



The Impact of Training and Teaching Experience on Instructor Professionalism at Jayapura Aviation Polytechnic

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Abstract: The quality of education is assessed based on the condition of educational institutions, which should be well-maintained and meet all requirements, along with the various components involved in the educational process. This study aims to determine the influence of training, further education, and teaching experience on improving the professionalism of productive instructors at Jayapura Aviation Polytechnic. The purposive sampling method is used to obtain 40 productive instructors as respondents based on ex-post facto research, and the data analysis is conducted through the Statistical Product and Service Solution (SPSS) program. The results show that training, further education, and teaching experience significantly influence the professionalism of educators/instructors/lecturers at Jayapura Aviation Polytechnic. Educators/instructors/lecturers with adequate teaching experience and participation in sufficient training will help realize national education goals and establish quality standards.

Keywords: further education; instructor professionalism; quality standards; teaching experience; training

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INTRODUCTION

Education is one of the determining factors for the quality of human resources as a role player in national development (Irawan, 2023). The quality of education is measured by the condition of good educational institutions that meet the requirements and all components of education. The components that play a more significant role are qualified educators who can respond to challenges quickly and responsibly (Hidayat et al., 2017; Sholeh & Baharuddin, 2022). In addition to formal education, professionalism can be enhanced through training (Eliyanto & Wibowo, 2013) or adequate work/teaching experience (Alamsyah et al., 2020). Training is a learning process designed to acquire and improve skills outside the formal human resource development system in a relatively short time, with methods prioritizing practice over theory (Doolan et al., 2019).

Besides training, the level of education is also a factor that influences instructors' professionalism. According to the Law of the Republic of Indonesia Number 14 of 2005, concerning instructors and lecturers, Chapter IV, Articles 8 and 9, an instructor must have academic qualifications obtained through higher education in the form of a bachelor's or four-year diploma program to meet the required qualification standards as an instructor. Meanwhile, the higher an instructor's teaching experience, the higher their professionalism will be (Olmstead & Turpen, 2017). Relevant training can improve technical and pedagogical skills, while teaching experience provides in-depth practical insight into learning (Griban et al., 2022).

Improving the quality of human resources (HR) through vocational education is one of the focuses of Presidential Instruction Number 9 of 2016 concerning the revitalization of Aviation Polytechnics. Various efforts must be made to enhance instructor competence, including pedagogical and professional competencies. How well an instructor teaches depends on motivation, qualifications, experience, training, talent, and other factors (Kazu & Erten, 2016). One effort instructors can undertake is participating in education and training programs (Dung et al., 2020). This study will describe how far the influence of training, further education, and teaching experience on improving the professionalism of productive instructors at Jayapura Aviation Polytechnic to answer the research hypothesis. The framework of this study can be seen briefly in Figure 1.

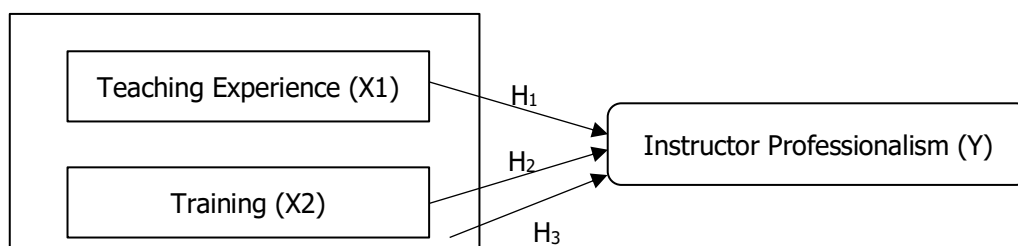


Figure 1. Conceptual Framework

Based on several relevant studies, instructor professionalism can be influenced by training, further education, and teaching experience. This study will be similar to previous studies that examined the influence of training and teaching experience but differ in the population studied: productive instructors at the Aviation Polytechnic, a new aviation education institution in Papua. In addition, the research sample was determined using the Purposive Sampling method with the criteria of Civil Servant instructors with a minimum education of Diploma III, Diploma IV, Bachelor's or Master's, having an instructor certificate, and having taught at Politeknik Penerbangan Jayapura. The ex-post facto approach and statistical analysis techniques related to instructor professionalism were also applied to produce recommendations that could improve the quality of teaching at Politeknik Penerbangan Jayapura.

