Adaptation I-Adapt Measurement in The Context of Guidance and Counseling Teachers

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Abstract

The purpose of this study was to obtain a standardized Indonesian version of the adaptability scale of guidance and counseling teachers. Adaptability consists of 8 dimensions, namely; crisis, culture, work stress, interpersonal, physical, creatively, learning, and uncertainty. The adaptation process is carried out using the International Test Commission (2016) reference. This adaptation involves 276 BK teacher. The research instrument is a statement item consisting of 55 items. The data analysis technique uses content analysis and constructs analysis. The content analysis used the CVI, while the construct analysis used CFA with the AMOS 21 program. The reliability test was based internal consistency through the Cronbach Alpha coefficient. The results of data analysis show that the CVR value meets the minimum parameters. There are 30 items that are proven to have a good fit model. The reliability coefficient of Cronbach's alpha individual variable adaptability measurement is .929.

Keywords: adaptability, guidance and counseling teachers, confirmatory factor analysis

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Introduction

Adaptation is an individual's ability to respond effectively in a constructive way to changing situations (Bartone et al., 2018; Campbell & Wiernik, 2015; Fugate et al., 2004; Hamtiaux et al., 2013; Ployhart & Bliese, 2006). Martin et al. (2018) define adaptability as an individual's capacity to regulate the function of psychological behavior in responding constructively to new, changing, and uncertain situations, conditions, and situations. This definition of adaptation is based on a tripartite model involving cognitive, behavioral, and emotional adaptation, and refers to modifying one's thoughts, behavior, or emotions to deal with changes, new, or uncertain situations.

Adaptability is influenced by individual differences, personality, and how individuals perform problem-solving (Jundt et al., 2015; Ployhart & Bliese, 2006; Pulakos et al., 2000a). Adaptability is a type of strength that allows control over oneself in a changing environment (Heckhausen et al., 2010; Muraven & Baumeister, 2000). The individual's ability to adapt to a changing environment will give positive results in achieving success (Maggiori et al., 2013; Wilkins et al., 2014). Adaptation is also positively correlated with the ability to manage the class optimally (Martin et al., 2013). Adaptability is the main mental resource (Clement et al., 2015). Individuals with high adaptability can have better psychological resources than individuals with low levels of adaptability (Ployhart & Bliese, 2006). Psychological resources are very important for individuals who work in environments with dynamic demands. To adapt to changes in the system and environment, individuals must show good adaptability in aspects of cognition, affect, and behavior.

Some experts define adaptability as an individual characteristic. This approach is more popular than the systemic definition, as evidenced by the larger body of literature. Adaptability is defined as an individual characteristic that can be found in the areas of temperament (Trundt, 2010), task performance (Pulakos et al., 2000a), task performance (Cullen et al., 2014; Pulakos et al., 2009), and learning (Martin & Liem, 2015). Adaptability is also defined in social situations that describe a person's ability to relate to other people (Zorzie, 2012). In line with the definition of O'Connel, McNeely & Hall (2008), adaptability is defined as the ability to deal with ambiguity associated with uncertainty and pressure. Based on several previous definitions, it can be concluded that adaptability is defined as the ability of individuals to change their roles, attitudes, and behavior in adjusting to other people or new situations.

Adaptability is needed by all individuals because throughout human life will experience changes in various fields, namely economic, geo-political, socio-cultural, technological, medical, and so on (Pike et al., 2010; Tomasik & Silbereisen, 2010). Individuals will face uncertainty and novelty in adjusting to relationships with other people, new environments, new jobs, and the complexity of the problems they face. These changes require individuals to be able to adapt well and be able to create new changes (Tomasik & Silbereisen, 2010).

Adaptability is an important factor that must be owned by guidance and counseling teacher (Kusumawati, 2020; Struder, 2015). Guidance and counseling teachers are responsible for the mental health of student (American School Counselor Association, 2019; Makhmudah, 2017). The demands of guidance and counseling teachers are not only at the developmental and preventive levels but also in the curative realm (Sujadi, 2018). The adaptability of guidance and counseling teachers is a necessity, to guide students to achieve optimal development (Maulia & Amalinda, 2018; Putra Ap & Shofaria, 2020; Retnaningdyastuti, 2018). Teachers are not only responsible for guiding students directly, but also must consult with parents, and coordinate with teachers and principals (Mulawarman, 2017; Prayitno, 2008).

