

3<sup>rd</sup>  
isses



# Certificate

## of Appreciation

No. 43192/UN38.I/DL.01.02/2021

Presented to:

**SUROTO**

in recognition as a

*Participant*

in the event of

**The 3<sup>rd</sup> International Seminar of Sport and Exercise Sciences  
“The Role of Society 5.0 and its Implementations on Olympic games 2021”**

held by Faculty of Sport Science, Universitas Negeri Surabaya  
Surabaya, 7<sup>th</sup> September 2021



**Prof. Dr. Bambang Yulianto, M.Pd.**  
Vice Rector for Academic Affairs

**Bayu Agung Pramono, S/Pd., M.Kes.**  
Chief of Organizing Committee

# Condition of Program Learning Outcomes of Physical Education Study Program from Alumni Perspective

Suroto<sup>1,\*</sup>, Bayu Budi Prakoso<sup>2</sup>, Sudarso<sup>3</sup>, Vega Candra Dinata<sup>4</sup>

<sup>1</sup> Dept. of Sport Science, Postgraduate, Universitas Negeri Surabaya, Surabaya, Indonesia.

<sup>2,3,4</sup> Dept. of Sport Education, Faculty of Sport Science, Universitas Negeri Surabaya, Surabaya, Indonesia.

\*Corresponding author. Email: [suroto@unesa.ac.id](mailto:suroto@unesa.ac.id)

## ABSTRACT

The completeness of the Program Learning Outcomes (PLO) listed in the curriculum in a study program has been monitored through assessments carried out in each subject for students. Assessment is objective from one side of the lecturer based on students' performance attending theoretical lectures and learning experiences on campus. PLO needs to be updated according to the progress of the times continuously. The purpose of writing this article is to describe the completeness of the alumni of the study program in achieving PLO contextually when they became PE teachers at school. This descriptive research data collection uses a survey method to 73 PE teachers with essential characteristics consisting of graduation period, gender, school status, school accreditation, teacher experience, employment status, teacher level of education, amount of teaching hours, school level. Closed questionnaires were used as research instruments prepared based on the PLO applicable in the curriculum of the study program. Data analysis used percentage, chi-square, and spearman correlation. The results show that four PLOs (PLO-6, 7, 9, 10) are influenced by the variable of teacher teaching experience. The correlation that occurs is negative. That is, the longer the teaching experience, the more incomplete the PLO required. So it can be concluded that the PLO curriculum of the study program must be upgraded according to the needs of PE teachers while carrying out their duties at school.

**Keywords:** Curriculum, Programme learning outcome, Teachers learning experience, Quality of study program, Physical education.

## 1. INTRODUCTION

Regarding the quality of physical education (PE), teachers should be linked to their learning outcomes while attending higher education. The competence of appropriate PE teachers to help students achieve PE learning goals in schools is very important to note. An essential feature in shaping students to become great PE teachers is pedagogical content knowledge (PCK). PCK is a unique feature that provides the ability to teachers to change the content of learning materials that can be understood by students so that students can achieve learning objectives. This is very important in PE, which is very different from other subjects, namely utilizing physical activity and sports as learning media, for PCK is a particular concern in the field of sports science, especially in physical education study programs [1]. This is relevant to the researchers' assumption that PCK is a core component of professional competence [2]. So that

the study program should develop student learning outcomes towards professional teacher competence.

The learning outcomes of the study program are the primary reference in the preparation of the curriculum. The formulation of learning outcomes is prepared based on the needs of the world of work under the specifications of the study program implemented. With the hope that the implementation of learning will help students have readiness in the world of work when they graduate from the study program. Unfortunately, learning outcomes in the curriculum are formulations that are hopeful which may not be fully achieved. So that universities are currently facing challenges in providing graduates who have employability levels in the world of work and fields relevant to the scientific study program [3].

Assessment of student learning achievement is one of the most logical ways to monitor student competence in meeting the expectations formulated in the curriculum. Program Learning Outcomes (PLO) is a minimum

qualification criterion for the ability of graduates of a study program that includes aspects of attitudes, knowledge, and skills listed in the curriculum. Under the applicable curriculum standards, characteristics of skills are formulated into two types, namely general and specific skills. Assessment of the achievement of PLO is essential; unfortunately, there are not many publications on this subject [4].

