Day Care Management Course Design Based on OBE and PjBL for Teacher Education of Early Childhood Education Program

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Abstract

To improve the quality of education and learning services in universities, improvement of the curriculum is done continuously to achieve the goals of the SDGs. Outcome-Based Education (OBE) and project-based learning (PjBL) models are innovative instructional strategies to advance education and learning in higher education. This article describes the development design of Daycare Management courses based on OBE and PjBL Models in a bachelor's degree of Early Childhood Education Department. The course development plan can be determined and developed by the lecturers independently or together in a team of experts in the same fields of science and technology in the study program. The model includes determining graduate learning outcome (GLO), course learning outcome (CLO), subject learning outcome (sub-CLO), and course analysis. The learning method uses the PjBL model is formulated in six stages, namely: (1) introduction, (2) prompting questions, (3) ongoing investigation, (4) reflection on experience, (5) project analysis and revision, and (6) project presentation. This model becomes a curriculum innovation that can improve the professionalism of undergraduate students in managing daycare.

Keywords: Outcome-Based Education; Project-Based Learning; Daycare; Early Childhood Education Bachelor's Degree
INTRODUCTION

A collective plan from the world society, through United Nations, has produced a blueprint known as Sustainable Development Goals (SDGs). The goals that are planned in SDGs are no poverty, zero hunger, a plan for a better future, reducing inequality, and developing a better quality of education focused on human rights and social justice (Williams, 2020). Education for Sustainability Development (ESD) is one of the significant agendas from SDGs manifestation in the education field which is expected to be achieved in 2030 (Avelar et al., 2019). The core of ESD is the implementation of education in all levels of education, informal, non-formal, and informal education as an integral part of lifelong learning (Avelar et al., 2019). International Education Standard Classification defines formal education as anything that happens in the education system in a nation (be it in an institution, intentional and planned, through public organization and approved private institution) (Shulla et al., 2020).

ESD is a dynamic concept that covers all measures and challenges for sustainable development and the core of global destination for a sustainable future (Shulla et al., 2020). Indonesia is actively engaged in various international forums to establish SDGs. Along with establishing SDGs at the international level, Indonesia also created National Mid-Term Development Plan for 2015-2019 and 2020-2024 are the manifestation of Nawacita as the President’s vision and mission. The important fourth aim is to achieve quality education through quality development of teaching and learning services (Kementerian PPN, 2020).

As means to upgrade the quality of teaching and learning services, Indonesia’s curriculum for education had to be innovative to achieve SDGs’ goals. Indonesia’s current curriculum moved into outcome-based education curriculum concept, it’s a curriculum designed referring to program’s goals and student’s outcome (knowledge, skills, attitude, and behavior) that needs to be achieved. This concept leads the students of every major in higher education to have a distinction based on theoretical concepts and practices that will be unique to their major. Regulation of the Minister of Education and Culture of the Republic of Indonesia, Number 3 of 2020 concerning National Standards for Higher Education, Article 9 paragraph 2 point d, stated that the depth and range of learning material are composed referring to the description of student’s learning achievement from Indonesia National Qualification Frame (Kerangka Kualifikasi Nasional Indonesia). The article stated, “the graduate from bachelor degree have to at least possess the theoretical concept of knowledge and particular skills in general and to possess those theoretical concepts of knowledge and particular skills in depth (Kemendikbud, 2020). The message conveyed by the government has implications for the competencies that must be possessed by a graduate from a certain major.

Bachelor’s degree of Teacher Education of Early Childhood Education is a major in education science study focused on preparing educator candidates for early childhood education programs. Early childhood education is the primary education in the growth and development process of children from born until six years old (Kemendikbud, 2014). Professional early childhood educator quality will determine the success rate progress of early childhood development. Based on the Learning Outcome Workshop held by the Indonesian Teacher Association of early childhood Education attended by the representatives of 26 state universities and 3 private universities, it was agreed that graduate students from this major have to be early childhood educators. The workshop’s results also listed the core competencies of early childhood education teachers in Indonesia, namely: (1) 12 points of attitude aspects, (2) 10 points knowledge aspects, (3) 9 points of general skills aspects, and (4) 10 points of specialized skills aspects (APGPAUD, 2017).
In national standards for early childhood education, the third appendix which contains the qualification standard of early childhood education teachers stated that early childhood educator’s profile is expected to have professional skills, one of them is planning various creative development programs following the development of early childhood, namely: (1) plan the goals of every development activities, (2) analyze the progress of children in every development level, (3) choose material for various development activities along with early childhood development level. These competencies are important to be prepared in the study of teacher education for early childhood education majors so that they can be professional early childhood educators (Kemendikbud, 2014).

