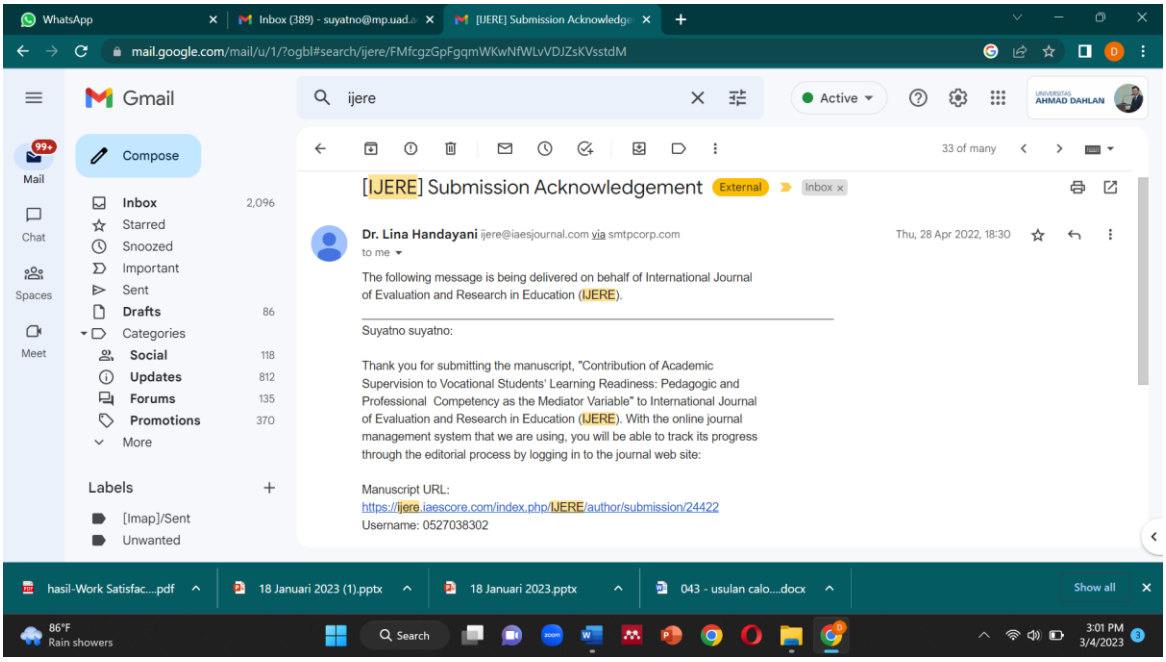
BUKTI KORESPONDENSI

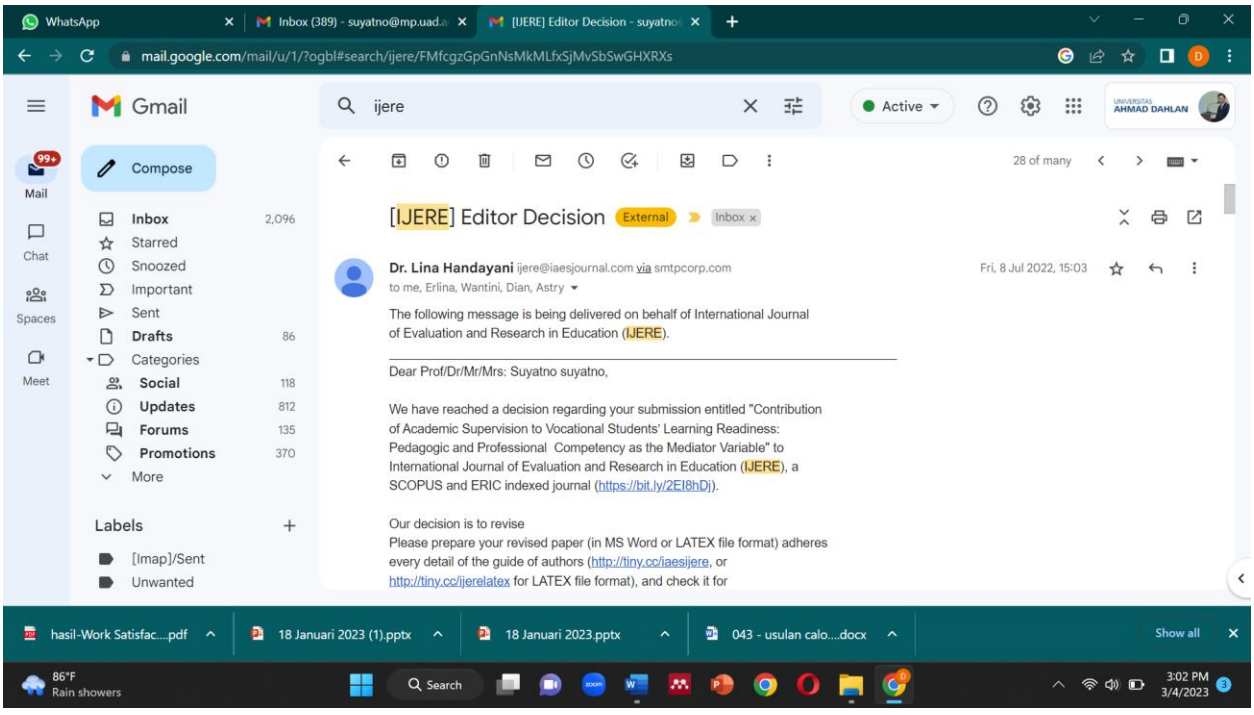
Contribution of academic supervision to vocational students' learning readiness

Tahapan editorial processnya adalah:

1. **Submission date:28 April 2022**



2. **First decision: 8 Juli 2022**



Catatan reviewer:

For ORIGINAL/RESEARCH PAPER: the paper should be presented with IMRaD model:
1. Introduction
2. Research Method
3. Results and Discussion
4. Conclusion.
We will usually expect a minimum of 30 references primarily to journal papers. Citations of textbooks should be used very rarely and citations to web pages should be avoided. All cited papers must be referenced within the body text of the manuscript.

For REVIEW PAPER: the paper should present a critical and constructive analysis of existing published literature in a field, through summary, classification, analysis and comparison. The function and goal of the review paper is:
1) to organize literature;
2) to evaluate literature;
3) to identify patterns and trends in the literature;
4) to synthesize literature; or
5) to identify research gaps and recommend new research areas.
The structure of a review paper includes:
1. Title – in this case does not indicate that it is a review article.
2. Abstract – includes a description of subjects covered.
3. Introduction includes a description of context (paragraph 1-3), motivation for review (paragraph 4, sentence 1) and defines the focus
(paragraph 4, sentences 2-3)
4. Body – structured by headings and subheadings
5. Conclusion – states the implications of the findings and an identifies
possible new research fields

Number of minimum references for review paper is 50 references (included minimum 40 recently journal articles).

In preparing your revised paper, you should pay attention to:

1. Please ensure that: all references have been cited in your text; Each citation should be written in the order of appearance in the text; The citations must be presented in numbering and CITATION ORDER is SEQUENTIAL
[1], [2], [3], [4], ...

2 An Introduction should contain the following three (3) parts:
- Background: Authors have to make clear what the context is. Ideally, authors should give an idea of the state-of-the art of the field the report is about.
- The Problem: If there was no problem, there would be no reason for writing a manuscript, and definitely no reason for reading it. So, please tell readers why they should proceed reading. Experience shows that for this part a few lines are often sufficient.

- The Proposed Solution: Now and only now! - authors may outline the contribution of the manuscript. Here authors have to make sure readers point out what are the novel aspects of authors work. Authors should place the paper in proper context by citing relevant papers. At least, 5 references (recently journal articles) are cited in this section.

3. Results and discussion section: The presentation of results should be simple and straightforward in style. This section report the most important findings, including results of statistical analyses as appropriate. You should present the comparison between performance of your approach and other researches. Results given in figures should not be repeated in tables. It is very important to prove that your manuscript has a significant value and not trivial.

Reviewer 2:

Overview

This paper contributes to the research debate in bridging the gap between practice and academia. The topic is of interest to the readership as many institutions are re-thinking the educational structures, new markets, required employable skills, and more.

1. To further improve the development of the paper, the outcomes should be discussed in relation to the existing research. What is the new knowledge and what the findings contributed to this topic? Provide a new interpretation of the findings as well as your argumentation to support the significance of your research considering what is already known about this research problem. Reflect on how the findings be used for future research and educational practice. Specify what makes this article different from the other studies available in the literature. More comments and suggestions specific to each section are summarized below.

Abstract

The abstract overviewed the paper well.

Introduction

The introduction can be strengthened further by elaborating on the research gap that this paper is attempting to close, i.e., why there have been limited studies to-date by citing prior literature, and why is this study important? One would need to scan the commercial landscape to see if this is a true absence or simply the absence of written records.

Literature Review

The literature review was both systematic and comprehensive and encompassed the last decade of relevant literature.

You may wish to consider the following studies to strengthen the introduction, literature review and conclusions:

You have to remove all references that are not in the English language as this is an international journal!

