



RESEARCH ARTICLE

## Integration of Life Skills in Outdoor Education Program Towards Interpersonal Communication

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### Abstract

The purpose of the study was to determine and test the differences in the influence of three groups, namely two groups of outdoor education programs and one group of daily activities on interpersonal communication skills. The method used in this study was an experiment with a pretest-posttest control group design with more than one experimental group and a quantitative approach. The sample involved was 42 (21 females and 21 males) who were studying in the physical education department of PGSD level one. The Life Skills Scale for Sport (LSSS) questionnaire as an instrument with a reliability level of 0.92 and a validity of 0.63. Data analysis was carried out using Statistical Product and Service Solution (SPSS) on Windows version 22. The findings of the study showed that the integrated outdoor education life skill program had an effect with a significance value of .000 <0.05, the non-integrated outdoor education program had an effect with a significance value of .026 <0.05 and daily activities had no effect with a significance value of .108 > 0.05. simultaneously between the three groups there was a significant difference. The conclusion is that integrated and non-integrated life skill outdoor education programs have an effect on interpersonal communication, but the integrated life skill outdoor education program is better. While in the control group there is no significant effect.

### Keywords

Life Skills, Outdoor Education, Social Skill and Interpersonal Communication

## INTRODUCTION

Outdoor education is a learning process in various environmental and environmental activities physically and psychologically demanding to create learning in individuals or groups (Bosch & Oswald, 2010). Outdoor education aims to encourage learning through the interaction between emotions, actions and thoughts, based on practical observations in authentic situations (Szczepanski et al., 2006). Outdoor education

focuses on the location where an activity occurs and is related to the potential of the outdoor environment to stimulate this type of physical activity (Crompton & Sellar, 2010).

This learning is related to activities outside the classroom and in the wild, through play activities in schools, parks, agricultural villages and activities that are adventurous and the development of aspects of knowledge and concepts that are relevant in the values contained therein. Kathleen & Larry, (2011) show that outdoor play contributes to

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the social, emotional, cognitive, and physical development of learners. The activities can be designed to be done outdoors, require physical activity (running around) and encourage social interaction between learners (Verhaegh et al., 2006). Outdoor education is one of the most powerful and transferable teaching vehicles (Barker, 2006). The transfer process of outdoor education programs involves many physical activities carried out in nature or outdoors. Ewert & Voight, (2012) Adventure Education (AE) programs seek to foster individual growth and development through deliberate planning and implementation of the educational process which often includes perceived or actual risks and typically uses the natural environment as the program setting. Knowledge management is where each individual should be able to feel, see directly and even be able to carry it out himself, so that the transfer of knowledge sourced from experience in nature can be felt, translated, developed based on the abilities possessed is one of the learning processes through nature is seen as very effective as a learning medium. The learning approach through nature hones physical and social activities where a person will carry out more activities that indirectly involve cooperation between friends and creative abilities. The process of communication, problem solving, creativity, decision making, mutual understanding, and respect for differences will arise through outdoor activities (nature). The form of activity is made periodically and programmatically so that the process of change can be seen in real and in accordance with the goals to be achieved.

Recent research has shown that outdoor education experiences such as schoolyards that are often implemented by a trained teacher can result in greater science achievement for students (Martin, 2003). There are indications that show (although not strong enough) that, outdoor education with the experience of hiking activities through experiential learning methods has a positive influence on controlling the anger of female students but does not have a positive effect among male students (Karjono, 2009). In addition, opportunities to spend time outdoors that are not structured can affect the attitudes, behavior, cognition, and physical development of learners (Kolb & Kolb, 2014). Learning through outdoor experiences helps learners build their knowledge and can affect growth, development, learning, and health for the long term (Driessnack & Rhodes, 2009). Outdoor

education has diverse perspectives of knowledge and learning whereas traditional education systems, based on theoretical knowledge in a classroom environment and limiting the interaction between emotions, actions and thoughts and have the potential to be a complementary form of education in the tradition of pragmatic and progressive pedagogy can offer students and teachers the opportunity to learn based on observation and experience in authentic situations, then the positive influence of outdoor education related to personal and social development, physical activity and academic achievement (Becker et al., 2017).

