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INTEGRATED LEARNING MODELS: AN OVERVIEW OF LEARNING ECOSYSTEMS IN HIGH SCHOOLS IN INDONESIA

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Abstract

This article was created to explain the design of an integrated learning model by considering the learning ecosystem to be implemented in secondary schools in Indonesia. The novelty of this article is an overview of the learning ecosystem that integrates micro and macro aspects. Micro aspects to represent the managerial conditions of educational institutions, consist of three variables, namely priority of management, individual readiness, and technological support. The macro aspect is represented by Educational Policies which are national education policies. These variables were analyzed to see their effect on the learning outcome. The respondents of this research are teachers who are members of the Subject Teachers' Consultation (MGMP) Surakarta City, Indonesia, totaling 289 people, consisting of 156 women (53.98%), and 133 men. (46.02%). Withdrawal of sample data is done by quota random sampling technique. The use of this quota random sampling technique is to determine the representation of each region so that the results will be able to represent reality. The research was conducted from March 2019- September 2022 in Surakarta, Indonesia. The analysis technique of this research uses SEM (Structural Equation Model). The results of the study show that educational policies significantly affect priority of management and learning outcomes. Priority of management significantly affects individual rediness and technological support. Priority of Management does not significantly affect learning outcomes. Technological support significantly affects learning outcomes. Individual readiness does not significantly affect learning outcomes. All indicator variables significantly affect the construct.

Keywords*: priority of management, individual readiness, technological support, educational policies, learning outcomes.*

1. Introduction

The current online learning model (e-learning) is quite diverse, it's just that a complete model has not been found that can be used as a reference for massive use in schools (ISPI National Conference, 2014). The government itself has not determined a definitive model to be applied. For this reason, schools that have not developed their own online learning model do not dare to experiment with implementing online learning, because it has many consequences. School management considers that there are various consequences of changing the learning model to online, including: high implementation constraints due to reluctance to change, requires large costs for

procuring technology and operations, human resources are not ready, and so on (ISPI National Conference, 2014) . This reluctance in schools is in line with Kramer & Benson (2013) who identified that updating a learning culture with the support of technology requires a very large investment. Because, not only changing the methodology, but also need to change the mentality.

In general, educational actors in Indonesia, especially in Surakarta, recognize that e-learning is important to implement because it can improve the quality of education and boost the image of schools. Statements like this are in line with Xiao & Meier (2011); Sato (2017); Pizmony-Levy et al (2012). It's just that, until now it is not an obligation, because there is no firm national education policy that requires the use of e-learning, except for forced events during the Covid-19 pandemic.

Based on the results of the identification of learning problems in Surakarta, it can be concluded that there is a very big desire from education providers to implement e-learning but it is still constrained by many things, including: 1) there is no national education policy that regulates, especially the e-learning model standard learning, 2) the transformation of technology-based learning processes requires a lot of money, especially for the cost of procuring technology and increasing individual readiness to use technology, 3) there is no guarantee that the use of learning technology will be able to improve adequate learning outcomes, so school management needs to think carefully to determine priority policies. In other words, there are several variables that need to be observed related to efforts to transform the learning system in Indonesia based on learning technology so that learning outcomes increase, namely 1) Education Policy, 2) Management Priorities, 3) Individual Readiness, 4) Technological Support, 5) Learning Outcomes.

Observation of these five variables is important, because these five things are mutually integrated which determine the effectiveness of the learning system to improve learning outcomes. For the identification of some of these problems, a comprehensive answer is needed that is able to describe an ecosystem within the educational institution. So that all schools can implement e-learning with high quality, of course a step is needed to answer the problems experienced by each school (Fowler, 2015). Based on the conclusion of the problem formulation above, several research questions arise as follows:

a. How can an integrated ecosystem model be able to create a learning system that can be widely implemented in schools?
b. How effective is the integrated learning ecosystem model?
c. To what extent is the role of each variable used in the model able to create learning outcomes?

2. Literature Review

2.1. Integrative Learning Theory

The concept of integrative learning in this article refers to the integration of educational institutions' micro policies with macro education policies so as to form a learning ecosystem. Integrative learning theory focuses on ecosystem design efforts to organize effective and efficient learning. The policies implemented by the management of educational institutions are certainly related to the orientation of the educational institution's policy steps which of course take into account aspects of strengths, weaknesses, opportunities, threats, and obstacles that may be

encountered (Chong et al, 2018). Micro policies reflect educational institution management policies consisting of management priorities, technological support, and individual readiness ((Kamaruzzaman, 2016; Peterson & Baker, 2011) in responding to changes in learning patterns during the industrial revolution 4.0 and the Covid-19 pandemic. Macro policies reflect national education policy.

