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Development of growth mindset in higher education in support of the World-Class University

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ABSTRACT

This study aims to develop a tool to measure the growth mindset of university lecturers, which is associated with performance and professionalism in institutions, especially at Universitas Negeri Yogyakarta (UNY) to go to a World-Class University (WCU). This research is a research and development (R&D) research with a quantitative approach measuring the quality of university growth mindset instruments. The measuring tool developed is a questionnaire using the confirmatory factor analysis (CFA) method. The results of each indicator are analyzed and integrated with structural equation modeling (SEM). The results of the growth mindset study of the academic community at UNY. The growth mindset instrument construct for the academic community is qualified to measure the ability of growth mindset from lecturers. The results show that the developed instruments show a valid and reliable construct. Advanced analysis by multiple regression method with path analysis shows that the academic level is the moderate variable with the most influence on the growth mindset path analysis model. Increasing the academic level will optimize the growth mindset of lecturers; performance will evolve.

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1. INTRODUCTION

The development of self-ability with work performance in the academic world is the basis for performance skills. Stereotyped people, often from an early age, have been obsessed with the idea that intelligence and other talents and abilities are fixed and cannot be changed. A fixed mindset believes people have a certain amount of skill and intelligence in any given area. In other words, if you are not naturally gifted at something or do not catch on to it immediately, you might as well forget it. People with stereotypes often work very hard to shine a light on the areas where they are "naturally" good and cover up the areas where they are not [1]. Universitas Negeri Yogyakarta (UNY), a pioneer of superior educational universities in Southeast Asia, is committed to achieving the quality of World-Class University (WCU). The main goal is to improve quality to expand access to education at the international level [2]. The significant development of university quality is in resources, especially for lecturers. A primary focus on improving performance quality contributes to research and publication productivity [3]. The reality shows that the publication of lecturers from Indonesia occupies the 2nd position after Singapore, so this is the focus of UNY in heading toward WCU.

The purpose of lecturers is to become educators and productive researchers. The lecturer mindset development program aims to improve the results by optimizing their performance [4]. Lecturers' busyness negatively influences teaching performance in higher education [5]. Thus, enthusiasm is needed to increase the motivation to teach lecturers. UNY policy provides alternative solutions by expanding the spirit of learning through growth mindset training. Various growth-mindset research in higher education positively impacts the development of higher education quality, especially in improving learning achievement [6], [7]. Meanwhile, applying a growth mindset in higher education can increase academic self-efficacy to increase an independent mindset [8]–[10]. The context that UNY will carry out is to make all academics open their mindsets to further improve their quality and output. Creativity is the main key to seeing how much a person has experienced a change from a fixed mindset to a growth mindset [11], [12]. Creative lecturers will also provide knowledge and creative teaching methods [13]. Growth mindsets, motivation, and creativity are intertwined and influence each other's attitudes, beliefs, and creative output in real life [14]. Thus, creativity is one of the indicators in determining the growth mindset, so it has a significant influence on the performance of educators, especially in universities.

According to a recent global report from the organization for economic cooperation and the development of a college, having a growth mindset gives one the confidence that their intelligence and abilities may be grown and improved over time, which is linked to increased academic achievement. Results from Program for International Student Assessment (PISA) 2018 show that the majority of students in Organization for Economic Cooperation and Development (OECD) countries are experiencing a growth mindset, as evidenced by their responses with scores of 1 and 2 (low) with the statement, "Your intelligence is something about you that you cannot change much." On the other hand, at least about 60% of Indonesian students believe they cannot change their intelligence. This is a fixed mindset [15]. Students from the Dominican Republic, Kosovo, Panama, and the Philippines—all of which had low ability index achievement on the 2018 PISA test—have been the subject of pertinent research [16]. The additional function of the growth mindset in students becomes an integral part of the development of one's emotions and behavior [17], [18]. Learning in higher education tends to be influenced by the role of lecturers in aspects of creativity and innovation in teaching. In an effective teaching process, lecturers must have strong confidence in learning [19], [20]. In the practice of learning in Finland, although teachers do not have a high growth mindset, learning is carried out with learning patterns and procedures centered on the mindset of students [21]–[23]. Meanwhile, a growth mindset can improve a person's reasoning ability. Likewise, confidence levels can be optimized through effective interventions [24], [25]. This means that by optimizing the growth mindset, lecturers can optimize their reasoning and academic performance [26]. This study wants to develop an instrument to measure the growth mindset of lecturer in universities, which is associated with performance and professionalism in institutions, especially at UNY. By knowing the factors that influence the growth mindset of lecturers, it will also be seen that the most dominant support for changes in performance and productivity in universities will be seen. Thus, the main purpose of this paper is to develop and implement a growth mindset as the relevance of the main vision of a WCU.

