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## THE INFLUENCE OF FAMILY SUPPORT, PERCEIVED DIGITAL COMPETENCE AND ATTITUDE, AND LEARNING AGILITY ON THE SPEED OF COMPLETING STUDENT STUDIES WITH THE ROLE OF ACADEMIC SELF-EFFICACY AS A MEDIATION VARIABLE

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**Abstract.** This study aims to determine whether there is a relationship between Family Support, Perceived Digital Competence and Attitude, Learning Agility, and Academic Self-Efficacy in the Speed of Completing Studies. In addition to knowing the effect of Perceived Digital Competence and Attitude and Learning Agility on Academic Self-Efficacy. This research was conducted on Undergraduate and Master program students at the Gde Pudja Mataram State Hindu Institute (IAHN). The data collection technique in this study was random sampling to obtain 100 students in the Bachelor's program and Master's program at IAHN Gde Pudja Mataram. The data analysis technique in this study uses a Structural Equation Model (SEM) approach with the help of the Smart PLS application. The results of this study indicate that: 1) family support has a significant positive effect on the speed of completing studies, 2) perceived digital competence and attitude do not affect the speed of completing studies, 3) Learning Agility does not affect the speed of completing studies, 4) family support has a significant positive effect on academic self-efficacy, 5) perceived digital competence and attitude do not affect academic self-efficacy, 6) Learning Agility does not affect academic self-efficacy, and 7) academic self-efficacy has a significant positive effect on the speed of completing studies. So it can be concluded that what can affect the speed of completing studies for Undergraduate and Master program students at IAHN Gde Pudja Mataram are internal factors, namely from oneself (academic self-efficacy), and external factors, namely support from family.

**Keywords:** *Teacher Competence, Online Learning Model, Students Learning Effectiveness*

### I. INTRODUCTION

In the implementation of education in schools, teachers play an important role. Teachers are educational staff who have the greatest opportunity to affect students, both positive and negative effect. According to Law no. 14 of 2005 concerning Teachers and Lecturers in Article 1 paragraph (1) what is meant by teachers are professional educators with the main task of educating, teaching, guiding, directing, training, assessing, and evaluating students. A teacher must have four competencies, such as personal competence, social competence, professional competence and pedagogic competence. the quality of education must be done from.

Higher education is one of the levels of formal education in Indonesia. In contrast to the basic education level to the secondary education level, the higher education level demands students' independence in completing their study load within a certain time (Feldman & Newcomb, 2020). The more diligent students are in completing their study load, the shorter the study period will be. In general, every

program at the higher education level has a scheduled study period, which is the ideal time limit for at least completing a study program. For example, the scheduled study period for a bachelor's degree program is four years, namely eight semesters, and a master's program for two years or four semesters. However, students have a longer time if they cannot complete their education program on time. According to the Indonesian Minister of Research, Technology and Higher Education Regulation No. 44 of 2015 concerning the National Standards for Higher Education, it can be seen that the maximum study period for the Undergraduate program (S1) is 7 years or 14 semesters. While for the master program (S2) can be taken with a maximum study period of 4 years or 8 semesters (Peraturan Kementerian Riset, Teknologi, Dan Pendidikan Tinggi Republik Indonesia Nomor 44 Tahun 2015 Tentang Standar Nasional Pendidikan Tinggi, Jakarta: 2015).

Completing the study period on time is the hope of every university and the hope of every student (Lizsara, Oyama, & Wardani, 2020). Completing a study period in a short time,

apart from being an indicator of students' success, can also be useful in student life (Millea, Wills, Elder, & Molina, 2018). Besides reducing the number of study costs that must be spent, graduating within the allotted time can also make students enter the world of work earlier. Not only that, students will also be free from the burden of prolonged studies.

To be able to complete the study period, several factors influence students. These factors can be internal, namely those that come from within the student, or external factors outside the student (Altun & Cakan, 2006). Several internal factors that influence the completion of the study period are physical factors related to physical health conditions. These psychological factors include intelligence, interests, talents, motivation, readiness, maturity, fatigue, and abilities (Slameto, 2010). External factors include various issues that come from outside, including family support, economic conditions, learning methods, relationships with friends and lecturers, demands from universities or educational funding institutions, organizational activities, and so on (Sverdlik, Hall, McAlpine, & Hubbard, 2018).

