

**The Effect of Learner Autonomy and Institutional Support System on Agile Learners, Independence, and Work Readiness of Students Participating in the Merdeka Belajar Kampus Merdeka Program**

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*This study aimed at analyzing the effect of learner autonomy and institutional support systems on agile learners, independence, and work readiness of students in higher education. The research used the Ex-Post Facto method. The sample was 240 students were chosen by using random sampling. The data collection method used in this study was a questionnaire. The validity test was conducted by six validators and resulted in a CVR of 1.00 and a CVI value of 1.00, therefore, was declared valid. The results of the overall item were valid and reliable. The results of the classical assumption test of prerequisite requirements and the results of the path analysis test revealed that student autonomy and institutional support systems obtained a value  $> 0.05$  for students who were agile and had a greater value on student autonomy, education, and institutional support system through agile learners. In conclusion, student autonomy and institutional support systems had a direct effect on agile students and indirectly affect students' independence and work readiness.*

*Keywords: agile learner, independence, learner autonomy, Merdeka Belajar, work readiness*

## INTRODUCTION

The Industrial Revolution 4.0 and the 21st-century era are marked by various forms of paradigmatic change (Setiadi, 2019; Siregar et al., 2020). The Industrial Revolution 4.0 existence will allow automation to occur (Adiansah et al., 2019; Listiningrum et al., 2019). It also opens up human resources opportunities to have expertise following the latest technological developments (Rohida, 2018). The era has made information technology the basis of human life (Subekti et al., 2018; Wardina et al., 2019). In other words, Industrial Revolution 4.0 allows humans to have broad interaction with the world community and provide opportunities for humans to obtain the broadest possible information. However, the action requires humans to have the ability to survive during the industrial revolution 4.0 development. The ability that individuals must possess is the 4C ability, such as critical thinking (critical thinking), creative thinking (creative thinking), communication (communication), and collaboration (collaboration) (Erdogan, 2019; Trisnawati & Sari, 2019). Critical thinking skills are the skills in solving problems or making decisions about the problems at hand (Arnyana, 2019; Zubaidah, 2018). Creative thinking skills (creative thinking skills) are related to using new approaches to solve a problem, innovation, and discovery (Zubaidah, 2018). Communication skills convey thoughts, ideas, knowledge, and new information possessed to others through oral, written, symbols, pictures, graphics, or numbers (Arnyana, 2019; Halverson, 2018). Collaboration skills (collaboration skills) are skills to collaborate or work together, synergize, adapt to various roles and responsibilities, work productively with others, put empathy in its place, and respect different perspectives (Susanti & Arista, 2019).

There are 4C skills demands in the Industrial Revolution era, and the Indonesian government has made many efforts to improve human resources quality (Junaid & Baharuddin, 2020). One of the efforts made is by initiating a policy regarding the *Merdeka Belajar Kampus Merdeka* (MBKM) (Widiyono et al., 2021). MBKM is a new concept that allows students to have the freedom to study in higher education (Sopiansyah & Masruroh, 2021a). The Directorate General of Higher Education of the Ministry of Education and Culture of the Republic of Indonesia defines Learning Independence as granting freedom and autonomy to institutions and independence from bureaucratization, therefore lecturers are freed from a complicated bureaucracy. Students are given the freedom to choose subjects they like (Arifin & Muslim, 2020). MBKM is a forum to facilitate students to develop their interests and talents through their dream jobs and information changes. In general, the goal of MBKM is to encourage students to master various fields of knowledge according to their fields of expertise therefore they are ready to compete in the global world (Baharuddin, 2021). That way, the implementation of MBKM encourages the learning process in higher education to be more autonomous and flexible (Kosasih, 2021). It can be seen from the MBKM program carried out.

The MBKM program provides students with opportunities in studying autonomously or choosing the program they take based on their interests (Urfatullaila et al., 2021). The students' freedom in choosing the subjects they like is based on the principle of Learner Autonomy. Learner Autonomy is a learning way that provides a greater degree of freedom, responsibility, and authority to learners in implementing and planning their learning activities (Inah et al., 2017). In addition, learner autonomy or learning independence is also defined as learning that facilitates a learner's ability to lead and regulate himself in his thoughts, feelings, and behavior and eliminates doubts (Suhendri, 2011). Learner Autonomy allows students to be focused on learning and personally to achieve optimum outcomes (Nurvrita, 2020). In conclusion, learner autonomy is a process of learning that provides learners with many opportunities, freedom, and responsibility toward their learning. In addition, the success of learning autonomy implementation must also be supported by the Institutional Support System (ISS). Institutional Support System (ISS) also determines their engagement, commitment, and performance outcomes (Falola *et al.*, 2020).

Institutional Support System (ISS) is defined as a set of physical and soft facilities or processes provided by an institution to support successful learning that involves all components within the institution (Bandeira & Cardoso, 2020). An institutional Support System is active support from agencies in the form of policies, regulations, and monetary and non-monetary assistance to encourage students in carrying out their responsibilities effectively and productively (Falola et al., 2020). Institutional support for program

implementation provides convenience and increases academic community self-efficacy (Makhaya & Ogange, 2019). Therefore, MBKM implementation requires the Institutional Support System (ISS) and is interpreted as institutional support in providing an independent campus management system that is relevant to students' actual condition and campuses, reflecting the learning independence implementation of the students. The system's structured program is designed in the form of policies and is equivalent to the available courses.

The explanation above shows an overview of how the Learner Autonomy and Institutional Support System support the MBKM program in realizing its goal, which is to encourage students in mastering fields of science based on their interests and expertise therefore they are ready to compete in the global world (Baharuddin, 2021). In other words, the Learner Autonomy and Institutional Support System will develop agile learners, independence, and student work readiness. Agile deals with difficulties with agility from existing solutions (Jatnika & Puspitasari, 2019). Agile learning is the ability to learn from experience and then apply the knowledge to be succeeded in new situations (De Meuse et al., 2010). Agile learners have also been named learning agility (Saputra et al., 2021). People with high agility will use the experience gained in new situations, seek challenges, and be active in self-reflection (De Meuse et al., 2010). Additionally is learning independence, defined as a student learning activity without depending on others to achieve learning goals such as mastering the subject with their awareness and applying it in everyday life (Suhendri, 2011). The characteristics include making their own choices, being creative, initiative, responsible, making decisions, and solving problems without influencing others (Desmita, 2009). Work readiness, such as the knowledge and skills of individuals to work independently according to workplace demands (Prikshat et al., 2019).

A questionnaire was distributed to 40 students who took part in the MBKM in the even semester of 2021. The result revealed that 95% stated that they had an attitude of independence and said they were ready to work because they had additional competencies in fields. The data was reinforced by the interview results with several students. Generally, they stated that their agility or dexterity in carrying out their learning process increased, and it made them more independent and ready to work. They are more independent in organizing their activities and more prepared to work because they can face difficulties by having the flexibility and agility to see existing solutions. It is found that the Institutional Support System (ISS) is a strong factor affecting agile learners, independence, and student work readiness.