The adaptability measure was first developed by Pulakos et al. (2000b) with eight dimensions. Based on these eight dimensions, a Job Adaptability Inventory (JAI) was developed which consisted of 132 question items, each dimension consisting of 15-18 questions (Oprins et al., 2018). JAI aims to measure adaptive performance as a behavior. A similar measurement tool is the I-Adapt measurement developed by Ployhart & Bliese (2006) based on the theory of individual adaptability. This theory focuses on adaptability as a personality trait that describes an individual's ability to adapt to organizational change.

Furthermore, Ployhart & Bliese (2006) adapted the I-Adapt measurement using material expert assessment and empirical trials. The results show that it is necessary to add items to the sub-dimensional instruments. The addition of these items shows that the results of the confirmatory factor analysis (CFA) are quite fit. The next I-Adaptation measurement obtained 55 valid items. The I-Adapt Measurement tool aims to measure the level and structure of an individual's ability to adapt. The eight adaptability dimensions are representative across all items, as developed by Pulakos (2000b). Based on the development of individual adaptability measurements, the researchers used the I-Adapt Measurement instrument developed by Ployhart & Bliese (2006). I-ADAPT Measurement is based on eight dimensions, namely 1) handling emergencies or crisis situations, 2) handling work stress, 3) applied creativity, 4) dealing with unpredictable or changing work situations , 5) learning work tasks, technologies, and procedures, 6) demonstrating interpersonal adaptability, 7) displaying cultural adaptability and 8) physical adaptability. Each dimension consists of 5 statement items, with a total of 40 items (Pulakos et al., 2000a)

The purpose of this study was to examine individual differences in adaptability in the context of guidance and counseling teachers in Indonesia. Meanwhile, previously developed adaptability instruments were in the context of military (Boylan & Turner, 2017; Clement et al., 2015; Oprins et al., 2018), management, and industrial organizations (Holtkamp, 2014; O'Connell et al., 2008; Parent & Lovelace, 2018) with settings outside Indonesia. Therefore it is necessary to transadaptation of the instrument while assessing the eight dimensions developed by Pulakos and testing the structure of these dimensions using CFA

Method

Design

The adaptability measurement tool that has been developed by Ployhart & Bliese (2006) is the I-Adapt Measurement. This scale is based on 8 dimensions, namely, crisis, culture, work stress, interpersonal, physical, creatively, learning, and uncertainty. This scale is a Likert scale consisting of a five-point Likert scale (never, rarely, sometimes, never, and often), the number of items is 55 items with an internal consistency of .76. This scale is intended for teachers to measure individuals in managerial and industrial contexts, if applied in the context of guidance and counseling teachers, it needs to be adapted according to context.

Therefore, if it is to be used to measure the adaptability of guidance and counseling teachers in Indonesia, a study is needed to test the adaptability measurement tool according to the context and research setting. Thus, this study aims to test the adaptability measurement tool for guidance and counseling teachers involving the dimensions of the crisis, culture, work stress, interpersonal, physical, creatively, learning, and uncertainty.

Participant

The study used a quantitative research design with a probability sampling technique, where the researcher determined random sampling in the population. The population of this study was Guidance and Counseling teachers of secondary schools in East Java. The minimum sample size is determined based on the calculation of the number of measuring instrument parameters multiplied by 20 (Kline, 2016). The number of parameters for i-adapt measurement is 8 x 20, for a total of 160, so the

minimum sample is 160 respondents. The data collection of this research was conducted using internet media based on google Forms (online questionnaire). After the research instrument was distributed, the data collected was selected based on the sample criteria, namely 1) secondary school counseling teacher, 2) minimum educational background of S-1 Guidance and Counseling / Psychology, 3) experience as a counseling teacher of at least 5 years, and 4) has passed the teacher professional education program. Based on these criteria, a sample of 275 respondents was obtained.

