



An Investigation of Additional Training and Self-development of Undergraduate Students

Setiyo Hartoto¹(✉), Bayu Budi Prakoso¹(✉), Awang Firmansyah¹,
and Satwika Arya Pratama²

¹ Fakultas Ilmu Olahraga, Universitas Negeri Surabaya, Surabaya, Indonesia
bayuprakoso@unesa.ac.id

² Fakultas Teknik, Universitas Negeri Surabaya, Surabaya, Indonesia

Abstract. Curriculum upgrade gave a new hope during education process improvement. The implementation of the MBKM curriculum encourages universities to design educational processes that ensure a link and match of the learning process with the needs of employment. For this reason, the integration of the learning process with the recognition of expertise competence in the profession is feasible so that students get recognition by the profession. The purpose of this study was to investigate the need for additional training and the level of self-development of students in strengthening their competence for professional recognition. This research is included in the type of cross-sectional study. The research subjects were 134 students (m = 100, f = 34, first year = 49, second year = 51, third year = 34). The student is studying at the sports science faculty. The instrument used was a closed questionnaire which was circulated using a google form. Data analysis used descriptive statistics, t-test, and ANOVA. The level of additional student training is in the very high category. The level of student self-development is in the fair category. There is an effect of certificate status owned by students on self-development ($t = 2.821$, $p = 0.007$), students who have certificates in the field of sports have a higher level of additional training than students who do not have certificates. There was an effect of student athlete status on self-development with a value of $F = 12.6$, $p = 0.000$, post hoc test showed that the level of self-development of non-athlete students was lower than that of student-athletes ($p = 0.000$). Faculties need to provide training outside of the regular learning process so that the desire of students to develop themselves to gain additional competencies could be fulfilled.

Keywords: additional training · self-development · sport science · sport profession

1 Introduction

Merdeka Learning Campus Teaching (MBKM) is a curriculum that applies in Indonesia. Intends to accelerate the backwardness of universities in preparing graduates who are ready to work in the workforce [1]. In this decade, at least Indonesia has faced a gap

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between the demand for employment and the quality of university graduates [2]. For this reason, the implementation of MBKM is believed to further improve the link and match education with the needs of the world of work [3]. So that graduates produced by universities can be ready to work in accordance with the needs of the workforce.

Responding to these challenges, universities immediately adjust their curriculum to be in accordance with the applicable curriculum. Updating the curriculum and implementing various new approaches is reasonable to do as an effort to diversify (take opportunities to be better) [4]. Based on the results of previous studies, it can be explained that the condition of student learning outcomes is stated to be increasingly irrelevant to the demands of the job market, so that study programs need to periodically upgrade the curriculum to adjust student learning outcomes to the demands of competence in the workplace [5]. The curriculum that will be implemented by universities should be able to guarantee students' mastery in achieving work skills for relevant employment.

Mastery of student learning in the curriculum is formulated in the form of Program Learning Outcomes (PLO) which is a statement about what must be mastered by students from an academic perspective which includes knowledge and skills after students complete a period of study in college [6]. Testing of teacher preparation programs in acquiring knowledge and skills relevant to the profession in the future can be assessed from the PLO formulated in the curriculum of the study program [7].

The results of the World Economic Forum survey which show that there are ten skills needed by the workforce to be able to compete in the future include (1) analytical and innovative thinking (2) dynamic and strategic learning (3) creativity, originality, and initiative (4) skills technology design and programming (5) analytical and critical thinking skills (6) problem solving skills (7) leadership and ability to influence the social environment (8) emotional intelligence (9) logical, argumentative and insightful problem solving (10) systematic analysis and evaluation skills [8]. Universities should have prepared themselves in providing an educational process that is able to make students have these ten skills. One way for universities to achieve these ten skills is to conduct additional training conducted through a collaboration scheme between universities and stakeholders.

Starting additional training outside the university's intra-curricular process, mapping should be done in conducting training. Mapping can be done by using basic questions in the form of: why, who, how [9]. So with the results of the mapping, the basic reasons for the training, the targets for which the training will be obtained, and how to conduct the training will be obtained. For this reason, the purpose of this study is to map out additional training needs and the level of self-development of sports students. This step is important to do to prepare the right additional training program for sports students to be ready to face the demands of competence in the future.

2 Method

This study used a cross-sectional study [10]. The research subjects were 134 students ($m = 100$, $f = 34$, first year = 49, second year = 51, third year = 34). The student is studying at the Faculty of Sports Science.

Table 1. Additional training and self-development categories.