In today's technologically advanced era, the ability to use technology can also determine one's success. This study will discuss internal factors in the form of perceived digital competency and attitude, including knowledge, competence, skills, and attitudes related to digital technology. Kwon (2021), in his book, reveals that digital competence affects academic achievement. Therefore, researchers feel the need to relate this variable to students' speed in completing their study period. In addition to internal factors in the form of perceived digital competency and attitude, other internal factors that affect students' speed in completing their studies on time are learning agility, namely the willingness and ability to learn something (Kim, Hong, & Song, 2018). With learning agility, a person will be faster to adapt to the various changes they experience (Tripathi, Srivastava, & Sankaran, 2020). Furthermore, Tripathi et al., also explained that this would also affect the information management process and problem-solving ability.

Meanwhile, in terms of external factors, this study uses family support factors to be associated with the completion of student studies. Sengul, Zhang, & Leroux (2019) found that support from family and teachers can affect student achievement and success. In line with this, Rezaei-Dehaghani, Keshvari, & Paki (2018) found that family also plays a role in a person's academic achievement and success. Hence, researchers want to conduct further research related to family support factors for academic achievement in the timely completion of studies. In contrast to several previous studies, this study uses academic self-efficacy as a mediating variable in measuring the effect of perceived digital competency and attitude, learning agility, and family support on the speed of completing a student's study period. Academic self-efficacy is a belief that they can successfully reach a specified level in a particular academic subject area.

This study was conducted to determine the factors that influence the length of the student's study period. This is necessary because not a few students tend to take their

studies for a longer time. It will be able to affect perceptions of the quality of education in a university and competition in the world of work. With this research, students are expected to know what factors need to be addressed to complete their studies on time.

## II. RESEARCH METHOD

### A. Study Design

Quantitative techniques are used in this study. The purpose of quantitative studies is to test known hypotheses. This method uses the numbers generated from measurements made with a questionnaire on the study variables. The subjects in this study were 100 undergraduate and master's degree students at IAHN Gde Pudja Mataram. The analysis of this study is a structural approach to the Equation Model (SEM) with the help of smart PLS (Ghozali, 2018).

### B. Outer Model Analysis

#### Validity and Reliability Test

Validity and reliability tests are carried out to ensure that the measurements used are accurate and reliable (valid and reliable). Testing the validity and reliability can be seen at:

First, Convergent Validity is a metric assessed in the correlation between item/component scores and construct scores, as seen in the standard loading factor, which describes the correlation between each measured item and its construct if correlated. Individual reflex measurements are said to be high if  $> 0.7$ .

Second, discriminant validity is a measurement model with a reflection index assessed based on the size and cross-loading construct. Discriminant validity, which is comparing the extracted root mean square of variance (AVE), a tool is declared valid if the AVE value is  $> 0.5$ .

Third, Composite reliability is a measure of a structure that can be seen in terms of the coefficient of the latent variable. In this measurement, if a value  $> 0.70$  is reached, the construction can be said to have high reliability.

Fourth, Cronbach's Alpha is a reliability test designed to strengthen composite reliability results. A variable can be declared reliable if the value of Cronbach's alpha  $> 0.7$ .

TABLE I  
 INSTRUMENT TESTING

Instrumen	yang digunakan
Validity Test	Convergent validity AVE
Realibility Test	Croanbach Alpha Composite Realibility

### C. R Square Test

The dependent construct R-square is used to analyze the effect of the specific independent variable on the dependent latent variable, which shows the magnitude of the effect.

**D. Inner Model Analysis**

Deep Model Analysis, also known as Structural Modeling, is a technique for predicting causal relationships between model variables. Hypotheses were tested during deep model analysis in Smart PLS testing. The value of t-statistics and probability values can be shown in evaluating the hypothesis. The results of the t-statistics are used to test the hypothesis by using the statistical value is 1.96 for alpha 5 percent. In contrast, the beta score is used to determine the direction of the influence of the relationship between variables. The criteria for acceptance/rejection of the hypothesis are:  
 Ha= t-statistic > 1.96 with p-values < 0.05.  
 H0 = t-statistic <1.96 with a score of p-values>0.05.

indicators in this study are valid, so that in this study all indicators used.