Daycare Management course is one of the courses that guide students to attain supplementary experience besides being a teacher by understanding the strategies on how to manage a non-formal early childhood education institute, which is daycare. This course is prepared based on fact that there is a possibility in the student’s carrier after graduated, they are not bound to be a teacher but also various career choices such as manager of early childhood education institution. Early childhood educators of the 21st century demanded not only to have a complex understanding of childhood development and early childhood education issues but also have to be able to give rich education experience and meaningful for children and families taught by them (Sheridan et al., 2009). By that means, this course is important to prepare the students ready for their careers.

The course development plan described through the semester lesson plan can be defined and developed by lecturers independently or together in a team of experts in the same fields of science and technology in the study program (Kemristekdikti, 2015). In preparation for the semester lesson plan, lecturers need to consider which learning method will be implemented in the course. The learning method chosen will be a reference in implementing lecture activities in class with students. Student-centered learning expects that lecturer can provide learning that can emphasize the active process of the students themselves as learners. The Project-based Learning Model is a choice of approach that is considered appropriate in the daycare management course. This model allows students to learn by doing, implementing ideas, and problem-solving (King & Smith, 2020). Thus, students will be involved in real-world activities similar to scientists (Krajcik & Shin, 2014). This article tries to describe the design of the semester lesson plan for the “Daycare Management” Course with outcome-based curriculum and Project-based Learning (PjBL) in the Undergraduate Study Program (S1) Teacher Education of Early Childhood Education (S1-PGPAUD).

LITERATURE REVIEW

a. Daycare

Daycare is a service prepared to help working parents who need a daycare while continuing to prioritize aspects of proper care and education following the stages of development. Daycare is a full-day institution with 5 work-day and provides caregiving for children from baby until toddler, some children spend 11 hours a day in daycare (O’Hara, 2010). With the latest development and the concern for daycare quality, now daycare is considered an important educational institute that encourages the learning and development of children (Perren et al., 2017).

The preschool children that engaged in daycare activities develop more positive conflict resolution skills and will have better talking and language skills in their adolescence. But the extent to which children benefit from TPA largely depends on the interaction between environmental and temperament factors. Temperament is generally defined as an innate characteristic that is relatively stable all the time and the context (Hipson & Séguin, 2015). Another research found that children under the care of daycare services especially with a trustworthy caregiver will feel comfortable and stable. Those qualities are related to caregiver and children ratio, caregiver’s level of education, and
staff turnover rate. The harmony between parents and caregivers is also substantial for children’s well-being (Groeneveld et al., 2010).

The service quality of daycare begins to be studied extensively since the 1970s. The progress of research until now largely focused on children’s needs related to warmth and decided the variables that affect children and later focused on the impact of childcare. At the end of 1970, the studies started to change to issue about how childcare variety could affect children development. New questions are raised about what constitutes quality in child care and how quality affects child development, particularly in the areas of cognitive and social development. Since then, discussions on the quality of child care have focused on variables such as class composition, curriculum and program philosophy, physical environment, staff characteristics, adult-child interactions, and communication between parents and staff (Ceglowski & Bacigalupa, 2002).

Childcare services are a substantial part of society. Childcare has to be a fun educating activity so that the environment must be prepared to be in a stable condition. Daycare will employ professionals from the preschool education field. In increasingly complex conditions, where mothers also have to work to earn a living, without such facilities, they may not be able to work and earn a living. The availability of affordable child care facilities will lead to a positive social environment (Ha, 2020). Based on a literature review related to the existence of TPA which is very important because it will open new job opportunities for teacher education for preschool education graduates, either as educators or managers, while on the other hand it also provides benefits for other parents who work and need child care services. needs to be managed professionally to serve the needs and optimize the growth and development of children.

b. Project-Based Learning (PJBL)

The project-based learning model is a learning method that gives students the freedom to plan learning activities, carry out projects collaboratively, and in the end, the work product outcome will be presented. PJBL used the problem as the first step in gathering and integrating new knowledge based on their real activities experience. This model encourages students to find a way to verify phenomena and problems solving. Thus, abilities, skills, and attitudes that are needed for students are critical thinking, creative thinking, time management skills, and skills to work together (Tan, 2016).

