools; (8) Basic Physical Exercises for Children; (9) Basic Technique Training for Children; (10) Elementary School Gymnastics; (11) Children's Sports Activities; (12) Evaluation of Children's Fitness; and (13) Follow-up on Children's Fitness Evaluation Results [7].

The implementation of the actualization model for the implementation of OBE in the MBKM-based Elementary School Elementary School Study Program PGSD Unimed will be carried out in 4 stages, namely: (1) Developing Learning Tools which include Semester Learning Plans (RPS); (2) Prepare Lecture Materials, carried out in accordance with the RPS and Lecture Contracts. In this section, the material and other supporting lectures will be compiled in full, including assignments, discussion materials, and quizzes if needed; (3) Input Lecture Materials, uploading materials and other lecture materials through the website and integrated with SIPDA; and (4) Evaluation, carried out by reviewing the effectiveness of the concepts developed related to the concept of developing OBE for Elementary School Physical Education courses [8].

The implementation of the MBKM-based curriculum is carried out with the concept of developing OBE and implementing the case method model and team based project. Adjustment of courses, namely in Elementary Physical Education, is integrated through the use of course website development and applications so that they will synchronize with SIPDA FIP Unimed. Utilization of website and application technology is a form of implementation of the development of industry 4.0-based lectures in the context of achieving Key Performance Indicators (IKU) in MBKM. The achievements of the MBKM IKU are in the aspect of creating collaborative and participatory classes in the lectures that are carried out, so that the achievements of the University MBKM IKU will also be realized.

2 Research Method

The research conducted in relation to the implementation of the OBE (Outcome-Based Education) concept in the Physical Education course for elementary school (SD) students, based on the MBKM (Merdeka Belajar-Kampus Merdeka) program of the PGSD Unimed Study Program, employed a qualitative research methodology with a survey design. This survey-based research aimed to assess the effectiveness of the Outcome-Based Education approach by examining students' perceptions of the lecture content and processes. The findings of this study also served as a validation for the ongoing product development efforts within the research framework [9].

Evaluation of the OBE (Outcome-Based Education) concept was conducted during the lecture phase, utilizing methods such as observation, interviews, and survey responses. The survey instrument employed a rating scale ranging from 1 (very poor) to 4 (excellent) to assess the significance of the outcomes. The assessment categories were determined based on the level of importance of the final product, namely:

Table 1. Rating Category

No	Category	Yield Range
1	Very good	90 – 100
2	Good	80 – 89
3	Enough	70 – 79
4	Not good	60 – 69
5	Very Not Good	<60

3 Result

The production of research findings related to the application of Outcome-Based Education (OBE) in Physical Education for elementary schools aims to achieve Graduate Learning Outcomes (CPL) and Course Learning Outcomes (CPMK), involves two main stages:

a. Preparation Stage

In the preparation phase, multiple activities are carried out, such as creating Semester Learning Plans (RPS), crafting textbooks, designing case method assignments and team-based projects, implementing a Learning Management System (LMS), and establishing course websites.

b. Implementation Stage

The execution phase involves implementing the prepared lecture materials according to the developed RPS. The teaching process that is put into practice is subsequently documented as proof of the application of OBE, including archived assignments based on case methods and team-based projects, published textbooks, and links to the FIP Unimed LMS through the course websites.

The High Order Thinking Skill (HOTS) concept is used to supplement elementary school physical education optical product design with additional media, specifically audio-visual based, that assists students in learning subject concepts and leads to elements of creation and creation.. The development of design concepts that are capable of providing a stimulus for a

well-established understanding is the basis for course-supporting media, which includes websites and has reference links for the development of course concepts that lead to OBE, particularly in elementary school physical education.

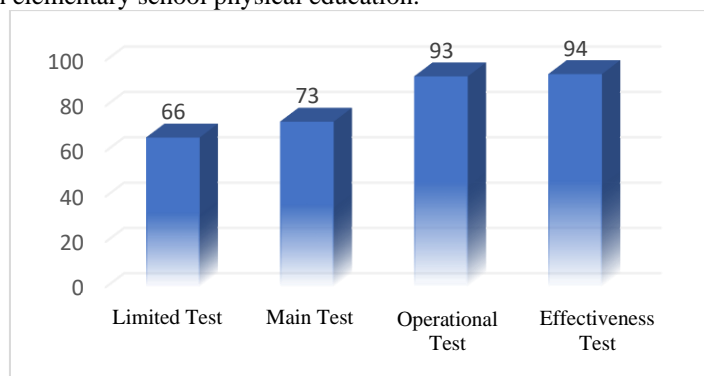


Fig 1. OBE Test Results and Effectiveness Achievements

The effectiveness of the implementation of Outcome-Based Education in the Elementary School Physical Education course is evident from the assessment score of 94, which falls within the Very Good category. The assessment results for Outcome-Based Education demonstrate the highest scores from the limited test (66), the main test (73), and the operational test (93).