PLO as the purpose of the study program becomes a unified planning document that is packaged in the form of a curriculum. To adjust the PLO under the demands of the times, it is necessary to upgrade the college curriculum periodically, especially for study programs that aim to educate prospective teachers. The education curriculum should focus on technology and information as an update issue in the industrial revolution 4.0 and society 5.0. Many countries consider Information and Communication Technology (ICT) a potential vehicle for change and innovation in education [5]. Even competence in mastering basic multimedia and web development to build PE learning materials using multimedia and web-based needs to be achieved [6]. This is important as a significant study in the development of higher education curriculum, even though the condition of internet use for learning in Indonesia is still relatively low [7]. For this reason, study programs in Indonesia should be aware that including ICT as an essential issue in the curriculum is a critical part of education development. It always leads to an achievement equivalent to the development of other countries.

The most obvious issue is the development and demands of the world of education as a challenge in developing the curriculum of study programs. Field data from alumni is critical to consider in measuring PLO achievements by alumni to be relevant to the times and demands. Therefore, the purpose of this research is to describe the condition of the PLO of the physical education study program from the perspective of the PE teacher as an alumnus of the PE study program.

## 2. METHODS

### 2.1. Type of Research

This type of research is included in the descriptive type, namely the type of research that seeks to answer questions about the description of a situation. Descriptive research data collection can be done with a single point time (usually in the form of cross-sectional) [8].

### 2.2. Setting and Participants

A total of 73 samples were involved in this study. Details of the characteristics of this research sample can be seen in Table 1 as follows.

**Table 1.** Respondent characteristics

Respondent characteristics	n	%
Graduation period	23	31.5
0-10 years	50	68.5
> 10 years		
Gender		
Male	56	76.7
Female	17	23.3
School status		
Public school	60	82.2
Private school	13	17.8
School accreditation		
A	59	80.8
B	13	17.8
Not accredited	1	1.4
Teacher experience		
0-10 years	40	54.8
11-20 years	26	35.6
21-30 years	7	9.6
Employment status		
Civil servant	42	57.5
Non-Civil servant	31	42.5
Teacher level of education		
Bachelor	61	83.6
Professional/ Magister	12	16.4
Amount of teaching hours		
<24 hours/ Week	41	56.2
24 hours/ Week	4	5.5
>24 hours/ Week	28	38.4
School-level		
Primary school	39	53.4
Junior high school	17	23.3
Senior high school	17	23.3
Total	73	100

### 2.3. Instrumentation

The condition of the PLO study program is measured according to the learning outcomes that are compiled based on the national qualifications framework standard for study programs in Indonesia which includes four dimensions, namely: attitude (2 questions), knowledge (5 questions), special skills (2 questions), and general skills (2 questions). The eleven question items were arranged into a questionnaire with 3 answer items, namely: 1= incomplete; 2= lack; 3 = complete. Based on the statistical analysis results to test the validity and reliability, the validity value of the questionnaire was 0.552-0.808, and the Cronbach's Alpha value was 0.926 so that the questionnaire was declared to have met the eligibility as data collectors. [9].

Data collection was carried out using a google form with the structure of 3 sessions, namely the first session: approval of the sample filling out the questionnaire, the second session: filling out the questionnaire, and the third

session: identity to collect information about the essential characteristics samples. A google form link is provided to alumni of the study program who are still connected and detected as PE teachers. This was done to ensure that the questionnaire was filled out by the appropriate research targets.

**2.4. Analysis**

The initial analysis stage is the screening of data entry carried out by the sample. Next, it was analyzed using descriptive statistics, chi-square followed by Spearman correlation (to determine the relationship between essential characteristics and values). Analysis using SPSS 25.0 application with a significance level of 0.05.

**3. RESULTS AND DISCUSSION**

The questionnaire results conducted by the alumni of the study program can be seen in Table 2 as follows.