No.	Additional training	Self-development
1	$4 \leq \text{very low} \leq 8$	$7 \leq \text{low} \leq 14$
2	$8 < \text{low} \leq 12$	$14 < \text{fair} \leq 21$
3	$12 < \text{high} \leq 16$	$21 < \text{high} \leq 28$
4	$16 < \text{very high} \leq 20$	-

Data was collected using an instrument developed to measure two things, namely: additional training and student self-development. The additional training aspect is measured using four statement items that provide five answer choices, namely: strongly disagree to strongly agree. The loading factor is between 0.508–0.847 and the Construct Reliability (CR) value is 0.797. Aspects of self-development are measured using seven statement items that provide four answer choices, namely: never until always. The loading factor is between 0.454–0.729 and the Construct Reliability (CR) value is 0.813. So that the instrument used meets the requirements of validity ($\lambda \geq 0.3$) and reliability ($CR > 0.7$) [11]. Based on the theoretical maximum and minimum values, the rules for measuring the training needs and self-development needs of students are shown in Table 1.

The instrument response was input into the google form which is divided into 5 sessions, namely: (1) session I contained about identity, gender, department, history of being athlete, and competency certificate; (2) session II contained information on certificate ownership; (3) session III contained statement items to measure training needs; (4) session IV contained statement items to measure student self-development; and (5) session V contained words of gratitude. Data analysis was used descriptive statistics, t-test, and ANOVA.

3 Results and Discussion

3.1 Descriptive Statistic and Data Distribution of Additional Training

The results of the statistical descriptive analysis of additional training and the distribution of data by category can be seen in Table 2.

Based on Table 2, it can be explained that the average additional training is 16.6, the standard deviation of 2.35 is in the high category. The lowest value of 6 is in the very low category and the highest value of 20 is in the very high category.

The distribution of data shows that as many as 3 students (2%) are in the very low category, 4 students (3%) are in the low category, 51 students (38%) are in the high category, and 76 students (57%) are in the very category. High. Based on descriptive statistics and data distribution, it is concluded that the level of additional training of students is in the very high category. Faculties need to provide training outside of the regular learning process so that students' desires for additional competencies can be fulfilled.

Table 2. Descriptive statistic and data distribution of competencies need

Descriptive statistic	Score	Categories	F	%
Mean	16.6	Very low	3	2%
SD	2.35	Low	4	3%
Min	6	High	51	38%
Max	20	Very high	76	57%
		Total	134	100%

Table 3. Descriptive statistic and data distribution of self-development

Descriptive statistic	Score	Categories	F	%
Mean	18.5	Low	24	18%
SD	4.03	Fair	83	62%
Min	10	High	27	20%
Max	28	Total	134	100%

3.2 Descriptive Statistic and Data Distribution of Self-development

The results of the descriptive analysis of self-development statistics and the distribution of data by category can be seen in Table 3.

Based on Table 3, it can be explained that the average self-development is 18.5, the standard deviation of 4.03 is in the sufficient category. The lowest value of 10 is in the low category and the highest value of 28 is in the high category.

The distribution of data shows that as many as 24 students (18%) are in the low category, 83 students (62%) are in the fair category, 27 students (20%) are in the high category. Based on descriptive statistics and data distribution, it can be concluded that the level of student self-development is in the fair category. Faculties need to provide training outside the regular learning process to increase the needs of student competency development.

3.3 Effect of Gender and Certificate Status on Additional Training and Self-development

The effect of gender and certificate status on additional training and self-development can be seen in Table 4.

There is an effect of certificate status owned by students on self-development ($t = 2.821$, $p = 0.007$), students who have certificates in the field of sports have a higher level of additional training than students who do not have certificates.

Table 4. Effect of gender and certificate status on additional training and self-development

		N	Mean	SD	t	p
Additional training						
Gender	M	100	16.8	2.37	1.060	0.291
	F	34	16.3	2.31		
Certificate status	Yes	29	16.2	2.86	1.016	0.312
	No	105	16.7	2.20		
Self-development						
Gender	M	100	18.4	4.13	0.419	0.676
	F	34	18.7	3.76		
Certificate status	Yes	29	20.3	3.87	2.821	0.007
	No	105	18.0	3.94		

3.4 Effect of Department, Athlete Status, and Years of Study on the Level of Additional Training and Personal Development

The analysis was used ANOVA to find out the background of students on the level of need for additional training and self-development. The results of the analysis can be seen in Table 5 as followed.

There is an effect of student athlete status on self-development with a value of $F = 12.6$, $p = 0.000$, post hoc test shows that the level of self-development of non-athlete students is lower than that of student-athletes ($p = 0.000$).

3.5 Types of Sports Certificates Owned by Students

Based on the results of the study, there were 29 out of 134 students (21.6%) who claimed to have a certificate in the field of sports. Table 6 describes the types of certificates held by students.