In project-based learning, students will obtain the needed knowledge, skills, and character through investigating the open question to make sense (Kim, 2020). The emphasis on the student learning experience. Projects elicit higher-order thinking, where students are invited to theorize, investigate, analyze, create, and draw unique conclusions. The flexible project structure allows creative expression, and the transmission of knowledge makes learning easier to understand (Lavonen et al., 2021). The project as a part curriculum, is not only additional, through the curriculum, students develop essential skills (MacLeod & van der Veen, 2020). The questions asked will activate and arouse curiosity, also will encourage students to ask questions. The form a project taken is consistent with the function that intended to take (creating, entertaining, motivating, or inspiring). Thus, teacher will not directly gives instruction. Teacher have to plan, prepare, and guide the project and learning with students. Teacher will plan and evaluate the development in those field. Correct question at the beginning will lead into more question that students can investigate (Juuti et al., 2021).

In general, PJBL has the potential to increase student engagement by focusing on interesting questions that link core curricular ideas to scientific practice. This will allow students to collaborate and searching to answer the open question, increase their perception about skills through utilizing a digital application, and enable them to produce a real product as an outcome of a particular project (Krajcik & Shin, 2015). The project-based approach derives from the work of Dewey (1938) and Kilpatrick (1918). This PJBL model was further developed first in the medical field and then applied to many other fields. PJBL has a clear ability to practice interdisciplinary skills, such as providing
opportunities to creatively design solutions to open problems and training the skills of teams that have different ability specifications (MacLeod & van der Veen, 2020). PjBL emphasizes three principles of constructivism, namely: learning is context-specified, students actively engaged in the learning process, and students will achieve goals through collaboration. PjBL is a learner-driven and teacher-facilitated learning approach and is a key strategy for developing students' independent thinking skills. The success of PjBL in the classroom lies in the ability of teachers to effectively motivate, support, and guide student learning (Lavonen et al., 2021). However, for the PjBL model, teachers often find it difficult because it requires a fundamental change in the way classrooms plan, prepare, and teach. PjBL can also be challenging for students to adapt to ongoing communicative involvement in projects as they will need time to adjust, receive guidance throughout the process, and clear expectations for their progress and performance (Greenier, 2020).

Project-based learning models involve students in real-world activities that allow them to work with the studying material. Krajcik and Shin introduced the main characteristics of PjBL, namely: (1) activities and work should generally be aimed at achieving project objectives. Driving questions will guide project activities, be relatable, spark interest and connect student interest with learning objectives in the curriculum. Driving questions can be introduced to students in specific contexts, such as teacher demonstrations, hands-on activities, or videos showing that the questions are important, useful, contextual, meaningful, and ethical, (2) when planning a project learning model, the teacher should connect the discipline core ideas along with learning expectations. When selecting learning expectations, teachers can adjust project challenges and skills needed to achieve them, (3) emphasize scientific practice to support student involvement in learning. Scientific practice is similar to professional practice including asking questions, defining problems, and planning and carrying out investigations, (4) collaboration in finding solutions to driving questions. Collaboration between students and scientific practice can be facilitated using digital devices, (5) utilizing technology. Technology allows students to study scientific content that would otherwise be too challenging and to participate in activities that would otherwise be beyond their capabilities. Technology enables students to retrieve, organize, and process information about contents related to driving questions, collect new data, analyze the data, build models using educational simulation applications and professional modeling software, and discuss models and other products that mediate learning. Students involved in PjBL work with ideas, data, and models and formulate arguments to communicate their ideas to others, (6) Works/products/artifacts. The output of this work is a publicly shared external representation of classroom learning. Artifacts can include physical or digital models, animations, simulations, research reports, videos, websites, spreadsheet models, and computer programs. These artifacts answer driving questions and are concrete and shareable project outcomes (Krajcik & Shin, 2014).