Several research results support the result and emphasize that learner autonomy will form tough, tenacious, responsible, have high achievement motives, and help individuals achieve their best results (Nasution, 2018). Learner Autonomy can also improve student learning activities, results, and independence (Suardana, 2012). Not only does it make students tough and independent, but learner autonomy also has a significant positive relationship with job readiness (Annisa, 2021). Besides learner autonomy, several research results also show that institutional support positively affects product or process innovation that improves the quality of performance of all components, including students in it (Zhang et al., 2017). In addition, the faster students adjust to real situations through MBKM, the more productive their performance will be (Cakula et al., 2015).

The description proved that Learner Autonomy and Institutional Support systems will influence agile learners, independence, and student work readiness. However, no previous studies have examined the effect of Learner Autonomy and Institutional Support systems on agile learners, freedom, and student work willingness in the MBKM Program. So, it is deemed necessary to conduct a study that aims to analyze the effect of learner autonomy and institutional support system on agile learners, independence, and work readiness of students who have participated in the *Merdeka Belajar* program. This study aimed at analyzing the learner autonomy effect and institutional support system on agile learners, independence, and student work-readiness therefore that it can be helpful for the advancement of the world of education to realize human resources that can compete in the era of the Industrial Revolution 4.0.

## METHODOLOGY

### Research Design

The research type used was quantitative research (Sugiyono, 2014). The stages carried out in the study were: first was the preparation stage, namely observing the population and determining the research sample, creating a group with students who are the research samples to facilitate communication, compiling a questionnaire, testing the validity of the contents of the questionnaire by six validators, testing item validity using SPSS, variable reliability test using SPSS. Second, the implementation stage was distributing online questionnaires using google forms to the research sample. Third, the evaluation stage was carrying out data analysis using two methods, namely descriptive statistical analysis and inferential statistical analysis.

### Sample and Data Collection

The population in this study were 600 students of the Faculty of Education, Ganesha University of Education semester 5 and 7 who had participated in the *Merdeka Belajar* program. The random sampling technique used the Slovin formula with an error tolerance limit of 5% with a population of 600 students. A sample of 240 students of the Faculty of Education, Ganesha University of Education, had participated in the *Merdeka Belajar* program. The total students of each program were 50 students who joined the teaching assistant program, 50 students who joined the independent student exchange program, 30 people who joined the entrepreneurial activities, 30 students who joined the internship program, 25 students who joined the thematic community service program, 20 students joined the humanitarian projects, 20 people who joined independent projects, and 15 people joined the research programs. Therefore, the total sample in this study was 240 students of the Faculty of Education, the Ganesha University of Education, who had participated in the *Merdeka Belajar* program. The data collection method used in this study was a non-test method. The non-test method used was a questionnaire. Questionnaires were used to find out the opinions of students of the Faculty of Education, the Ganesha University of Education, who had participated in the *Merdeka Belajar* program on five variables related to research. The data collection process obtained respondents' consent that used a questionnaire to collect data. The questionnaire contained ten statements on each variable so the questionnaires answered were 50 statement items. The indicators for each variable are presented in Table 1.

**TABLE 1**  
**INDICATORS OF RESEARCH VARIABLES**

No.	Variable	Indicators	References
1	<i>Learner Autonomy</i>	(a) Independence from others (b) Have confidence (c) Behave discipline (d) Have a sense of responsibility (e) Behave on one's initiative (f) Exercise self-control (g) Timely completion of academic tasks (h) Effective learning and efficiency in doing academic tasks and study skills	(Wahana & Fisika, 2013)
2	<i>Institutional Support System</i>	(a) Accuracy and clarity of information obtained (b) The existence of scientific and technological support (c) Compatibility of the planned program with the implemented one (d) There is administrative support in managing the required data (e) There is funding	(Falola et al., 2020)

No.	Variable	Indicators	References
3	<i>Agile Learner</i>	(a) Know yourself well (b) Learn from the experience (c) Cooperating with others (d) Able to inspire others (e) Build the trust of others (f) Always curious (g) Have ideas to improve skills (h) Explaining things from a new perspective (i) Comfortable with ambiguity and complexity (j) Explaining thoughts to others	(Jatmika & Puspitasari, 2019)
4	Independence	(a) Ability to carry out own activities (b) Have an effort to realize wishes, hopes, and achievements (c) Able to think creatively, and originally and think of new things (d) Able to solve problems on their own and not easily influenced by others (e) The existence of self-confidence	(Fitriani & Rohita, 2019)
5	Work Readiness	(a) Have a strong motivation at work (b) Uphold honesty (c) Have logical considerations (d) Have responsibility (e) Can control ourselves (f) Able to cooperate with other people (g) Have a critical attitude, and (h) Have the ability in knowledge	(Ningsih, 2020)

The instrument was tested for validity and reliability—the validity test results by using CVR (Lawshe, 1975). Based on the critical value of CVR (one-tailed = 0.05) and the critical value of the six validators in the CVR table was 0.672, the CVR value was  $1.00 > 0.672$  therefore, all statements in the questionnaire were declared valid. Content validity also used the CVI formula (Lawshe, 1975). Based on the critical value of CVR (one-tailed = 0.05) and the critical value of the six validators in the CVR table was 0.672, the CVR value was  $1.00 > 0.672$  therefore all statements in the questionnaire were declared valid. Content validity also used the CVI formula. The method of analysis was carried out by two methods, namely descriptive and inferential methods. Descriptive research was used to find the average, highest, and lowest values for each variable. Inferential statistical analysis was performed with the help of the IBM SPSS Statistics 26 application to perform classical assumption tests and hypothesis testing. The classical assumption test as a prerequisite test was the normality test with the condition that the significance value was more significant than 0.05, the linearity test with the condition that the significance value was more effective than 0.05, the multicollinearity test with the need that the tolerance value was more significant than 0.10. The VIF value was less than 10.0, and the heteroscedasticity test with a significance value greater than 0.05. Hypothesis testing using path analysis test using path coefficients model I, model II, and model III to find significant direct and indirect effects on learner autonomy and institutional support system on agile learners, independence, and student work readiness.

### Data Analysis

The data analysis technique used was SEM AMOS, a statistical tool used to solve multilevel models simultaneously that could not be solved by linear regression equations. SEM was a statistical modeling technique that was very common and was currently increasingly popular and widely used in various fields of science. In contrast to statistical methods such as parametric, non-parametric, and multivariate, SEM

involved many very complex mathematical calculations. Currently, there were several statistical application programs used to complete SEM and one of them was the Moment of Structural Analysis (AMOS). In complex conditions, path analysis could be used to analyze the pattern of relationships between variables to know the direct or indirect effect of a set of independent variables (exogenous) on the dependent variable (endogenous). In path analysis, if the variables that occur were latent, the more appropriate data analysis was structural equation modeling (Structural Equation Modeling) or SEM. SEM was a multivariate analysis technique that was a combination of factor analysis and path analysis. Factor analysis was used to test the validity and reliability of an instrument (measurement scale), while path analysis was used to test the relationship between variables.

## FINDINGS / RESULTS

### Findings

#### *Confirmatory Analysis of Exogenous Variables*

The confirmatory analysis of exogenous variables (Learner Autonomy and Institutional Support System) results were initially built with 13 indicators. After being eliminated, there were 8 indicators that had a high level of validity where Learner Autonomy had 5 (five) indicators and the institutional support system had 3 (three) indicators which could be seen in Figure 1 regarding the output of the analysis using the AMOS 23 program.