Based on Table 6, it can be explained that students already have certificates of sports expertise at the regional and national levels. At the regional level, students have certificates of expertise as coaches and referees in sports. Unlike the national level, students have certificates of expertise as coaches, referees, divers, masseurs, and physical trainers.

Choosing the type of training is very important for the faculty to have a meaningful impact on students' self-development. This form of training can focus on additional training in the form of strengthening interpersonal competencies and reflective practice competency domains that are proven to be able to support the development and modification of professional development programs [12]. Student self-development through additional training should be able to strengthen the competencies that students must possess in the future.

The most common competencies that sports students must possess can support the implementation of the national sports grand design which consists of four discs,

Table 5. Effect of department, athlete status, and years of study on the level of additional training and personal development

		N	Mean	SD	F
Additional training					
Department	Physical education	67	16.5	2.47	F = 0.271 p = 0.763
	Sport coaching	19	16.6	2.76	
	Sport science	48	16.8	2.04	
Athlete status	Not an athlete	47	16.3	2.61	F = 1.470 p = 0.234
	Former athlete	34	17.2	2.36	
	Active as an athlete	53	16.6	2.07	
Years of Study	3rd year and above	34	16.4	2.29	F = 0.219 p = 0.804
	2nd year	51	16.7	2.06	
	1st year	49	16.8	2.70	
Self-development					
Department	Physical education	67	18.8	3.94	F = 0.849 p = 0.430
	Sport coaching	19	19.0	4.49	
	Sport science	48	17.9	3.98	
Athlete status	Not an athlete	47	16.5	3.78	F = 12.6 p = 0.000
	Former athlete	34	18.4	4.22	
	Active as an athlete	53	20.3	3.29	
Years of Study	3rd year and above	34	18.4	4.37	F = 0.034 p = 0.967
	2nd year	51	18.4	3.82	
	1st year	49	18.6	4.08	

Table 6. Types of sports certificates owned by students

Level	Type	Sports
Local	Coach	Swimming, Karate, Basketball, Badminton, Football, Taekwondo, Wrestling
	Umpire/Jury	Swimming, Karate, Basketball, Badminton, Futsal
National	Coach	Swimming, Karate, Basketball, Badminton, Football,
	Umpire/Jury	Swimming, Karate, Basketball, Badminton, Football.
	Others	Finswimming, massage, physical trainer

namely: education, achievement, recreation, and the sports industry [13]. Strengthening the competence of recreational sports and the fitness industry [14], strengthening sports achievements/coaching and sports doctors [15], and strengthening educational sports that synergize with the implementation of education in the school environment [16]. The preparation of students in mastering these three scientific aspects in sport science is the key to implementing the educational process at the sports science faculty. Unfortunately, the results of this study still do not show sufficient data that sports students have sufficient certificates to support the profession in the field of sports.

4 Conclusion

The purpose of this study was to evaluate the need for additional training and the level of self-development of sports students in preparing themselves to be ready to face the workforce. The findings of this study indicate that the level of need for additional training in the field of sports for students is very high. This is relevant to the findings in the aspect of the level of self-development of students who are at a sufficient level. The number of students who have sports certificates is relatively small, only 21.6% of students have certificates. The certificates they have are at national and international levels consisting of coaches, referees, judges, physical trainers, divers, and masseurs. For this reason, it is necessary to integrate additional training with courses that have the potential to support the recognition of student competence in the field of sports.

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Authors’ Contributions. Setiyo Hartoto: preparing concepts; Bayu Budi Prakoso: formulating methods and conducting research; Awang Firmansyah: processing results and interpretation and conclusions; Satwika Arya Pratama: editing the final article draft.

Appendix

No.	Dimensi/Item	λ	Construct Reliability
A	Dimension: Additional training needs		0.797
1	The competencies I have acquired are relevant to my future work.	0.696	
2	Relevant additional training is needed to strengthen the competencies required by my future employment.	0.847	
3	Students in sports are not enough just to have a high GPA.	0.745	

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No.	Dimensi/Item	λ	Construct Reliability
4	Students in the field of sports must have additional certificates such as coaches, referees and / or sports instructors.	0.508	
B	Dimensi: Self-Development		0.813
1	I am actively looking for information on upgrading/training activities outside of lectures.	0.679	
2	I am active in sports activities club within the University.	0.454	
3	I am active in sports club activities outside the University.	0.567	
4	I am active in sport extracurricular activities at school.	0.609	
5	I am active in sporting organization activities outside the University.	0.564	
6	I prepare a plan for upgrading/training that is relevant to my competence.	0.716	
7	I plan to attend upgrading/training that is relevant to the learning outcomes in my study program.	0.729	

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