**Table 2.** PLO completion conditions

PLO	1	2	3
<b>Attitudes</b>			
<b>PLO-1:</b> Able to show scientific, critical, and innovative attitudes in professional physical education learning	0%	12%	88%
<b>PLO-2:</b> Able to show religious and cultural values well under academic ethics in carrying out duties professionally	0%	8%	92%
<b>Knowledge</b>			
<b>PLO-3:</b> Able to demonstrate theoretical and practical knowledge of physical education through identification of physical education concepts	1%	14%	85%
<b>PLO-4:</b> Able to apply the knowledge of the concept of physical education to deal with problems that occur in the field with a modification approach	1%	12%	86%
<b>PLO-5:</b> Able to apply problem-solving methods in the field of physical education through class action research	1%	30%	68%
<b>PLO-6:</b> Able to apply technology in physical education learning	1%	21%	78%
<b>PLO-7:</b> Able to master theoretical and practical concepts in the field of physical education, especially the development of creativity (entrepreneur) in physical education and sports	3%	14%	84%
<b>Special skills</b>			
<b>PLO-8:</b> Able to solve problems in project-based physical education and	1%	12%	86%

guided discovery independently or in groups			
<b>PLO-9:</b> Able to design research independently or in groups to provide alternative solutions to problems in the field of education physical	3%	18%	79%
<b>General skills</b>			
<b>PLO-10:</b> Able to use appropriate ICT to obtain alternative solutions to problems in the sphere of physical education with various approach models	1%	14%	85%
<b>PLO-11:</b> Designing entrepreneurial design related to physical education and sports	3%	27%	70%
<b>Total</b>	1%	17%	82%

1= incomplete; 2= lack; 3= complete

In PLO-1, 0% of PE teachers stated incomplete, 12% indicated lack, and 88% said ultimately. In PLO-2, 0% of PE teachers stated incomplete, 8% stated lack, and 92% stated utterly. In PLO-3, 1% of PE teachers said incomplete, 14% indicated lack and 85% stated utterly. In PLO-4, 1% of PE teachers stated incomplete, 12% indicated lack, and 86% said ultimately. In PLO-5, 1% of PE teachers stated incomplete, 30% indicated lack, and 68% stated utterly. In PLO-6, 1% of PE teachers said incomplete, 21% indicated lack, and 78% stated utterly. In PLO-7, 3% of PE teachers stated incomplete, 14% indicated lack, and 84% said ultimately. In PLO-8, 1% of PE teachers stated incomplete, 12% indicated lack, and 86% stated utterly. In PLO-9, 3% of PE teachers said incomplete, 18% indicated lack, and 79% stated utterly. In PLO-10, 1% of PE teachers stated incomplete, 14% indicated lack, and 85% stated utterly. In PLO-11, 3% of PE teachers said incomplete, 27% indicated lack, and 70% stated utterly.

The four dimensions of the PLO structure consisting of attitudes, knowledge, special skills, and general skills have been legitimized according to appropriate learning outcomes. The dimensions of the philosophy referred to in the PLO include two types of affective, namely personal and social. This is in line with the learning outcomes of physical education, which consist of physical learning, cognitive learning, social learning, and effective learning [10]. Attitude assessment should be habituated in behaving as an ideal PE teacher. Knowledge should also be measured according to the cognitive level as a curriculum target based on the national qualifications framework, a namely high order of thinking skills [11]. With the monitoring of these achievements, the study program should be able to check the progress of students' readiness in carrying out their professions in the workplace.