**FIGURE 1**  
**RESULTS OF EXOGENOUS VARIABLES CONFIRMATORY ANALYSIS**

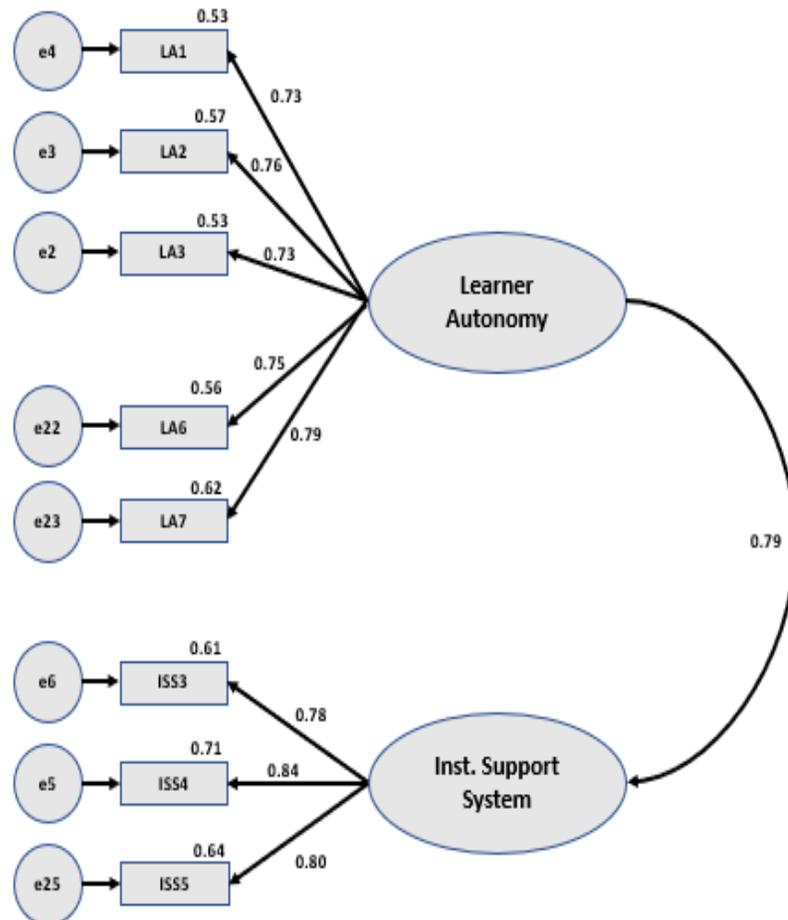


Figure 1 shows the relationship between each indicator forming the Learner Autonomy variable, where these variables can be explained by indicators LA1 of 0.73, LA2 of 0.75, LA3 of 0.73, LA6 of 0.75, and LA7 of 0.79. It was revealed that the loading factor level of 0.79 indicates the dominant role of the indicators which made up the learner autonomy variable (LA7). Figure 1 also shows the relationship between each indicator forming the Institutional Support System variable, where these variables can be explained by indicators ISS3 of 0.78, ISS4 of 0.84, and ISS5 of 0.80. It was also revealed that the loading factor level of 0.84 indicates the indicators' dominant role compared to other indicators which made up the institutional support system (ISS4) variable. The exogenous variables construct validity of each indicator can be seen in Table 2.

**TABLE 2**  
**RESULTS OF EXOGENOUS VARIABLES CONSTRUCT VALIDITY TEST**

	Variable		Estimate
LA3	<---	X1	0.730
LA2	<---	X1	0.753
LA1	<---	X1	0.730
ISS4	<---	X2	0.843
ISS3	<---	X2	0.783
LA6	<---	X1	0.745
LA7	<---	X1	0.785
ISS5	<---	X2	0.800

The loading factor presented in Table 2 can be used to measure construct validity where a questionnaire was valid if the questions on the questionnaire were able to reveal something measured by the questionnaire. The minimum loading factor is 0.5 or ideally 0.7. Therefore, it can be concluded that all questions used to measure the Learner Autonomy (X1) and Institutional Support System (X2) variables were declared valid. The goodness results of the fit test of the exogenous variables confirmatory analysis in this study can be seen in Table 3.

**TABLE 3**  
**RESULTS OF EXOGENOUS VARIABLES CONSTRUCT VALIDITY TEST**

Goodness of Index	Cut-off Value	Model Results	Description
<i>Chi-Square</i>	Expected small	0.730	Good
<i>Probability</i>	$\geq 0,05$	0.753	Good
RMSEA	$\leq 0,08$	0.730	Good
GFI	$\geq 0,90$	0.843	Good
CMIN/DF	$\leq 2$	0.783	Good
TLI	$\geq 0,95$	0.745	Good
<i>Chi-Square</i>	$\geq 0,95$	0.800	Good

Table 3 shows that the chi-square results were 31.783 with a probability of  $0.033 \leq 0.05$ , the RMSEA value is  $0.052 \leq 0.08$ , the GFI value is  $0.968 \geq 0.90$ , the AGFI value is  $0.959 \geq 0.90$ , the CMIN/DF value is  $1.673 \leq 2$ , the TLI value is  $0.981 \geq 0.95$ , and the CFI value is  $0.987 \geq 0.95$  which indicated that the overall model suitability test can be well received. In conclusion, these indicators are the same dimensions of reference for constructs called learner autonomy and the institutional support system was acceptable. This

also proved that the 8 indicators are actually able to shape the learner autonomy and institutional support system variables.

Exogenous variables confirmatory analysis was used to determine whether there was one-dimensionality in the indicators that made up the latent variable. The exogenous constructs' confirmatory results are presented in Table 4. The analysis results show that each indicator or dimension forming each latent variable shows good results, namely the CR value is above 1.96 with P less than 0.05. In other words, the indicators forming the latent variable have shown one-dimensionality. Then based on this confirmatory factor analysis, the research model can be used for further analysis without modification or adjustment.

**TABLE 4**  
**EXOGENOUS VARIABLES ANALYSIS OF CONFIRMATORY FACTORS**

			<b>Estimate</b>	<b>S.E.</b>	<b>C.R.</b>	<b>P</b>
LA3	<---	X1	0.91	0.08	10.95	***
LA2	<---	X1	0.94	0.08	11.29	***
LA1	<---	X1	1.00			
ISS4	<---	X2	1.00			
ISS3	<---	X2	0.97	0.07	13.45	***
LA6	<---	X1	0.97	0.09	11.17	***
LA7	<---	X1	0.99	0.09	11.76	***
ISS5	<---	X2	0.91	0.07	13.77	***

*Endogenous Variables of Confirmatory Analysis*

The results of the confirmatory analysis of endogenous variables (Independence, Agile Learner, and Work Readiness) were initially constructed with a total of 23 indicators. After eliminating indicators that have a loading factor below 0.6 to 15 indicators that have a high level of validity where Independence had 4 (four) indicators, Agile Learner had 5 (five) indicators and work readiness had 6 (six) indicators which can be seen in Figure 2 shows the output of the analysis using the AMOS 23 program.