Project-based learning models have the potential to create powerful and memorable learning experiences for students. This learning model is often juxtaposed with a problem-based learning (PBL) model. However, there are differences between PjBL and PBL. The basic differences include: PBL generally focuses on math or science problems, and studies are completed over one or more class periods. While PjBL is often conducted on an interdisciplinary basis, the duration of a unit of study can range from a few days to several weeks. In PBL, the path to an answer may be different, but there is a desired correct answer at the end. Whereas in PjBL, the process and results are more dispersed. In a project, the learning pathways and work products can be as unique as the students or teams involved. Teachers argue that based learning sets the standard for minimally acceptable outcomes and in general, they are often amazed and delighted to find students' work exceeding their expectations, both in creativity and quality (Krauss & Boss, 2014).

The steps taken in PjBL consist of six steps that focused on student-centered learning, as follows: (1) the teacher describes the core knowledge, understanding, and skills that students need...
to complete the project. In this step the teacher determines the standards to be covered, as well as the skills that the teacher wants students to focus on during the project; (2) the teacher provides driving questions that define developmentally appropriate problems that need to be addressed or specific questions that must be answered through project completion, (3) the teacher engages students in ongoing investigations and learning experiences that occur both inside and outside the classroom, (4) there is a period for students and teachers to reflect on the learning process, expectations for quality work, and how to overcome potential obstacles, (5) students are given time to critique and revise their work through self and peer analysis based on the rubric provided by the teacher, and (6) the product is presented to the public where possible; however, the teacher can choose the presentation format that is deemed appropriate (Estrada Oliver et al., 2020).

**METHOD**

This article was compiled regarding the literature review research methodology, namely the writing of articles carried out through data collection in the form of scientific writings that aim to examine and solve problems critically and in-depth from relevant materials. The reading sources used in the literature review include textbooks, scientific articles in reputable scientific journals, and other relevant sources.

**RESULTS AND ANALYSIS**

The design of course development is realized in the form of Semester Learning Plans by the lecturer. The importance of semester learning plans is to guide lecturers in teaching students. For students, a semester learning plan is a guidance on what will they study during the semester. Semester learning plans are also a reference for a continuous improvement cycle. With the RPS, learning becomes more efficient and effective, with a focus on the performance of learning outcomes. Accountability and transparency in learning in RPS will help ensure the achievement of learning outcomes (Widodo, 2017).

The stages of learning design are carried out systematically, logically, and structured to be efficient and effective in the implementation of learning and to ensure the achievement of graduate learning outcomes (GLO). The learning design stages are at least carried out in the following stages: (1) Identifying the GLO charged to the course, (2) Formulating course learning outcomes (CLO) that are specific to the course based on the GLO charged, (3) Formulating the sub-CLO which is the final ability that is planned at each learning stage, and formulated based on the CLO, (4) Conducting learning analysis to provide an overview of the learning stages students will undergo, (5) Conducting learning needs analysis to determine the need for breadth and depth learning materials, as well as necessary learning tools, (6) Determine indicators of achievement of Sub-CLO as the final ability, which is planned at each learning stage to meet GLO, (7) Determine assessment criteria and develop learning assessment instruments based on indicators of achievement of Sub-CLO, (8) Choosing and carrying change the form of learning, learning methods, and student assignments as learning experiences, (9) Develop learning materials in the form of teaching materials and appropriate learning resources, (10) Develop and evaluate learning. Learning evaluation consists of (a) formative evaluation which aims to make improvements in the learning process, and (b) summative evaluation which aims to determine student learning outcomes (Junaidi et al., 2020).
Based on the stages that have been described, planning begins by identifying the GLO which charged to the course. The GLO imposed on courses is still general to courses, therefore it needs to be reduced to course learning outcomes (CLO). CLO is further reduced to several sub-outcomes of subject learning outcome (Sub-CLO) or often called lesson learning outcomes (Junaidi et al., 2020). The following is the CLO charged for the Day Care Management course, as follows:

Table 1
Course Learning Outcome of Day Care Management Course

| Field                     | Course Learning Outcome                                                                 |
|---------------------------|----------------------------------------------------------------------------------------|
| Attitude (A)              |                                                                                         |
| A9                        | demonstrate a responsible attitude towards work in their field of expertise independently |
| A10                       | Internalizing entrepreneurship spirit                                                    |
| Knowledge (K)             |                                                                                         |
| K9                        | Mastering the management in the implementation of Day Care                                 |
| General Skills (GS)       |                                                                                         |
| GS1                       | Able to apply logical, critical, innovative, quality, and measurable thinking in carrying out specific work in the Day Care field and accordance with work competency standards in the relevant field. |
| Specialized Skills (SS)   |                                                                                         |
| SS8                       | Able to develop sustainable professionalism through a reflective act.                      |

Source: Bachelor’s Degree of Teacher Education of Early Childhood Education Programs

Furthermore, based on the GLO imposed on the Day Care Management course, the next step is to formulate course learning outcomes (CLO) that are specific to the course.