Measurement

The instrument used in testing the validity of the scale is consists of 3 instruments, namely I-adapt measurement, expert assessment form, and pilot study assessment form. The first instrument is I-adapt Measurement. This instrument uses an adaptability scale, adapted from the I-Adapt Measurement, developed by Ployhart & Bliese (2006), consisting of 55 items from 8 dimensions, namely crisis, culture, work stress, interpersonal, physical, creatively, learning, and uncertainty. The scale has 5 response choices with a range of 1 (very inappropriate, 2 (not appropriate), 3 (neutral), 4 (appropriate), and 4 (very inappropriate). The higher the individual's I-Adapt Measurement score, the higher the adaptability they have, on the other hand, the lower the score obtained from the I-Adapt Measurement, the lower the adaptability they have.

Table 1

Blue Print I-Adapt Measurement

No.	Dimension	Item Number	Number of items
1	Crisis	1, 9, 12, 17, 22, 27	6
2	Work Stress	3, 15, 21, 32, 35	5
3	Creativity	10, 16, 24, 36, 37	5
4	Uncertainty	23, 28, 29, 39, 40, 43, 47, 54	8
5	Learning	5, 11, 31, 34, 38, 44, 46, 49, 53	9
6	Interpersonal	4, 7, 18, 30, 33, 42, 50	7
7	Cultural	2, 6, 14, 19, 25	5
8	Physic	8, 13, 20, 26, 41, 45, 48, 51, 52, 55	10
			55

The second instrumen is expert assessment form. Expert assessment is carried out by filling out an assessment form from the similarity and comparability aspects of the linguist and the relevance,

importance, and clarity aspects of the content expert. The role of the expert, in this case, is to rate the items based on the level of relevancy, importance, and clarity, with a score range of 1–4. A score of 1 means very irrelevant, not important, and unclear, while a score of 4 means very relevant, very important, and very clear. Relevancy is the extent to which the relevance of the item with the construct is measured. Importance means how important the item is when related to the research construct and context. Clarity is whether the item is clear enough and can be understood.

The third instrumen is pilot Study Assessment Form. The pilot study assessment was conducted to see whether the statement items matched the measuring construct. Respondents filled out the measuring instrument and gave an assessment based on the relevance and clarity aspects of the measuring instrument items, as well as providing written input, as consideration for researchers to revise the measuring instrument.

Procedure

This study refers to the guidelines for adapting the measuring instrument International Test Commission (ITC) Guidelines for Translating and Adapting Test Second Edition (Leong et al., 2016) which consists of five stages, namely pre-condition, test development, confirmation, administration, and documentation. The adaptation stages are shown in Figure 1. The adaptation stages are as follows. The First, pre-condition stage, the steps of this pre-condition stage include (1) The researcher contacted the previous measuring instrument developer Masa Vidmar (2016) to obtain a permit to use the measuring instrument.

Second, test development stage. The steps include; (1) carrying out the translation process into Indonesian (forward translation). (2) The process of synthesizing the results of forwarding translation 1 and 2. (3) translating the results of the forward into the original language (English), or called backward translation. (4) the synthesis process results in backward 1 and backward 2.

Third, confirmation. This stage is testing the validity of the content (evidence based on content) and constructs validity (evidence based on structure). The first evidence based on content, an assessment of the level of comparability and similarity between the original measuring instrument and the results of the backward translation was carried out by 3 linguists, psychologists, and guidance and counseling

experts. The results of the comparability and similarity measurements of items are based on the item equivalence value. According to Spearber (2004), the acceptable equivalence of items is items with a mean score > 3. This psychological measuring instrument has a mean score > 3, this indicates that the items in this measuring instrument have good comparability so that they can be compared and have same meaning as the original version. Furthermore, the second content review was assessed on the level of relevance, importance, and clarity by 6 experts. Evidence-based structure pilot testing was carried out by inviting 10 guidance and counseling teachers. The purpose of pilot testing is to fill out and provide feedback on the relational skills scale

Fourth, administration. At this stage, a trial of the relational skills scale was carried out on 275 BK teachers. The goal is to measure whether the scale developed is under the construct and field data (empirical). This validity requires statistical analysis techniques (Kyriazos, 2018). This study uses confirmatory factor analysis (CFA). In addition, This research uses the Amos 22 software. Confirmatory factor analysis is used to test whether these indicators are valid as construct latent measures (Azwar, 2010). specifically, CFA is used to look at the fit model to measure adaptability. The criteria for determining the fit of the model are shown in Table 2

Fifth, documentation. At this stage, the report preparation process is carried out based on the adaptation stages starting from the translation stage to the confirmatory stage of factor analysis. Then compile and layout measuring instruments whose validity has been tested. This study consists of 3 instruments, namely I-adapt measurement, expert assessment form, and pilot study assessment form.