2. LITERATURE REVIEW

2.1. Definition of growth mindset

The idea that intelligence, along with other traits, skills, and aptitudes, may be enhanced through hard work, education, and commitment is known as a growth mindset [1]. At the same time, the opposite is a fixed mindset. In other words, intelligence and other qualities, abilities, and talents are fixed qualities and cannot be developed significantly. Here it can be concluded that a growth mindset is a person's main path that will make a change for the better. The definition of a mindset develops gradually, "In a growth mindset, people believe that their most basic abilities can be developed through dedication and hard work, and talent is only the starting point. This view creates learning and resilience, which is so important for great achievements." Anyone who believes in a growth mindset will be easy to face academic challenges, especially in higher education [27]. A growth mindset is a representation of great positive motivation to change one's behavior in all activities [28]. Thus, a growth mindset is one of the solutions to achieving great achievements in our activities and positively affecting a person.

2.2. The process of developing a growth mindset

A change in one's mindset requires effective triggers that encourage positive thoughts. According to Brock and Hundley [1], there are steps to develop a growth mindset in a person: i) bringing out self-awareness, understanding what you want, how you feel, and why you are motivated to act in a certain way; ii) strengthening the chain of power, cooperating with others and having a responsibility to help others in need; iii) strengthens brain power, strengthening brain power can be done by training the brain with things that strengthen the brain's concentration power, for example riding a one-wheeled bicycle; iv) developing emotional intelligence,

performed by maintaining the emotional connection with the tasks it performs; v) be grateful, always be grateful in the face of problems and something difficult with failure, such an attitude will make individuals stronger and survive with successful results; vi) understanding core values, understand the values we have to solve problems. This will strengthen us in many ways; and vii) developing empathy and responding to an event will provide an effective mindset change. From the seven steps of optimizing the growth mindset, it can be concluded that the development of a growth mindset can be done by maximizing the potential in oneself by developing positive values and thoughts in ourselves. People can be trained to adopt a more positive outlook, and their skills can be enhanced by experience, education, and self-work [25], [29], [30].

2.3. Growth mindset needs for lecturers

The importance of a growth mindset for lecturers in higher education according to Skinder and Toryanik [31], there are several steps that will help you develop a creativity and growth mindset as: i) try to be open to new information, to experience; ii) if you have any ideas, share with it, and prove that it can work. Be playful, have a playful attitude to every situation and every change in life; iii) take on your challenges bravely. Every challenge is an opportunity; iv) pay attention to your words and thoughts; v) stop seeking approval from others. This is a worthless idea from its inception. Everyone will try to persuade you that they know better, and those who know do not have time for you. Be yourself, and do not copy others. Learn and change these ideas for yourself; and vi) learning is hard work and takes time. Speed is not important.