Table 2
Course Learning Outcome (CLO) based on Graduate Learning Outcome

| Code | Course Learning Outcome (CLO)                                                                 |
|------|---------------------------------------------------------------------------------------------|
| CLO 1 | Responsible for their work in their field of expertise independently (GLO-1)                 |
| CLO 2 | Internalizing entrepreneurship spirit (GLO-2)                                               |
| CLO 3 | Mastering the management in the implementation of early childhood education (GLO-3)         |
| CLO 4 | Capable of implementing logical thinking, critical, innovative, excellent, and measurable when doing specific work in early childhood education field along with competency standard in related field (GLO-4) |
| CLO 5 | Capable of developing their professionality sustainably by reflective behavior, especially when managing early childhood education programs (GLO-5) |

Source: Bachelor’s Degree of Teacher Education of Early Childhood Education Programs
Table 3
Subject Course Learning Outcome (Sub-CLO) formulated based on Course Learning Outcome (CLO)

| Kode   | Subject Learning Outcome (SLO)                                                                 |
|--------|---------------------------------------------------------------------------------------------|
| Sub-CLO 1 | Capable to explain the basic concept of Day Care services (CLO-1)                           |
| Sub-CLO 2 | Capable to explain the concept of Day Care Management (CLO-2)                              |
| Sub-CLO 3 | Capable to arrange and determine the management of Day Care services program (CLO-3)     |
| Sub-CLO 4 | Capable to arrange and determine the management of Day Care human resources (CLO-4)      |
| Sub-CLO 5 | Capable to arrange and determine the management of Day Care resources (CLO-5)              |
| Sub-CLO 6 | Capable to arrange and determine the management of the Day Care budget (CLO-6)             |
| Sub-CLO 7 | Capable to arrange and determine the services of food and nutrients (CLO-7)               |
| Sub-CLO 8 | Capable to design Day Care services profiles (CLO-1, CLO-2, CLO-4, CLO-5)                  |

Source: Bachelor's Degree of Teacher Education of Early Childhood Education Programs

Based on tables 1, 2, 3 above, the next step is to conduct a learning analysis that is carried out rationally that learning in a course that will be achieved by students will be more measurable, systematic and planned. There are four kinds of structure for the preparation of Sub-CLO which state the stages of learning in the course, namely: hierarchical structure (hierarchical), procedural structure (procedural), grouping structure (cluster), and combination structure (Junaidi et al., 2020). The analysis chart in the Day Care Management is as follows:

![Course Analysis Chart](image)

Figure 1 Source: Author's Construction (Each lecture and exams are explained in Class 1 and so on)
This course analysis chart will serve as a guide in preparing the semester learning plan which will be used as a guide for lecturers in carrying out the learning process. The analysis of this course then needs to be followed up by determining indicators of achievement of the sub-CLO and meeting the criteria for the steps in the preparation of the learning plan. The learning plan contains at least: the name of the study program, the name and code of the course, semester, credits, the name of the supporting lecturer, the graduate learning achievements charged to the course, the final abilities planned at each learning stage to meet the graduate learning outcomes, related study materials with the abilities to be achieved, learning methods, the time provided to achieve abilities at each stage of learning, student learning experiences embodied in descriptions of tasks that must be done by students for one semester, criteria, indicators, and assessment weights, and a list of references used (Kemristekdikti, 2015). As for the format, it can be developed by each university.