It is recommended to use the following studies:
Papadakis, S. (2021). Advances in Mobile Learning Educational Research (A.M.L.E.R.): Mobile learning as an educational reform. Advances in Mobile Learning Educational Research, 1(1), 1-4.
https://doi.org/10.25082/AMLER.2021.01.001
Katsaris, I., & Vidakis, N. (2021). Adaptive e-learning systems through learning styles: A review of the literature. Advances in Mobile Learning Educational Research, 1(2), 124-145.
https://doi.org/10.25082/AMLER.2021.02.007

Method/Methodology
The Methodology section provides sufficient depth and context on the methodology and analysis conducted. This type of meta-analysis and relational methodology is extremely helpful in benchmarking the landscape of the present and recent past along the topical areas presented.

Findings
The findings are presented reasonably well. The tables contained in the paper are informative and provide some interesting and rich context. The exclusion of the literature in languages other than English may be a limitation of this research and may question the validity of the conclusions. It is recommended that you expand upon the Limitations section to emphasize the assumptions made in the conclusions.
Discussion
The discussion is reasonably well laid out. Though it would be useful if the content presented in your Conclusion is shared in the Discussion, and the content currently in the Discussion of Findings is presented by splitting it into two distinct sections, i.e., Findings and Discussion. The major findings of the study are indeed what is shared in the Conclusions. This needs more focus, and articulation than what has been presented.
Conclusion
The Conclusion section is good, though it could be improved by splitting the conclusion and discussion sections. Consider emphasizing in the conclusion the context of this research study.
Title
It may be worthwhile considering the preciseness of the title. Reflect on the international audience of the journal, a new title maybe more appropriate.

Similarity check with iThenticate revealed a similarity index of 25% which is considered NOT appropriate. A maximum of around 60 quoted words is accepted per paper. There are papers with over 60 words. No previously copyrighted material can be used. See the attachment file with the plagiarism check results.

Final Recommendations
The overall recommendation, as previously stated, is that the conclusion should reiterate the purpose of the paper and state how the study has answered the research questions. Finally, it's important that you consider the potential logic trap that may exist in this article, such as the

presumption that the absence of something in the literature directly translates to the absence of something in the real world.

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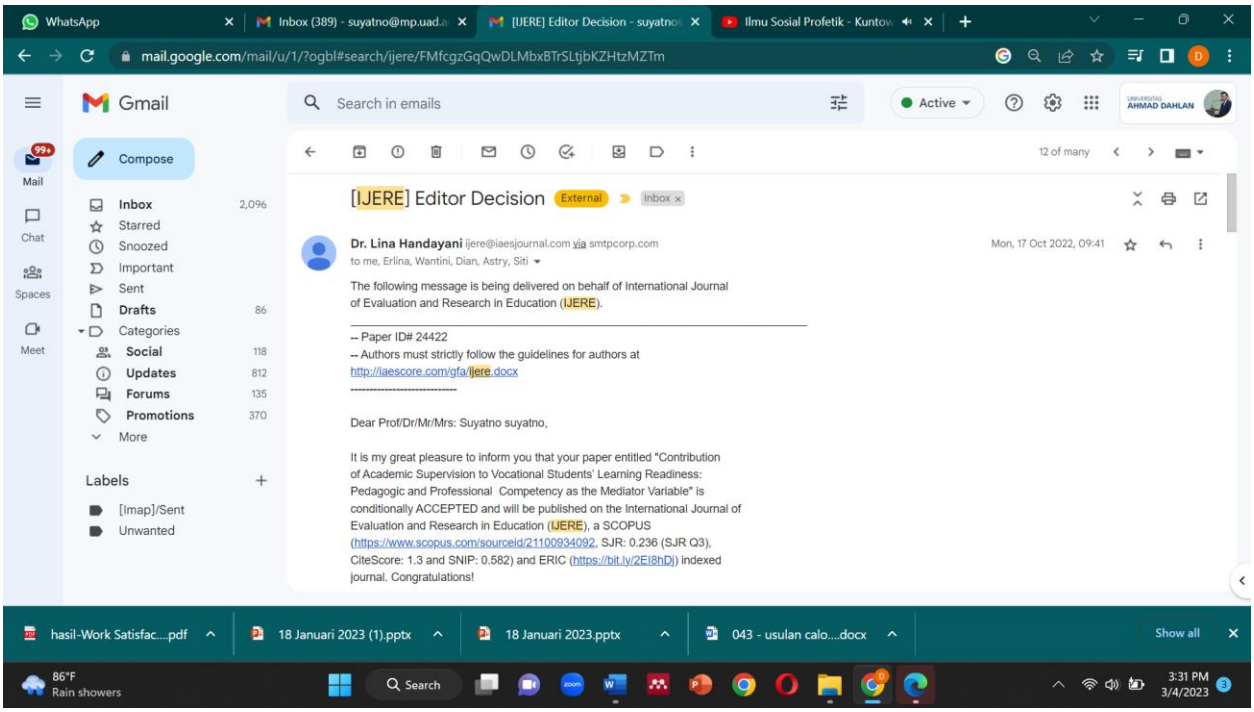
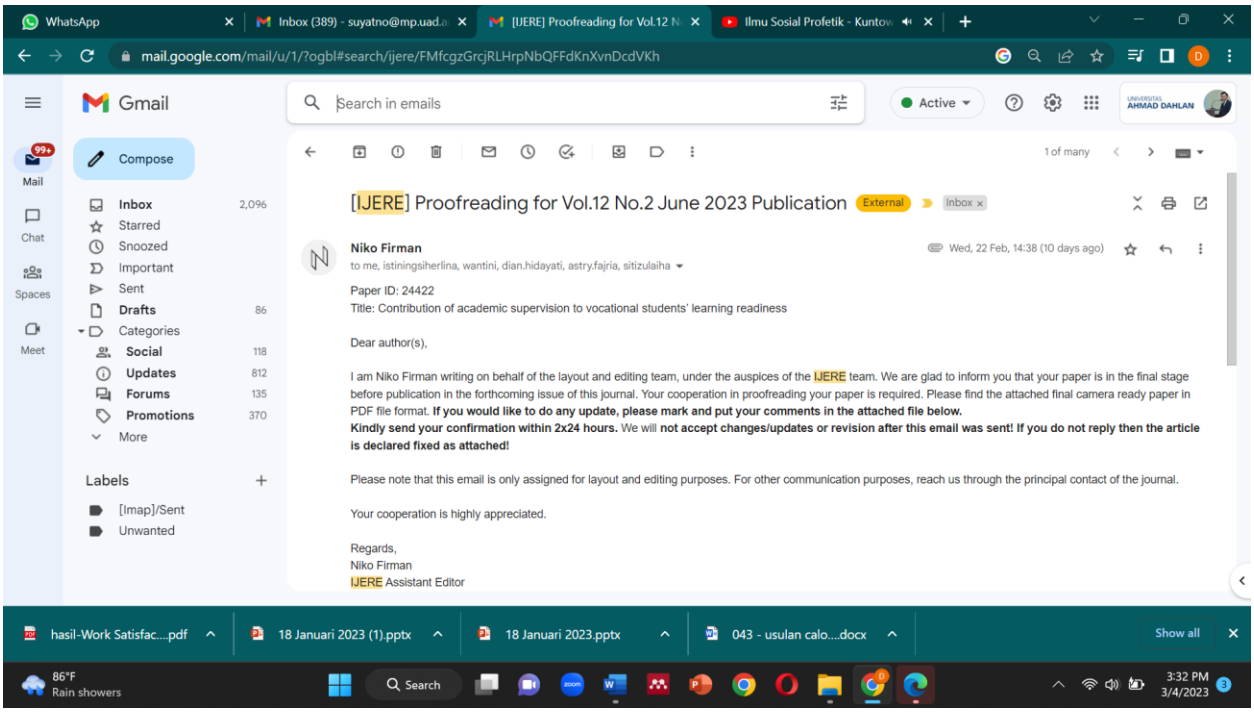


4. Proofreading: 22 Februari 2022



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Lampiran 2: Artikel hasil revisi

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Artikel Draft Awal:

Contribution of Academic Supervision to Vocational Students' Learning Readiness: Pedagogic and Professional Competency as the Mediator Variable

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ABSTRACT

The research aimed to measure the contribution of academic supervision through teachers' professional and pedagogic competence and its impact on vocational school students' learning readiness. The quantitative research employed ex post facto design with Partial Least Square Equation Modelling (PLS-SEM) to test the hypothesis. The samples were taken using non-probability sampling, particularly purposive sampling. As many as 71 teachers and 96 students in three private vocational schools in Gunungkidul Regency were selected as the samples. The data were analyzed using PLS-SEM because the samples were less than 100. The results showed several findings. (a) Pedagogic competence contributes to learning readiness. (b) Professional competence does not contribute to learning readiness. (c) Academic supervision contributes to pedagogic competence. (d) Academic supervision contributes to professional competence. Besides, Indirect effect scores concluded several points. (a) Academic supervision through teacher's professional competence contributes to learning readiness. (b) Academic supervision through a teacher's professional competence does not contribute to learning readiness. The research results became a potential reference to improve the students' learning readiness in vocational high school. The principals and teachers can use the findings to improve their performance at school and in the classroom.