2.2. Management Priority

Management in determining a policy generally prioritizes the aspects that become its priority. The determination of a policy generally pays attention to the readiness of the personnel in the institution, the infrastructure owned, as well as the supporting technology (Kamaruzzaman, 2016). Rusly et al (2012) explained that management priorities are more directed at strengthening the fundamentals for readiness to face change, namely knowledge acquisition. Knowledge acquisition can be obtained through psychological aspects and organizational structural aspects. The psychological aspect will determine knowledge acquisition through the elements of change efficacy and discrepancy. Structural organizational aspects can affect knowledge acquisition through learning, communication, and clarity of vision. Knowledge acquisition is an important factor in determining the success of change. The context of sharing this knowledge can be viewed from a person and organizational perspective. On the personal side, individual and collective characteristics can be distinguished, while on the organizational side, it can be seen from the character and organizational context. Knowledge acquisition is the key to creating a culture of sharing knowledge to support organizational operations (Lin, 2007; Yi, 2009). Knowledge sharing indicators include attitudes, abilities and actions of sharing, transferring, disseminating, and utilizing shared knowledge.

2.3. Individual readiness

Rusly et al (2012) argue that individual readiness to make changes is influenced by a multidimensional construction which includes psychological aspects and structural dimensions. Implementation requires the role of knowledge and interaction between people involved which represents the psychological aspect, as well as a holistic view of both individuals and organizations which represents the structural dimension. This combination of psychological aspects and structural dimensions will result in knowledge, creation, and a spirit of sharing knowledge. In order to produce a successful change, Rusly et al (2012) conceptualizes starting from establishing change readiness, consistently implementing knowledge management processes, then ensuring the effectiveness of knowledge management. These three things are related to one another. All three need to be framed with practical guidelines for implementing the change policy.

In the context of changes in the learning ecosystem, Personal readiness includes their understanding of technology, understanding of policies, readiness to continue developing and learning, willingness to carry out all policies, highly committed to their organization, and being responsible for the tasks they carry out (Peterson & Baker, 2011). Personal readiness to support online learning is closely related to the technology used. This technology has a broad scope including software, hardware, systems, installed or used capacities, licenses, and methods of application.

Sun (2010) emphasized that an organization that has a change or development program requires the role of individuals who are ready to change. This role is important, because this individual readiness will manifest in the spirit to share knowledge. In the context of sharing knowledge itself, it already describes an attitude, ability and action to share knowledge, a willingness to transfer, disseminate, develop knowledge that functions to support the operational performance of the organization.

2.4. Technological Support

Punie (2007) confirms that learning technology has now become a strategic asset. Learning technology has been able to reduce some of the obstacles experienced by traditional learning, which can be overcome by the digitalization process. Digitizing learning materials will facilitate the integration of online lecture materials which will ultimately have an impact on increasing interaction between students, between students and teachers. Virtual learning will facilitate discussion of learning modules, broaden discussions, facilitate peer-review of scientific work. The learning model can be set synchronously or asynchronously. Digital learning technology opens up the potential for the formation of a wider research community space, connected social elements, cognitive development, ease of interaction for learning. Another co-effect is that it can make students more responsible for the quality of their learning.

Hwang & Francesco (2010) explained that the use of learning technology can be used by students to discuss on asynchronous boards, as communication spaces, web conferences, online social networks, and access to wikis and blogs. The things that are important to be associated with learning technology are storage capacity, speed of access, ease of designing learning materials, and suitability for student learning styles.

Technological support has proven to be a major factor in the success of online learning in the USA and Israel (Pizmony-Levy et al, 2012), in England and Yemen (Bin-Hady and At-Tamimi, 2021), implemented by teaching staff at the Center for Teaching Excellence (CTE) and staff at the Learning Technologies Program (TLP) in the United States (Kramer & Benson, 2013).

2.5. Educational Policies

Sutton-Levinson (2001) describes education policy in this world into 3 levels, namely the national, local, and organizational policy levels. The three levels of policy implementation are the same as education policies in Indonesia. Organizational level policy implementation is in each educational institution. Local level policies refer to the area in which the educational institution is located, namely the Regional Government. National policy is a policy determined by the Central Government. Policies from this center are the basis for the emergence of policies at the local and organizational levels. Education policy at the national level is macro in nature, while at the organizational level it is micro. Macro policies will have an impact on the micro level. In its implementation, this is in line with the statement of Pizmony-Levy et al (2012) which states that increasing people's access to education needs to be based on strong educational policies determined by the government.