A. Design of Learning Activities (Methods) with Project-Based Learning Model (PjBL)

The Project-Based Learning (PjBL) model is appropriate to be used in Day Care Management because it will develop student interest in deepening the study material and aims to achieve maximum course learning outcomes (CLO). Thus, the steps of the learning model are arranged based on the CPMK as follows:

![Learning Flow of Day Care Management course with PjBL](image)

*Figure 2 Source: Author’s Construction (Each lecture and exams are explained in Class 1 and so on)*

**Introduction.** The PjBL learning model in the Day Care Management course at the first meeting will begin with an introduction as an opening step by conveying the semester learning plan and learning outcomes for the courses that will become the standard for passing courses. Lecturers provide several reference materials to be used during lectures while still encouraging students to look for other reading sources, either in the form of textbooks or scientific articles. At this stage, the lecturer also emphasizes the importance of skills that must be achieved by students. Still in the preliminary stage, but carried out at the second meeting, brainstorming on the implementation of Day Care, both in Indonesia and abroad, was also presented by lecturers with various media, such as videos,
information through articles in scientific journals, and visiting the Day Care website. This brainstorming will begin to open students’ insights and thoughts about the process of implementing the Day Care.

**Driving question.** This step is the second stage which aims to ask driving questions so that it triggers students to want to learn and realize the important problems that need to be solved (Krajcik & Shin, 2014). These questions can be specific questions that must be answered through the completion of the project.

**Ongoing Research.** The step will continue to the investigation stage, at the third and fourth meetings, where the lecturer involves students to gain experience through the investigation process, both inside and outside the classroom. In this course, so that students can see more clearly how the implementation of Day Care is implemented and provoke their curiosity, students are allowed to conduct field observations in Day Care institutions of various types, such as Day Care as a university laboratory, Day Care organized by government agencies, Day Care which is managed independently. Before observations, students can be invited first to identify managerial needs in the management of the Day Care. However, both identification and observation can be done flexibly. If identification is done after observation, it is also not a problem, because, with the experience that has been obtained from the field, students will more easily identify and map managerial needs in the implementation of Day Care.

**Experience Reflection.** The results of observations that have been made will provide a meaningful experience for students in reflecting. Observations will also provide a more realistic picture of the Day Care management implementation in the field. The experience between one student and another student who visited the Day Care in different settings led them to get a more comprehensive picture of the organization. The results of these observations are documented in the form of videos, collections of photos, transcripts of interviews with teachers and staff, and other supporting files. With the results of these observations, students will be able to formulate projects related to the profile and proposals for the implementation which associated with a more in-depth study of the management of the Day Care from several aspects, namely: activity programs, human or staff resources, facilities and infrastructure, finance, and provision of food and nutrition for children in the Day Care. Projects made by students can be agreed upon for the format and the kind of the project, for example in the form of paper, video, or other forms of work while still referring to the learning outcomes of the subject.

**Analysis and Reflection.** At this stage, the project has been created by students which can then be consulted with the lecturer, analyzed, revised, and criticized by peers. The lecturer prepares a rubric that can be used as a guideline for peer-to-peer analysis so that the projects carried out by students are optimized.

**Project Presentation.** In the last steps of the PjBL learning model in this course, students get the opportunity to present the final results of the projects they have worked on. The inputs given in the previous stage became a strong foothold for improving the project. The presentation can be done in various ways depending on the project being worked on. If the project is agreed upon in the form of work such as a video, students can be given access to share through online media applications such as Youtube, Tiktok, Facebook, and so on so that more and more parties get information from the project. Meanwhile, if the project is agreed upon in the form of a paper or article, students are allowed to submit it to a journal managed by the department.

**B. Analysis**

The course of Daycare Management based on OBE and PjBL provides an innovative strategy in improving the competency of the undergraduate student of Teacher Education of Early Childhood Education Program to manage a Day Care facility. Day Care will become an Early Childhood Education unit that continues to grow due to the increasing role of working parents in the public sector.
The establishment and management of the Daycare developed by a preschool educator graduate are expected to provide optimal services to support child development professionally, which is not solely business-oriented. Students’ interest in entrepreneurship is also expected to increase by looking at phenomena in the field through observation. Observation also allows students to meet and communicate with many parties, such as child educators, managers, facility owners, parents, and children. Meanwhile, in the next PjBL step, such as when reflecting on-field experience analysis and project analysis and revision, students will have discussions with their lecturers and colleagues to hone critical analytical attitude. They will learn to accept constructive opinions and criticism because they are expected to be more open in accepting input from others. These activities will develop a collaborative attitude to support each other. The last step is the presentation of the project, which is possible with various strategies for presenting, students will also be trained to be as good as possible in presenting their work. Thus, the PjBL model is expected to be a solution strategy to help students achieve course learning outcomes from this course, namely: being able to design profiles and develop proposals for Day Care implementation in an analytical, critical, and innovative manner with independent, measurable, and quality performance and present them with an attitude take responsibility and internalize entrepreneurial attitudes. The step-by-step process in PjBL that students go through will also support the achievement of the 4C's skills needed in life in the 21st century, namely: communication, collaboration, critical thinking, and creativity (NAEP, 2014).