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1. INTRODUCTION

The learning process in the classroom is intended to develop and transfer students' knowledge, attitude, and skills. Hence, they will achieve the expected competencies (Bada & Olusegun, 2016; Whitton et al., 2016). Learning success is determined by many variables. One of them is the students' readiness, a set of skills necessary in learning, which influences the physic, social, emotional development, learning approach, communication, and general information (Wynn, 2002). Readiness is proportional to the learning experience satisfaction (Gunawardena & Duphorne, 2001). It influences students' motivation and satisfaction in learning (Yilmaz, 2017). Research by Moftakhari (2013) and Piskurich (2004) mentioned that inadequate students' readiness decreases the chances to succeed in learning (Hao, 2016a, 2016b). Considering the learning readiness strategic aspects affecting learning outcomes, identifying the students' learning readiness antecedent factors is necessary.

Several researchers have investigated the factors influencing students' learning readiness. For example, Kirmizi (2015) researched the learners' readiness in distance learning and identified the variables predicting learning satisfaction and success. The research involved 84 students attending English Language and Literature Department in Karabuk University, Turkey. The regression analysis concluded that motivation is the most important component that affects the students' satisfaction in online learning. Moreover, another regression analysis was conducted to know the effect of learners' readiness sub-dimension on their success. The results showed that autonomous learning is the essential predictor of success. Two other significant predictors of distance learning are learner's control and motivation. Horzum et al. (2015) studied the relation between online learning readiness, motivation, and instructional process. The research was conducted on 750 students attending online classes at Sakarya University. Through the structural equation model analysis, it was found that the level of students' readiness directly predicted the academic motivation and indirectly influenced the learning experience. Another research by Yoon (2019) investigated the readiness of 310 students in the first and second year of College English Courses in a university in Korea in using artificial intelligence. The finding showed that the participants developed a negative perspective towards artificial intelligence (AI). It means that something that they consider appropriate cannot always be preferable in the classroom setting. Other studies investigating the students' readiness have also been conducted with the same focus: the students' readiness for online learning(Chung et al., 2020; Hamzah et al., 2021; Joosten & Cusatis, 2020; Yeh et al., 2019; Yu, 2018).

Referring to the previous research map, none of the research studied the students' learning readiness in the vocational high school context. Hence, the present study identified the factors influencing students' learning readiness to fill in the gap. The present study is necessary because the learning process at vocational schools is different from others. The learning is intended to prepare students to work and specialize in a particular profession (Djojonegoro & Slamet, 1998). It has been mentioned in the laws of the Republic of Indonesia Year 20 of 2003 article 15 explained that vocational education is a senior high school that prepares learners to work in a particular field. Djojonegoro and Slamet (1998) added that the characteristics of vocational education are preparing the learners to enter the workforce. The vocational school emphasizes the mastery of knowledge, skills, attitudes, and values necessary in the work world. The actual assessment of the student's success is the hands-on or performance in the relevant occupation. Vocational education is focused on "learning by doing" and "hands-on experience.".

Based on relevant literature, the present study took the principal's academic supervision as the independent variable and the teacher's professional and pedagogic competencies as the mediator variable. The principal's supervision is the effort to guide the teachers in improving the teaching quality through the planning stages, teaching performance, and rational changes in improving the student's learning outcome (Suriansyah & Effendi, 2019). Supervision is one form of monitoring and controlling the teachers to ensure that they are on track. Besides, it is to encourage them to complete the tasks more thoroughly (Suryani, 2015). A principal can encourage teachers to develop the students' creativity, innovation, problem-solving skills, and critical thinking (Hijrah, 2011). The principal's academic supervision is expected to improve the teacher's ability to manage the classroom and creating a conducive learning environment (Rahabav, 2016). Hence, teachers are assumed to be able to affect the students' learning readiness. Based on the background, the present study was aimed to measure the contribution of academic supervision to the student's learning readiness through mediator variables (teacher's pedagogic and professional competencies). The research findings are potentially the reference to improve the students' learning readiness in vocational school since it has not been the concern of the previous studies. Principals and teachers can use the research findings to improve their performance at school and in the classroom.

1.1 Students' learning readiness

Readiness is the whole condition that helps a person ready to respond to a particular way to a situation (Slameto, 2010). Students are said to be ready when they are physically, mentally, and emotionally ready to learn (Shrestha & Dangol, 2019). Hung et al. (2010) mentioned that students' readiness consists of five dimensions: self-regulated learning, learning control, learning motivation, self-efficacy, and communication self-efficacy. Self-regulated learning refers to the students' ability to take responsibility for the learning context to achieve the learning objective. Paris and Paris (2001) stated that self-regulated learning emphasizes the individual's autonomy and control to monitor, direct, and regulate the actions. It allows him to achieve the learning objectives and expand his expertise. An autonomous learner is an active participant in metacognition, motivation, and behavior in their own learning. Learning control refers to the students' ability to control their learning effort, allowing them to direct their learning. Learning control shows the extent to which students can direct their learning (Hsin-Yih & Brown, 1995). Learning motivation is related to the students' attitude in learning. Motivation is one of the main factors influencing the student's success (Kirmizi, 2015) and

comfortable learning (Czubaj, 2004). As one of the learner's readiness aspects, motivation plays a significant role in measuring the student's academic satisfaction and achievement (Kirmizi, 2015). Self-efficacy is the student's ability to demonstrate learning skills. Further, communication self-efficacy emphasizes the student's ability to adapt to the learning process through questions, responses, comments, and discussion. Previous studies showed that self-efficacy is related to learning satisfaction (Chu & Chu, 2010; Kuo et al., 2013).Children's characteristics highly influence their learning readiness, academic performance, and teacher's factor (Murray & Harrison, 2011). Hao (2016b) claimed that learning readiness is related to learning attention, which the teacher affects in the classroom. However, interest in learning materials is the lowest aspect of student's attention.

1.2 Pedagogic competence and student's learning readiness

A teacher's pedagogic competence is the teacher's ability to understand the learners through cognitive development and personality principles and to identify the learners' prior knowledge (Anwar, 2018; Latip et al., 2020). Meanwhile, according to Riantoni and Ayu Sekonda (2019), pedagogic competence is the teacher's competence to manage a learning practice that involves the learners to understand various skills through thorough and representative preparation. Therefore, a teacher should understand the initial readiness in the learning process, either physically, mentally, or emotionally. Improving a teacher's pedagogic competence in the learning process can be conducted through an in-depth understanding of the learners' psychological development (Balqis et al., 2014; Tadesse et al., 2020). Based on the Government Regulation of the Republic of Indonesia Number 19 of 2005, a teacher's pedagogic competence is the ability to manage the learning process that consists of understanding towards the learners, lesson design and implementation, learning outcome evaluation, and learner's development to actualize their potential. Busse et al. (2014) defined pedagogic competence as the teacher's competence in designing and implementing the learning, evaluating it to actualize their potential. Meanwhile, Febrianis et al. (2014) proposed that teachers' pedagogic is the teacher's ability to manage the learning process. It is a specific competence that distinguishes a teacher from other professions. It is the ability to make learning easier for the learners.

A teacher with pedagogic competence is technically able to comprehend the learners' characteristics. Besides, it means that teachers should understand the theories of teaching, develop the curriculum, create educative learning, facilitate the learners' development, build effective and emphatic communication with students, evaluate, and take reflective action to improve the learning quality (Dewi et al. 2014). A teacher is expected to increase the student's motivation, interest, and readiness in the class. The facts have encouraged the researchers to arrange the following hypothesis:

H1: Pedagogic competence contributes to learning readiness

1.3 Professional competence and students' learning readiness

Professional competence is the ability to understand the teaching material broadly and deeply (Sanjaya, 2019). Suprihatiningrum (2016) added that the in-depth and broad understanding includes the mastery of the school curriculum and the scientific knowledge as the umbrella, accompanied by the willingness to learn. It is also stated in Laws Number 14 of 2005, mentioning that professional competence is the teacher's capability to have a broad and in-depth understanding of the learning materials. Orazbayeva (2016) explained that a teacher's professional competence is considered general characteristics determining the readiness and ability that is sufficient, autonomous, and responsible for performing the professional activities and self-development. According to Rahman (2014), a teacher's professional competence is related to the ability to master the content and essence of knowledge. A teacher with professional competence will comprehend the scientific materials, concepts, and thinking patterns relevant to the discipline. Besides, he will be able to use the information and technology to increase the learning quality, master the philosophy and methodology of scientific development in the relevant field, develop himself, and perform a reflection to improve the professional performance (Dewi et al., 2014). The skills help teachers create motivative learning and challenge the students' curiosity, affecting the students' learning readiness. The explanation leads the researchers to arrange the following hypothesis:

H2: Professional competence contributes to learning readiness

1.4 The influence of a principal's supervision on the students' learning readiness through the teacher's pedagogic and professional competence

Supervision is a process designed to help teachers learn about the daily tasks at school. It allows them to use the knowledge and ability to provide better services for the students, parents, and school. Besides, they

attempt to create an effective learning community (Mulyasa, 2013). Academic supervision is the process of teaching improvement through stimulation to a teacher to help himself develop better teaching (Ali et al., 2020; Paulsen et al., 2014). A school principal should guide the teachers efficiently and instill trust, stimulate, and guide the teachers to do professional research. Besides, the principal's cooperation shows the ability to help teachers solve their problems and conduct a study and professional development to improve teaching and learning quality (Karwati & Priansa, 2013).