The objective of the Bachelor of Elementary Teacher Education (PGSD) Study Program is to graduate students who possess a bachelor's degree in elementary education and have the competence to:

- a. Serve as elementary school teachers who demonstrate proficiency in planning, implementing, evaluating, and enhancing learning experiences based on scientific knowledge, character development, and innovative approaches. Their aim is to elevate the quality of education while embodying the qualities of responsible and dedicated educators.
- b. a novice researcher or research assistant who is capable of developing tried-and-true innovations to enhance elementary school education and solving educational issues.
- c. Educational Practitioners and Consultants who are able to manage and evaluate education and learning, foster extra-curricular activities, are responsible and understand professional ethics well at the elementary school education unit level.

Graduate Profile Based Learning Out Come includes the following assessment indicators:

Table 2. Graduate Learning Outcomes Level

Aspect	Graduate Learning Outcomes
Attitude	<ol style="list-style-type: none"> 1. Ability to act religiously and fear of the All-Powerful God. 2. Respecting human values by carrying out religious, moral, and ethical obligations. 3. Assisting in the development of Pancasila-based civilization and the enhancement of society, nation, and state life. 4. Be a citizen who is patriotic, devoted to the nation, and has a sense of duty to the state and the nation. 5. Respect the variety of viewpoints, religions, and cultures, as well as the original findings or opinions of others.

	<ol style="list-style-type: none"> 6. Respect the rules of society and the state and maintain order. 7. Independently demonstrate a responsible attitude toward work in their field. 8. Develop a spirit of independence, struggle, and entrepreneurship within yourself
Knowledge	<ol style="list-style-type: none"> 1. Mastering the principles and theory of education in elementary schools. 2. Mastering the concept of elementary school students' developmental characteristics. 3. Mastering elementary school subjects like Indonesian, mathematics, science, and social sciences, as well as PPKn, SBdP, and PJOK. 4. As an elementary school classroom teacher, mastering cutting-edge curriculum concepts, strategies, models, teaching materials, media, and learning resources. 5. Learning how to evaluate elementary school learning processes and outcomes effectively. 6. A mastery of fundamental ideas and research methods that can lead to the formulation of solutions to educational issues in elementary schools. 7. Mastering the concepts and methods of elementary school guidance and counselling services. 8. Mastering cross-disciplinary knowledge that evolves with science and technology while taking into account local wisdom
General Skills	<ol style="list-style-type: none"> 1. Able to think logically, critically, methodically, and creatively in the context of science and technology development or implementation, paying attention to and applying humanities values in accordance with five areas of expertise (IPA, IPS, Indonesian Language, IPS, and Civics). 2. Able to perform independently, with quality, and in a way that can be measured. 3. Equipped with the ability to generate solutions, concepts, designs, or art critiques through the examination of the implications arising from the advancement or utilization of science and technology. They actively consider and apply humanistic values within their respective fields of expertise, adhering to scientific principles, methodologies, and ethical practices. 4. Proficient in composing a comprehensive scientific documentation of their research findings for a thesis or final project, which can be shared online within the academic institution. 5. Able to use the information and data analysis results to make the right decisions when solving problems in five different areas. 6. Capable of establishing and nurturing professional relationships with mentors, colleagues, and peers, both within and beyond the educational institution, to foster personal and career growth. 7. Competent in supervising and assessing the progress of tasks delegated to subordinates, taking responsibility for ensuring the successful completion of group assignments and achieving desired outcomes. 8. Skilled in self-directed learning and conducting self-evaluation of work teams under their supervision. They are capable of effectively managing the