**FIGURE 2**  
**RESULTS OF ENDOGENOUS VARIABLES CONFIRMATORY ANALYSIS**

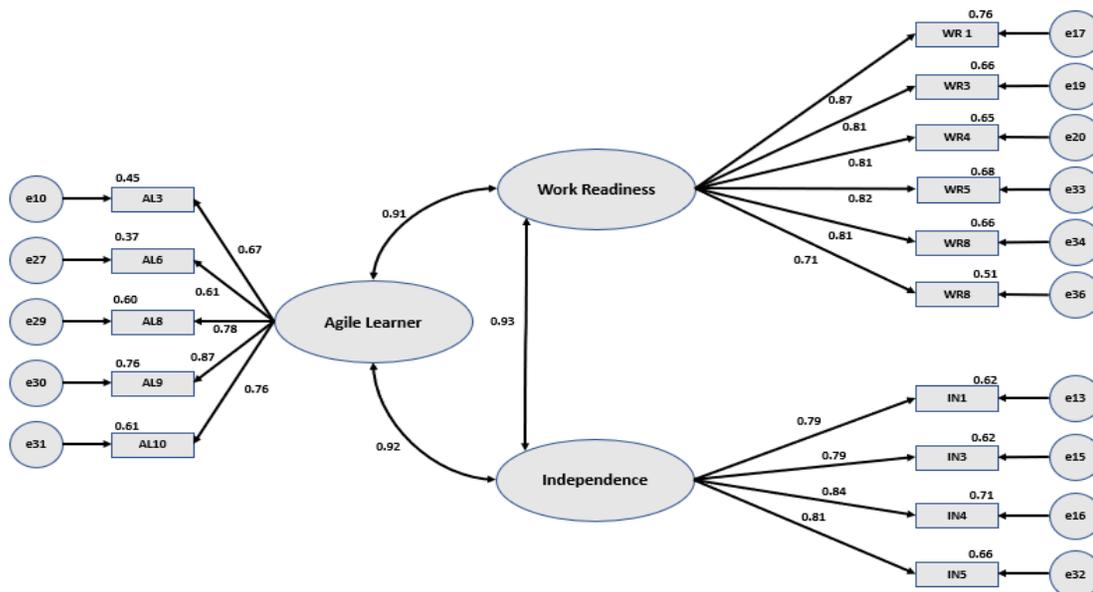


Figure 2 shows the relationship between each indicator forming the independence variable, where these variables can be explained by indicators WR1 of 0.79, WR3 of 0.79, WR4 of 0.84, and WR5 of 0.81. Among these indicators, it was found that WR4 has the highest loading factor value of 0.84. This showed that these indicators had a more dominant role than other indicators that made up the independence variable.

Figure 2 also shows the relationship between each indicator forming the Agile learner variable, where these variables can be explained by indicators AL3 of 0.67, AL6 of 0.61, AL8 of 0.78, AL9 of 0.87, and AL10 of 0.78. Among these indicators, it was found that AL9 had the highest loading factor value of 0.87. This shows that these indicators had a more dominant role than other indicators that made up the Agile Learner variable.

In addition, Figure 2 shows the relationship between each indicator forming the work readiness variable, where this variable can be explained by the indicators for IN1 of 0.87, IN3 of 0.81, IN4 of 0.81, IN5 of 0.82, and IN6 of 0.81, and IN8 of 0.71. Among these indicators, it was found that IN1 had the highest loading factor value of 0.87. This showed that these indicators had a more dominant role than other indicators that made up the work readiness variable. The endogenous variables construct validity of each indicator can be seen in Table 5.

**TABLE 5**  
**VALIDITY TEST RESULTS OF ENDOGENOUS VARIABLES CONSTRUCT**

	Variable		Estimate
AL3	<---	Y2	0.670
IN1	<---	Y1	0.786
IN3	<---	Y1	0.786
IN4	<---	Y1	0.843
WR1	<---	Y3	0.869
WR3	<---	Y3	0.815
WR4	<---	Y3	0.807
AL6	<---	Y2	0.612
AL8	<---	Y2	0.777
AL9	<---	Y2	0.873
AL10	<---	Y2	0.780
IN5	<---	Y1	0.812
WR5	<---	Y3	0.825
WR6	<---	Y3	0.812
WR8	<---	Y3	0.714

Based on Table 5, it can be concluded that all the questions used in measuring independence variables, agile learner, and work readiness were declared valid. The results of the fit test goodness of exogenous variables confirmatory analysis can be seen in Table 6.

**TABLE 6**  
**RESULTS OF EXOGENOUS VARIABLES CONSTRUCT VALIDITY TEST**

Goodness of Index	Cut-off Value	Model Results	Description
<i>Chi-Square</i>	Expected small	171.667	Not Eligible
<i>Probability</i>	$\geq 0.05$	0.000	Not Eligible
RMSEA	$\leq 0.08$	0.063	Good
GFI	$\geq 0.90$	0.916	Good
CMIN/DF	$\leq 2$	1.996	Good
TLI	$\geq 0.95$	0.963	Good
<i>Chi-Square</i>	$\geq 0.95$	0.970	Good

Table 6 shows that the statistical measure test does not meet the requirements, but when viewed from the non-statistical measure test, all of them meet the requirements. Thus, the model suitability test is generally well accepted. In conclusion, these indicators are the same reference dimensions for constructs called independence, agile learning, and work readiness that are acceptable. This also proves that all indicators significantly shape the independent application variables, agile learning, and work readiness.

The endogenous variables confirmatory analysis was used to determine whether there was one-dimensionality in the indicators that made up the latent variable. The endogenous constructs' confirmatory results are presented in Table 7. The analysis results showed that each indicator or dimension forming each latent variable shows good results, namely the CR value is above 1.96 with P less than 0.05. In other words, the indicators forming the latent variable have shown one-dimensionality. Based on this confirmatory factor analysis, the research model can be used for further analysis without modification or adjustment.