One of the efforts to improve the teachers' competence and roles in learning is through supervision (Sagala, 2010). Meanwhile, learning success can be observed from the students' learning outcomes. Students ready to learn will be motivated to optimize their learning outcomes (Nuryati, 2019). Mardati et al. (2019) explained that the teacher's competence becomes two external factors influencing students' learning readiness. Suriansyah and Effendi (2019) explained that teacher's quality in the classroom is affected by the principal's academic supervision. In addition, other studies measured the direct influence of academic supervision on the teacher's competence. Pambudi (2014) studied the Contribution of Principal's Teaching Supervision on the Teachers' Professional Competence in elementary school. The research found that the principal's supervision positively and significantly relates to the teachers' professional competence. Meanwhile, Saleh et al. (2019) conducted research entitled "The Effect of School Head Academic Supervision on Pedagogic Capability of Basic School Teachers in Manggala District, Makassar." It revealed a positive and significant influence of the principal's academic supervision on the teachers' pedagogic competence. Therefore, it can be assumed that the principal's academic supervision influences the teachers' competence, and the teacher's competence influences the students' learning readiness. With the same path, it can be hypothesized that the principal's academic supervision indirectly affects the students' learning readiness. Hence, the next hypotheses are as follow:

H3: Academic supervision contributes to the teachers' pedagogic competence
H4: Academic supervision contributes to the teacher's professional competence
H5: Academic supervision through the teachers' pedagogic competence contributes to learning readiness
H6: Academic supervision through teachers' professional competence contributes to the learning readiness

The scheme illustrating the hypotheses was presented in figure 1.

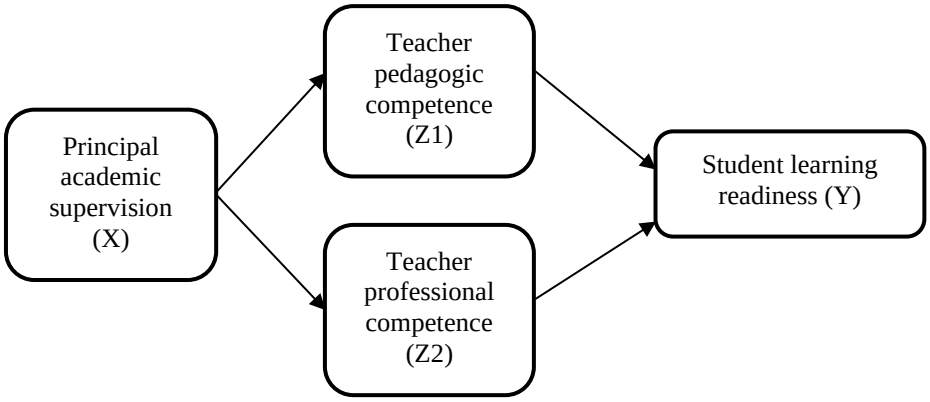

Figure 1. Scheme of research variables relationship

2. METHODS

2.1. Research Design

The research was quantitative using ex post facto, of which the hypothesis was tested using Partial Least Square Structural Equation Modelling (PLS-SEM) with smartPLS version 3.0 application. The data were analyzed in two steps. The first is a reflective evaluation to test the validity and reliability of each variable's indicators. Second is the formative evaluation to determine the significance of the relationships among variables and determine whether the hypothesis is accepted or rejected.

2.2. Participants

The population consisted of teachers and students of vocational high school (SMK) Muhammadiyah in Gunungkidul Regency. From the population, samples were taken using a non-probability test with a

purposive sampling method. Criteria were determined to select the samples, obtaining 70 teachers and 96 students as the respondents.

2.3. Data collecting technique and instruments

The data were collected using a questionnaire with the Likert Scale. The questionnaire consists of four kinds: students' learning readiness, teachers' pedagogic competence, teacher's professional competence, and principal' supervision. The questionnaires were adapted from the relevant studies. The learning readiness questionnaire was from Hung et al. (2010). Meanwhile, the questionnaires for the teacher's pedagogic competence, teacher's professional competence, and academic supervision were adopted from Istiningsih et al. (2020). All questionnaires have been tested, and all items were considered valid and reliable, as presented in Tables 1 and 2.

Table 1. Construct Reliability and Validity

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Learning Readiness	0,822	0,857	0,869	0,526
Pedagogical Competence	0,932	0,941	0,940	0,516
Professional Competence	0,913	0,922	0,927	0,518
Academic Supervision	0,966	0,969	0,968	0,553

Table 1 showed that a construct is reliable if the Cronbach's Alpha and the Composite Reliability score are greater than 0.60. Besides, it is valid if the average variance extracted (AVE) is greater than 0.50. The validity and reliability indicate that each indicator can explain the relevant variables.

Table 2. Heterotrait-Monotrait Ratio

	Learning Readiness	Pedagogical Competence	Professional Competence	Academic Supervision
Learning Readiness				
Pedagogical Competence	0,181			
Professional Competence	0,140	0,904		
Academic Supervision	0,145	0,623	0,575	

Heterotrait-Monotrait Rato (HTMT) test is a discriminant validity test to measure a construct's appropriateness for a particular variable. If it is appropriate, the HTMT must be less than 0.9. Based on the table, the HTMT revealed several findings. First, pedagogical competence, professional competence, and academic supervision are appropriate constructs for learning readiness. Second, academic supervision is a good construct for pedagogical and professional competence. Meanwhile, the third, professional competence, cannot be a construct for pedagogical competence.

2.4. Data analysis

The data were analyzed using PLS-SEM because the samples were less than 100 people. The hypothesis testing analysis using a path coefficient is accepted if the evaluation for the t-statistic is above 1.96 and the p-value is below 0.05.

3. FINDINGS

3.1. Evaluating the R-squared value

Table 3. R square

	R Square	R Square Adjusted
Learning Readiness	0,070	0,042
Pedagogical Competence	0,388	0,382

Professional Competence	0,331	0,324

R-squared is the ability of the exogenous variable to explain the endogenous variable. The R-squared values are categorized into three. If R-squared is 0.75, it is a substantial (strong) model; if it is 0, 50, it is moderate, and if it is 0.25, it is weak. The test results presented in the table showed that academic supervision could explain professional competence as much as 0.331 or 33.1%, indicating that the model is weak. Similarly, academic supervision can explain the pedagogical competence as much as 0.338 or 38.8%, or weak. Meanwhile, a very weak model was also indicated by the academic supervision R-squared results. It can explain the professional competence as much as 0.70 or 7%.

3.2. Path Coefficients/Direct Effect Test

A hypothesis is accepted or rejected using PLS-SEM through the bootstrapping in the path coefficient analysis, with the t-statistic must be above 1.96 and the p-value less than 0.05.

Table 4. Path Coefficients/Direct Effect

	Original Sample	Sample Mean	Standard Deviation	T statistics	P values
AS → LR	-0,473	-0,510	0,181	2,614	0,009
PrC → LR	0,398	0,419	0,206	1,928	0,054
AS → PC	0,623	0,649	0,068	9,111	0,000
AS→ PrC	0,575	0,599	0,076	7,571	0,000

Explanation: AS (academic supervision), PC (pedagogical competence), PrC (professional competence), LR(learning readiness).

The path coefficient results in the Table 4 showed several findings. First, pedagogical competence contributed to the learning readiness with the t-statistic 2.614 and p-value 0.009 (p.<0.05). It means that pedagogical competence directly affects the students' learning readiness. Second, professional competence does not contribute to learning readiness with the t-statistics of 1.928 and the p-value of 0.054 (< 0.05). It proved that teachers' professional competence is no direct effect on the students' learning readiness. Third, academic supervision contributes to pedagogical competence, with a t-statistic of 9.111 and p-value 0.000 (<0.05). It indicates a direct effect of academic supervision on the teachers' pedagogical competence. Fourth, academic supervision contributes to professional competence, with a t-statistic 7.571 and p-value of 0.000 (< 0.05), meaning that academic supervision directly influences the teachers' professional competence.

3.3. Indirect Effect Analysis

Table 5. Indirect Effect Analysis Result

	Original Sample	Mean	Ss	T	p	Explanation
AS→PC → LR	-0,295	-0,332	0,127	2,329	0,020	Significant
AS→PrC → LR	0,229	0,252	0,132	1,740	0,082	Not significant

Indirect effect analysis functions to test the influence of exogenous variables on the endogenous variables mediated by the intervening variables. The exogenous variable was academic supervision in the present study, while the intervening variables were teachers' pedagogical competence and professional competence. Meanwhile, the endogenous variable was the students' learning readiness. The significance criteria were fulfilled if the t-statistic value is above 1.96 and the p-value is less than 0.05. Based on the table, it is clear that the academic supervision, through the teachers' pedagogical competence, contributes to the learning readiness because the t-statistic was 2.329 (> 1.96) and the p-value 0.020 (<0.05). However, the teachers' professional competence as the intervening variable causes an indirect effect or gives no contribution to the students' learning readiness because the t-statistic was 1.740 (<1.96) and p-value 0.082 (>0.05). The evaluation of the relationships among variables of the research was presented in Figure 2.