**Reliability Test**

This study uses two reliability tests, namely the Cronbach Alpha test and the Composite Reliability test. Cronbach Alpha measures the lowest value (lower-bound) reliability. The data is declared reliable if the data has a Cronbach alpha value > 0.7. Composite reliability measures the actual reliability value of a variable. The data is declared to have high reliability if it has a composite reliability score >0.7

**III. RESULT AND DISCUSSION**

**A. Outer Model Analysis**

**Validity test**

Validity test is used to measure the validity or validity. In this research, validity testing is carried out using convergent validity AVE. The validity uses convergent validity, in which the measurement model with indicator reflections is assessed based on the correlation between the item scores/component scores calculated by PLS. Individual reflection size is high if it has a correlation of more than 0.7 with the measured construction. According to Chin (1998) in Ghozali (2008), the response is sufficient for research in the early stages of developing a measurement scale for a loading value of 0.5 to 0.6.

TABLE 2  
 VALIDITY TEST RESULTS

Variable		Outer Loading	AVE	Description
Family Support (X1)	X1.1	0.874	0.672	Valid
	X1.2	0.807		Valid
	X1.3	0.793		Valid
	X1.4	0.802		Valid
Perceived Digital Competence and Attitude (X2)	X2.1	0.790	0.591	Valid
	X2.2	0.733		Valid
	X2.3	0.710		Valid
	X2.4	0.717		Valid
	X2.5	0.817		Valid
	X2.6	0.837		Valid
Learning Agility (X3)	X3.1	0.815	0.641	Valid
	X3.2	0.786		Valid
	X3.3	0.826		Valid
	X3.4	0.776		Valid
Speed of Completing Studies (Y)	Y.1	0.905	0.729	Valid
	Y.2	0.885		Valid
	Y.3	0.856		Valid
	Y.4	0.764		Valid
Academic Self Efficacy (Z)	Z.1	0.792	0.710	Valid
	Z.2	0.893		Valid
	Z.3	0.840		Valid

Based on the results of testing the validity of the instrument, it is known that of the 21 indicators, all

TABLE 3  
 RELIABILITY Test Results

Variables	Cronbach's Alpha	Composite Reliability	Description
Family Support (X1)	0.840	0.891	Reliabel
Competence and Attitude (X2)	0.865	0.896	Reliabel
Learning Agility (X3)	0.820	0.877	Reliabel
Speed of Completing Studies (Y)	0.878	0.915	Reliabel
Academic Self Efficacy (Z)	0.797	0.880	Reliabel

The test results show that all instruments are declared reliable with a Cronbach Alpha score and Composite reliability > 0.7.

**Convergent Validity Test After Modification**

The following is a picture of the calculation results of the PLS SEM model after the indicator that does not meet the requirements for the factor loading value is deleted, in the image it can be seen that the factor loading value of the indicators on each variable is not below 0.6, thus the analysis continues on the Discriminant Validity test.