**TABLE 7**  
**ANALYSIS OF ENDOGENOUS VARIABLES CONFIRMATORY FACTORS**

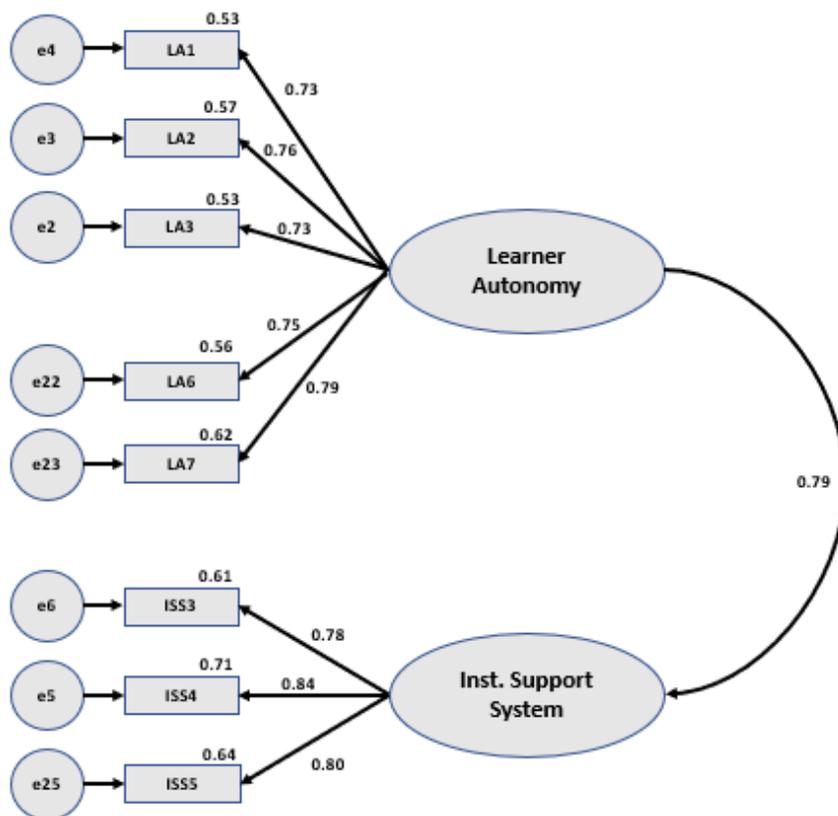
	Variable		Estimate	S.E.	C.R.	P
AL3	<---	Y2	1.00			
IN1	<---	Y1	1.00			
IN3	<---	Y1	1.01	0.08	13.56	***
IN4	<---	Y1	0.99	0.07	14.83	***
WR1	<---	Y3	1.00			
WR3	<---	Y3	0.97	0.06	16.59	***
WR4	<---	Y3	0.96	0.06	16.31	***
AL6	<---	Y2	0.92	0.10	8.89	***
AL8	<---	Y2	1.14	0.10	10.99	***
AL9	<---	Y2	1.15	0.10	12.11	***
AL10	<---	Y2	1.08	0.10	11.03	***
IN5	<---	Y1	0.91	0.06	14.13	***
WR5	<---	Y3	1.02	0.06	16.98	***
WR6	<---	Y3	0.98	0.06	16.52	***
WR8	<---	Y3	0.89	0.07	13.42	***

*Analysis of Full Model CFA Confirmatory*

The exogenous and endogenous variables confirmatory analysis results (Learner Autonomy, Institutional Support System, Independence, Agile Learner, and Work Readiness) had 23 indicators after eliminating invalid indicators, where Learner Autonomy had 5 (five) indicators, Institutional Support System had 3 (three) indicators, Independence had 4 (four) indicators, Agile Learner had 5 (five) indicators and work readiness had 6 (six) indicators which can be seen in Figure 3 regarding the analysis output using the AMOS 23 program.

Figure 3 shows the correlation between exogenous and endogenous variables where the relationship between each indicator forming exogenous variables (Learner Autonomy and Institutional Support System) and endogenous variables (Independence, Agile learner, and work readiness) are combined in one model. The confirmatory test results were not significantly different from the partial test, where all indicators had a loading factor that is above the cut-off value of 0.6. And the fit test goodness also showed good results based on the non-statistical test, where the GFI (0.872), CFI (0.949) and TLI (0.941) values were at a fairly good level with an RMSEA value of 0.63 or within the range 0.03 – 0.08. Thus, the model suitability test was generally well accepted. In conclusion, these indicators were the same reference dimensions for exogenous constructs (Learner Autonomy and Institutional Support System) and endogenous constructs (Independence, Agile learner, and work readiness).

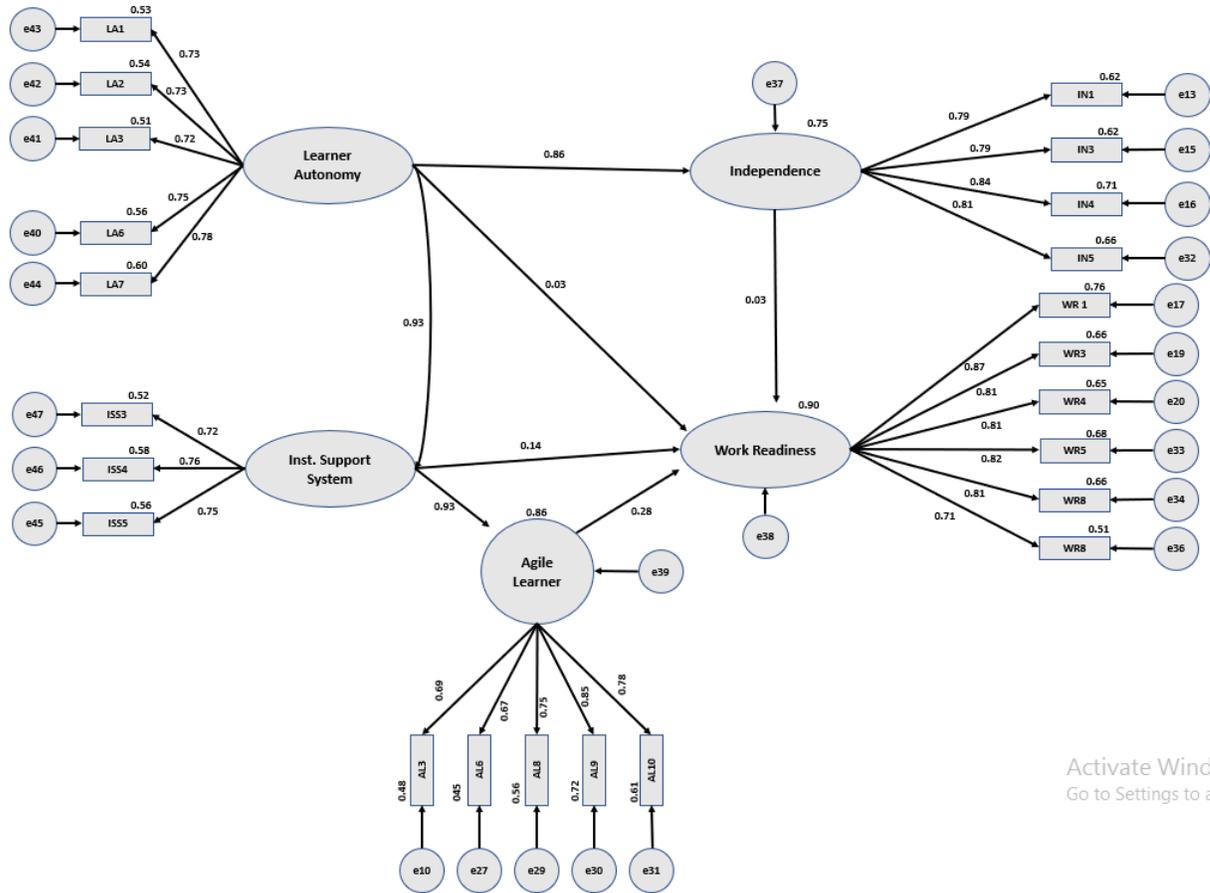
**FIGURE 3  
RESULTS OF EXOGENOUS AND ENDOGENOUS VARIABLES  
CONFIRMATORY ANALYSIS**



*Analysis of Structural Equation Modeling (SEM)*

This analysis was used to determine the structural relationship between the variables studied. The structural relationship that occurred between variables can be tested for conformity with the fit index goodness. The SEM analysis results in this study can be seen in Figure 4.