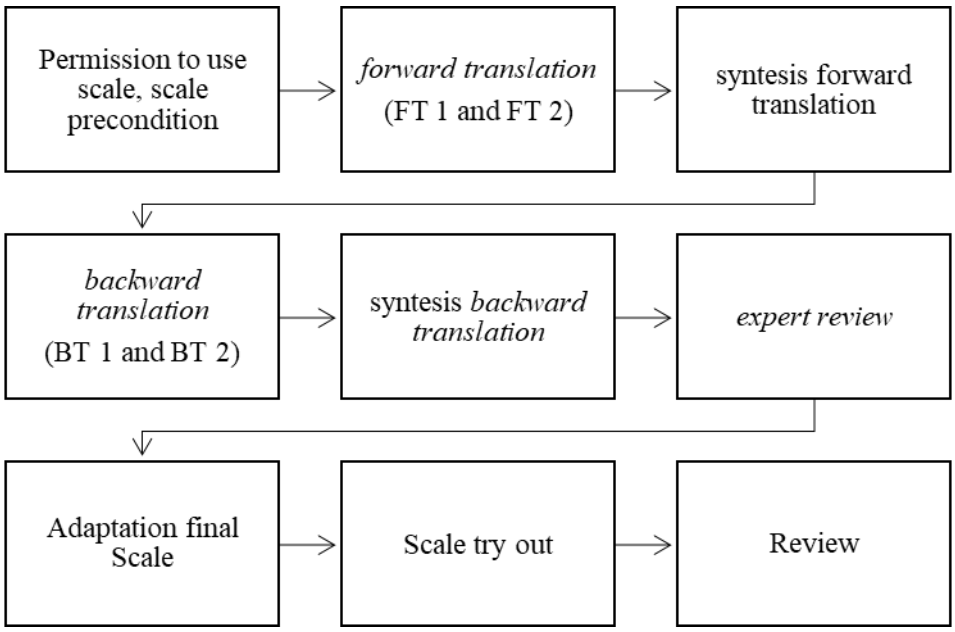


Figure 1. Adaptation stages according to ITC Guidelines

Data Analysis

Data analysis in this study uses two methods, namely evidence based in test content and evidence based on internal structure. Evidence based in test content is carried out using two techniques, namely by calculating the mean score from the comparability and similarity of the translator's assessment and calculating the CVI based on the expert's assessment (I-CVI and S-CVI). The accepted CVI value is .83 (Polit et al., 2007; Polit & Beck, 2006). Evidence based on internal structure is done by confirmatory factor analysis. CFA is estimated by looking at whether the model used is a fit model or not. According to Hair et al. (2019), there are three parameters used to see whether a measurement model is fit or not, namely *Chi-Squared* (X2) ≥ .90 2, *Goodness Fit Index* (GFI) ≥ .90 3 and *Root Mean Square Error Approximation* (*RMSEA*) ≤ .07 CFA analysis using *AMOS 22.0 software.*

Results

Pre-Condition Stage

The first step in the adaptation is to contact the measurement tool developers via email. The I-Adapt Measurement tool was developed by Ployhart and Bliese (2006) and the researchers received confirmation to use and carry out the process of adapting the measuring tool. After obtaining

permission from all the development of measuring instruments, the next process is the translation of measuring instruments. The choice of translator or linguist is not only based on Indonesian and English language skills, the researcher also considers educational background, understanding of the cultural aspects of the research subject, and understanding of the construct of the measuring instrument to be used. This study involved 2 forward translators, 2 backward translators, and 2 reviewers.