Vicente (2016) divides education policy into two models, namely the educational bureaucratic model and the educational democracy model. The bureaucratic model is used to control educational operations, while the democratization of education is used to give students free learning. The educational bureaucratic model has long been implemented in various countries. Until the early 2000s, almost all countries implemented educational bureaucratic policies (Vicente, 2016). It was only after the widespread views of ideas about the democratization of education slowly shifted to a democratic educational climate. Indonesia itself, starting in 2020, officially confirmed its democratic education policy which was named the Freedom to Learn policy. Simultaneously with the shift in educational policy towards educational democracy, the use of educational technology is very necessary, and even tends to be absolute. Education policies have been proven to determine changes in learning systems in various countries, such as China (Xiao & Meier, 2011), Japan (Takayama, 2014), learning with OECD standards (Sato, 2017).

2.6. Learning Outcomes

Kyndt et al (2014) define learning outcomes as learning outcomes that show changes in knowledge, attitudes, skills on an ongoing basis as a result of involvement in the learning process. Learning outcomes can be distinguished as general learning outcomes that are strategic in nature, learning outcomes tied to the organization, and learning outcomes on special matters. Kyndt et al (2016) conducted research on organizational learning conditions and personal characteristics on learning outcomes. The results show that opportunities for collaboration and feedback are proven to significantly affect learning outcomes.

Canto et al (2019) and Shephard (2008) emphasized that not all learning must be assessed purely cognitively or affectively, but also behaviorally. In learning that is honing skills, it is necessary to measure the aspects of the skills. The aspects used to measure skills include the dimensions of awareness of benefits, sensibility, basic skills, specialized skills, involving, organization and innovation skills. The measurement can be done qualitatively which is longitudinal. Karanja & Malone (2020) state that measuring learning outcomes through cognitive observations based on Bloom's taxonomy is important to do because it can be used to measure, monitor, and guarantee learning certainty. Good learning outcome measures have specific, measurable, achievable, relevant, and demonstrating timeliness in achieving learning objectives.

3. Methodology

This study uncovers empirical social reality through the analysis of data that are measured positively and positively in the form of quantification. The measurement uses statistical analysis which begins with determining the validity, reliability and objectivity aspects of the data. Therefore, philosophically this research is classified as positivism (Irwan, 2018). This research is explorative quantitative. Quantitative analysis was carried out using the Structural Equation Model (SEM) technique which was analyzed with AMOS24 software. The research was conducted during the period March 2019 to September 2022.

The object studied is the effectiveness of the variables forming the integrative learning model in schools. The respondents of this research are teachers who are members of the Subject Teachers' Consultation (MGMP) Surakarta City, Indonesia, totaling 289 people, consisting of 156 women (53.98%), and 133 men (46.02%). %). Withdrawal of sample data is done by quota random sampling technique. The use of this quota random sampling technique is to determine the representation of each region so that the results will be able to represent reality.

Data was collected using a questionnaire designed with a Likert Scale with 5 tiered closed answers, which are represented by numbers. Number 1 represents strongly disagree; Number 2 represents disagree; number 3 represents disagree; number 4 represents agree; 5 represents strongly agree. Before the questionnaire was used to collect data, the validity of the questionnaire was first tested. The validity test uses the product moment correlation which compares the table correlation with the questionnaire item correlation. Invalid questionnaires will be dropped and no longer used. Only valid questionnaires were used. Questionnaires that have been declared valid will be tested again with a reliability test using the Alpha Cronbach standard. Questionnaires that have been declared reliable will be used to collect data for analysis.

The analysis model is described as follows:

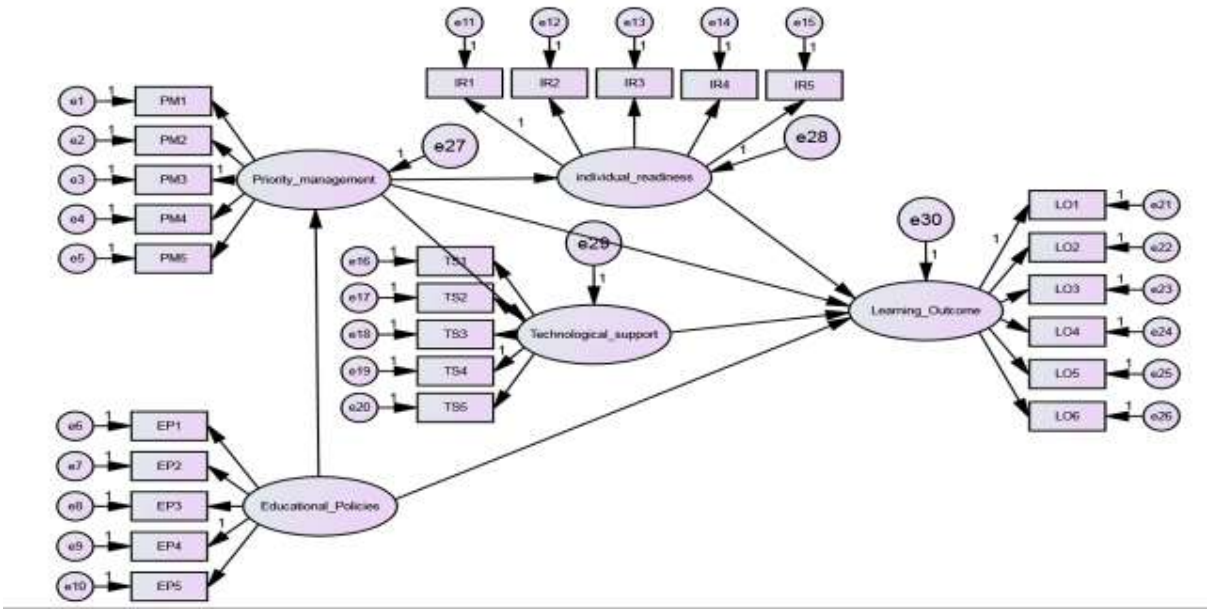

Figure 1. Empirical Model Analysis

4. Analysis Results

Initial analysis was carried out to test the construct validity using the CFA test (confirmatory factor analysis). The aim is to prove that the indicators are an integral part of the variable construct. The CFA test is used to measure the probability and Critical Ratio values for the five variables

studied, respectively: Priority of Management, Individual Readiness, Technological Support, Educational Policies, Learning Outcome. The test results show the following data:

Table 1. Construct Validity Test Results

			Estimate	S.E.	C.R.	P	Label
PM3	<---	Priority of Management	1,000				
PM2	<---	Priority of Management	1,042	,047	22,341	***	par_1
PM1	<---	Priority of Management	1,042	,055	19,083	***	par_2
EP4	<---	Educational Policies	1,000				
EP3	<---	Educational Policies	,972	,052	18,520	***	par_3
EP2	<---	Educational Policies	,994	,048	20,516	***	par_4
EP1	<---	Educational Policies	1,041	,050	20,958	***	par_5
IR1	<---	Individual Readiness	1,000				
IR2	<---	Individual Readiness	1,146	,057	20,126	***	par_6
IR3	<---	Individual Readiness	1,090	,058	18,833	***	par_7
IR4	<---	Individual Readiness	1,180	,058	20,396	***	par_8
TS4	<---	Technological Support	1,000				
TS3	<---	Technological Support	,985	,029	33,651	***	par_9
TS2	<---	Technological Support	1,018	,026	39,844	***	par_10
TS1	<---	Technological Support	,917	,043	21,133	***	par_11
LO1	<---	Learning Outcome	1,000				
LO2	<---	Learning Outcome	1,016	,027	37,091	***	par_12
LO3	<---	Learning Outcome	1,040	,029	35,854	***	par_13
LO4	<---	Learning Outcome	1,040	,030	34,512	***	par_14
PM4	<---	Priority of Management	,996	,073	13,638	***	par_15
PM5	<---	Priority of Management	1,090	,048	22,512	***	par_16
IR5	<---	Individual Readiness	1,207	,058	20,873	***	par_17
TS5	<---	Technological Support	1,019	,027	37,727	***	par_18
EP5	<---	Educational Policies	1,057	,045	23,254	***	par_19
LO5	<---	Learning Outcome	1,055	,032	32,920	***	par_20
LO6	<---	Learning Outcome	1,045	,035	30,018	***	par_21

Based on the data in Table 1. above, it appears that the CR values are all greater than twice the SE values, and the probabilities all show a significance level of less than 0.05. Therefore it can be concluded that all constructs are valid, and the data can be used for further analysis.

5. Hypothesis Testing

The results of proving the hypothesis using the full SEM analysis model produce the following diagram:

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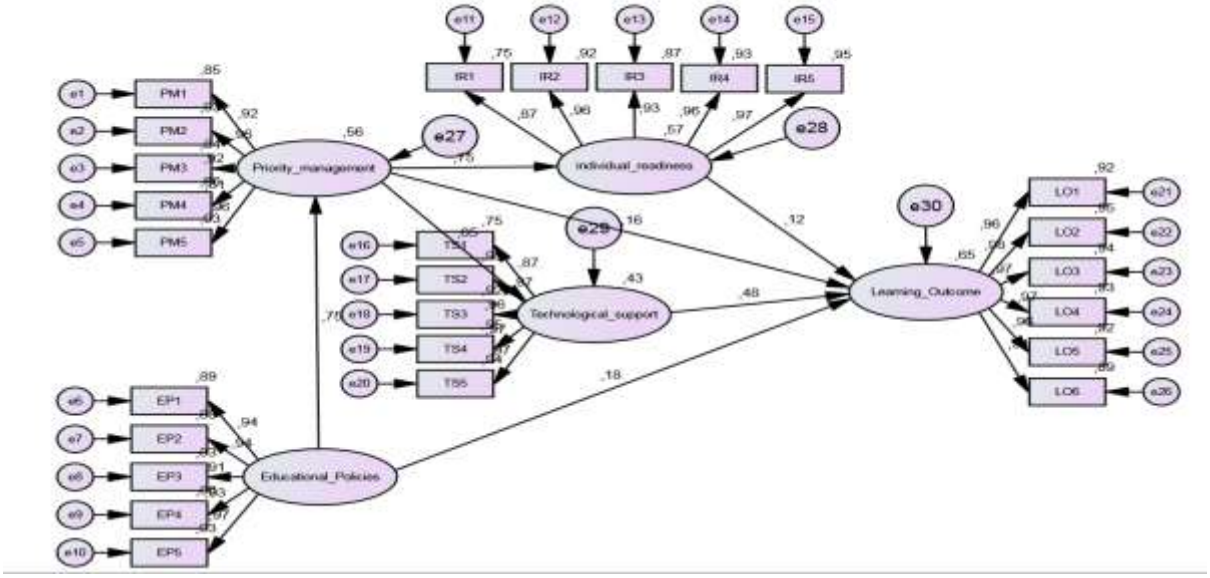