Related to previous research and problems that occurred in Indonesia. It is quite clear that outdoor education has a positive influence on the perpetrators. Therefore, the researcher intends to try to explore further research related to the role of outdoor education activities which are designed in such a way as to see the difference in the level of meaning associated with efforts to develop life skills components, especially related to interpersonal communication indicators.

Interpersonal communication skills include social, respect, leadership, family interaction, and communication skills that are considered necessary for youth to possess. In addition, personal skills including self-organization, discipline, independence, goal setting, managing performance results, and motivation, are also considered necessary for youth to possess. But other than all that, social skills were identified as the most important life skills that youth should possess (Jones & Lavalley, 2009).

Based on the results of previous research descriptions, it is hoped that outdoor education programs can improve the components of life skills, especially interpersonal communication to optimize the readiness of subjects in facing the challenges of their daily lives.

## MATERIALS AND METHODS

### *Research Design*

The research design used in this study is Pretest-Posttest Control Group Design With More Than One Experimental Group. The use of the research design is adjusted to the characteristics of the research carried out and the subject matter discussed in the research. Quasi-experimental designs are not included in the use of random assignment. Researchers who used this study design

relied on other techniques to control (or at least reduce) threats to internal validity (Fraenkel et al., 2012).

According to Christensen dkk., (2014) that "The design of a pretest-posttest control group with more than one experimental is an excellent experimental design because it does an excellent job

**Table 1.** Research design

Group	Pretest	Treatment	Posttest
Experimental Group 1	O <sub>1</sub>	XT <sub>1</sub>	O <sub>2</sub>
Experimental Group 2	O <sub>1</sub>	XT <sub>2</sub>	O <sub>2</sub>
Control Group	O <sub>1</sub>	XC	O <sub>2</sub>

Notes: Pretest-Posttest, Control Group Design with More Than One Experimental Group

Source: (Christensen dkk., 2014)

Information:

O<sub>1</sub> : Pretest measurement in experimental class and control class

O<sub>2</sub> : Posttest measurement in experimental class and control class

XC : Daily Activities (Control Group)

XT<sub>1</sub> : Treatment Outdoor Education integrated life skills (Integrated)

XT<sub>2</sub> : Treatment Outdoor Education (Non-integrated)

### Participants

The population in this study was the initial level PGSD Physical Education UPI Sumedang Campus students aged 18-21 years with a total of 87 students divided into 2 classes. The reason for choosing entry-level students as the population in this study was the assumption that their physical abilities would not have difficulty carrying out the required tasks. They are students who have taken general physical ability tests, such as endurance, strength and flexibility, before being accepted as students. Likewise, to reduce the possibility of experimenter bias, the sample chosen was first semester students who had just started their course. This means as far as possible the members of the experimental group and the control group have not been much influenced by lecture experiences which are thought to be able to "contaminate" the experimental results.

The sampling technique used is a purposive sampling technique which is also called judgment sampling, namely the deliberate choice of an informant because of the qualities the informant possesses (Tongco, 2007). Simply put, purposive sampling for research can start with a survey, then purposive sampling is carried out based on the survey (Brown, 2007). The procedures carried out in sampling are as follows;

Researchers determined the sample using survey stages and gave anxiety questionnaires via Google Form to students.

of controlling for rival hypotheses that would threaten the internal validity of the experiment." In this study, researchers set 2 (two) treatments in 2 (two) experimental groups and activities in 1 (one) control group. A good idea of the design can be seen in Table 1:

After data from students was obtained, the researcher then determined a sample that had characteristics, namely (1) students whose age range was between 18-21 years, (2) students who were active in lectures, (3) students who had never participated in outdoor education activities, (4) have no history of illness, (5) have a low level of anxiety.

Then the researcher divided the group into 3 groups, namely experimental group 1, experimental group 2 and control group. The sample grouping process was carried out through ranking based on sample data that had never done any outdoor education activities, swimming ability, history of illness, had a low level of anxiety (experimental group 1 and experimental 2) and samples that had done one of the outdoor education activities, swimming ability, history of illness, moderate level of anxiety (control group).