The process of translating measuring instruments from English to Indonesian. The translator is a linguist who has good language skills, as indicated by a minimum IELTS score of 500 and a minimum TOEFL score of 6.5. This stage involves 2 translators. Translators are given a letter of application and willingness to become translators and are given an overview of the research objectives, research context, and operational definitions of the variables in this study.

Expert Review

The results of the review of the contents of the I-Adapt measurement are stated to be good, but some items need minor revisions. On the adaptability scale, item 21 on the stress dimension, the word "*schedule*" has an ambiguous meaning, so it needs to be adapted to the context of the guidance and counseling teacher's performance. The uncertainty dimension contains 2 items that have ambiguous meanings, namely items 23 and 28. The cultural dimension contains ambiguous items, namely in item 19 "*I enjoy the variety and learning experiences that come from my work with people from different backgrounds*" the sentence contains 2 things, namely enjoying the variety and enjoying learning experiences, substantially have different meanings. In the physical dimension of item 55 "*I keep working even when I'm physically tired*" the editorial needs to be changed to "*I keep working even though I'm physically tired*".

Final Draft Formula

Before formulating the final scale draft, the researcher conducted a pilot study on 10 target respondents who met the research subject criteria. The pilot study subjects consisted of 10 BK teachers who had attended the BK teacher professional education and had a minimum of 5 years of teaching experience. The implementation of this pilot study begins by asking the respondent to provide an initial assessment of the measuring instrument that has gone through the adaptation process. In this process, respondents evaluate items based on the level of relevancy and clarity. The

intended relevance is the extent to which the item is relevant to the construct being measured, whether it is under the circumstances, situation, or culture of BK teachers in Indonesia. Item clarity means whether the item is clear and understandable. Respondents circle the mark T (no) if the item is irrelevant or unclear to the circumstances, situation, or culture in Indonesia, or please circle the mark Y (yes) if the item is deemed relevant or clear to understand according to the circumstances. , or the culture in Indonesia. In addition, respondents can also provide comments on the item or measuring instrument.

Based on the results of the pilot study on the I-Adapt measurement scale, some respondents asked about the meaning of items 12, 23, 39, 42, and 52, the sentences were not understandable and needed to be adapted to the context of the counseling teacher profession. Item 12 reads "*I can't think clearly at a sudden time*". This item needs to be explained clearly and contextually, for example, "*I can think even in urgent times*". Item 39 which reads "*I can quickly learn new methods to solve problems*" needs to be revised again into a simple sentence and minimize multiple interpretations. Then the revision researcher becomes "*I can adapt to new methods to solve problems*". Item 52 reads "*The quality of my work is affected by weather conditions*". Then the researcher explained by adding information about the conditions referred to in brackets "*for example, extreme weather makes me sick easily*".

Next, is the testing phase of the measuring instrument. At this stage, the final revised scale is given to subjects who meet the criteria that represent the research population for testing measuring instruments. Taylor (2013) states that measurement validity provides information about how well conceptual definitions and operational definitions work together or follow one another. In addition, validity can reveal how well the indicators represent variables under the operational definition of the variable. The validity approach in this study uses evidence based on test content and evidence based on internal structure.

Evidence-based test content is carried out through comparability-similarity translation-back translation. Assessment of the items on a scale carried out by three experts, then the average value of each item is calculated. Sperber (2004) explains that if the mean value is > 3 (the continuum agreement value moves from 7 to 1) then the forward translation item needs to be reviewed. The average score between 2.5 to 3 on the similarity aspect is also considered problematic and the item

needs to be revised to be revised. Theoretically, backward translated items may differ from the original questionnaire in terms of linguistic and meaning conveyed. Ideally, the corresponding items have similar meanings and linguistic forms. However, in this context, the similarity of meaning takes precedence over the form of language or words, it is necessary to ensure that the words have the same meaning.. The results of comparability calculations (total mean score = 6.79, range 1.67), and similarity calculations (total mean score 7, range 2). This value means the total score moves from 6.79 – 7.00, this means that the comparison and similarity of meaning are quite good. However, there is one item on the I-adapt Measurement scale on item 52, expert 3 states that the word to changing in the original item means changing which is static. To describe a condition it is not appropriate to use the word change because changing situations can broadly be interpreted as an individual's ability to deal with dynamic conditions, not just change. After consulting with the BT synthesis expert and explaining that the item needs a change in terms, but without changing the meaning.