Figure 2. Full Model Analysis

Results like the diagram above, apparently only have a small part of the model suitability index. The goodness of fit index indicators are listed in the table below.

Table 2. Goodness of Fit Index

Goodness of fit Index	Cut-off Value	Model Results	Information
χ^2 *–Chi square of estimate model*		824,022	It is expected that the value is small
df		292	
χ^2 *-Significance Probability (P-Value) Probability Level*	≥ 0.05	0.000	Not fit model (Bad fit)
RMSEA	≤ 0.08	0,104	(*Bad fit*)
CMIN/DF	≤ 2.00	2,822	(*Bad fit*)
GFI (Goodness of Index)	≥ 0.90	0,711	(*Bad fit*)
AGFI (Adjusted Goodness of Index)	≥ 0.90	0,653	(*Bad fit*)
TLI (Tucker-Lewis Index)	≥ 0.90	0.926	*Good fit*
CFI (Comparative Fit Index)	≥ 0.90	0.934	*Good fit*
NFI (Normo Fit Index)	≥ 0.90	0.902	*Good fit*

There are many indicators that do not show conformity to the model, so it is necessary to modify the model and re-analyze it. There are two techniques for modifying the SEM model, namely performing correlations between indicators or reducing indicators. In this modification process both ways are used. namely removing some of the indicators in the construct and implementing variable correlations. From this effort, there were several construct indicators that were dropped, namely: PM3, EP1, EP2, IR1, IR3, TS1, TS5, LO3, LO5, LO6. In addition to eliminating some of these indicators, the residuals were also correlated e27 with e28, e28 with e29, and e29 with e27. After adjustments/modifications have been made, the structural equation model looks like the image below:

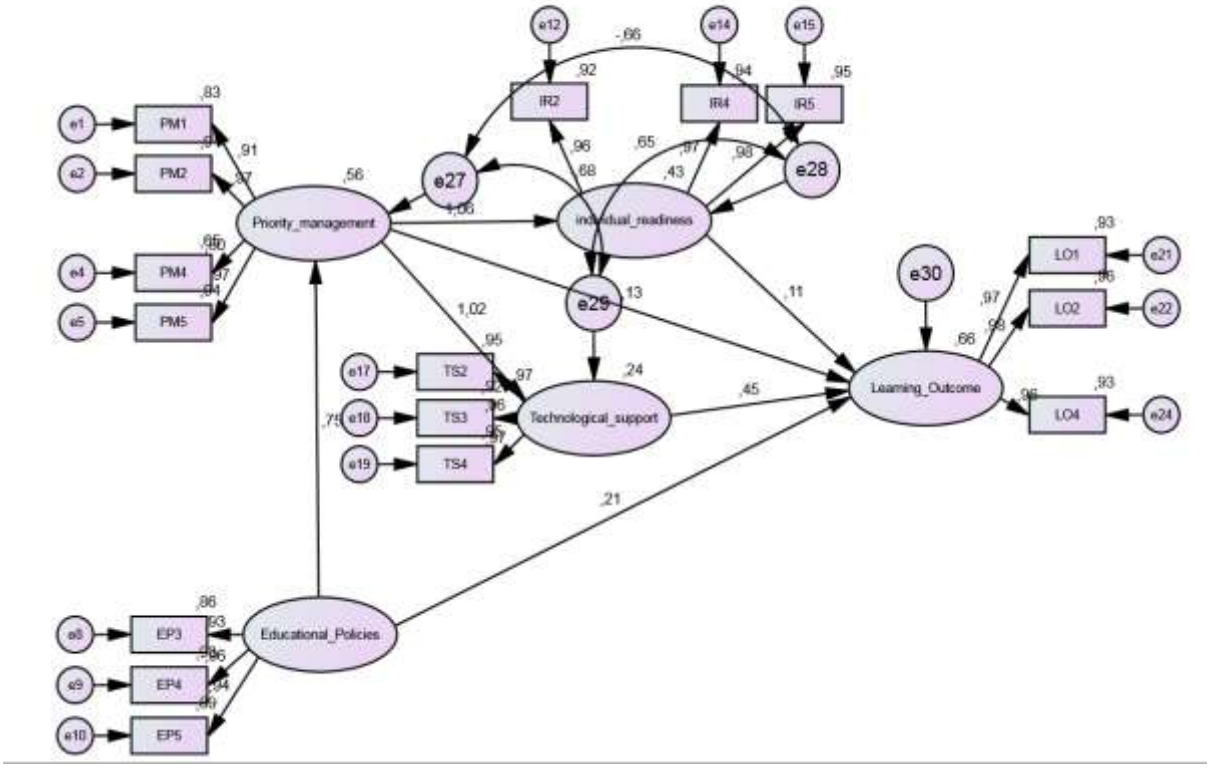

Figure 3. Full Model (after modification)

The effort to modify the model shows that all goodness-of-fit criteria provide a suitability index referring to the recommended criteria. It appears there that the chi square has shown the Good Fit model. Likewise other assumption criteria such as RMSEA, CMIN/DF, GFI, AGFI, CFI, TLI, NFI all show indications of a Good Fit model. That is, the SEM model after modification is proven to be a good fit model. The complete data is listed in the table below:

Table 3. Goodness of Fit Index (After Modification)

Goodness of *fit* Index	Cut-off Value	Model Results	Information
χ^2 *–Chi square of estimate model*		97,850	It is expected that the value is small
df		94	
χ^2*-Significance Probability (P-Value) Probability Level*	≥ 0.05	0.372	Not fit model (Good fit)
RMSEA	≤ 0.08	0,104	*Good fit*
CMIN/DF	≤ 2.00	1,041	*Good fit*
GFI (Goodness of Index)	≥ 0.90	0,935	*Good fit*
AGFI (Adjusted Goodness of Index)	≥ 0.90	0,906	*Good fit*
TLI (Tucker-Lewis Index)	≥ 0.90	0.999	*Good fit*
CFI (Comparative Fit Index)	≥ 0.90	0.999	*Good fit*
NFI (Normo Fit Index)	≥ 0.90	0.978	*Good fit*

Efforts to modify the model have proven to produce a model that meets the goodness of fit model criteria. The relationship between variables and variables with their indicators can be seen more closely in the causality testing table below.

Table 4. Causality Test Results on Full Model (model after modification)

			Estimate	S.E.	C.R.	P	Label
X1	<---	X2	,829	,068	12,245	***	par_12
X3	<---	X1	,967	,083	11,587	***	par_8
X4	<---	X1	,909	,090	10,082	***	par_9
Y	<---	X1	,113	,069	1,636	,102	par_10
Y	<---	X2	,200	,096	2,083	,037	par_11
Y	<---	X4	,437	,080	5,449	***	par_13
Y	<---	X3	,102	,090	1,141	,254	par_14
PM2	<---	X1	1,019	,041	24,618	***	par_1
PM1	<---	X1	1,000				
EP4	<---	X2	1,000				
EP3	<---	X2	,954	,038	24,942	***	par_2
IR2	<---	X3	1,000				
IR4	<---	X3	1,036	,032	32,376	***	par_3
TS4	<---	X4	1,000				
TS3	<---	X4	,991	,029	34,136	***	par_4

			Estimate	S.E.	C.R.	P	Label
TS2	<---	X4	1,019	,027	38,350	***	par_5
LO1	<---	Y	1,000				
LO2	<---	Y	1,018	,027	37,265	***	par_6
LO4	<---	Y	1,033	,032	32,723	***	par_7
PM4	<---	X1	,958	,065	14,773	***	par_15
PM5	<---	X1	1,064	,043	24,617	***	par_16
IR5	<---	X3	1,058	,031	33,841	***	par_17
EP5	<---	X2	,994	,037	26,915	***	par_18

The table above shows that the Educational Policies variable significantly influences Priority of Management with a p-value (p-value) of 0.000. Educational Policies also significantly influence Learning Outcome with a p-value (p-value) of 0.000. The effect of Educational Policies on Priority of Management is 0.829 while the effect on Learning Outcome is 0.200.

The Priority of Management variable significantly affects Individual Readiness with a p-value of 0.000. The Priority of Management variable also significantly influences Technological Support with a p-value of 0.000. However, Priority of Management does not significantly affect Learning Outcome, because the p-value (p-value) is only 0.102, which means that it exceeds the set limit of 0.050. The effect of Priority of Management on Individual Readiness is 0.967, while on Technological Support it is 0.909.