CONCLUSION

The design for the development of the Day Care Management course based on OBE with the PjBL learning model can be an alternative innovation to prepare Teacher Education of Early Childhood Education Program undergraduate students to master and deepen scientific studies and develop their interest in entrepreneurship after completing undergraduate programs and skills needed in the 21st century. This development design It is also hoped that it can help Teacher Education of Early Childhood Education Program lecturers from each university to continue to study and explore knowledge and be more qualified in improving the quality of learning in the classroom.

AUTHOR'S NOTE

The author declares that there is no conflict of interest regarding the publication of this article. And also this article is free from plagiarism.

REFERENCES

APGPAUD. (2017). Berita Aacara Akreditasi. https://apgpaud.id/akademik/learning-outcomes-prod.
Arkorful, V. E., Basiru, I., Anokye, R., Latif, A., Agyei, E. K., Hammond, A., Pokuaah, S., Arkorful, E. V., & Abdul-Rahaman, S. (2020). Equitable Access and Inclusiveness in Basic Education: Roadblocks to Sustainable Development Goals. *International Journal of Public Administration, 43*(3), 189–202. https://doi.org/10.1080/01900692.2019.1627554
Avelar, A. B. A., Silva-Oliveira, K. D. da, & Pereira, R. da S. (2019). Education for advancing the implementation of the Sustainable Development Goals: A systematic approach. *International Journal of Management Education, 17*(3), 100322. https://doi.org/10.1016/j.ijme.2019.100322
Ceglowski, D., & Bacigalupa, C. (2002). Four perspectives on child care quality. *Early Childhood Education* p. ISSN 1829-6750 & e. ISSN 2798-1363

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Estrada Oliver, L., Rodriguez, L., & Pagan, A. (2020). Tales from PE: Using Project-Based Learning to Develop 21st-Century Skills in PETE Programs. Strategies, 33(4), 45–48. https://doi.org/10.1080/08924562.2020.1764305

Greenier, V. T. (2020). The 10Cs of project-based learning TESOL curriculum. Innovation in Language Learning and Teaching, 14(1), 27–36. https://doi.org/10.1080/17501229.2018.1473405

Groeneveld, M. G., Vermeer, H. J., van IJzendoorn, M. H., & Linting, M. (2010). Children’s wellbeing and cortisol levels in home-based and center-based childcare. Early Childhood Research Quarterly, 25(4), 502–514. https://doi.org/10.1016/j.ecresq.2009.12.004

Ha, K. M. (2020). Conceptualization of Major Stakeholders in Emergency Management of Childcare Facilities. Journal of Evidence-Based Social Work (United States), 17(5), 514–526. https://doi.org/10.1080/26408066.2020.1768192

Hipson, W. E., & Séquin, D. G. (2015). Is good fit related to good behaviour? Goodness of fit between daycare teacher-child relationships, temperament, and prosocial behaviour. Early Child Development and Care, 186(5), 785–798. https://doi.org/10.1080/03004430.2015.1061518

Junaidi, A., Wulandari, D., Ariffin, S., Soetanto, H., Kusumawardani, S. S., Wastutiningsih, S. P., Utama, M. S., Cahyono, E., Hertono, G. F., Syam, N. M., WY, H. J., Putra, P. H., Wijayanti, C., & Jobih. (2020). Panduan Penyusunan Kurikulum Pendidikan Tinggi Di Era Industri 4.0 Untuk Mendukung Merdeka Belajar-Kampus Merdeka.