The next validity used in this study is content validity. In this study, the evidence is based on the content of the test by calculating the content validity index (CVI). Polit, Beck & Owen (2007) state that the content validity index can be calculated on each item on the scale (I-CVI) and the overall scale (S-CVI). To calculate the I-CVI requires an assessment of a minimum of three experts to assess each item of the scale used. The role of the expert, in this case, is to rate the items based on the level of relevancy, importance, and clarity, with a score range of 1–4. A score of 1 means very irrelevant, not important, and unclear, while a score of 4 means very relevant, very important, and very clear. Each item is rated by experts from 1 - 4, for good items it is rated 3 and 4, while the less good items are rated 1 and 2. Furthermore, the assessment is scored with a score of 1 (for assessments 3 and 4) and 0 (for assessments 1 and 2).

Meanwhile, the S-CVI score is determined by calculating the average I-CVI, namely the number of I-CVI scores divided by the total number of items. The results of the CVI and S-CVI calculations can be seen in appendix XII. Based on the results of the CVI and S-CVI calculations, the results show that the I-Adapt Measurement scale gets a value of 1.00, both the CVI value and the S-CVI value. These results indicate that the content validity for all measuring instruments is declared good. This is based on the statement of Polit et al. (2007) that an item is considered good if it has an I-CVI of 0.78 or more, and recommends an S-CVI value of 0.90 or more.

Evidence-Based on Internal Content

Construct validity is the level of a set of statements or items that are used to measure and can reflect theoretically latent constructs so that measurements become accurate (Hair et al., 2019). In this study, construct validity was carried out using the Confirmatory Factor Analysis (CFA) program Amos 21 which was under each construct of the measuring instrument. The I-adapt measurement scale was analyzed using the second-order CFA. The first construct validity test that was conducted was a model test to see whether the model was fit or not (goodness of fit). The second test uses confirmation factor analysis, to obtain a measurement model using the Amos 21 software. The CFA test process is the first to test the suitability of the measurement model (goodness of fit). According to Hair et al. (2019), D' Fabio. (2016) testing the suitability of the measurement model was carried out by comparing the statistical reference value, namely the Root Mean Square Error Approximation (RMSEA) value for absolute fit indices and CFI (incremental fit indices). The criterion that the measurement model is appropriate/model fit is if at least two of these criteria meet. The criteria for the goodness of fit are the RMSEA value of 0.08, and CFI is 0.9 (close to 1).

Furthermore, if the model does not fit, modifications to the CFA measurement model are carried out, in several ways, namely by reducing statement items that have a low factor load, namely items that have a loading factor of 0.50. By eliminating items that have a low loading factor, in general, it will make the model more fit, and if it does not become more fit, the question items are still included. The next modification method is by connecting between measurement errors (error measurement) through covariance or by connecting the question items to other dimensions/variables according to the instructions in Lisrel (Kline, 2016).

After checking the suitability of the measurement model from the results of the CFA model and obtaining a fit CFA model. Next, test the construct validity by testing the convergence. A convergent validity test is a construct validity test that is done by looking at the loading factor value of the item. An item that has a load factor of 0.50. After modifying the model, the results show the fit parameters. As stated by Hair et al. (2019); Timm (2002), the loading factor reference value (loading factor) of 0.40 or more is considered to have strong validation to explain its dimensions (construct). But there are several other references (Bag, 2015; Hair et al., 2019; Pituch & Stevens, 2016) explaining that the weakest factor load that can be accepted is 0.40 or close to 0.40.