The purpose of the sample which has never participated in outdoor education activities in experimental group 1 and group 2 is so that the results of this research (experiment) are not influenced by the previous experience of the sample.

From a total of 87 students divided into 2 classes, a sample of 42 students was obtained with the details as follows in table 2

**Table 2.** Research sample

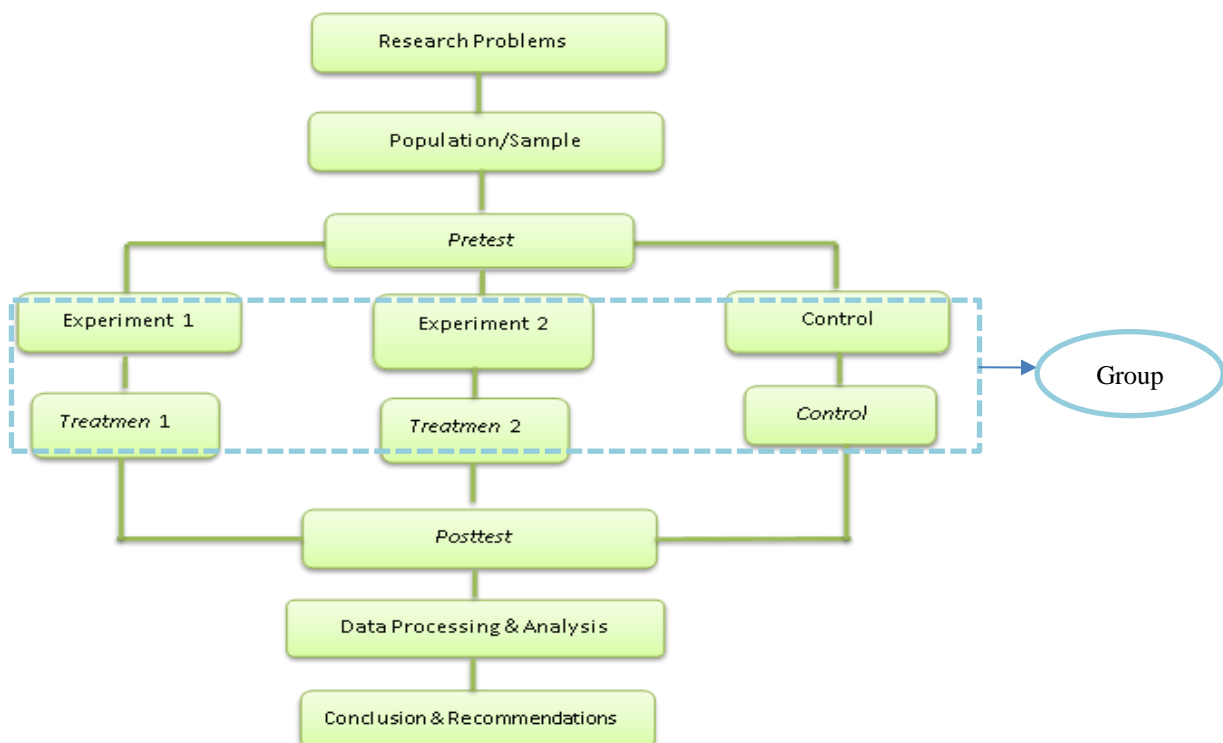
Group	Male	Female	Total
Experiment 1	7	7	14
Experiment 2	7	7	14
Control	7	7	14
Total			42

### Data Collection Instruments

The data collection used was in the form of a questionnaire given to research subjects through a pretest as initial data and through giving a posttest as final data. The instrument used in this study is the Life Skills Scale For Sport (LSSS) developed by (Cronin & Allen, 2016). The LSSS questionnaire instrument was developed for vulnerable young sports participants aged 11-21 years. The LSSS questionnaire instrument contains eight main life skill components consisting of 47 question items with closed question types. The vulnerable value scale used is the five-point scale range from 1 (not at all) to 5 (very much) dengan tingkat reliabilitas 0,92 dan validitas 0,63.