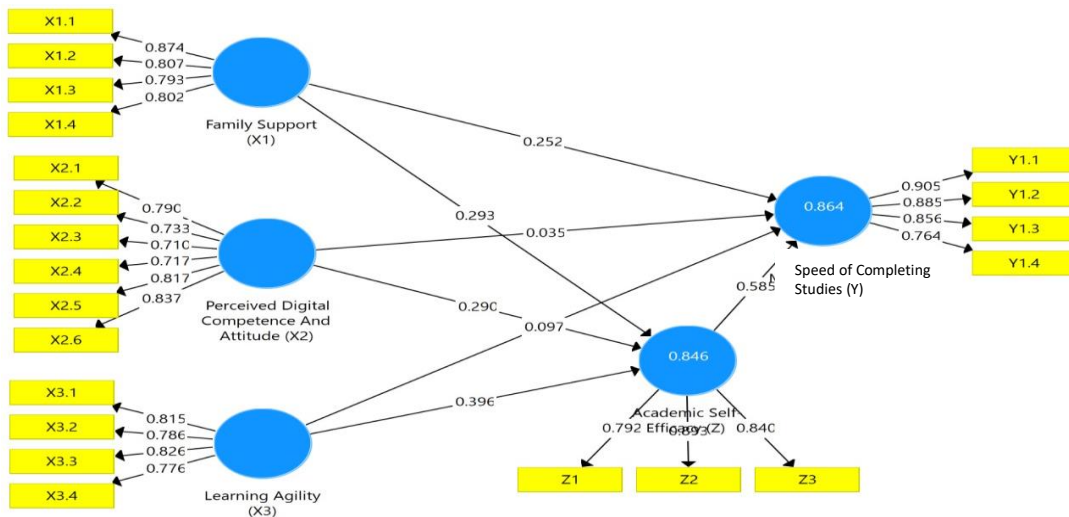


Figure 1. Convergent Validity Test after modification

### B. R-Square Test

R-Square Coefficient determination (R-Square) test is used to measure how much the endogenous variable is influenced by other variables. Based on the data analysis carried out through the use of the smartPLS program, the R-Square value is obtained as shown in the following table:

TABLE 4  
R-SQUARE TEST

Variables	R Square	R Square Adjusted
Academic Self Efficacy (Z)	0.846	0.841
Speed of Completing Studies (Y)	0.864	0.859

Based on the test results, obtain an R-Square score for Speed of Completing Studies (Y) of 0.846, which means Speed of Completing Studies is influenced by the support of Family Support, Competence and Attitude, Learning Agility, and Academic Self Efficacy of 84.6% and 15.4% others are influenced by variables that have not been explained in this study. The r-Square score for Academic Self Efficacy (Z) of 0.864 means that the support of Family Support influences the Speed of Completing Studies, Competence and Attitude, Learning Agility of 86.4% and 13.6%; others are influenced by variables that have not been explained in this study.

### C. Inner Model Analysis

Testing the hypothesis can be seen through t-statistics and probability values. To test the hypothesis using statistical values, for alpha 5% by comparing t-count with t-table. So the criteria for acceptance or rejection of the hypothesis is that H0 is rejected if t-statistics > t count. To reject/accept the hypothesis using probability, then Ha is accepted if the p-value < 0.05

TABLE 5  
INNER MODEL RESULT

Variables	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
Academic Self-Efficacy (Z) -> Speed of Completing Studies (Y)	0.585	0.574	0.124	4.707	0.000
Family Support (X1) -> Academic Self-Efficacy (Z)	0.293	0.289	0.099	2.947	0.003
Family Support (X1) -> Speed of Completing Studies (Y)	0.252	0.255	0.114	2.208	0.028
Learning Agility (X3) -> Academic Self-Efficacy (Z)	0.396	0.401	0.082	4.850	0.000
Learning Agility (X3) -> Speed of Completing Studies (Y)	0.097	0.104	0.083	1.163	0.246
Perceived Digital Competence And Attitude (X2) -> Academic Self-Efficacy (Z)	0.290	0.289	0.077	3.766	0.000
Perceived Digital Competence And Attitude (X2) -> Speed of Completing Studies (Y)	0.035	0.037	0.093	0.378	0.706

## Discussion

### *Family Support toward Speed of Completing Studies*

The test results on the hypothesis show an influence of family support on the speed of completing the study. The result of the p-value is 0.028, which is smaller than 0.05. Moreover, the t-statistic value is 2.208, greater than 1.660, and the beta score is 0.252. So the explanation above will show that family support has a significant positive effect on the speed of completing the study.

Effective learning outcomes can be due to the support from the family. This is in accordance with the statement of Hayman et al., (2017), which found that different patterns of family support when viewed from four aspects of family support, including concrete support, emotional support, advice support, and esteem support. Three out of five respondents get all aspects of family support greatly affect learning patterns, so good family support will provide. The research results conducted by several researchers also state that family support influences the speed of completing studies (Grossman & Webb, 2016; Kovacheva, 2006).