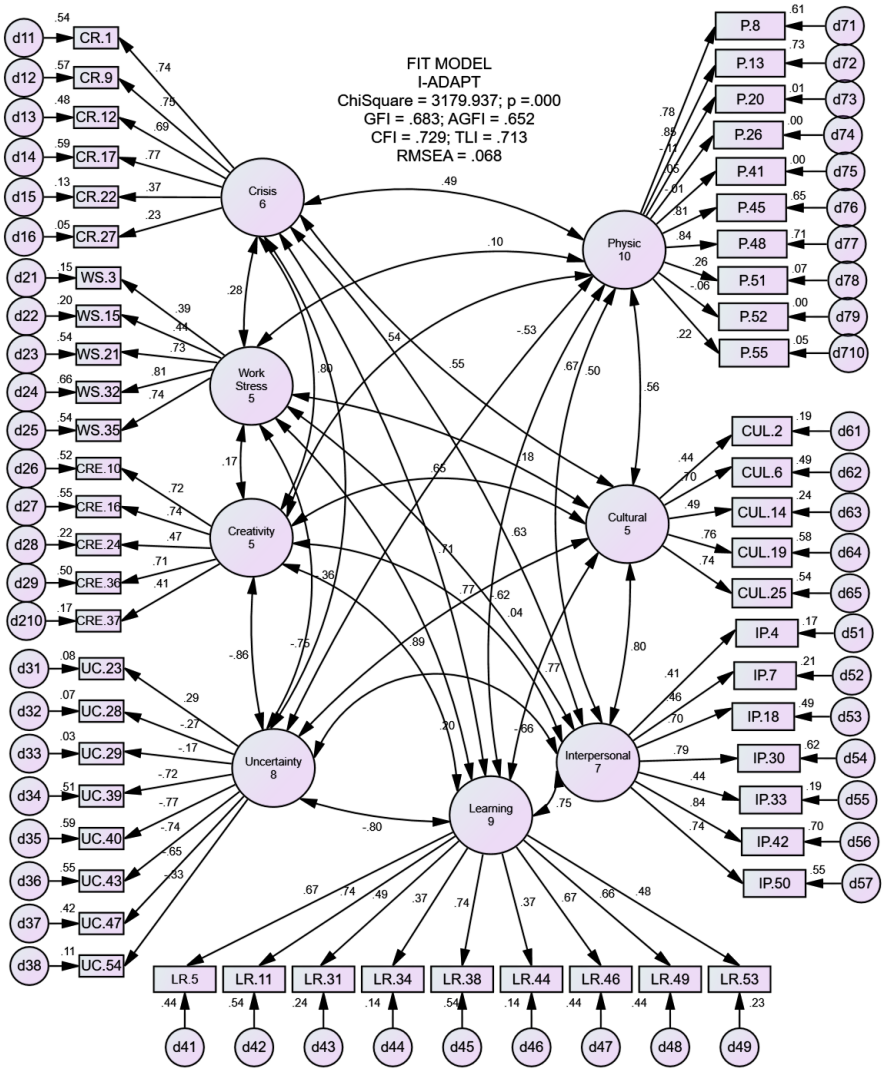
Furthermore, the reliability test is a test to see the reliability of the construct. Reliability testing using Cronbach's Alpha value. According to Hair et al. (2019), The Cronbach Alpha coefficient must be greater than 0.7 although 0.6 is still acceptable, and with a value of 0.6 out of 0.8, then reliability is considered good. In this study, the reliability test used Cronbach Alpha with the help of SPSS.

Furthermore, the test measuring instrument in this study was conducted on 276 subjects who met the criteria of the research subject, namely BK SMP teachers in East Java who had attended the BK teacher professional education, and had additional duties besides the duties as a BK teacher and were in the range of 30 years to 60 years. year.