### Research Flow and Program

The flow of research carried out by the author focuses on considering research problems that occur in general at global, national and regional levels, especially in the area where the author carries out daily activities, then conducts surveys and identifies the results to determine the population and sample. After that, the researcher determined the method and research design that would be carried out on the three groups, then carried out a pre-test to describe the initial condition of the sample before being given treatment, after that the researcher began to develop and implement treatment for three days and then carried out a post-test, the next stage was processing and analyzing the data obtained, so that it reaches the final stage of drawing conclusions on the research results.



**Figure 1.** Flow chart of all included participants in study

The research program was adopted from Neill, (2001) who said typical learning activities include land or water expeditions involving hiking, rowing on rivers or lakes, camping, adventure

activities that focus on challenges such as rope challenges, initiative tasks, and exercises. group, and personal growth activities such as journaling, solos, communication skills practice and individual

feedback from the instructor. Outdoor education offers many possibilities for learning. Outdoor education has been researched for decades, but the field lacks an integrating framework for its disparate historical, geographic and disciplinary conceptualizations. The outcomes of outdoor education programs are well documented and appear diverse, but also have common attributes that suggest there is room for a unifying approach (Smith & Walsh, 2019). The outdoor education activity program in this research will be carried out for 3 days and 2 nights. The time taken for 3 days 2 nights was based on previous research, namely, Taniguchi et al., (2005) which stated that an adventure-based outdoor education program for 3 to 7 days had a positive influence in several areas on students, namely, the acquisition of technical skills; improvement in life skills and increase in self-awareness.

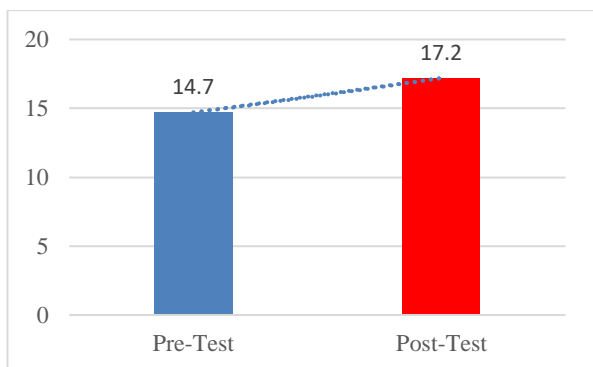
**RESULTS**

The calculation of the average score and standard deviation was carried out in two outdoor education programs integrated with life skills, non-integrated life skills and one control, namely controlled daily activities. Calculating the average value and standard deviation is the first step for further testing. Testing mean and standard deviation uses raw data from test results and measurements for interpersonal communication. The following are the results of calculating the average value and standard deviation in the integrated outdoor education life skill program as stated in table 2.

**Table 2.** Mean value and standard deviation integrated outdoor education program

M		SD	
Pre-test	Post-test	Pre-test	Post-test
14.7	17.2	3.19	2.26

Standard Deviation (SD), Mean (M)



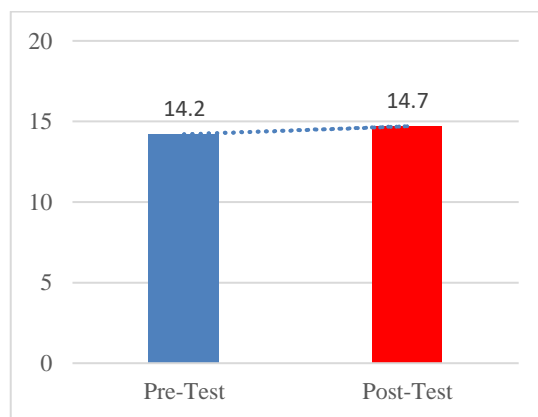
**Figure 1.** Life skills integrated average value chart

According to figure 1 of the bar chart above, the value in the integrated group obtained a pretest result of 14.7 and a posttest result of 17.2, from these results there was a difference or difference in value of 2.5 points, the difference showed that the average score of the research group from pretest to posttest increased. This means that the treatment of integrated outdoor education programs has an impact on interpersonal communication variables. While the results of calculating the average value and standard deviation in the outdoor education non-integrated life skill program are contained in table 3:

**Table 3.** Outdoor Education Non-integrated Program

Mean		Standard Deviation	
Pre-test	Post-test	Pre-test	Post-test
14.2	14.7	1.31	2.22

Based on table 3, it shows that the average score of pretest and posttest results in the outdoor education non-integrated life skill program shows a change in score, if depicted in a bar chart as shown in figure 2 below:



**Figure 2.** Life skills non-integrated average value chart

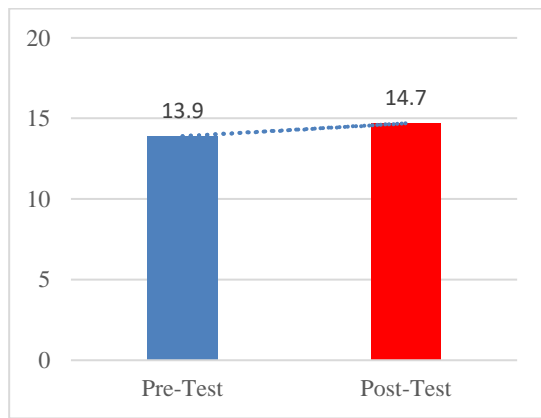
According to figure 2 of the bar chart above, the results of the scores in the non-integration group obtained a pretest result of 14.2 and a posttest result of 14.7, from these results there was a difference or difference in values of 0.5 points, the difference showed that the average score of the research group from pretest to posttest increased. This means that the treatment of non-integrated outdoor education programs has an impact on interpersonal communication variables. Table 4,

below are the average scores and standard deviations in controlled learning programs.

**Table 4.** Mean Value and Standard Deviation Controlled Learning Program

Mean		Standard Deviation	
<i>Pre-test</i>	<i>Posttest</i>	<i>Pre-test</i>	<i>Post-test</i>
13.9	14.3	2.76	1.98

Based on Table 4, it shows that the average score of pretest and posttest results in a controlled learning program shows a change in score, if depicted in a bar chart as shown below in figure 3:



**Figure 3.** Daily activities average value chart

**Table 5.** Research group normality test output results

Group	Variable	Sig value.	
		Pre-test	Post-test
Integrated	Interpersonal Communication	0.057	0.060
Non – Integrated		0.167	0.069
Control		0.205	0.055

Once known to be normally distributed, the next step is to test the homogeneity of two variances from the pretest and posttest of the integration group, the non-integration group and the control group. This homogeneity test is used to determine whether the sample of this study comes from a homogeneous population or not, testing homogeneity of variance using the levene test, as for the results of the test in table 6 as follows:

**Table 6.** Research group homogeneity test results

Group	Levene Statistic	df1	df2	Sig.
Integrated	3.46	1	26	0.07
Non – Integrated	1.63	1	26	0.21
Control	1.16	1	26	0.29

According to figure 3 of the bar chart above, the average score results in the controlled learning group obtained pretest results of 13.9 and posttest results of 14.3 from these results there was a difference or difference in values of 0.4 points, the difference showed that the average score of the research group from pretest to posttest increased. This means that the treatment of controlled learning programs has an impact on interpersonal communication variables. Furthermore, to see the influence of each group, the first step is to test statistical assumptions as a prerequisite for testing hypotheses through data normality tests, homogeneity tests, paired samples tests and anova tests. Data normality testing is carried out on all research data to determine the normal or abnormal data. The results of the processing are shown in table 5:

Based on table 5, the results of the normality test using the shapiro-wilk test are known data from both groups from pre-test to post-test, when compared at the real level (0.05) showing a significance value greater than  $\alpha$  (sig.>0.05) in the integration group, non-integration group and control group. Then it can be concluded that in all three groups are normally distributed. Because it fits the decision-making criteria if the value of sig. or probability value  $P > 0.05$  (normal distribution).