Juuti, K., Lavonen, J., Salonen, V., Salmela-Aro, K., Schneider, B., & Krajcik, J. (2021). A Teacher–Researcher Partnership for Professional Learning: Co-Designing Project-Based Learning Units to Increase Student Engagement in Science Classes. Journal of Science Teacher Education, 00(00), 1–17. https://doi.org/10.1080/1046560X.2021.1872207

Kemendikbud. (2014). Standar Nasional Pendidikan Anak Usia Dini. Peraturan Menteri Pendidikan Dan Kebudayaan Republik Indonesia, 13.

Kemendikbud. (2020). Peraturan Menteri Pendidikan Dan Kebudayaan Nomor 03 Tahun 2020 Tentang Standar Nasional Perguruan Tinggi.

Kementrian PPN, B. (2020). Pedoman Teknis Penyusunan Rencana Aksi Tujuan Pembangunan Berkelanjutan (TPB)/Sustainable Development Goals (SDGs). Pedoman Teknis Penyusunan Rencana Aksi Tujuan Pembangunan Berkelanjutan/Sustainable Development Goals (TPB/SDGs), 53(9), 21–25. http://www.elsevier.com/locate/scp

Kemristekdikti. (2015). Permenristekdikti No 44 Tahun 2015 tentang Standar Nasional Pendidikan Tinggi. Berita Negara RI.

Kim, K. J. (2020). Project-based learning approach to increase medical student empathy. Medical Education Online, 25(1). https://doi.org/10.1080/10872981.2020.1742965

King, B., & Smith, C. (2020). Using Project-Based Learning to Develop Teachers for Leadership. The Clearing House: A Journal of Educational Strategies, Issues and Ideas, 93(3), 158–164. https://doi.org/10.1080/00098655.2020.1735289

Krajcik, J. S., & Shin, N. (2014). Project-based learning. The Cambridge Handbook of the Learning Sciences, Second Edition, 275–297. https://doi.org/10.1017/CBO978113919526.018

Krauss, J., & Boss, S. (2014). Thinking Through Project-Based Learning: Guiding Deeper Inquiry. In SAGE Publication Ltd (Vol. 32, Issue 4). http://search.ebscohost.com/login.aspx?direct=true&db=lxh&AN=94059735&site=ehost-live

Lavonen, L., Loukomies, A., Vartiainen, J., & Palojoki, P. (2021). Supporting Pupils’ scientific and engineering practices in everyday life contexts at the primary school level during a project-based learning unit in Finland. Education 3-13, 0(0), 1–16. https://doi.org/10.1080/03004279.2021.1921823

MacLeod, M., & van der Veen, J. T. (2020). Scaffolding interdisciplinary project-based learning: a case study. European Journal of Engineering Education, 45(3), 363–377. https://doi.org/10.1080/03043797.2019.1646210

NAEP. (2014). 21st Century Skills, Education & Competitiveness. A Resources and Policy Guide.

O’Hara, M. (2010). Positive highlights on quality daycare for children: A North West of Ireland study. Child Care in Practice, 16(4), 359–375. https://doi.org/10.1080/13575279.2010.498163

Perren, S., Herrmann, S., Iljuschin, I., Frei, D., Körner, C., & Sticca, F. (2017). Child-centred
educational practice in different early education settings: Associations with professionals’ attitudes, self-efficacy, and professional background. *Early Childhood Research Quarterly, 38*, 137–148. https://doi.org/10.1016/j.ecresq.2016.07.001

Sheridan, S. M., Edwards, C. P., Marvin, C. A., & Knoche, L. L. (2009). Professional development in early childhood programs: Process issues and research needs. *Early Education and Development, 20*(3), 377–401. https://doi.org/10.1080/10409280802582795

Shulla, K., Filho, W. L., Lardjane, S., Sommer, J. H., & Borgemeister, C. (2020). Sustainable development education in the context of the 2030 Agenda for sustainable development. *International Journal of Sustainable Development and World Ecology, 27*(5), 458–468. https://doi.org/10.1080/13504509.2020.1721378

Tan, J. C. and A. C. (2016). *Project Based Learning for Academically-Able Students*. Sense Publisher.

Widodo, C. S. (2017). *Penyusunan Rencana Pembelajaran Semester (RPS)*. 2017(024), 1–24.

Williams, J. (2020). Educators Are the Global Goals. *Childhood Education, 96*(5), 22–29. https://doi.org/10.1080/00094056.2020.1824493