METHODS

This study employs a quantitative approach, with data on numerical values analyzed using statistical techniques (Sappaile, 2010; Rahman & Muktadir, 2021). The flow diagram related to the stages carried out in this research is shown in Figure 2.

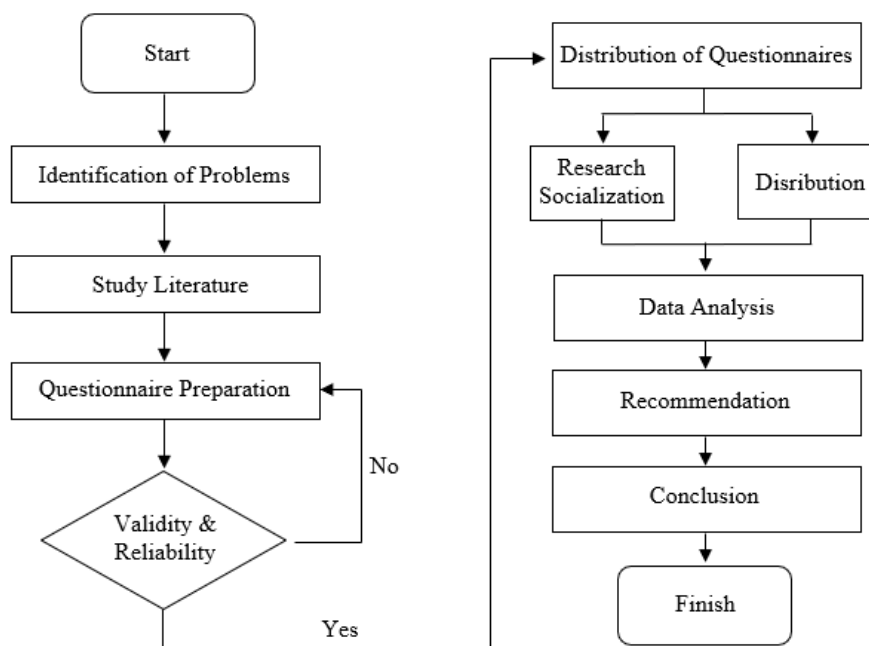


Figure 2. Research Flowchart

The population in this study were all instructors in productive subjects who teach at Politeknik Penerbangan Jayapura, as presented in Table 1.

Table 1. Research Population Data

College	Government Employees	Non-Government Employees	Productive Instructor
Jayapura Aviation Polytechnic	25	15	40
Total	25	15	40

The sample in this study was taken using the purposive sampling technique; the sample was determined based on specific criteria, and the whole sample was the entire population used in this study. The respondent criteria are instructors of productive subjects, have a civil servant and non-civil servant status, have educational qualifications of Diploma 3, Diploma 4, Bachelor's Degree, and Postgraduate, and have been certified. The operational definition of the variables in this study as a basis for compiling the questionnaire is described in detail below:

Table 2. Operational Definition of Variables

Variable	Definition	Indicator	Measurement Tool
Training (X2)	Training is part of an educational process aiming to improve specific abilities or skills. (Saigushev et al., 2020)	Training Duration Training Level Relevance (Menteri Pendidikan Nasional, 2009)	Likert Scale
Teaching Experience (X1)	Teaching experience is the length of work determined by the many dedications during teaching. (An et al., 2024)	Period or time Level of knowledge and skills Mastery of work and equipment (Nurmansyah, 2020)	Likert Scale
Instructor Professionalism (Y)	Instructor professionalism reflects the instructor's attitude, mentality, and commitment to realizing and improving professional quality through various methods and strategies. (Yang et al., 2024)	Pedagogical Competence Personality Competence Social Competence Professional Competence (Undang-Undang Republik Indonesia, 2005)	Likert Scale

The observed items are limited to those within the variable category; anything outside of this category is not observed or is ignored. The documentation instrument is a tool for collecting data based on the relevant variables sought in this study, specifically the training variables and the professionalism of productive subject instructors at the Aviation Polytechnic. Documentation consists of a checklist related to the productive instructor data as respondents and photos taken during the study. The documentation is presented in Table 3.