**FIGURE 4  
RESULTS OF SEM ANALYSIS**



The goodness of Fit value of the full SEM model can be seen in Table 8. The results of the chi-square analysis were 556.61 with a probability of  $0,000 \leq 0,05$ , the RMSEA value was  $0.078 \leq 0.08$ , the GFI value was 0.831 in the good category, the CMIN/DF value is  $2,2507 \geq 2$ , the TLI value was 0.91 in the good category, and the CFI value was 0.92 0.95 which indicated that the model fit test included in the category that was quite good and acceptable. Therefore, it can be concluded that these indicators were the same reference dimensions for the constructs studied.

**TABLE 8**  
**RESULTS OF FIT SEM GOODNESS**

Goodness of Index	Cut-off Value	Model Results	Description
<i>Chi-Square</i>	Expected small	556.61	Marginal
<i>Probability</i>	$\geq 0,05$	0.00	Good
RMSEA	$\leq 0,08$	0.08	Good
GFI	$\geq 0,90$	0.83	Good
CMIN/DF	$\leq 2$	2.51	Good
TLI	$\geq 0,95$	0.91	Good
CFI	$\geq 0,95$	0.92	Good

*Hypothesis Testing*

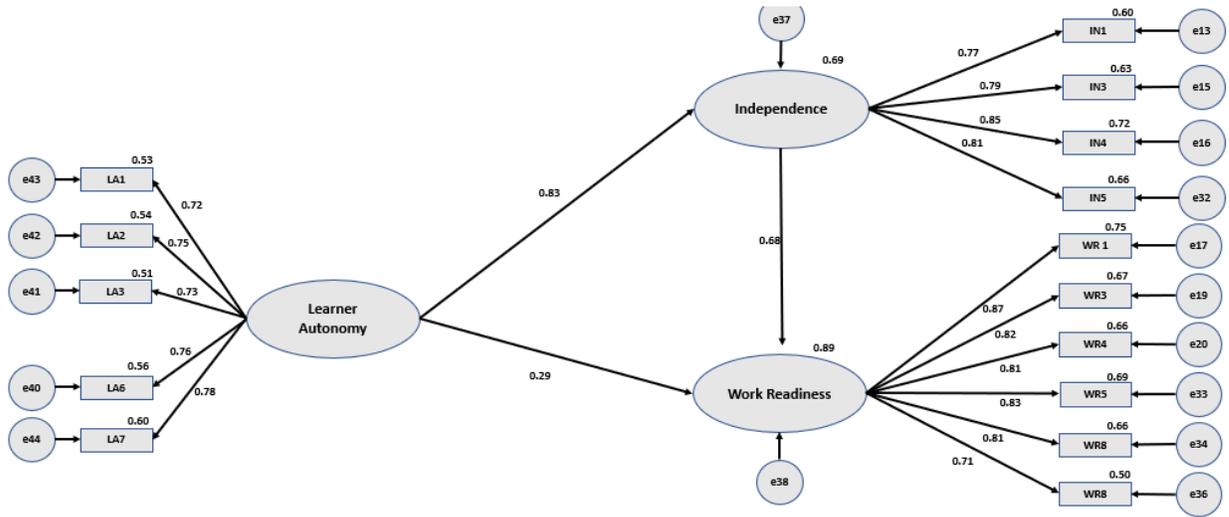
Hypothesis testing was carried out to find out whether or not the independent variable had an effect on the dependent variable. Previously, it can be seen the influence between exogenous variables on endogenous variables from Table 9.

**TABLE 9**  
**HYPOTHESIS TESTING**

	Variable		Estimate	S.E.	C.R.	P
Independence	<---	Learner Autonomy	0.94	0.09	11.05	***
Agile Learner	<---	Ins. Support system	0.90	0.09	10.32	***
Work Readiness	<---	Independence	0.54	0.09	5.82	***
Work Readiness	<---	Agile Learner	0.31	0.18	1.74	0.08
Work Readiness	<---	Learner Autonomy	0.04	0.21	0.17	0.87
Work Readiness	<---	Ins. Support system	0.15	0.29	0.52	0.60

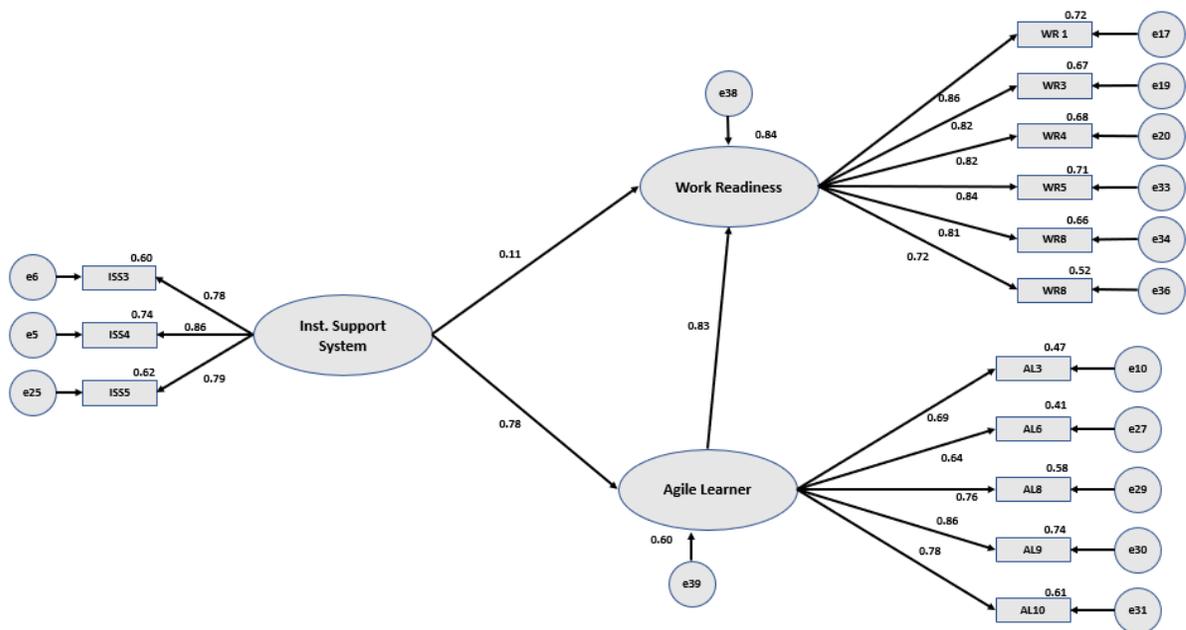
This study also tested the mediation hypothesis to test whether independent and agile learners could mediate the relationship between Learner Autonomy, Institutional Support System, and Work Readiness. The mediation test in this study used the bootstrap method of two-tailed significant confidence taken from the standardized indirect effects. The results of the mediation test are shown in Figure 5 and Figure 6. The results of the analysis showed that the independent variable can mediate the relationship between independent learners and readiness to work with a significance value of 0.00 or below 0.05. This means that the better students carry out independent learning activities, the more independent they will be in the learning process and the end can increase the student's work readiness.