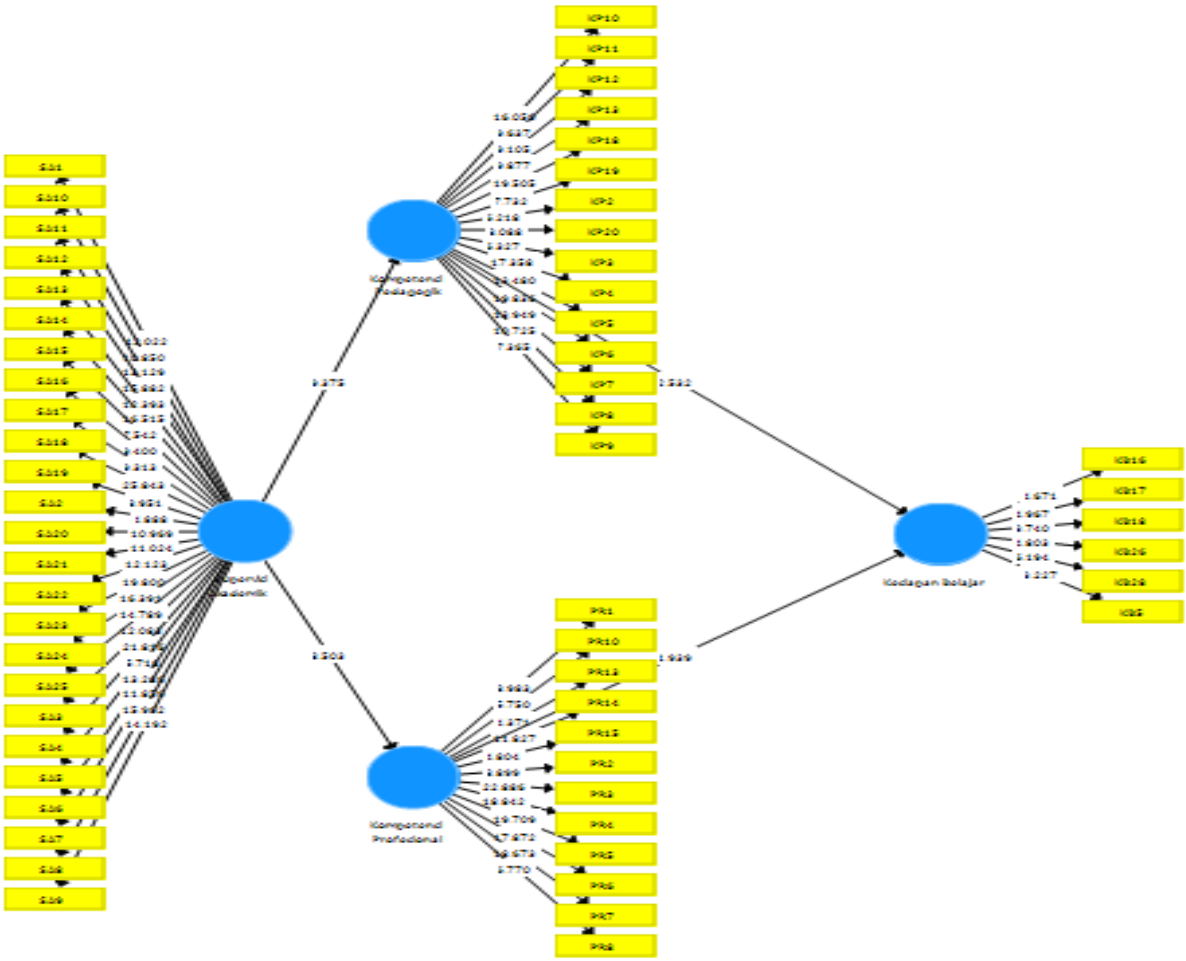

Figure 2. The evaluation of the relationships among variables

4. DISCUSSION

Based on the analysis, four hypotheses were accepted, and two were rejected. The four accepted hypotheses were as follows. 1) Pedagogic competence contributes to learning readiness; 2) academic supervision contributes to pedagogic competence; 3) academic supervision contributes to professional competence; and 4) academic supervision through the teacher's pedagogic competence contributes to the learning readiness. Meanwhile, the other two hypotheses were rejected. Professional competence does not contribute to learning readiness, and academic supervision through the teacher's professional competence does not contribute to learning readiness. The first hypothesis was accepted because the T-statistic value reached 2.614 and the p-value 0.009 (< 0.05). It indicates a direct influence of a teacher's pedagogic competence on the students' readiness. The finding supported the previous study by Ratnawati (2020). They mentioned that the teachers' pedagogic competence could increase the students' readiness through creative teaching methods. The teachers' ability to create fun learning helps students understand the material, increasing their readiness. Learning readiness is an initial condition of a learning activity that provides responses or answers to achieve the teaching goals (Mulyani, 2013). Students are ready to learn when they are physically, mentally, and emotionally ready (Shrestha & Dangol, 2019).

The second hypothesis revealed that the teacher's professional competence does not affect the students' readiness. The path coefficient resulted in the t-statistic value of 1.928 and p-value 0.054 (>0.05). In general, the finding was different from the one conducted by Kusuma (2010), reporting that the student's perception of the teacher's professional competence and learning environment in senior high school simultaneously influenced the students' readiness. Two reasons may cause the difference. First, the samples used were different. The present study's samples were vocational school students with different characteristics from public schools (Djojonegoro, W., & Slamet, 1998). Second, the data of the present study were gathered from the teachers' self-evaluation. Meanwhile, the one by Kusuma (2010) was from students' perception.

Researchers interested in the field can confirm the results by triangulating the data sources and the techniques performed to collect the data.

The third and fourth hypotheses proved that academic supervision contributed to teacher's pedagogic and professional competence. The academic supervision contribution to pedagogic competence reached the t-statistics of 9.111 and p-value 0.000 (>0.05), while to the professional competence 7.571 for t-statistics and 0.000 (>0.05) for p-value. The findings are in line with previous studies, mentioning that academic supervision of the principal influences the teacher's competence (Astuti, 2017; Hartatik et al., 2019; Sitaasih, 2020). The present study supported Mujiono's (2020) research, mentioning that supervision has a positive and significant influence on teachers' pedagogic competence. Meanwhile, the findings of professional competence supported the research by Prastania and Sanoto (2021). The findings also confirmed the relevant theories about the principal's supervision. Learning supervision is a series of assistance for teachers to improve the teaching and learning process (Imron, 2015; Purwanto, 2014). One of the crucial roles of a principal is to perform academic supervision to encourage teachers to develop creativity, innovation, problem-solving skills, and critical thinking (Hijrah, 2011). The resources to accommodate the teachers' development need to be supervised (Sahertian, 2010). In other words, teachers need academic supervision to develop themselves. Therefore, a principal must be concerned with the teachers' professional competence through supervision (Rahayu et al., 2019).

The hypothesis testing the indirect influence of a principal's supervision on teachers' competence showed different results. The accepted hypothesis (academic supervision influences learning readiness through teacher's pedagogic competence) reached the t-statistic of 0.329 (>1.96) and p-value 0.020 (<0.05). Meanwhile, the influence of academic supervision on learning readiness through teachers' professional competence was rejected with the t-statistic of 1.740 (<1.96) and p-value of 0.092 (>0.05). If the principal wants to increase the students' learning readiness, the intervention can be through the teachers' pedagogic competence instead of their professional competence. It was in line with the findings by Paulsen et al. (2014) and Istiningsih et al. (2020), revealing that academic supervision is an activity to help teachers develop their pedagogic competencies to achieve the learning goals.

5. CONCLUSION

The present study concluded that students' learning readiness could be improved directly through the teachers' pedagogic and professional competence. Meanwhile, it can be indirectly increased through the principal's academic supervision with teachers' pedagogic competence as the mediator. The findings also indicated that the principals and the teachers could improve the students' learning readiness. The principals can perform academic supervision to improve the teachers' pedagogic competence. Further, teachers can apply various pedagogic and professional competence indicators in the classroom. The findings recommended that principals and teachers improve their roles to increase the students' learning readiness. The present study exposed a limitation. The samples were only teachers and students of private vocational schools in Gunungkidul Regency. Thus, researchers with the same interest can research more samples from broader categories and areas.