2.4. Creative learning

The educator's growth mindset way of thinking is how the growth mindset can lead to major changes in the way people think about themselves and their lives. According to Dweck and Yeager [27], the teaching competence of a lecturer can be optimized through several stages: i) no hesitation in exposing creative ideas through classroom learning; ii) having a target to achieve academic achievement; iii) always improving what results have been achieved. For example, when doing research and not passing, it can reflect quality improvement in the future; iv) work hard and focus on completing the assigned tasks; and v) try to avoid failures that have already been experienced. Setiawan *et al*. [32] developed a curriculum that is influenced by teacher creativity in early learning. So, the creativity of lecturers comes from positive thoughts that depart from the growth mindset [33]. A growth mindset in one's teaching ability and creativity positively predicts a lecturer's ability and performance in other respects [34], [35]. Thus, when someone has a strong growth mindset, creativity in teaching will be seen.

3. METHOD

3.1. Research design

This research is a research and development (R&D) measuring the quality of university growth mindset instruments. Validation was carried out with construct validity using second-order confirmatory factor analysis (CFA). After that, further analysis was carried out by examining the influence of moderate variables that affect the growth mindset of the lecturers. Further analysis was carried out using structural equation modeling (SEM) with covariance analysis of several variables being measured. The measures used were adapted from those of Chen *et al*. [36] who developed a measure with a growth mind scale: structural validity, measurement model, and pieces of evidence of direct and indirect effects.

3.2. Sampling and data collection

The sampling technique using Slovin [37] with a significance of 5% with the criteria for the total population is 1,392 lecturers from seven faculties. The research results have been declared ethically feasible by the research ethics committee of the research institute and community service of UNY with the number B/15.2/UN34.21/TU/2022, which the chairman of the research ethics commission endorsed. According to the 2016 CIOMS guidelines, research deemed ethically acceptable in accordance with the following seven WHO standards, including: i) social values; ii) scientific values; iii) equitable assessment and benefits; iv) risks; v) persuasion/exploitation; vi) confidentiality and privacy; and vii) informed consent [38]. This is indicated by the fulfillment of the indicators of each standard. The research participants have given permission for their data to be used to publish research articles. The number of samples with purposive technique from the Slovin formula produces 420 total samples: the Faculty of Social Sciences, the Faculty of Mathematics & Sciences, and the Faculty of Education. The following are sample details for the three faculties in data collection which are described in Table 1.

Table 1. Sample size

Faculty	Total respondent
Faculty of Social Sciences	97
Faculty of Mathematics and Sciences	148
Faculty of Education	175

3.3. Research instruments and data collection

Instrument was developed from an instrument by Chen *et al*. [36] on the growth mindset scale's development: proof of its measurement methodology, structural validity, and direct and indirect impacts in Chinese samples. The instrument was developed from the instruments and theories studied and then carried out content validity with five experts in educational psychology. The instrument analyzes with the V-Aiken formula with an Aiken coefficient of more than 0.9. The instrument grid developed in this study is described in Table 2.

Based on these results, the proof of the validity of the contents has met the requirements of minimum requirements based on the V-Aiken table, which is at least 0.8, So the instrument is worth using. Data was collected purposively with the cluster method in each study program taken by four lecturers randomly. The instruments used are online form instruments using google forms with access restrictions only using institutional email, so the incoming data is ensured to be valid and representative.

Table 2. V-Aiken results

No.	Dimension	Indicator	V-Aiken
1	Motivation	Further studies	0.87
		Increase in academic positions	0.93
2	Attitude	Keep learning	0.87
		Eager to learn	0.87
3	Challenge	Accept the challenge	0.87
		Try to innovate	0.87
4	Strength	Not afraid to fail	0.87
		Never give up	0.87
5	Positive thinking	Accept criticism	0.93
		Positive work	0.93
	Average		0.89

3.4. Analysis of data

The descriptive analysis uses standard deviations to view the distribution of data. Meanwhile, the content validity analysis uses the V-Aiken technique with five raters. At the same time, the validity of the construct with CFA is in the second order, while advanced analysis uses the SEM analysis method to see and identify the relationship between observed variables and moderate variables. The main purpose of path analysis SEM is to look at the relationship between variables that have assumptions and have a direct influence on the Growth Mindset and performance of lecturers. The following is the categorization for the growth mindset level of lecturers, which will be correlated with other moderate variables, namely age, educational level, academic level, gender, and training. Through SEM can be analyzed the moderate variables that have the most influence. The distribution in the categorization of data on growth mindset measurements is described in Table 3.