Based on table 6, the homogeneity test results show the probability value (P) for all three groups has a sig value. greater than 0.05. Based on the decision criterion, namely the value of sig. greater than 0.05, thus the homogeneity test results can be concluded data belonging to homogeneous categories or having the same variant. After the data is assumed to be distributed normality and homogeneity of each group, the next step is hypothesis testing with a statistical approach used for testing the hypothesis, namely the t test (paired sample t test) carried out to determine the comparison of the difference between two means from paired samples from pre-test and post-test data in the integrated group, as for the test results in table 7 as follows:

**Table 7.** Output results of paired samples test tengrated group

Interpersonal Communication	t	df	Sig. (2-tailed)
Pre Test - Post Test	4.660	13	.000

Based on table 7, a significance value (sig.) of 0.000 is obtained. When compared at the real level ( $\alpha = 0.05$ ) showing a significance value smaller than  $\alpha$  ( $0.000 < 0.05$ ) in accordance with the decision-making criteria, H0 is rejected. So it can be concluded that there is a significant influence of integrated outdoor education programs on interpersonal communication variables.

Next to determine the comparison of the difference between two means from paired samples from pre-test and post-test data in the non-integration group, the test results in table 8 are as follows:

**Table 8.** Non-integration Paired Samples Test Output Results

Interpersonal Communication	t	df	Sig. (2-tailed)
Pre Test - Post Test	2.509	13	.026

Based on table 8, a significance value (sig.) of 0.026 is obtained. When compared at the real level ( $\alpha = 0.05$ ) showing a significance value smaller than  $\alpha$  ( $0.026 < 0.05$ ) in accordance with the decision-

making criteria, H0 is rejected. So it can be concluded that there is a significant influence of non-integrated outdoor education programs on interpersonal communication variables.

Meanwhile, to find out the comparison of the difference between two means from paired samples from pre-test and post-test data in the control group, the test results in table 9 are as follows:

**Table 9.** Output Results Paired Samples Test control

Interpersonal Communication	t	df	Sig. (2-tailed)
Pre Test - Post Test	1.727	13	.108

Based on table 9, a significance value (sig.) of 0.245 is obtained. When compared at the real level ( $\alpha = 0.05$ ) shows a significance value greater than  $\alpha$  ( $0.075 > 0.05$ ) in accordance with the decision-making criteria, H0 is accepted. So it can be concluded that there is no significant influence of controlled learning programs having an impact on interpersonal communication variables.

After testing the significance of the three groups, the next step was to calculate the significance of the difference in improvement between the integrated group, the non-integrated group and the control group who both experienced an increase. The results of calculations and significance tests of the two groups can be seen in table 10:

**Table 10.** One Way Anova Output Results Experimental and control groups

(I) GROUP	(J) GROUP	Mean Difference (I-J)	Std. Error	Sig.
Intergrated	Non-Integrated	1.42857*	.50559	.007
	Control	2.50000*	.50559	.000
Non-Integrated	Intergrated	-1.42857*	.50559	.007
	Control	1.07143*	.50559	.040
Control	Intergrated	-2.50000*	.50559	.000
	Non-Integrated	-1.07143*	.50559	.040

Based on the results of the SPSS output, the sig (2-tailed) value between the indented group and the non-inmackerated group of 0.007 is smaller than 0.05 ( $0.007 < 0.05$ ), meaning that H0 is rejected, it can be concluded that there is a difference in influence between the indented group and the non-integration group. While the sig (2-tailed) value between the intengrated group and the control group

of 0.000 is smaller than 0.05 ( $0.000 < 0.05$ ) meaning that H0 is rejected, it can be concluded that there is a difference in influence between the indented group and the control group. Next, the sig (2-tailed) value between the non-integration group and the control group of 0.040 is smaller than 0.05 ( $0.040 < 0.05$ ) meaning that H0 is rejected, so it can be concluded that there is a difference in influence

between the non-integration group and the control group. Based on table 10, it can be concluded as a whole that there are differences in the influence of the integrated group, non-integrated group and control group on interpersonal communication variable.