CONFLICT OF INTEREST

There is no conflict of interest

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Contribution of academic supervision to vocational students' learning readiness: Pedagogic and professional competency as the mediator variable

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ABSTRACT

The learning process in vocational schools has different characteristics compared to that of the non-vocational. Students' readiness is one significant variable in determining students' learning success. Hence, identifying the antecedent of the variable is necessary. The research aimed to measure the contribution of academic supervision through teachers' professional and pedagogic competence and its impact on vocational school students' learning readiness. The quantitative research employed ex post facto design with Partial Least Square Equation Modelling (PLS-SEM) to test the hypothesis. ~~The samples were taken using non-probability sampling, particularly purposive sampling. As many as 71 teachers and 96 students in three private vocational schools in Gunungkidul Regency were selected as samples. The data were analyzed using PLS-SEM because the samples were less than 100.~~ Non-probability sampling, particularly purposive sampling, was used to take the samples, which were 71 teachers and 96 students in three private vocational schools in Gunungkidul Regency. Meanwhile, the data were analyzed using PLS-SEM because the study involved less than 100 samples. The results showed several findings: (a) Pedagogic competence contributes to learning readiness, (b) Professional competence does not contribute to learning readiness, (c) Academic supervision contributes to pedagogic competence, and (d) Academic supervision contributes to professional competence. Besides, indirect effect scores concluded two points: (a) Academic supervision through teachers' professional competence contributes to learning readiness, and (b) Academic supervision through a teacher's professional competence does not contribute to learning readiness. The research results became a potential reference to improve the students' learning readiness in vocational high school. The principals and teachers can use the findings to improve their performance at school and in the classroom.

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1. INTRODUCTION

Vocational school administration in Indonesia plays a strategic role in preparing competent and qualified human resources [1]. Vocational schools are designed to prepare the learners to enter the work world and develop professional attitudes. Three significant characteristics of the vocational school administration include psychomotor, responsiveness to technology, and job orientation [2]. However, the research by Utomo [3] showed that vocational education in Indonesia had not achieved the expected goals. Education-job

mismatches are evidence of the serious issue of the vocational education administration since it decreases competence and job satisfaction [4] and increases employee turnover [5].

~~The learning process in the classroom is intended to develop and transfer students' knowledge, attitude, and skills. Hence, they will achieve the expected competencies(Bada, S. O., & Olusegun, 2016)(Whitton, D., Barker, K. L., Nosworthy, M., Humphries, J., & Sinclair, 2016).~~ Learning success is determined by many variables. One of them is the student's readiness, a set of skills necessary in learning, which influences the physical, social, and emotional development, learning approach, communication, and general information [6]. Readiness is proportional to learning experience satisfaction [7]. It influences students' motivation and satisfaction in learning [8]. Research by Piskurich [9] mentioned that inadequate students' readiness decreases the chances of succeed in learning [10]. Considering the learning readiness strategic aspects affecting learning outcomes, identifying the students' learning readiness antecedent factors is necessary. Each effort to improve education in Indonesia is meaningless without the students' readiness [11]. Meanwhile, researchs [12] and [13] mentioned that increasing the students' learning readiness is the most effective way to improve their academic motivation. Therefore, preparing the students' learning readiness is necessary to increase their achievement. Further, students' unpreparedness in learning may disturb the teaching and learning process [14].

Several researchers have investigated the factors influencing students' learning readiness. In particular, research on national school students' learning readiness was conducted by Cigdem [15]. The study was conducted to 752 vocational school students in Balikesir, Turkey. It aimed to find the significant difference between students with varied characteristics during the online learning. The results showed that the students' characteristics related to PC ownership, department, and type of high school graduation significantly influence the students' learning readiness. Another research was conducted by Basol et al. [16], studying the students' familiarity with web-based courses, PC ownership, length of computer use, time allocated in front of the computer, email-checking frequency, social media usage, and smartphone usage with the students' learning readiness during the online learning. The quantitative research was conducted on 633 students at a military vocational high school in Turkey. The results showed that the previous web-based course, the time of using computers, and the frequency of email-checking are the three most significant variables in determining the vocational students' learning readiness. Pratama et al. [17] researched the independent learning readiness of automatic body repair department students in facing the 4.0 learning system. The case study conducted to the teachers and students of SMK N 2 Depok Sleman showed that the readiness for the 4.0 system is in the medium category. The readiness was influenced by internal and external factors. Meanwhile, Connolly et al. [18] through their qualitative study evaluated the readiness of vocational teachers and students in Australia to use a social media platform, Facebook, to support the learning process. The research found that the students are much readier than the teachers. The different level of readiness between the teachers and students was influenced by their perception of the learning objectives, space, and understanding of the social norm in connection with the utilization of social media. ~~For example, Kirmizi (Kirmizi, 2015) researched the learners' readiness in distance learning and identified the variables predicting learning satisfaction and success. The research involved 84 students attending English Language and Literature Department at Karabuk University, Turkey. The regression analysis concluded that motivation is the most important component that affects the students' satisfaction in online learning. Moreover, another regression analysis was conducted to know the effect of learners' readiness sub-dimension on their success. The results showed that autonomous learning is the essential predictor of success. Two other significant predictors of distance learning are learner's control and motivation. Horzum et al. (Horzum et al., 2015) studied the relation between online learning readiness, motivation, and instructional process. The research was conducted on 750 students attending online classes at Sakarya University. Through the structural equation model analysis, it was found that the level of students' readiness directly predicted the academic motivation and indirectly influenced the learning experience. Another research by Yoon (Yoon, 2019) investigated the readiness of 310 students in the first and second year of College English Courses in a university in Korea in using artificial intelligence. The finding showed that the participants developed a negative perspective towards artificial intelligence (AI). It means that something that they consider appropriate cannot always be preferable in the classroom setting.~~ Other studies investigating the students' readiness have also been conducted with the same focus: the students' readiness for online learning [19][20][21][22][23][24][25].

Referring to the previous research map, it can be concluded that the study about the vocational students' learning readiness is rare.~~none of the research studied the students' learning readiness in the vocational high school context~~ Hence, the present study identified the factors influencing students' learning readiness to fill the gap. The present study is necessary because the learning process at vocational schools is different from others. The learning is intended to prepare students to work and specialize in a particular profession [26]. It has been mentioned in the laws of the Republic of Indonesia Year 20 of 2003; article 15

explained that vocational education is a senior high school that prepares learners to work in a particular field. The characteristics of vocational education are preparing the learners to enter the workforce. The vocational school emphasizes the mastery of knowledge, skills, attitudes, and values necessary in the work world. The actual assessment of the student's success is the hands-on or performance in the relevant occupation. Vocational education is focused on "learning by doing" and "hands-on experience.".

Based on relevant literature, the present study took the principal's academic supervision as the independent variable and the teacher's professional and pedagogic competencies as the mediator variable. The principal's supervision is the effort to guide the teachers in improving the teaching quality through the planning stages, teaching performance, and rational changes in improving the student's learning outcome [27]. Supervision is one form of monitoring and controlling the teachers to ensure they are on track. Besides, it encourages them to complete the tasks more thoroughly. A principal can encourage teachers to develop students' creativity, innovation, problem-solving skills, and critical thinking. The principal's academic supervision is expected to improve the teacher's ability to manage the classroom and create a conducive learning environment [28]. Hence, teachers are assumed to be able to affect the students' learning readiness. Based on the background, the present study aimed to measure the contribution of academic supervision to the student's learning readiness through mediator variables (teacher's pedagogic and professional competencies). The research findings are potentially the reference to improve the students' learning readiness in vocational school since it has not been the concern of the previous studies. Principals and teachers can use the research findings to improve their performance at school and in the classroom.

1.1 Students' learning readiness

Students' learning readiness is an antecedent variable of the student's learning outcomes and motivation. Connolly et al. [18] defined readiness as a balance between the available potential energy and the necessary energy for changes. Meanwhile, Dangol and Shrestha [14] explained that students' learning readiness is an individual's condition where he is physically, mentally, and emotionally ready. In addition, the condition includes creating a fun atmosphere allowing effective teaching and learning activities. Further, it contributes to improving the student's academic achievement. ~~Readiness is the whole condition that helps a person ready to respond to a particular way to a situation.~~ Students are said to be ready when they are physically, mentally, and emotionally ready to learn [14]. Hung et al. [29] mentioned that students' readiness consists of five dimensions: self-regulated learning, learning control, learning motivation, self-efficacy, and communication self-efficacy. Self-regulated learning refers to the students' ability to take responsibility for the learning context to achieve the learning objective. Paris and Paris [30] stated that self-regulated learning emphasizes the individual's autonomy and control to monitor, direct, and regulate the actions. It allows him to achieve the learning objectives and expand his expertise. An autonomous learner is an active participant in metacognition, motivation, and behavior in their own learning. Learning control refers to the students' ability to control their learning effort, allowing them to direct their learning. Learning control shows the extent to which students can direct their learning [31]. Learning motivation is related to the student's attitude toward learning. Motivation is one of the main factors influencing the student's success [32] and comfortable learning [33]. As one of the learner's readiness aspects, motivation plays a significant role in measuring the student's academic satisfaction and achievement [32]. Self-efficacy is the student's ability to demonstrate learning skills. Further, communication self-efficacy emphasizes the student's ability to adapt to the learning process through questions, responses, comments, and discussion. Previous studies showed that self-efficacy is related to learning satisfaction [34][35]. Children's characteristics highly influence their learning readiness, academic performance, and teacher's factor [36]. Hao [37] claimed that learning readiness is related to learning attention, which the teacher affects in the classroom. However, interest in learning materials is the lowest aspect of student's attention.