Table 3. Documentation

Checklist of Required Data	
Productive Instructor Data	Checklist
Full Name	✓
Membership Field	✓
Certification (Yes/No)	✓
Employee Status	✓
Last Education	✓
Training Programs Attended by the Instructor	✓
Teaching Experience (Working Time)	✓

The questionnaire in this study consisted of a validation questionnaire and a respondent questionnaire. Both the validation questionnaire and the respondent survey employed closed-ended questions, allowing respondents to choose from answers prepared by the researcher. The questionnaire was developed based on indicators of the research variables: precisely 41 statement items for the teaching experience variable, 44 for the training variable, and 44 for the professionalism of educators, instructors, and lecturers. The aim was to collect data on aspects of instructor training and teaching experience to enhance the professionalism of productive instructors at Politeknik Penerbangan Jayapura. The respondents' questionnaire utilized a Likert scale for measurement, with each item using a scale that ranged from very positive to very negative, represented by the following four alternative answer choices in Table 4.

Table 4. Determination of Questionnaire Answer Scoring

Positive Statement			Negative Statement		
Always	SL	4	Always	SL	1
Quite Often	SR	3	Quite Often	SR	2
Sometimes	KD	2	Sometimes	KD	3
Never	TP	1	Never	TP	4

(Source: Sugiyono, 2011)

This questionnaire aims to gather information about the responses of productive instructors regarding the influence of training and teaching experience on enhancing their professionalism at Politeknik Penerbangan Jayapura.

RESULT AND DISCUSSION

From 40 respondents, including the Director and Deputy Director of Jayapura Aviation Polytechnic for the 2023/2024 Academic Year, researchers collected and grouped data on the teaching experience of the educators, instructors, and lecturers. A detailed recapitulation of the teaching experience assessment can be found in Table 5.

Table 5. Frequency Distribution of Variable X1 (Teaching Experience of Educators, Instructors, and Lecturers)

Interval Class	Fi	Fi (%)	Xi	Fixi
0 - 1 years	3	7.5%	73.5	220,5
2 - 3 years	6	15%	77.5	465
4 - 5 years	10	25%	81.5	815
6 - 7 years	10	25%	85.5	855
8 - 9 years	4	10%	89.5	358
10 - 11 years	7	17.5%	93.5	654.5
Σ	40	100%	501	3368

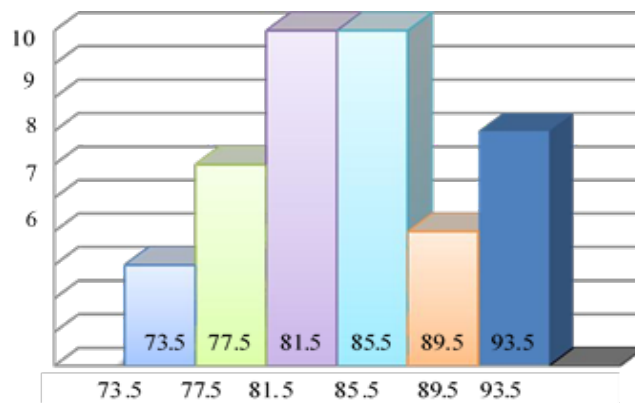


Figure 3. Histogram Graph of Teaching Experience Variable (X1)

Based on the teaching experience assessment of the educators, instructors, and lecturers at Jayapura Aviation Polytechnic, an average score of 84.2 was obtained. This average score was then converted to an assessment scale of 80 to 100. This range indicates that the teaching experience of the educators, instructors, and lecturers at Jayapura Aviation Polytechnic is interpreted as very high (strong). The assessment data results for training educators, instructors, and lecturers at Jayapura Aviation Polytechnic can be seen in detail in Table 6 and Figure 4.

Table 6. Frequency Distribution of Variable X2 (Training of Educators, Instructors, and Lecturers)

Interval Class	Fi	Fi (%)	Xi	Fixi
0 - 1 years	14	35%	86	1204
2 - 3 years	12	30%	76	912
4 - 5 years	4	10%	71	284
6 - 7 years	4	10%	96	384
8 - 9 years	3	7.5%	91	273
10 - 11 years	3	7.5%	81	243
Σ	40	100%	501	3300