## DISCUSSION

The results of this study revealed that the outdoor education integrated life skills program and the outdoor education non-integrated life skills program can have a significant influence on the development of interpersonal communication. In accordance with research conducted by [Sibthorp, \(2003\)](#) Which reveals outdoor programming has long assumed the development of hard skills, and the effectiveness of learning has rarely been questioned. This is the most questionable transfer of course learning. Students also learn transferable life skills.

Then [Cottrell & Cottrell, \(2020\)](#) We have found that the opportunities provided by teaching outdoor skills in both natural and social settings provide a context in which we can develop positive relationships with ourselves, others, and the environment. This is in line with [Akin et al., \(2020\)](#) in the context of positive youth development (PYD), Children who take part in outdoor educational activities have many positive benefits, such as improving life skills, social interaction, and increasing environmental awareness to protect the natural environment.

The important point of the statement above is that outdoor education can provide hard skills and life skills development that can be applied in everyday life. Outdoor education is defined as education that takes place outside the classroom and involves experiences that require each individual to participate in adventurous challenges. Activities that form the basis of outdoor education in this study are camping, hiking, rowing, rock climbing, repellent activities, and challenge activities. Outdoor education contains philosophical, theoretical and practical from experience and environmental education, By experiencing, observing directly and carrying out these activities, each individual can feel, translate and develop the transfer of knowledge based on his abilities based on his experience of nature. This approach increases individual physical and social activity by doing more activities that indirectly involve peer-to-peer

cooperation and exploratory capacities. Through the concept of interaction between individuals and nature through simulations of outdoor activities, it is possible that this context can be very helpful in shaping creative and positive attitudes, mindsets and perceptions of each individual in the group undergoing outdoor treatment education. This creates a deep sense of solidarity, inclusion, tolerance and sensitivity that can inspire new enthusiasm, spontaneity and patterns of empowerment in their lives and will also be able to develop self-potential and life skills, both individually and in groups.

The term interpersonal communication is to open children's thoughts regarding what will be obtained when entering school such as character, education. Outdoor education is a physical activity that can be used as an arena to stimulate all aspects of developing students' life skills as a provision in building teamwork, goal setting, time management, emotional skills, interpersonal communication, social skills, leadership, problem solving and decision making.

The difference between integrated and non-integrated groups according to the researcher's point of view is that in integrated groups, it looks very quick to respond and take a stance to solve the task given, initiatives one of the individuals in the group tries to overcome the given problem by solving it with teamwork and a sense of community. As for the non-integration when getting the task, they were silent for a moment to wait for who would complete the task. Until finally this outdoor education program is completed, halfway through the activity for non-integration just realize how to solve the problem, inversely proportional to stable integration in solving the given problem by doing it together so that in the process of completing tasks, integrated groups always get good results compared to non-integration. This happens because it is integrated at the time of initial delivery has integrated life skills before solving the task given. so to develop interpersonal communication through outdoor education programs is better by integrating life skills in the program than not integrated.

## Conclusion

The conclusion of this study shows that integrated and non-integrated out-of-school education programs for life skills have a significant influence on the development of interpersonal communication of PGSD Penjas students and simultaneously there are differences in the



influence between integrated groups, non-integrated groups, and control groups on interpersonal communication variables.

## ACKNOWLEDGMENT

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## Conflicts of Interest

The authors have no conflicts of interest to declare.

## Ethical Statement

Research is carried out strictly, then Security and welfare. Participants are given priority during study design and implementation and Steps are taken to ensure data confidentiality. Permission to conduct research was obtained from Kementrian Pendidikan, Kebudayaan, Riset dan Teknologi Universitas Pendidikan Indonesia, numbered 1215/UN40.A6/KP/2024. All participants gave their opinions written informed consent. Consent form detailing research procedures, potential risks and benefits, data confidentiality measures, and participant rights.

## Author Contributions

Study Design, YA, ARK, ARAR; Data Collection, YA, ARK, DOM, ARA; Statistical Analysis, DOM, ARA, LS; Data Interpretation, DOM, ARA, LS; Manuscript Preparation, YA, ARK, LS, ARAR; Literature Search, YA, ARK, LS, ARAR. All the authors agreed on the final draft of the manuscript before submitting it for publication.

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