1.2 Pedagogic competence and student's learning readiness

A teacher's pedagogic competence is the teacher's ability to understand the learners through cognitive development and personality principles and to identify the learners' prior knowledge [38]. Meanwhile, according to Riantoni and Ayu Sekonda [39], pedagogic competence is the teacher's competence to manage a learning practice that involves the learners to understand various skills through thorough and representative preparation. Therefore, a teacher should understand the initial readiness in the learning process, either physically, mentally, or emotionally. Improving a teacher's pedagogic competence in the learning process can be conducted through an in-depth understanding of the learners' psychological development [40]. Based on the Government Regulation of the Republic of Indonesia Number 19 of 2005, a teacher's pedagogic competence is the ability to manage the learning process that consists of understanding towards the learners, lesson design and implementation, learning outcome evaluation, and learner's development to actualize their potential. Busse et al. [41] defined pedagogic competence as the teacher's competence in designing and

implementing the learning, evaluating it to actualize their potential. Meanwhile, Febrianis et al. [42] proposed that teachers' pedagogic is the teacher's ~~ability to manage the learning process. It is a specific competence that distinguishes a teacher from other professions. It is the ability to make learning easier for the learners.~~ ability to manage the learning process, creating an easier learning process for the students. The ability distinguishes a teacher from other professions.

A teacher with pedagogic competence is technically able to comprehend the learners' characteristics. Besides, it means that teachers should understand the theories of teaching, develop the curriculum, create educative learning, facilitate the learners' development, build effective and emphatic communication with students, evaluate, and take reflective action to improve the learning quality. A teacher is expected to increase the student's motivation, interest, and readiness in the class. The facts have encouraged the researchers to arrange the following hypothesis:

H1: Pedagogic competence contributes to learning readiness

1.3 Professional competence and students' learning readiness

Professional competence is the ability to understand the teaching material broadly and deeply. The in-depth and broad understanding includes the mastery of the school curriculum and the scientific knowledge as the umbrella, accompanied by the willingness to learn. It is also stated in Laws Number 14 of 2005, mentioning that professional competence is the teacher's capability to have a broad and in-depth understanding of the learning materials. Orazbayeva [43] explained that a teacher's professional competence is considered general characteristics determining the readiness and ability that is sufficient, autonomous, and responsible for performing the professional activities and self-development. According to Rahman [44], a teacher's professional competence is related to the ability to master the content and essence of knowledge. A teacher with professional competence will comprehend the scientific materials, concepts, and thinking patterns relevant to the discipline. Besides, he will be able to use the information and technology to increase the learning quality, master the philosophy and methodology of scientific development in the relevant field, develop himself, and perform a reflection to improve the professional performance. The skills help teachers create motivative learning and challenge the students' curiosity, affecting the students' learning readiness. The explanation leads the researchers to arrange the following hypothesis:

H2: Professional competence contributes to learning readiness

1.4 The influence of a principal's supervision on the students' learning readiness through the teacher's pedagogic and professional competence

Supervision is a process designed to help teachers learn about the daily tasks at school. It allows them to use the knowledge and ability to provide better services for the students, parents, and school. Besides, they attempt to create an effective learning community. Academic supervision is the process of teaching improvement through stimulation to a teacher to help himself develop better teaching [45][46]. A school principal should guide the teachers efficiently and instill trust, stimulate, and guide the teachers to do professional research. Besides, the principal's cooperation shows the ability to help teachers solve their problems and conduct a study and professional development to improve teaching and learning quality. In Indonesia, school supervision is conducted by a teacher or a senior principal having the qualification to supervise the school. The principal supervises the teachers' academic activities in the classroom as daily internal supervision [47]. Supervision is carried out to ensure that the school's goals and learning objectives are achieved [48]. Although a supervisor has the same objectives as the principal and the teachers, three of them have different roles and responsibilities. A principal is a planner, the teachers are the executors, and a supervisor is an evaluator of the feasibility of the targeted goals and implementation [47].

One of the efforts to improve the teachers' competence and roles in learning is through supervision. Meanwhile, learning success can be observed from the students' learning outcomes. Students ready to learn will be motivated to optimize their learning outcomes. Academic supervision by the principal emphasizes three activities: planning, implementation, and evaluation [49][50]. Mardati et al. [51] explained that the teacher's competence becomes two external factors influencing students' learning readiness. Suriansyah and Effendi [27] explained that teachers' quality in the classroom is affected by the principal's academic supervision. In addition, other studies measured the direct influence of academic supervision on the teacher's competence. Saleh et al. [52] conducted research entitled The Effect of School Head Academic Supervision on Pedagogic Capability of Basic School Teachers in Manggala District, Makassar. It revealed a positive and significant influence of the principal's academic supervision on the teachers' pedagogic competence. Researchs [53] and [54] found that the principal's academic supervision influences the teachers' performance.

Therefore, ~~it can be assumed that the principal's academic supervision influences~~ the principal's academic supervision is assumed to influence the teachers' competence, and the teacher's competence influences the students' learning readiness. With the same path, it can be hypothesized that the principal's academic supervision indirectly affects the students' learning readiness. Hence, the next hypotheses are as follows:

H3: Academic supervision contributes to the teachers' pedagogic competence
H4: Academic supervision contributes to the teacher's professional competence
H5: Academic supervision through the teachers' pedagogic competence contributes to learning readiness
H6: Academic supervision through teachers' professional competence contributes to the learning readiness

The scheme illustrating the hypotheses was presented in figure 1.

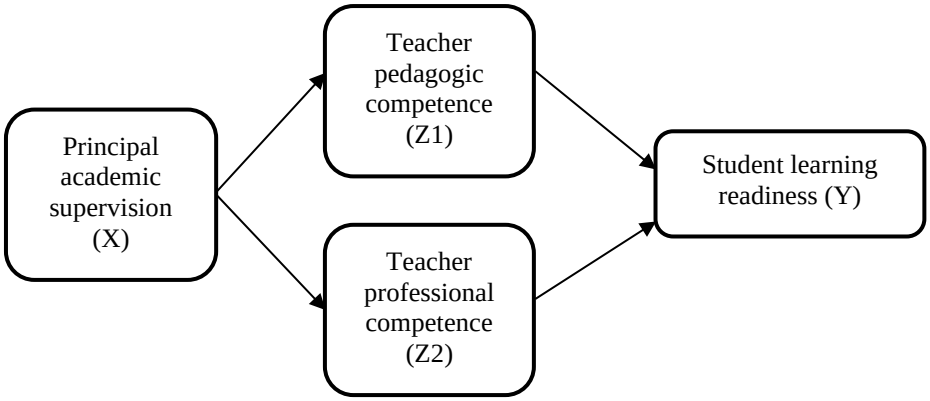

Figure 1. Scheme of research variables relationship

2. METHODS

2.1. Research Design

The research was quantitative using ex post facto, of which the hypothesis was tested using Partial Least Square Structural Equation Modelling (PLS-SEM) with smartPLS version 3.0 application. The data were analyzed in two steps. The first is a reflective evaluation to test the validity and reliability of each variable's indicators. Second is the formative evaluation to determine the significance of the relationships among variables and determine whether the hypothesis is accepted or rejected.

2.2. Participants

The population consisted of teachers and students of Vocational High School (SMK) Muhammadiyah in Gunungkidul Regency. From the population, samples were taken using a non-probability test with a purposive sampling method. Criteria were determined to select the samples, obtaining 71 teachers and 96 students as the respondents.

2.3. Data collecting technique and instruments

The data were collected using a questionnaire with the Likert Scale. The questionnaire consists of four kinds: students' learning readiness, teachers' pedagogic competence, teacher's professional competence, and principal's supervision. The questionnaires were adapted from the relevant studies. The learning readiness questionnaire was from Hung et al. [29]. Meanwhile, the questionnaires for the teacher's pedagogic competence, teacher's professional competence, and academic supervision were adopted from Istiningsih et al. [55]. All questionnaires have been tested, and all items were considered valid and reliable, as presented in Tables 1 and 2.

Table 1. Construct Reliability and Validity

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)

Learning Readiness	0,822	0,857	0,869	0,526
Pedagogical Competence	0,932	0,941	0,940	0,516
Professional Competence	0,913	0,922	0,927	0,518
Academic Supervision	0,966	0,969	0,968	0,553

Table 1 shows that a construct is reliable if the Cronbach's Alpha and the Composite Reliability score are greater than 0.60. Besides, it is valid if the average variance extracted (AVE) is greater than 0.50. The validity and reliability indicate that each indicator can explain the relevant variables.

Table 2. Heterotrait-Monotrait Ratio

	Learning Readiness	Pedagogical Competence	Professional Competence	Academic Supervision
Learning Readiness				
Pedagogical Competence	0,181			
Professional Competence	0,140	0,904		
Academic Supervision	0,145	0,623	0,575	

Heterotrait-Monotrait Rato (HTMT) test is a discriminant validity test to measure a construct's appropriateness for a particular variable. If it is appropriate, the HTMT must be less than 0.9. Based on the table, the HTMT revealed several findings. First, pedagogical competence, professional competence, and academic supervision are appropriate for learning readiness. Second, academic supervision is a good construct for pedagogical and professional competence. Meanwhile, the third, professional competence, cannot be a construct for pedagogical competence.