Table 3. Distribution of lecturer data categorization

No.	Range	Category
1	SD+Mean>X	High
2	SD-Mean>X>SD+Mean	Moderate
3	X<dev-Mean	Low

4. RESULTS AND DISCUSSION

4.1. Results

4.1.1. Descriptive analysis

The results of measuring growth mindset ability will provide an overview of the benchmarking and categorization of the growth mindset level of each respondent. The categorization is done by calculating the distance on the standard deviation from the data used, namely with a standard deviation of 3.81. The results of the descriptive analysis for categorization showed that lecturers who had a "low" growth mindset ability were 27 or 14%, while with a "moderate" growth mindset of 81 or 40%, and a "high" growth mindset category of

92 or 46%. It can be concluded that the categorization of lecturers' growth mindset abilities has been included in the "moderate" criteria with an average total of 46.08. It can be concluded that the ability of lecturers' growth mindset has supported performance in optimizing performance at UNY.

4.1.2. Growth mindset properties

Building the appropriate tools is the first step in conducting a growth mindset study for lecturers so that the data gathered reflects findings based on empirical data. The respondent data used was as many as 420 lecturers at UNY. First, at the stage of preparing the draft instrument, it is carried out: i) identifying aspects and indicators of the growth mindset through the study of appropriate theories; ii) compiling and constructing the specifications and forms of the instrument with the help of three experts in educational psychology and character education; and iii) validate instruments that have been made by the Delphi method. Table 4 shows the values of Kaiser Meyer Olkin (KMO) and Bartlett's growth mindset lecturer instruments.

The Bartlett test significance for the description in Table 4 is 0.000, while the empirical results using the KMO-measure of sampling adequacy (MSA) values are 0.882 or greater than 0.5. As a result, we can say that the analysis's findings are noteworthy. Thus, factor analysis of the growth mindset tool is warranted. To obtain items with the same dimensions, an extraction process is carried out that generates many components. Every generated factor has an eigenvalue; factors that have an eigenvalue larger than 1.00 are kept [39].

The one-dimensional assumption is met when the test includes the dominant factor measuring a person's ability [40]. If the measurement finds a dominant dimension, that dominant dimension will become the one dimension or one dimension of the response or particle trait [41]. Let the eigenvalues of the first factor have values up to multiples of the eigenvalues of the second factor, and so on. In this case, we can say that the one-dimensional condition is satisfied.

Table 4. Value of KMO and Bartlett's lecturer growth mindset instruments

KMO and Bartlett's test[a]		
KMO measure of sampling adequacy.		0.882
Bartlett's test of sphericity	Approx. Chi-square	932.060
	df	45
	Sig.	0.000

4.1.3. Conducting unidimensional tests

Factor analysis was used in one-dimensional tests with the SPSS 24 software. An analytical feasibility assessment utilizing the KMO-MSA and Bartlett tests was conducted on each instructor's growth mindset equipment prior to factor analysis. KMO-MSAU>0.5 and considerable one-dimensionality were the prerequisites for the factor analysis, and each test item measured a single ability. to put one-dimensional factor analysis to the test. Less than 0.05 was found in the KMO and Bartlett analytical results. The sample validity was assessed using the KMO-MSA test, and the normality of the data was investigated using the Bartlett test. Table 5 provides an explanation of the experiment's outcomes.