	<p>learning process and assessing the performance of their supervised groups; and</p> <p>9. Able to record, store, and protect,</p> <p>10. and retrieve the data to ensure its accuracy and stop plagiarism.</p>
Special skill	<ol style="list-style-type: none"> 1. Capable of developing and executing educational plans in elementary schools based on educational theories and principles. 2. Proficient in designing and implementing effective learning experiences in elementary schools by applying practical knowledge of students' developmental characteristics. 3. Competent in designing and implementing learning activities that encompass various elementary school subjects, including Indonesian language, mathematics, natural sciences, social sciences, civics, religion and character education (SBdP), and physical education (PJOK). 4. Able to design and implement innovative learning in elementary schools through the development of innovative curricula, strategies, models, teaching materials, media, and learning resources 5. Able to plan, carry out, analyze, and monitor elementary school process evaluations and learning outcomes. 6. Able to scientifically plan and carry out research in the field of elementary education, as well as publish a report 7. Able to utilize elementary school counselling and guidance services. 8. Capable of utilizing science and technology to address challenges in elementary education, specifically in subjects such as Indonesian language, mathematics, science, social sciences, civics, religion and character education (SBdP), and physical education (PJOK), while giving appropriate consideration to local wisdom.

4 Discussion

The attainment of a score of 94 reflects the effectiveness achieved through the implementation of Outcome-Based Education in the Elementary School Physical Education course within the Primary School Teacher Education Study Program. This outcome signifies a high level of effectiveness in the program. The success of the achievement shows that the courses applied have a Semester Lecture Plan design that has a structure in accordance with the Quality Assurance of the Medan State University and has a framework for Graduate Learning Outcomes and Learning Outcomes based on High Order Thinking Skills or having conformity with the development of competency needs in elementary schools, then The teaching and learning approach in this course involves the utilization of case methods and theme-based projects, accompanied by the use of specifically designed media that align with the course's content and learning objectives. To facilitate the achievement of Outcome-Based Education (OBE) goals in this course, various resources will be employed, including Learning Management Systems (LMS), course websites, and textbooks that are specifically tailored to the OBE framework for Physical Education in Elementary Schools within the Primary School Teacher Education Study Program (PGSD).

The materials applied are (1) Basic Concepts of Elementary Physical Education; (2) Basic Movement 1 (locomotor and Non-locomotor); (3) Basic Movement 2 (Manipulative and Non Manipulative); (4) Stretches for Children; (5) Basic Motion Combinations through Games; (6) Traditional Sports for Elementary Schools; (7) Folk Games for Elementary Schools; (8) Basic Physical Exercises for Children; (9) Basic Technique Training for Children; (10) Elementary School Gymnastics; (11) Children's Sports Activities; (12) Evaluation of Children's Fitness; and (13) Follow-up on Children's Fitness Evaluation Results. The lecture process is presented in the form of theory and practice, with an emphasis on practice. In general, this course material contains an understanding of the concept of anatomy and physiology of the body and the concept of motor movement, through understanding the elements of theory and practical principles, and is developed in several designs. The theory presented is then developed by students according to the objectives of graduate learning outcomes as the basis for actualizing the application of children's growth and development values.

The Course Learning Outcomes (CPMK) provide a foundation for incorporating lecture materials that foster the development of logical, critical, systematic, and creative thinking skills. These abilities are nurtured through engaging in scientific research, generating designs, and exploring artistic expressions within the domains of science and technology. The emphasis is placed on incorporating the values of humanities into the realm of education. Students are encouraged to apply fundamental principles, synthesize scientific concepts, and present their research findings based on scientific principles, practices, and ethical standards. This may include producing a thesis, publishing articles in reputable national scientific journals, and gaining international recognition through scientific presentations or similar activities.

Based on the Vision, Mission, and Objectives of the PGSD FIP UNIMED Study Program and to prepare graduates to face the demands of life in the future, three competencies are formulated that students will achieve, namely the main competencies of graduates, supporting competencies for graduates and other competencies. The description of the three competencies is as follows.

The main competencies of graduates consist of 4 competencies, namely:

- a. Pedagogic Competence encompasses:
 - 1) Comprehending the multifaceted characteristics of elementary school students, including their physical, social, moral, cultural, emotional, and intellectual aspects.
 - 2) Recognizing different learning styles and identifying potential learning difficulties among students.
 - 3) Proficiency in the theories and principles of teaching and learning.
 - 4) Facilitating the development of students' potential through appropriate instructional strategies.
 - 5) Proficiency in a variety of teaching methods and learning resources, and the ability to select and utilize suitable methods and resources in the teaching and learning process in elementary schools.
 - 6) Able to compile learning tools and implement educational learning innovations in elementary schools.
 - 7) Capable of evaluating the learning process and the resulting outcomes in elementary schools.
 - 8) Able to design and conduct PTK (Classroom Action Research).
- b. Personality Competence which includes:
 - 1) Always present yourself as a person who is steady, stable, mature, wise, independent and authoritative.