**FIGURE 5**  
**THE INDEPENDENCE VARIABLE MEDIATION TEST**



The mediation test on the agile learner variable shows that the agile learner variable could mediate the relationship between independent learners and readiness to work with a significance value of 0.00 or below 0.05. This means that the better students carry out independent learning activities, the students would be nimble to carry out the learning process and can increase the students' work readiness.

**FIGURE 6**  
**THE AGILE LEARNER VARIABLE MEDIATION TEST**



**Discussion**

The results of this study obtained several findings, namely: first, learner autonomy had a positive and significant effect on independence. These results indicate that with the ability of Learner Autonomy, students will be better able to take responsibility for the tasks given. A high learner autonomy ability will

make students able to take over learning. Learner autonomy, generally, is a belief in the ability to achieve learning goals that involve students independently (Henri et al., 2018; Nguyen & Habók, 2021), to make decisions, choose the methods and techniques used, monitor acquisition procedures, and evaluate what has been obtained (Tseng et al., 2020). In other words, learner autonomy is the ability of students to take charge of learning independently and freely in determining what they want to do in the learning process both in the process of making a decision, choosing the methods and techniques used, monitoring the acquisition procedure, and evaluating what has been done. The existence of learner autonomy makes students experience the learning process more focused and personally so that the desired learning outcomes are achieved (Nurvrita, 2020). Currently, to improve learner autonomy, the program that can be carried out by students is the MBKM Program. With the MBKM program, study programs at every university in Indonesia need to make curriculum adjustments related to determining the courses that can be taken, student quotas, and setting the number of credits that can be taken (Kamalia & Andriansyah, 2021). Through the MBKM program, students are given the opportunity for one semester which is equivalent to 20 (twenty) credits of studying outside the study program at the same university, and a maximum of 2 (two) semesters which is equivalent to 40 (forty) credits in studying in the program. the same study at different universities, study in different study programs at different universities, and/or study outside the university (Tohir, 2020).

The purpose of the MBKM program is to prepare students to have the hard and soft skills needed in the world of work because the concept of the MBKM program is more industrial and tends to be practical in responding to the demands of the current era (Fachrissal, 2020 in Kamalia & Andriansyah, (2021)). In addition, the purpose of the Independent Learning-Independent Campus (MBKM) is to provide opportunities for students to choose a study program that is taken according to their passion so that they become graduates who are ready to work and able to compete (Rafdi & Yulianti, 2021; Sopiansyah & Masruroh, 2021b). With the MBKM program, of course, students' learner autonomy abilities will be better developed. Students who have good learner autonomy will have a good attitude of independence. This attitude of independence arises due to the belief that students can take over the learning process on their own according to their interests and talents without coercion from others. with freedom in the learning process will certainly have an impact on the sense of dependence of students on other people. In this case, the independence that appears in the MBKM program is that students can decide which program to follow according to their interests, the initiative takes part in the MBKM program and is responsible for the decisions they make without being influenced by other parties. Independence is an individual's internal strength and is obtained through the individuation process which is obtained through the process of self-realization and perfection (Effendi et al., 2018). Having high independence tends to make students learn better in their supervision, monitoring, supervising, and managing their learning effectively, completing time in completing assignments, and managing study and time efficiently (Purnamasari & Herman, 2017). Learning independence is a very important aspect of the education world because if students do not have to learn independence, it will be difficult to learn responsibly, including in the learning process (Dedyerianto, 2020; Palerangi et al., 2016). Therefore, students who can self-regulate will lead with independence emergence from within students, and this is also supported by research which states that student independence can increase students' activities, results, and learning independence (Suardana, 2012). Thus, learner autonomy has a positive and significant effect on independence.

Second, the Institutional Support System has a positive and significant effect on Agile Learners. An institutional Support System is a factor related to the success of a program that is being carried out. In this case, the Institutional Support System will greatly influence the implementation of the MBKM Program. An institutional Support System is active support from agencies in the form of policies, regulations, and monetary and non-monetary assistance to encourage students to carry out their responsibilities effectively and productively (Falola et al., 2020). Institutional Support System (ISS) is a set of physical and soft facilities or processes provided by an institution to support successful learning that involves all components within the institution (Bandeira & Cardoso, 2020). Active support from the institution will foster student enthusiasm and motivation to develop into agile learners and have challenging learning. In the MBKM program, institutional support will provide convenience and increase the self-efficacy of the academic community (Makhaya & Ogange, 2019). Therefore, in the implementation of MBKM, the Institutional

Support System (ISS) is interpreted as support from the institution in providing an independent campus management system that is relevant to the actual conditions of students and campuses, which reflects the realization of independent learning for students participating in existing studies. program. Institutional support has a positive effect on product or process innovation that improves the quality of the performance of all components, including students (Zhang et al., 2017). In addition, the faster students adjust to real situations through MBKM, the more productive their performance will be (Cakula et al., 2015).

Based on the descriptions, it can be seen that the Institutional Support System is very important in achieving the goals of a program. The existence of the Institutional Support System will provide opportunities for students to learn and carry out activities more effectively and efficiently or with the Institutional Support System students will have good agile learner abilities as well. Agile learning is the ability to learn from experience and then apply the knowledge gained from previous experiences to gain success in new situations (Dai and Hallenbeck, 2010). Agility is related to dealing with difficulties by having flexibility, and agility to see existing solutions (Jatmika & Puspitasari, 2019). People who have high agility will use the experience gained in new situations and tend to seek challenges and be active in self-reflection (Batcheller, 2016; De Meuse et al., 2010) and someone who has an agile learner will be able to lead other people well (Leaders et al., 2012). Agile learner development in the education process is largely determined by the existence of activities or activities that involve students with problems they face in their daily lives through problem-solving activities (Longmuß & Höhne, 2017). Therefore, agile learners will develop well with programs that familiarize students with real activities in everyday life. In this case, the independent learning programs will provide these experiences. MBKM programs such as, 1) Community Service; (2) Humanitarian Projects; (3) Educational Support in Education Units; (4) Survey; (5) Internship/Practice Experience; (6) Entrepreneurship; (7) Student Exchange; (8) Independent Research/Projects; must lead, provide opportunities for students to develop independently in the learning process and in gathering experiences that can later be used in the world of work. However, these programs will be useless if they are not supported by the Institutional Support System. Therefore, there is a need for mature Institutional Support System support from the institution to realize the goals of MBKM.

Third, Learner Autonomy had a positive and significant effect on Work Readiness. Learner Autonomy will provide a good learning experience for students. This is considering that learner autonomy makes students experience the learning process more focused and personally so that the desired learning outcomes are achieved (Nurvrita, 2020). Learner Autonomy is characterized by directing thoughts, feelings, and actions to achieve learning goals (Fauzi & Mustadi, 2019). Increased learner autonomy will increase the cognitive flexibility of students (Orakc, 2021), and focus more on the development of 21<sup>st</sup>-century abilities of students (Tseng et al., 2020). The higher the learning independence of the individual, the higher the individual's work readiness. Conversely, the lower the learning independence possessed, the lower the individual's work readiness (Annisa, 2021). Job readiness is a positive predictor of graduate outcomes including knowledge, skills, and attitudes in the world of work (Rogers et al., 2021). Work readiness is an individual's knowledge and skills to work independently according to the demands of the world of work (Prikshat et al., 2019). Student skills are a significant predictive factor for their employability (Abuhussain et al., 2021; Dudley et al., 2020), and job readiness can also be said to be an ability possessed by students which is a characteristic used to prepare students to be able to succeed in the workplace. work (Lee et al., 2021; Walker et al., 2015). Student work readiness is formed from how students are in the learning process. In this case, the student's Learner Autonomy will be formed. Especially in the MBKM program, students will be able to develop Learner Autonomy well. because the MBKM program gives students the option to join programs according to what they want. This of course will influence the development of experience and abilities such as knowledge, attitudes, and skills that can later be used by students in dealing with the world of work. Therefore, the MBKM program will develop Learner Autonomy skills that have an impact on student work readiness.