Then we find that the total variance for the first component in Table 5 is 50.363%. This can be interpreted as the instrument measuring the side with the dominant eigenvalue. This indicates that only one aspect of performance is measured by the designed device. An exploratory scree-plot factor analysis of the data is presented in Figure 1. The distance between components 1 and 2 is either extremely large or several times more than the distance between the other components, as seen in Figure 2. The steep scree plot indicates the presence of a dominant component, indicating that religious instruments only assess one aspect, specifically the professors at UNY growth mindset capacity.

Table 5. Total compulsive variants

Components	Initial eigenvalues			Extraction sums of squared loadings		
	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %
1	5.036	50.363	50.363	5.036	50.363	50.363
2	0.974	9.739	60.102			
3	0.952	9.518	69.620			
4	0.710	7.103	76.724			
5	0.595	5.951	82.674			
6	0.504	5.036	87.711			
7	0.387	3.871	91.582			
8	0.322	3.218	94.800			
9	0.268	2.675	97.475			
10	0.253	2.525	100.000			

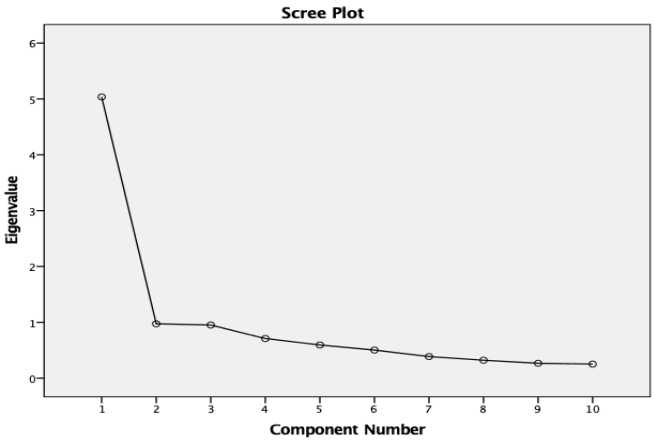

Figure 1. Scree-plot of growth mindset instrument

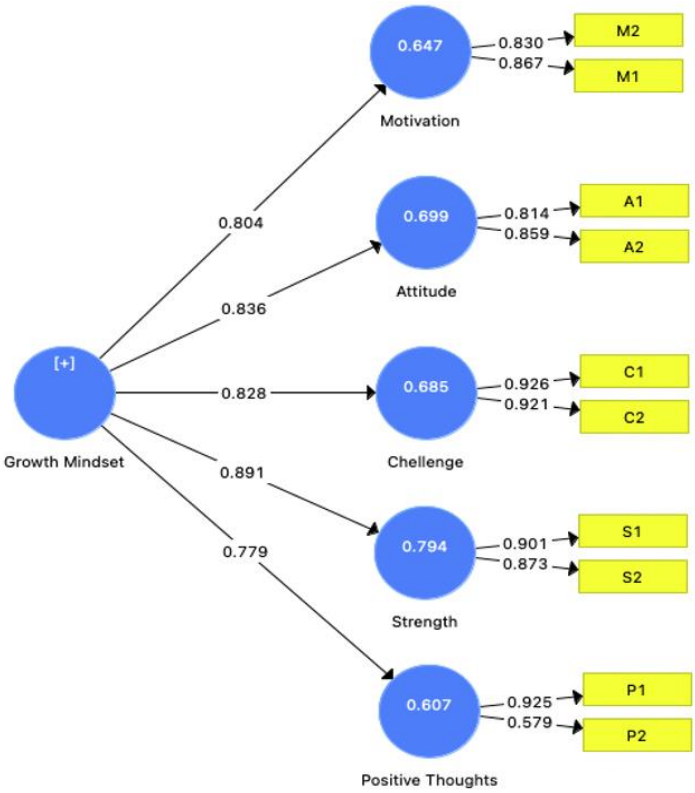

Figure 2. Path diagram growth mindset lecturer model

4.1.4. Reliability

Subsequently, SPSS does an elemental study to validate the dependability of the produced apparatus. Examining each output table's obtained Cronbach alpha value is one way to gauge reliability. On the other hand, when the alpha index (α>0.7) is noticeably higher than 0.7, the instrument is considered dependable [42]. Alpha factor results in a limited test showed a value of 0.865 (>0.7). This means that the equipment built already meets high-reliability requirements. The following is the Cronbach's alpha reliability index described in Table 6. Every component's reliability coefficient yielded a value greater than 0.6, indicating that each component's dependability value falls into a good category. Table 7 describes the reliability value for each component. Based on Table 7, it can be concluded that the overall coefficient of each indicator has a high alpha value on the indicators of challenge and strength, a moderate value on the indicators of motivation and attitude, as well as a value of low on positive thought indicators.

Table 6. Output reliability of creative curriculum models

Reliability statistics		
Cronbach's alpha	Cronbach's alpha based on standardized items	N of items
0.868	0.885	10

Table 7. Reliability results of each growth mindset indicator

	Cronbach's alpha	Category
Attitude	0.573	Very good
Challenge	0.827	Excellent
Motivation	0.612	Very good
Positive thoughts	0.368	Good
Strength	0.731	Excellent

The dependability of each latent variable can be ascertained using combined confidence values or average variance sampling (AVE), where λ-i is the component loaded into the indicator and variances. If the parameter estimates are precise, the combined reliability type is a more accurate approximation. This metric differs from alpha Cronbach in that it does not presume tau equivalency between measures under the assumption that all indicators have equal weight [43]. To assess an instrument's internal consistency, a reliability comparison between the Cronbach alpha method and the composite score is required. Equation (1) can be used to find the composite reliability scores or AVE for hidden variables.