- 2) Always appear as a commendable person, have noble character, and always be a role model for students.
 - 3) Behave and continuously develop yourself as a professional educator.
 - 4) Able to assess own performance associated with the achievement of educational goals.
- c. Professional Competence which includes:
- 1) Able to master the material of six fields of study (Indonesian, Mathematics, science, social studies, civics, and SBdP) in elementary schools orally and in writing.
 - 2) Able to teach students according to learning themes.
 - 3) Capable of evaluating and enhancing the quality of learning by conducting educational research.
 - 4) Proficient in utilizing information and communication technology to support learning across the six fields of study in elementary schools.
 - 5) Actively contribute to the advancement of education in primary schools and communities at the local, regional, national, and international levels.
- d. Social Competence which includes:
- 1) Proficient in establishing effective and compassionate communication with students, parents, colleagues, educational staff, and other community stakeholders.
 - 2) Able to work together in a team to improve ethos and performance.
 - 3) Able to integrate with the surrounding environment through the knowledge gained.
 - 4) Able to adapt in a workplace that has social, religious and cultural diversity.
 - 5) Be objective and non-discriminatory.
 - 6) Become a member of the teacher professional association.

The Physical Education course presents concept material for children's advanced movement at the level of sports branches, personal health, and scouting. After completing this lecture, students can then implement sports and scouting values in the implementation of learning in elementary schools. The lecture process is presented in the form of theory and practice, with an emphasis on practice.

In general, this lecture material contains an understanding of the concept of movement in sports, the concept of personal health, and Scouting (Scouting) through understanding theory and practical principles, and is developed in several designs. The theory presented is then developed by students in accordance with the learning outcomes of graduates as a basis for actualizing the application of the values of child development. How to learn a person's actual movement must go through three stages before he masters a skilled movement, namely: the first phase is the cognitive phase, this stage students are very focused on processing how a movement should be done; the second phase is the associative phase, in this phase students concentrate more on the dynamics of a skill, mastery of timing, skill and movement coordination of the parts of the skill to produce movement fluency and smoothness; the third phase is the automatic phase, in this phase students concentrate on a skill.

The application of lecture material is based on Course Learning Outcomes (CPMK), including piety to God Almighty and being able to show a religious attitude, mastering knowledge in the field of sports and Scouting studies, being able to carry out and develop needs related to movement activities. The materials offered in achieving student competence are movement skills in sports branches, healthy lifestyles, development of motion training programs, and adventure scouting activities.

5 Conclusion

The contribution of the research carried out is in the form of an example design of the implementation of the OBE concept as a lecture concept for Elementary School Physical Education. The Course Learning Outcomes (CPMK) provide a foundation for incorporating lecture materials that foster the development of logical, critical, systematic, and creative thinking skills. These skills are cultivated through scientific research, design creation, and artistic endeavors in the fields of science and technology, with a focus on integrating humanities values within the realm of education. Students are encouraged to apply fundamental principles, synthesize scientific concepts, and present their research findings based on scientific principles, practices, and ethical standards. This may include producing a thesis, publishing articles in reputable national scientific journals, and gaining international recognition through scientific presentations or similar activities. The success of the attainment demonstrates that the implemented courses possess a well-designed Semester Lecture Plan, adhering to the Quality Assurance standards of Universitas Negeri Medan. These courses are designed in accordance with the framework of Graduate Learning Outcomes and Learning Outcomes, with a strong focus on developing High Order Thinking Skills and addressing the competency needs of elementary schools. The teaching process incorporates case methods and theme-based projects, accompanied by the use of tailored media to effectively achieve the desired course competencies. To support the implementation of Outcome-Based Education (OBE) in these courses, various tools such as Learning Management Systems (LMS), course websites, and course textbooks have been integrated into a comprehensive OBE package specifically designed for the Physical Education curriculum in Elementary Schools within the PGSD Study Programs. The successful implementation of these courses will serve as a notable achievement within the FIP Academic Program at the State University of Medan, as it mandates the application of the OBE concept across all courses offered within the Faculty. The findings of this study can also serve as a valuable model for the development of OBE-based teaching approaches in Universitas Negeri Medan.

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