**Table 3.** Correlation of respondent characteristics with PLO completeness using the Chi-square test

\*p<0.05; r= Spearman Correlation

Variable	Program Learning Outcomes (PLO) (X <sup>2</sup> )										
	1	2	3	4	5	6	7	8	9	10	11
Graduation period	0.016	0.667	4.702	1.211	2.228	6.759	4.471	0.476	5.052	4.239	0.534
Gender	0.007	2.611	0.573	0.319	2.072	4.649	1.845	0.319	1.425	3.372	0.867
School status	0.315	0.006	0.25	2.511	0.22	0.508	3.111	0.559	0.539	0.25	0.5
School accreditation	2.436	0.099	0.429	0.752	5.166	1.419	0.675	0.496	0.944	0.955	1.139
Teacher experience	1.924	0.378	3.716	3.746	2.541	11.48* r= -0.214	25.1* r= -0.274	5.351	19.43* r= -0.140	11.77* r= -0.210	4.333
Employment status	1.722	0.223	0.793	2.576	0.823	1.481	2.407	0.756	1.694	0.793	1.538
Teacher level of education	0.25	0	0.575	0.431	2.794	0.353	0.486	0.431	0.846	1.702	2.098
Amount of teaching hours	3.66	0.53	1.883	5.475	2.72	3.156	6.443	1.453	1.198	3.91	0.257
School level	1.107	0.421	3.164	3.625	6.191	5.206	2.709	6.809	3.509	5.417	5.826

A common problem faced by universities today is the low level of graduate employability, which is shown to be a declining trend from year to year [12]. This research can finally contribute to providing an example of measuring PLO achievement by graduates who are believed to be able to represent graduates' readiness in the world of work. This is corroborated by the results of other studies, which explain that the PLO assessment can potentially be used to predict the employability level of graduates in the world of work so that the PLO assessment model carried out can be useful in sharpening many strategically planned intervention programs to ensure graduates can be hired on time and ready to work employed in the relevant field [13].

The latest issue that needs to be included in the development of higher education curriculum - physical education study programs is the issue of the COVID-19 pandemic, which has affected various sectors of life. Especially concerning students' level of physical activity, where the COVID-19 pandemic has changed lifestyles and reduced opportunities for active movement, thereby increasing obesity rates and other health problems [14]. By incorporating the latest issues into the curriculum development of the study program, it is hoped that learning outcomes as an interpretation of student competencies can prepare students to be ready to carry out their professional obligations—especially as PE teachers.

In addition, studies on scientific shifts in the PE field need to be followed, such as physical literacy. Lately, in Indonesia, there is being discussed about physical literacy as the goal of PE learning. Students are directed to mastery of physical literacy, which is considered an

individual disposition that emphasizes the importance of active life throughout life through physical education and sport as operational curriculum in achieving it [15]. By including these issues, students who graduate from the study program should be ready to become PE teachers to teach students to achieve high physical literacy.

#### 4. CONCLUSION

The achievement of PLO as a result of student learning in physical education study programs is 82%. Teacher experience is a variable that is negatively related to PLO-6: Able to apply technology in educational learning physical, PLO-7: Able to master theoretical and practical concepts in the field of physical education, especially the development of creativity (entrepreneur) in physical education and sports, PLO-8: Able to solve problems in project-based physical education and guided discovery independently or in groups, PLO-9: Able to design research independently or in groups to provide alternative solutions to problems in the field of education physical, and PLO-10: Able to use appropriate ICT to obtain alternative solutions to problems in the sphere of physical education with various approach models. The longer the teacher teaches, the more left behind with the demands of the most updated learning outcomes. So that the curriculum development of study programs must be carried out periodically, especially to respond to the challenges of the times, such as the integration of ICT in learning and scientific developments in PE such as physical literacy.

## AUTHORS' CONTRIBUTIONS

Conceptualization: Suroto; Formal Analysis: Bayu Budi Prakoso; Methodology: Suroto, Bayu Budi Prakoso; Project administration: Vega Candra Dinata, Sudarso.

## ACKNOWLEDGMENTS

The authors would like to thank the Faculty of Sports Science, Universitas Negeri Surabaya, which has provided funding for the implementation of this research through Penelitian Kebijakan FIO Unesa Dana PNPB 2021 with the SK number 839/UN38/HK/PM/ 2021 and SPK number B/30508/UN38.6/PM.05.01/2021.