$$pc = \frac{(\sum \lambda_i)^2}{(\sum \lambda_i)^2 + \sum ivar\,(\varepsilon_i)} \quad (1)$$

Where, λ_i is the component loaded into the indicator and var $(\varepsilon_i)1 - \lambda_i^2$. The combined reliability type is a more accurate approximation if the parameter estimates are exact. Table 8 shows the results of the combined confidence calculation for each component. The following is the reliability coefficient of the composite score for each indicator which is described in Table 8.

Table 8. Reliability composite score for each lecturer's growth mindset component

	Composite reliability	Category
Attitude	0.824	Very good
Challenge	0.920	Very good
Growth mindset	0.908	Very good
Motivation	0.837	Very good
Positive thoughts	0.736	Very good
Strength	0.881	Very good

According to composite reliability recapitulation results in Table 8, the context, inputs, processes, and products all have good internal consistency levels above 0.65 for each assessment component. Therefore, it can be said that the growth mindset evaluation tool has good composite reliability. In addition, the device's overall composite reliability is 0.868, which puts it in the good range.

4.1.5. Validity of the construct of the growth mindset

The next step is to perform a CFA analysis to determine how much factor loading is present in each produced instrument component and item. Because the Alpha coefficient, which is 0.868, is greater than 0.7, the estimation findings demonstrate that the lecturer's growth mindset ability instrument has a solid reliability index. Likewise, the entire 10 items of growth mindset instruments have a loading factor value of >0.3. Following are the results of the item analysis of the lecturer growth mindset model instrument explained in Table 9.

Table 9. Factor loading results with CFA growth mindset lecturers

No.	Category	Grain
1	Valid	1, 2, 3, 4, 5, 6, 7, 8, 9, 10
2	Invalid	-

Initial analysis results showed that all ten particles met the stress factor requirements. It is modified to fit thrift fit-type models. Below are the results of his CFA analysis and factor loading summary for the Growth Mindset instrument by UNY faculty. The graph path can be described as having a Chi-square value of 1203.84 with 425 degrees of freedom and a root mean square error of approximation (RMSEA) of 0.067 (<0.08). Showing the fit of a model by empirical data or model fitting is described in several model fitting criteria. A model is considered good if it has a significance level (p), a comparative fit index (CFI) value of 0.77 (≥0.09), and an RMSEA. Dimension (γ) and index factor loadings (λ) are present in the model. 5% significance level at critical price t=1.98. The relationship between variables, factors, and their indices can be illustrated by the path diagram of the structural equation. Chi-square 1203.84 for df=425 and 0.70 for goodness of fit index (GFI) after a confirmed factor test (CFA) was obtained. Adjusted goodness of fit index (AGFI)=0.66; RMSEA=0.067<0.080. We can then conclude that the model produced is consistent with the empirical data. The following is the path diagram of the lecturer growth mindset construct model described in Figure 2.