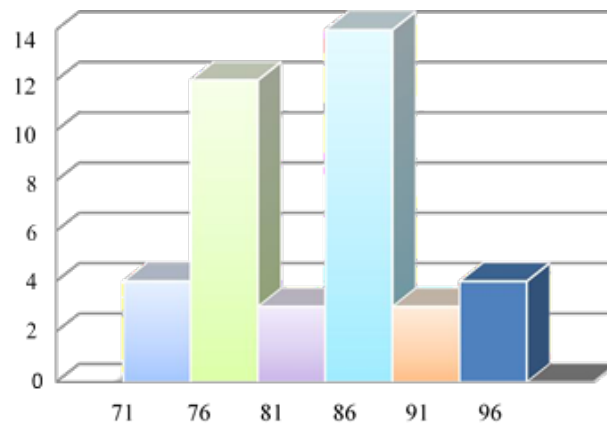


Figure 4. Histogram Graph of Training Variable (X2)

Based on the results of the training assessment of the educators, instructors, and lecturers at Jayapura Aviation Polytechnic, an average score of 82.5 was obtained. This average score was then converted to an assessment scale of 80 to 100. This range indicates that the training of educators, instructors, and lecturers at Jayapura Aviation Polytechnic is interpreted as very high (strong). The analysis results of the professionalism assessment data analysis for educators, instructors, and lecturers at Jayapura Aviation Polytechnic can be found in detail in Table 7 and Figure 5.

Table 7. Frequency Distribution of Variable X3
(Professionalism of Educators, Instructors, and Lecturers)

Interval Class	Fi	Fi (%)	Xi	FiXi
66 – 68 years	9	22.5%	67	603
69 – 71 years	6	15%	70	420
72 – 74 years	16	40%	73	1168
75 – 77 years	1	2.5%	76	76
78 – 80 years	8	20%	79	632
81 – 83 years	0	0%	82	0
Σ	40	100%	447	2899

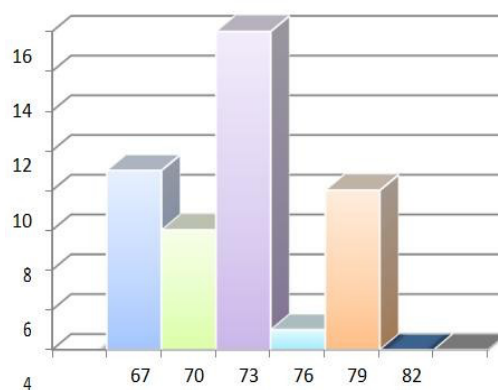


Figure 5. Histogram graph of professionalism variable (Y)

Based on the professionalism assessment of educators, instructors, and lecturers at Jayapura Aviation Polytechnic, an average score of 72.47 was obtained. This average score was then converted to an assessment scale ranging from 60 to 80. This range indicates that the professionalism of the educators, instructors, and lecturers at Jayapura Aviation Polytechnic is interpreted as high (strong). The results of the data normality test yielded a significance value of 0.200 for the teaching experience variable (X1), 0.107 for the training variable (X2), and 0.118 for the professionalism variable of educators, instructors, and lecturers (Y). All three values are more significant than 0.05, indicating that they are normally distributed.

The significance values for deviation from linearity for each variable are 0.366 and 0.762, more significant than the significance level of 0.05. Therefore, the regression used is linear. Based on the SPSS output results, it is evident that there is no heteroscedasticity, indicating that this regression model is sound. The

tolerance values for the teaching experience variable (X1) and the training variable (X2) are both 1.021 (> 0.10). The VIF values for these variables are also 1.021 (< 10.00). Therefore, no multicollinearity indicates that this regression model is free from multicollinearity symptoms. The regression equation model derived from the results of SPSS processing is as follows: $Y = 12,197 + 0,386 X1 + 0,332 X2$.

The t Test has result: H1= Teaching Experience (X1) towards the Professionalism of Educators/Instructors/Lecturers (Y): In the teaching experience variable, the calculated t-value is greater than the t-table value ($5.774 > 2.024$). The significance value is less than the threshold of 0.05, so H_0 is rejected, and H_a is accepted. Therefore, teaching experience significantly affects the professionalism of educators, instructors, and lecturers. H2 = Training (X2) on the professionalism of educators/instructors/lecturers (Y): The training variable obtained a t-value of t count more significant than the t-table value ($6.472 > 2.024$). The significance value is less than 0.05, so H_0 is rejected, and H_a is accepted. Therefore, training significantly affects the professionalism of educators, instructors, and lecturers.