## REFERENCES

- [1] S. Meier, "Pedagogical content knowledge in students majoring in physical education vs. sports science. The same but different?" *Ger. J. Exerc. Sports Res.* 2021 513, vol. 51, no. 3, pp. 269–276, Jun. 2021, DOI: 10.1007/S12662-021-00725-7.
- [2] S. Blömeke, J.-E. Gustafsson, and R. J. Shavelson, "Beyond Dichotomies: Competence Viewed as a Continuum," <http://dx.doi.org/10.1027/2151-2604/a000194>, vol. 223, no. 1, pp. 3–13, Mar. 2015, DOI: 10.1027/2151-2604/A000194.
- [3] I. M. Suarta, I. K. Suwintana, I. G. P. F. P. Sudhana, and N. K. D. Hariyanti, "View of Employability Skills for Entry-Level Workers: A Content Analysis of Job Advertisements in Indonesia," *J. Tech. Educ. Train.*, vol. 10, no. 2, pp. 49–61, 2018.
- [4] G. Denicoló, "Assessing Program Learning Outcomes: A Tale of Self-Discovery," *Phys. Teach.*, vol. 57, no. 1, p. 47, Dec. 2018, DOI: 10.1119/1.5084929.
- [5] B. Zekeriya Goktas, "The Attitudes of Physical Education and Sport Students towards Information and Communication Technologies," vol. 56, no. 2, 2012.
- [6] M. Papastergiou, "Physical education and sport science undergraduate students as multimedia and web developers: Moving from the user's to the creator's perspective," *Educ. Inf. Technol.* 2010 163, vol. 16, no. 3, pp. 281–299, May 2010, DOI: 10.1007/S10639-010-9129-5.
- [7] Wuryaningsih, D. H. Susilastuti, M. Darwin, and A. C. Pierewan, "Effects of Web-Based Learning and F2F Learning on Teachers Achievement in Teacher Training Program in Indonesia," *Int. J. Emerg. Technol. Learn.*, vol. 14, no. 21, pp. 123–147, 2019, DOI: <https://doi.org/10.3991/ijet.v14i21.10736>.
- [8] S. J. Kamper, "Types of research questions: Descriptive, predictive, or causal," *J. Orthop. Sports Phys. Ther.*, vol. 50, no. 8, pp. 468–469, 2020, DOI: 10.2519/jospt.2020.0703.
- [9] J. R. Fraenkel, N. E. Wallen, and H. H. Hyun, *How to Design and Evaluate Research In Education (6th ed.)*. New York: Mc Graw Hill, 2012.
- [10] A. Casey and V. A. Goodyear, "Can Cooperative Learning Achieve the Four Learning Outcomes of Physical Education? A Review of Literature," <http://dx.doi.org/10.1080/00336297.2014.984733>, vol. 67, no. 1, pp. 56–72, Jan. 2015, DOI: 10.1080/00336297.2014.984733.
- [11] M. A. Warda, N. Berutu, and R. Rosni, "Developing of The Demography Teaching Book Based on KKNI-Curriculum and High Order Thinking Skills," pp. 111–117, May 2019, DOI: 10.2991/ICSSIS-18.2019.22.
- [12] B. Y. Moeliodihardjo, "HIGHER EDUCATION SECTOR IN INDONESIA." 2014, Accessed: Aug. 26, 2021. [Online]. Available: [https://www.britishcouncil.in/sites/default/files/indonesian\\_higher\\_education\\_system.pdf](https://www.britishcouncil.in/sites/default/files/indonesian_higher_education_system.pdf).
- [13] W. N. A. W. Othman, A. Abdullah, and A. Romli, "Predicting Graduate Employability based on Program Learning Outcomes," *IOP Conf. Ser. Mater. Sci. Eng.*, vol. 769, no. 1, p. 012018, Feb. 2020, DOI: 10.1088/1757-899X/769/1/012018.
- [14] A. P. Hills, D. R. Dengel, and D. R. Lubans, "Supporting Public Health Priorities: Recommendations for Physical Education and Physical Activity Promotion in Schools," *Prog. Cardiovasc. Dis.*, vol. 57, no. 4, pp. 368–374, Jan. 2015, DOI: 10.1016/j.pcad.2014.09.010.
- [15] S. M. Choi *et al.*, "Effect of sports education on students' perceived physical literacy, motivation, and physical activity levels in university required physical education: a cluster-randomized trial," *High. Educ.* 2020 816, vol. 81, no. 6, pp. 1137–1155, Aug. 2020, DOI: 10.1007/S10734-020-00603-5.