This is the path diagram that the structural model-based CFA analysis produced. All the components or latent variables have high loading factors (>0.3), according to the structural model analysis. The findings, which summarize the load factors for the structural model, are shown in Table 10. The outcomes of the lecturer's growth mindset structural model, which is described in Table 10.

Table 10. Results of structural model loading factor recapitulation

No.	Component	Loading factors	Decision
1	Motivation	0.804	Excellent
2	Attitude	0.836	Very good
3	Challenge	0.828	Excellent
4	Strength	0.891	Very good
5	Positive thoughts	0.779	Good

Table 9 shows that the loading factors in the path diagram indicate that the covariances between the latent and observed variables have coefficients greater than 0.5. This means that the entire structural model analyzed by CFA is classified as conforming to the empirical data. Relevant to the previous research [44], developed an instrument to measure the growth mindset of the exploration of pharmacist associations; meets Cronbach's validity and reliability of 0.827 with a good measure. Similarly, Han *et al.* [45] developed an instrument that measures the moral growth mindset that has a strong correlation with other psychological indicators.

4.2. Discussion

4.2.1. Measurement model

The next analysis is to conduct a path analysis to see the moderate variables that are regressed into the dependent variables, namely the ability of the lecturer's growth mindset. The moderate variables included include age, education level, academic positions, gender, and growth mindset coaching training of the five moderate variables, it will be analyzed by SEM or path analysis to find out the growth mindset model in lecturers at UNY that is most appropriate. By knowing the most appropriate model, it will be possible to identify what factors must be improved and improved to optimize the growth mindset ability of lecturers. The following is a model of growth mindset ability path analysis of UNY lecturers described in Figure 3.

Figure 3 shows that of the five moderate variables, the one that has the most influence on growth mindset ability is the variable "academic position," with an influence of 0.340. Meanwhile, those that have an influence but are low are the variables "coaching training growth mindset" and "gender," with values of 0.143 and 0.124. Meanwhile, there are variables whose influence is very small, namely the variables "age" and "level of education." Thus, it can be concluded that the aspect that most affects the optimization of the growth mindset is academic position; in other words, if you want to optimize growth mindset ability, lecturers should strive to raise the level of their academic position. There is a correlation between children's attitudes and grades at the beginning of the term [46]. Beliefs on basic skill adaptability may not be linked to academic success or resilience to setbacks. significantly mediated the effect on attitudes toward education and the adoption of the best teaching practices. These findings support the notion that emotional traits of teachers—such as growth mindset, self-efficacy, and professional attitudes—are crucial for their professional development and aid in the development of useful professional abilities in educators and school administrators. offers recommendations for long-term development [47]. Furthermore, from several researches [48]–[50], a growth mindset can increase writing motivation and knowledge of lecturer literacy; it will also increase lecturer productivity in their work. This will have a significant positive effect on the realization of a world-class university.