The four institutional support systems have a positive and significant effect on work readiness, as previously described job readiness is a positive prediction of graduate outcomes including knowledge, skills, and attitudes in the world of work (Rogers et al., 2021). Work readiness is an individual's knowledge and skills to work independently according to the demands of the world of work (Prikshat et al., 2019).

Student skills are a significant predictive factor for their employability (Abuhussain et al., 2021; Dudley et al., 2020), and job readiness can also be said to be an ability possessed by students which is a characteristic used to prepare students to be able to succeed in the workplace (Lee et al., 2021; Walker et al., 2015). Work readiness will not only be obtained for granted but many factors influence it, one of which is the institutional support system. An institutional Support System is active support from agencies in the form of policies, regulations, and monetary and non-monetary assistance to encourage students to carry out their responsibilities effectively and productively (Falola et al., 2020). Institutional Support System (ISS) is a set of physical and soft facilities or processes provided by an institution to support successful learning that involves all components within the institution (Bandeira & Cardoso, 2020). Active support from the institution will foster student enthusiasm and motivation to develop into agile learners and have challenging learning. In addition, the Institutional Support System support from the institution is certainly related to programs that are following the objectives to be achieved. With the Institutional Support System, the institution will have a good impact on how future graduates will be produced. Considering that the Institutional Support System was not only prepared from its own will but through a mature process and following the conditions being faced and the need for graduates. So, the existence of an Institutional Support System will greatly help students' readiness in carrying out education and how students acquire skills and knowledge that will later be used in society and the world of work.

Fifth, independence has a positive and significant effect on Work Readiness. Independent students are students who are not dependent on others and no longer follow the decisions of others. Independent students are students who already have confidence in their abilities to carry out or complete the tasks and responsibilities given. Besides that, independent students are students who can produce or complete a problem without the intervention of others, and in the learning process, students no longer wait for the help of others and do more themselves considering that learning for students is an adult learning process. In the MBKM program, students can choose programs that match their interests and help to develop their skills and knowledge which will later be used in the world of work. Independence is an individual's internal strength and is obtained through the individuation process, which is obtained through the process of self-realization and perfection (Effendi et al., 2018). Having high independence tends to make students learn better in their supervision, monitoring, supervising, and managing their learning effectively, completing time in completing assignments, and managing study and time efficiently (Purnamasari & Herman, 2017). So, the independence possessed by students will be able to have an impact on the abilities possessed by students both knowledge, skills, and attitudes. Therefore, independence is one of the most important factors that must be possessed in the educational process. With independence, students will be more flexible and not influenced by other people so it will cause motivation to enrich themselves with the knowledge that is following their interests. This condition will certainly have an impact on student work readiness. Students who have good skills, knowledge, and attitudes are certainly better prepared to enter the world of work. Because what they will do is equipped with skills that can be used and have knowledge that can be poured into completing tasks in the world of work. Students who have independence will be able to work well because they do not need to wait for other people to help in completing the work given. Students who have independence also find it easier to adjust to the work they are doing because they already have a solid basis for doing the work given.

Sixth, Agile Learner has a positive and significant effect on job readiness. Students who have high Agile Learners will make it easier for students in the learning process. Agile learning is the ability to learn from experience and then apply the knowledge gained from previous experiences to gain success in new situations (Dai and Hallenbeck, 2010). People who have high agility will use the experience gained in new situations and tend to seek challenges and be active in self-reflection (Batcheller, 2016; De Meuse et al., 2010) and someone who has an agile learner will be able to lead others well (Leaders et al., 2012). Based on these descriptions, it can be said that students who have agile learners are students who can use their experience to solve the problems they face. Students who have good agile learners will always be ready to face new challenges that are challenging to develop their inner abilities. This ability is not obtained just like that but must be used to it, with the MBKM program students will be accustomed to dealing with conditions that are following the conditions faced in the world of work. These experiences can later be used by students

when they are faced with actual conditions, even the experiences they face will help students to solve new problems. This situation will certainly greatly affect student readiness in dealing with the world of work. Students who have a lot of experience will be able to easily complete the given work and students will more easily adapt to work. This condition will certainly make students more comfortable and happier in doing the work given, this is because students will use the experience gained to complete the work given. Therefore, the agile learner will affect the convenience of students to complete the given work which has an impact on student work readiness.

Based on the research results, the novelty in this research that can be developed in science is related to the Institutional Support System, which can also affect agile learners, independence, and work readiness. These results can be used as a scientific basis to be developed again to become new research. This study also found that Learner Autonomy and Institutional Support Systems can indirectly affect independence and work readiness through Agile Learners. Based on the results of the study, the complications related to current government policies are appropriate. The policy through the MBKM program with the principle of Learner Autonomy and Institutional Support System initiated by the government to improve agile learners, independence, and student work readiness is in line with research results which state that learner autonomy and institutional support system have a significant direct effect on agile learners and have a significant effect. Indirectly to independence and work readiness. They were also related to the consistency of the indicators on the variable that learner autonomy and institutional support systems can also affect agile learners, independence, and work readiness.

## **CONCLUSION**

Learner autonomy and institutional support system directly affect agile learners and significantly indirectly affect independence and work readiness. The novelty in this research that can be developed in science is related to the Institutional Support System, which can also affect agile learners, independence, and work readiness. These results can be used as a scientific basis to be developed again to become new research. This study also found that Learner Autonomy and Institutional Support Systems can indirectly affect independence and work readiness through Agile Learners. Based on the results of the study, the complications related to current government policies are appropriate. The policy through the MBKM program with the principle of Learner Autonomy and Institutional Support System initiated by the government to improve agile learners, independence, and student work readiness is in line with research results which state that learner autonomy and institutional support system have a significant direct effect on agile learners and have a significant effect. Indirectly to independence and work readiness. They were also related to the consistency of the indicators on the variable that learner autonomy and institutional support systems can also affect agile learners, independence, and work readiness.

## **Recommendations**

The results of the study are expected to be a source of information and also a reference in carrying out similar research that is relevant and also as a motivational booster for students to take part in the *Merdeka Belajar* program, which indeed has a significant influence on agile learners, independence and work readiness needed in this 21<sup>st</sup> Century.

## **Limitations**

This study has many limitations such as from the research subjects and the variables studied. Future research is expected to involve more universities that organize *Merdeka Belajar* Program. Further research is also expected to be able to identify and measure other more specific variables.

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