### *Perceived Digital Competence And Attitude on Speed of Completing Studies*

The results of hypothesis testing have an influence between perceived digital competence and attitude on the speed of completing the study, and it is shown that the p-value is 0.706, which is greater than 0.05. Moreover, the t-statistic value is 0.378, smaller than 1.660 and the beta score is 0.035. So, the explanation above will show that perceived digital competence and attitude do not affect the speed of completing studies.

If students have the ability in the study being studied, it will make it easier to complete the task so that the time required is not too much. The results of this study are not in line with research conducted by Guillén-Gámez et al., (2020), which states that perceived digital competence influences the speed of completing studies. However, the results of research conducted by Hasan, (2016) believe that the attitudes possessed by students do not affect learning outcomes.

### *Learning Agility on the Speed of Completing Studies*

The results of hypothesis testing influence Learning Agility on the speed of completing the study; it is shown that the p-value value is 0.246, and this value is greater than 0.05. Moreover, the t-statistic value is 1.163, smaller than 1.660 and the beta score is 0.097. So, the explanation above will show that Learning Agility does not affect the speed of completing studies.

Learning Agility possessed by students with high performance tends to be higher than students with low and medium performance. Therefore, high learning agility can predict the ability of these students to complete their tasks. The results of this study are not in line with research conducted by Carmeli et al., (2021), which states that Learning Agility influences the speed of completing studies.

### *Family Support for Academic Self-Efficacy*

The results of testing the hypothesis that there is an influence between family support and academic self-efficacy show that the p-value is 0.003, which is smaller than 0.05. Furthermore, the t-statistic value is 2,947, greater than 1.660, and the beta score is 0.293. So the explanation above will show that family support has a significant positive effect on academic self-efficacy.

### *Perceived Digital Competence and Attitude towards Academic Self-Efficacy*

The results of hypothesis testing influence perceived digital competence and attitude toward academic self-efficacy; it is shown that the p-value is 0.000, which is smaller than 0.05. Furthermore, the t-statistic value is 3.766, greater than 1.660 and the beta score is 0.290. So, the explanation above will show that perceived digital competence and attitude do not affect academic self-efficacy.

### *Learning Agility towards Academic Self-Efficacy*

The results of hypothesis testing influence Learning Agility on academic self-efficacy; it is shown that the p-value is 0.000, which is smaller than 0.05. Furthermore, the t-statistic value is 4.850, greater than 1.660, and the beta score is 0.396. So the explanation above will show that Learning Agility does not affect academic self-efficacy. The results of this study are in line with research conducted by Deepa et al., (2021), which states that Learning Agility does not affect academic self-efficacy.

### *Academic Self-Efficacy on Speed of Completing Studies*

The results of hypothesis testing influence academic self-efficacy on the speed of completing studies, it is shown that the p-value is 0.000, which is smaller than 0.05. Moreover, the t-statistic value is 4.707, greater than 1.660 and the beta score is 0.585. So the explanation above will show that academic self-efficacy has a significant positive effect on the speed of completing studies.

Self-efficacy is an individual's belief about his ability to organize and complete a task needed to achieve certain results. Measurement of Self Efficacy in this study uses task difficulty (level/magnitude), Strength, and the breadth of the task (generality). With self-efficacy possessed by students, it can provide convenience in completing tasks quickly. The results of this study are in line with the results of research conducted by Vally et al., (2019), which is supported by the results of other studies which state that academic self-efficacy influences the speed of completing studies (Yang, Zhang, Kong, Wang, & Hong, 2021; Yeşilyurt, Ulaş, & Akan, 2016).

## IV. CONCLUSION

The results of research conducted on 100 undergraduate and postgraduate students at IAHN Gde Pudja Mataram concluded that

- family support has a significant positive effect on the speed of completing studies,

- perceived digital competence and attitude do not affect the speed of completing studies,
- learning agility does not affect the speed of completing studies,
- family support has a significant positive effect on academic self-efficacy,
- perceived digital competence and attitude do not affect academic self-efficacy,
- Learning Agility does not affect academic self-efficacy, and
- academic self-efficacy has a significant positive effect on the speed of completing studies.

So, it can be concluded that what can affect the speed of completing studies for undergraduate and master's program students at IAHN Gde Pudja Mataram are internal factors, namely from oneself (academic self-efficacy), and external factors, namely support from family.

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