A growth mindset is associated with beneficial achievement outcomes. Relevant to the performance of lecturers, a growth mindset can grow achievements, especially in their productivity. The belief that intelligence is malleable is supposed to lead to better academic achievement [7], [51]. Furthermore, other research shows that the influence of growth mindset training also does not have a big effect on a person's motivation to develop their abilities [52]–[54]. Relevant to the results of the research, the influence of motivation variables has an influence on the growth mindset but is not large, so that in formation and development require sufficient time. SEM analysis shows that of all the moderate variables that have an effect is the academic level, which means that with the increase in the academic level of lecturers, the growth mindset will also increase. Then it will also optimize the performance of lecturers. Thus, optimal lecturer performance will increase productivity as one of the indicators of measuring world-class universities. Universities should guarantee a holistic and sustainable evaluation of lecturer performance to holistically improve the quality of lecturers and management in higher education. Lecturer performance needs to be evaluated holistically so that comprehensive data may obtain and can use in making lecturers' development and empowerment programs [55].

Research on the development of growth mindset in higher education can support the goal of even maintaining the title of WCU [56]. It is important for every higher education institution to develop and improve their strategies in order to face increasingly fierce competition, be it at the local, national, and international levels [57]. However, the development of this growth mindset should not be seen as the only solution left to achieve and support a WCU, so further research needs to be done to identify what contextual factors affect its effectiveness.

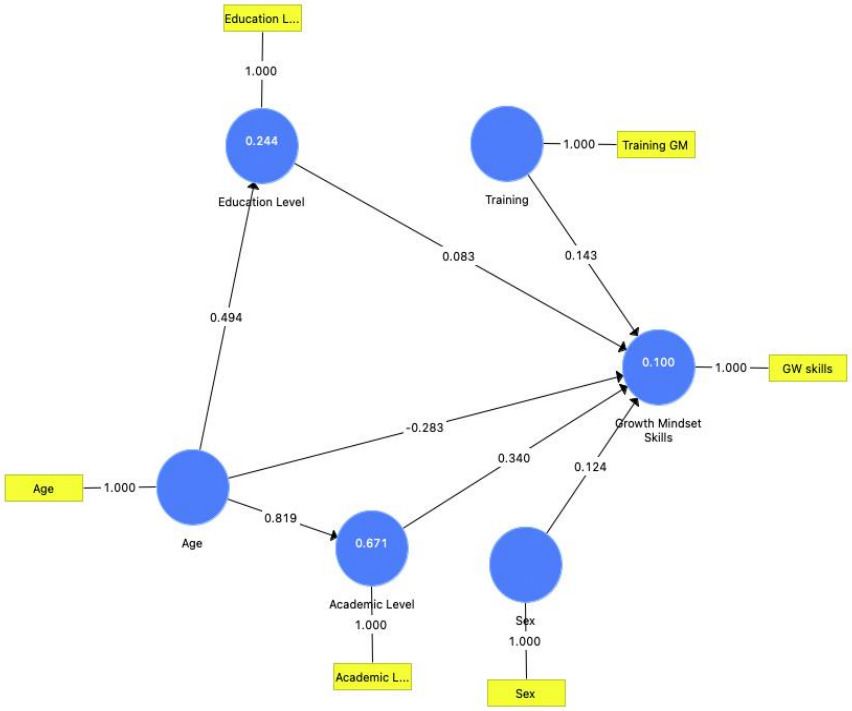

Figure 3. Growth mindset path analysis model

5. CONCLUSION

The growth mindset instrument construct for the academic community is qualified to measure the ability of growth mindset from lecturers. This can be seen from the loading factor on the construct's validity and the instrument's reliability. The categorization of the growth mindset ability of the lecturer is included in the "moderate" category, so efforts are needed to increase to a "high" level with feedback and follow-up from the results of the study. The academic level is the moderate variable that has the most influence on the growth mindset path analysis model. Increasing the academic level will optimize the growth mindset of lecturers; performance will evolve. Suggestions and recommendations are necessary to increase the level of academic positions of lecturers in order to optimize the application of growth mindset in the Tridharma of Higher Education. The results of the research that has been carried out have limitations with several conditions.

Not all respondents filled out the questionnaire. Moreover, some provide a slow response in instrument filling. Supporting data from outside the questionnaire data has not been dug deeper, so the discussion carried out has not been in-depth and has not been comprehensive.

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