2.4. Data analysis

The data were analyzed using PLS-SEM because the samples were less than 100 people. The hypothesis testing analysis using a path coefficient is accepted if the evaluation for the t-statistic is above 1.96 and the p-value is below 0.05.

3. FINDINGS

3.1. Evaluating the R-squared value

Table 3. R square

	R Square	R Square Adjusted
Learning Readiness	0,070	0,042
Pedagogical Competence	0,388	0,382
Professional Competence	0,331	0,324

R-squared is the ability of the exogenous variable to explain the endogenous variable. The R-squared values are categorized into three. If R-squared is 0.75, it is a substantial (strong) model; if it is 0, 50, it is moderate, and if it is 0.25, it is weak. The test results presented in the table showed that academic supervision could explain professional competence by as much as 0.331 or 33.1%, indicating that the model is weak. Similarly, academic supervision can explain the pedagogical competence as much as 0.338 or 38.8%, or weak. Meanwhile, a very weak model was also indicated by the academic supervision R-squared results. It can explain the professional competence as much as 0.70 or 7%.

3.2. Path Coefficients/Direct Effect Test

A hypothesis is accepted or rejected using PLS-SEM through the bootstrapping in the path coefficient analysis, with the t-statistic must be above 1.96 and the p-value less than 0.05.

Table 4. Path Coefficients/Direct Effect

	Original Sample	Sample Mean	Standard Deviation	T statistics	P values
AS → LR	-0,473	-0,510	0,181	2,614	0,009
PrC → LR	0,398	0,419	0,206	1,928	0,054
AS → PC	0,623	0,649	0,068	9,111	0,000
AS→ PrC	0,575	0,599	0,076	7,571	0,000

Explanation: AS (academic supervision), PC (pedagogical competence), PrC (professional competence), LR(learning readiness).

The path coefficient results in the Table 4 showed several findings. First, pedagogical competence contributed to learning readiness with a t-statistic of 2.614 and a p-value of 0.009 (p.<0.05). It means that pedagogical competence directly affects the students' learning readiness. Second, professional competence does not contribute to learning readiness with the t-statistics of 1.928 and the p-value of 0.054 (< 0.05). It proved that teachers' professional competence is no direct effect on the students' learning readiness. Third, academic supervision contributes to pedagogical competence, with a t-statistic of 9.111 and a p-value of 0.000 (<0.05). It indicates a direct effect of academic supervision on the teachers' pedagogical competence. Fourth, academic supervision contributes to professional competence, with a t-statistic of 7.571 and p-value of 0.000 (< 0.05), meaning that academic supervision directly influences the teachers' professional competence.

3.3. Indirect Effect Analysis

Table 5. Indirect Effect Analysis Result

	Original Sample	Mean	Ss	T	p	Explanation
AS→PC → LR	-0,295	-0,332	0,127	2,329	0,020	Significant
AS→PrC → LR	0,229	0,252	0,132	1,740	0,082	Not significant

Indirect effect analysis tests the influence of exogenous variables on the endogenous variables mediated by the intervening variables. The exogenous variable was academic supervision in the present study, while the intervening variables were teachers' pedagogical and professional competence. Meanwhile, the endogenous variable was the students' learning readiness. The significance criteria were fulfilled if the t-statistic value is above 1.96 and the p-value is less than 0.05. Based on the table, it is clear that academic supervision, through the teachers' pedagogical competence, contributes to learning readiness because the t-statistic was 2.329 (> 1.96) and the p-value 0.020 (<0.05). However, the teachers' professional competence as the intervening variable causes an indirect effect or gives no contribution to the students' learning readiness because the t-statistic was 1.740 (<1.96) and the p-value 0.082 (>0.05).

4. DISCUSSION

Based on the analysis, four hypotheses were accepted, and two were rejected. The four accepted hypotheses were as follows: 1) Pedagogic competence contributes to learning readiness, 2) academic supervision contributes to pedagogic competence, 3) academic supervision contributes to professional competence, and 4) academic supervision through the teacher's pedagogic competence contributes to learning readiness. Meanwhile, the other two hypotheses were rejected. Professional competence does not contribute to learning readiness, and academic supervision through the teacher's professional competence does not contribute to learning readiness. The first hypothesis was accepted because the T-statistic value reached 2.614 and the p-value 0.009 (< 0.05). It indicates a direct influence of a teacher's pedagogic competence on the students' readiness. The teachers' pedagogic competence could increase the students' readiness through creative teaching methods. The teacher's ability to create fun learning helps students understand the material, increasing their readiness. Learning readiness is an initial condition of a learning activity that provides responses or answers to achieve the teaching goals [56]. ~~Students are ready to learn when they are physically, mentally, and emotionally ready~~ As mentioned previously, students are ready to learn when they are prepared physically, mentally, and emotionally [14].

The second hypothesis revealed that the teacher's professional competence does not affect the students' readiness. The path coefficient resulted in a t-statistic value of 1.928 and a p-value of 0.054 (>0.05). In general, the finding differed from the previous research, reporting that the teacher's professional competence influenced the students' readiness [57]. The reason may cause the difference. The samples used were different.

The present study's samples were vocational school students with different characteristics from public schools [26]. Researchers interested in the field can confirm the results by triangulating the data sources and techniques used to collect the data.

The third and fourth hypotheses proved that academic supervision contributed to teachers' pedagogic and professional competence. The academic supervision contribution to pedagogic competence reached the t-statistics of 9.111 and a p-value of 0.000 (>0.05), while the professional competence, 7.571 for t-statistics and 0.000 (>0.05) for p-value. The findings are in line with previous studies, mentioning that academic supervision of the principal influences the teacher's competence. Supervision has a positive and significant influence on teachers' pedagogic competence. Meanwhile, the findings of professional competence supported the research by Prastania and Sanoto (2021). The findings also confirmed the relevant theories about the principal's supervision. Learning supervision is a series of assistance for teachers to improve the teaching and learning process.

The hypothesis testing the indirect influence of a principal's supervision on teachers' competence showed different results. The accepted hypothesis (academic supervision influences learning readiness through teacher's pedagogic competence) reached the t-statistic of 0.329 (>1.96) and p-value of 0.020 (<0.05). Meanwhile, the influence of academic supervision on learning readiness through teachers' professional competence was rejected with the t-statistic of 1.740 (<1.96) and p-value of 0.092 (>0.05). If the principal wants to increase the student's learning readiness, the intervention can be through the teachers' pedagogic competence instead of professional competence. It was in line with the findings by Paulsen et al. [46] and Istiningsih et al. [55], revealing that academic supervision is an activity to help teachers develop their pedagogic competencies to achieve learning goals.

Generally, the research findings concluded two issues. First, the student's learning readiness can be directly improved through the teachers' pedagogical and professional competence. Second, the readiness can be improved indirectly through the principal's supervision with the teachers' pedagogical competence as the mediator. One of the crucial roles of a principal is to perform academic supervision to encourage teachers to develop creativity, innovation, problem-solving skills, and critical thinking. The resources to accommodate the teachers' development need to be supervised. In other words, teachers need academic supervision to develop themselves. Therefore, a principal must be concerned with the teachers' professional competence through supervision [59]. Teacher's competence is a layered concept consisting of cognitive, psychomotor, and affective components [60]. The layers indicate that a teacher must comprehend the conceptual knowledge about the educational theories, practical skills to apply the knowledge, and a particular attitude and stance in running a profession [61]. A vocational school's learning process emphasizes psychomotor, technology responsiveness, and job orientation [2]. Characteristics become the principal's and the teachers' concern, where collaboration is the key to improving the vocational school students' learning readiness [62]. Further, the term "one size fits all" is no longer relevant to the sophisticated development of education [63][64].

5. CONCLUSION

The study aims to measure the contribution of academic supervision through the teachers' pedagogic and professional competence to the vocational school students' learning readiness. The analysis concluded that students' learning readiness could be improved directly through the teachers' pedagogic and professional competence. Meanwhile, it can be indirectly increased through the principal's academic supervision with teachers' pedagogic competence as the mediator. The findings also indicated that the principals and the teachers could improve the students' learning readiness. The principals can perform academic supervision to improve the teachers' pedagogic competence. Further, teachers can apply various pedagogic and professional competence indicators in the classroom. The findings recommended that principals and teachers improve their roles to increase the student's learning readiness. The present study exposed a limitation. The samples were only teachers and students of private vocational schools in Gunungkidul Regency. Thus, researchers with the same interest can research more samples from broader categories and areas.

CONFLICT OF INTEREST

There is no conflict of interest.

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BIOGRAPHIES OF AUTHORS

First author's Photo (3x4cm)	XXXX (9 pt)
Second author's photo(3x4cm)	XXXX (9 pt)
Third author's photo(3x4cm)	XXXX (9 pt)