The F test shows that the F count is greater than the F table ($43.955 > 3.25$) and is significant, as the significance value is less than 0.05 (p-value = $0.000 < 0.05$). This indicates that teaching experience and training simultaneously affect the professionalism of educators, instructors, and lecturers at Jayapura Aviation Polytechnic. The correlation coefficient test shows that each independent variable has a significant influence or correlation with the dependent variable, where the training variable has a correlation of 0.661, and the teaching experience variable has a correlation of 0.607 with the professionalism of educators/instructors/lecturers. The combined influence of teaching experience and training on the professionalism of educators/instructors/lecturers is 0.704 or 70.4%. Data analysis shows that the teaching experience variable has a significant effect and contributes to the professionalism of educators/instructors/lecturers at Jayapura Aviation Polytechnic, with a calculated t-value of 5.774 and a significance value of 0.000. Using a significance threshold of 0.05, the t-table value (df = 38) is 2.024, meaning the calculated t-value is greater than the t-table value ($5.774 > 2.024$). Additionally, the significance value is less than the predetermined threshold of 0.05, indicating that teaching experience significantly influences the professionalism of educators/instructors/lecturers at Jayapura Aviation Polytechnic. These results follow [Alamsyah et al. \(2020\)](#) and [Wiranti \(2021\)](#), who state that educators' experience simultaneously and positively affects educators' professionalism. As an educators's experience increases, their professionalism also rises, making the instructors more qualified.

The training variable also significantly affects and contributes to the professionalism of educators/instructors/lecturers at Jayapura Aviation Polytechnic. This is evidenced by a t-value of 6.472 and a significance value 0.000. Using a significance threshold of 0.05, the t-table value (df = 38) is 2.024, meaning the t-value is greater than the t-table value ($6.472 > 2.024$). These results indicate that training significantly impacts the professionalism of educators/instructors/lecturers at Jayapura Aviation Polytechnic, compared to the teaching experience variable. Regarding the influence of training on the professionalism of an educator/instructor/lecturer, training has a positive impact, as indicated by the presence of indicators such as the level of skills, mastery of work, and the use of work equipment, all of which can influence the professionalism of an educator/instructor/lecturer ([Nurmansyah, 2020](#); [Biora et al., 2021](#); [Nursiah, 2023](#)).

The combination of teaching experience and training variables significantly affects the professionalism of educators/instructors/lecturers at Jayapura Aviation Polytechnic. The results of the F test of the independent variables show a calculated F value of 43.955 and a significance level of 0.000. Using a significance threshold of 0.05, the F table value (df = 2.37) is 3.25, which means that the calculated F value is greater than the F table value ($43.955 > 3.25$), and the p-value of 0.000 is less than 0.05. According to the proposed hypothesis, H_0 is rejected and H_a is accepted, which indicates that teaching experience and training together significantly influence the professionalism of educators/instructors/lecturers at Politeknik Penerbangan Jayapura. The contribution of the independent variable to the dependent variable is 70.4%, while the contribution of variables outside this study is 29.6% ($1 - R^2$). The contribution to the variables studied in this study is good because it is above 50%. Other appropriate independent variables are the competence of educators/instructors/lecturers, commitment, and compensation. Teaching experience and training are two aspects that influence the professionalism of an educator/instructor/lecturer in education and teaching ([Firdaus, 2014](#); [Rakib et al., 2017](#); [Kasmawati, 2021](#)). Based on the regulation of the Minister of State Apparatus Empowerment and Bureaucratic Reform Number 16 of 2009, it is explained that continuous professional development is the development of teacher competency (training), which is carried out according to needs, gradually and continuously to improve their professionalism. Meanwhile, the longer the working period for an educator/instructor/lecturer, the more experience they will gain, which is closely related to increased work professionalism ([Gustavsson et al., 2019](#)).

CONCLUSION

Based on proven theories and research, teaching experience and training contribute to the professionalism of educators/instructors/lecturers at Jayapura Aviation Polytechnic, Jayapura. The research results demonstrate that both teaching experience and training, whether separately or together, improve and

develop the professionalism of educators. Furthermore, it has been shown that teaching experience and training have a positive and significant correlation with the professionalism of educators/instructors/lecturers at Jayapura Aviation Polytechnic. The more teaching experience and training they have, the higher the level of professionalism among educators at the institution. In the scope of education at Politeknik Penerbangan Jayapura, both aspects must continue to be improved for the sustainability of good education quality, considering that the aviation polytechnic is relatively new in Papua.

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