The Technological Support variable significantly influences Learning Outcome with a p-value (p-value) of 0.037. The effect is 0.437. However, the Individual Readiness variable does not significantly affect Learning Outcome, because the p-value (p-value) is only 0.254, which means that it exceeds the set limit of 0.050. As for all the indicators of each construct significantly affect the construct.

6. Discussion

6.1. The Effect of Priority of Management on Individual Readiness

The results of data processing as presented above show that Priority of Management positively and significantly influences Individual Readiness. The amount of influence is shown by the estimated number which is 0.967. This means that Priority of Management is able to influence 96.7% of Individual Readiness. If the Priority of Management changes, Individual Readiness will also change with a change ratio of 1:0.967. Of course, this influence has a very large value, so it is natural that the CR value is also high, which is 11,587 which means it shows a significance at 0.000.

The elements forming the Priority of Management variables in this study are consideration of needs and benefits (PM1), strengthening fundamental aspects (PM2), improving performance (PM4), strengthening character (PM5). These four indicators are proven to be able to significantly influence Individual Readiness whose elements include individual capabilities (IR2), social interaction skills (IR4), commitment to the organization (IR5). If one looks closely, the indicators in Priority of

Management have a strong logical connection with the indicators in Individual Readiness, so it is only natural that the results show a level of significance with quite high influence.

6.2. The Effect of Priority of Management on Technological Support

Priority of Management also positively and significantly influences Technological Support. The amount of influence is shown by the estimate number which is 0.909. That is, Priority of Management is able to influence 90.9% on Technological Support. If the Priority of Management changes, the Technological support will also change with a change ratio of 1:0.909. Of course, this influence has a very large value, so it is natural that the CR value is also high, which is 10,082 which means it shows a significance at 0.000.

The elements forming the Priority of Management variables in this study are consideration of needs and benefits (PM1), strengthening fundamental aspects (PM2), improving performance (PM4), strengthening character (PM5). These four indicators are proven to be able to significantly influence Technological Support whose elements include the benefits of learning (TS2), the suitability of learning technology (TS3), the added value of technology (TS4). If one looks closely, the indicators in Priority of Management have a strong logical connection with the indicators in Technological Support, so it is only natural that the results show a level of significance with quite high influence.

6.3. The Effect of Priority of Management on Learning Outcome

Priority of Management does not significantly affect Learning Outcome. The no effect of Priority of Management on Learning Outcome is indicated by the C.R value which is only 1.636, which means it only has a significant probability value of 0.102. This probability value is certainly far greater than the reference probability value which has been set at 0.050. Meanwhile, when viewed from the estimated numbers, the value is also very small, only 0.113.

The elements forming the Priority of Management variables in this study are consideration of needs and benefits (PM1), strengthening fundamental aspects (PM2), improving performance (PM4), strengthening character (PM5). These four indicators are proven not to significantly affect the learning outcomes whose elements include cognitive (LO1), affective (LO2), efficacy (LO4). If one looks closely, the indicators in Priority of Management lack a logical connection with the indicators in Technological Support, so it is natural that the results do not show a significant level of influence. This is reasonable because the effect of connectivity between the indicators is not direct.

6.4. The Effect of Individual Readiness on Learning Outcome

Individual Readiness does not significantly affect Learning Outcome. The no effect of Individual Readiness on Learning Outcome is shown by the C.R value, which is only 1.141, which means it only has a significant probability value at 0.254. This probability value is certainly far greater than the reference probability value which has been set at 0.050. Meanwhile, when viewed from the estimated numbers, the value is also very small, only 0.102.

The Individual Readiness variable has elements which include individual capabilities (IR2), social interaction skills (IR4), commitment to the organization (IR5). While the Learning Outcome

variable whose elements include cognitive (LO1), affective (LO2), efficacy (LO4). If we look closely, the indicators in Individual Readiness can become prerequisites for improving the indicators in Learning Outcome. The results should show a significance level with a fairly high influence. But precisely what happened was the opposite, which did not significantly affect. Means, the gap lies in the teaching and learning process. Because, when viewed from this context, it is indeed not visible how the learning process occurs, which is able to increase the cognitive, affective, and efficacy elements. Thus it can also be said that the existing indicators on individual readiness need to be bridged with teaching techniques, so as to improve learning outcomes. This step is in line with Rusly et al (2012) who emphasized that the most important thing about individual readiness in learning is conceptualization efforts that start from forming change readiness, consistently implementing knowledge management processes, then ensuring the effectiveness of knowledge management.

6.5. The Effect of Technological Support on Learning Outcome

Technological Support positively and significantly influences Learning Outcome. The amount of influence is shown by the estimated number which is 0.437. That is, Technological Support is able to influence 43.7% on Technological Support. If the Technological Support changes, the Learning Outcome will also change with a change ratio of 1:0.437. Of course, this influence has a quite large value, so it is natural that the CR value is also high, which is 5,449 which means it shows a significance at 0.000.

The elements forming the Technological Support variable in this study are the benefits of learning (TS2), the suitability of learning technology (TS3), the added value of technology (TS4). If observed carefully, the indicators contained in Technological Support have a strong logical connection with the indicators contained in the Learning Outcome which consist of cognitive (LO1), Affective (LO2), Efficacy (LO4). So, it is natural that the results show a significant level with a fairly high influence.

6.6. The Effect of Educational Policies on Learning Outcomes

Educational Policies positively and significantly influence Learning Outcome. The amount of influence is shown by the estimated number which is 0.200. That is, Educational Policies can influence 20% on Learning Outcome. If the Educational Policies change, the Learning Outcome will also change with a change ratio of 1:0.200. Of course, this influence has a quite large value, so it is natural that the CR value is also high, which is 2,083 which means it shows a significance of 0.037.

The elements forming the Educational Policies variables in this study are the selected educational model (EP3), the basic competencies to be achieved (EP4), the quality of teachers (EP5). If you look closely, the indicators in the Educational Policies have a strong logical connection with the indicators in the Learning Outcome, which consist of cognitive (LO1), affective (LO2), and efficiency (LO4). So, it is natural that the results show a significant level with a fairly high influence.

6.7. The Influence of Educational Policies on Priority of Management

Educational Policies positively and significantly influence Priority of Management. The amount of influence is shown by the estimated number which is 0.829. That is, Educational Policies are able to influence 82.9% on the Priority of Management. If the Educational Policies change, the Learning Outcome will also change with a change ratio of 1:0.829. Of course, this influence has a quite large value, so it is natural that the CR value is also high, which is 12,245 which means it shows a significance at 0.000.

The constituent elements of Educational Policies variables in this study are the selected educational model (EP3), the basic competencies to be achieved (EP4), the quality of teachers (EP5). If examined carefully, the indicators in the Educational Policies have a strong logical connection with the indicators in the Learning Outcome which consist of considering needs and benefits (PM1), strengthening fundamental aspects (PM2), improving performance (PM4).), strengthening character (PM5). So, it is natural that the results show a significant level with a fairly high influence.

7. Conclusion

1. The success of education can be seen from the size of the learning outcomes. Because learning outcomes are the result of interaction between teachers and students. To create quality Learning Outcomes, it is necessary to integrate various aspects in a complete ecosystem. Some of these aspects can be divided into internal (micro) factors and external (macro) factors of educational institutions. The macro factor of educational institutions is the National Education Policy which in this study is represented by the Education Policy variable. While the internal factors are represented by the variables Priority of Management, Individual Readiness, Technological Support. This integrated learning ecosystem is described in the model as shown in Figure 1 and tested with the model in Figure 2. about the Empirical Model. The model does not show goodness of fit, so it needs to be modified.
2. The full model empirical model as in Figure 2 does not show a good model. In order to become a model that meets the assumption of goodness of fit, it is necessary to modify it by removing several indicators from each variable, and still correlating the residuals e27, e28, and e29. After modification, the model that meets the good fit model assumptions can be seen in Figure 3. Full Model (After Modification). In this model, several indicators originally listed in Figure 2 are omitted, as a modification effect, resulting in a reduction in indicators. The indicators used in the Priority Management variable are Consideration of Needs and Benefits (PM1), Strengthening Fundamental Aspects (PM2), Performance Improvement (PM4), Strengthening Character (PM5). The indicators used in the Education Policy variable are the educational model chosen by the organization (EP3), Basic Competencies to be Achieved (EP4), Teacher Quality (EP5). The indicators used in the Individual Readiness variable are individual abilities (IR2), ability to interact socially (IR4), and commitment to the organization (IR5). The indicators used in the Technology Support variable are the benefits of learning (TS2), the suitability of learning technology (TS3), the added value of technology

(TS4). The indicators used in the Learning Outcomes variable are Cognitive (LO1), Affective (LO2), Efficacy (LO3).

3. Testing through SEM analysis using AMOS software shows that the Education Policy variable has a positive and significant effect on Management Priorities and Learning Outcomes. The Management Priority Variable has a positive and significant effect on Individual Readiness and Technology Support, but does not have a significant effect on Learning Outcomes. The Technology Support Variable has a positive and significant effect on Learning Outcomes, so that this variable also functions as a good mediator bridging the influence of Priority Management with Learning Outcomes. The Individual Readiness Variable does not significantly influence Learning Outcomes, so that the Individual Readiness variable cannot be used as a mediating variable that mediates between Management Priorities and Learning Outcomes. The location of the weakness lies in the absence of a teaching function on the Individual Readiness variable indicator.

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