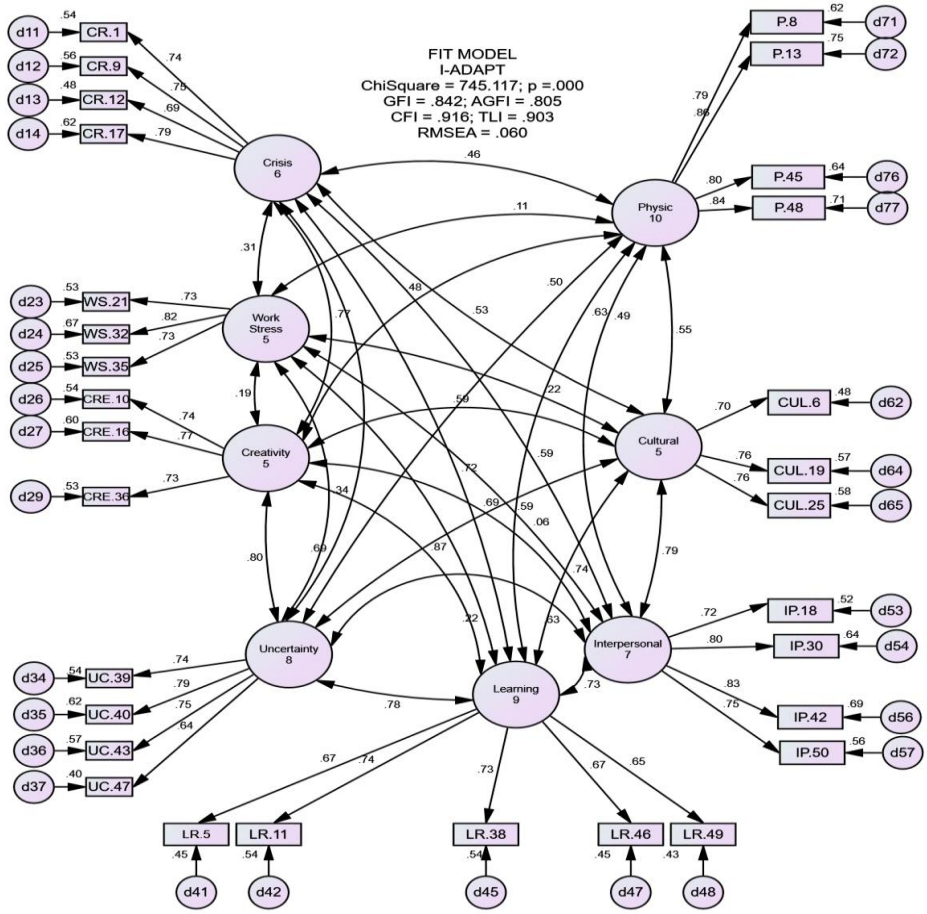
The results of the CFA analysis show that the fit parameters are still not as expected (see Figure 1), so a modification of the model (see Figure 2) is carried out by removing items that have a low loading factor. The results of the modified model show the fit parameters. This can be seen in the chi-square value and other fit value indices, such as GFI, CFI and RMSEA. This modified model has 30 items with the lowest factor loading of .43. The results of the reliability test with Cronbach's alpha of .929.

Table 1. *Fit Index* of Measurement Model of I-ADAPT *Measurement*

Fit Index	Model Awal (Gambar 4.2)	Model Modifikasi (Gambar 4.3)	Ketentuan Fit
Chi-Square	3179.937 P< .000	745.117 P< .000	P-Value<.005
GFI	.683	.842	≥ .08 (margin fit)
AGFI	.652	.805	≥ .08 (margin fit
CFI	.729	.916	≥ .08 (margin fit
TLI	.713	.903	≥ 008 (margin fit
RMSEA	.068	.060	< .08



Gambar 4.2. Measurement Model of CFA Analysis *First Order* I-Adapt *Measurement*



Gambar 1. Measurement Model CFA Analysis CFA Modifikasi *I-Adapt Measurement*

The first order CFA model has a high model fit, all loading factors are more than .40, chi-square = 745.117(p= .000), GFI = .842 and AGFI = .805 is greater than .80, CFI = .916 and TLI = .903 is greater than .90 and RMSEA= .060 is less than .08.

Table 2
Result of Items Selection I-Adapt Measurement

No	Selection Method	Number of an initial item	N of dropped items	Number of the used item	Information on the number of dropped items	Reliability of Alpha Cronbach
1	Crisis	6	2	4	[22, 27]	
2	Work Stress	5	2	3	[3, 15]	
3	Creativity	5	2	3	[24, 37]	
4	Uncertainty	8	4	4	[23, 28, 29, 54]	
5	Learning	9	4	5	[31, 34, 38, 44, 53]	
6	Interpersonal	7	3	4	[4, 7, 33]	
7	Cultural	5	2	3	[2, 14]	
8	Physic	10	6	4	[20, 26, 41, 51, 52, 55]	
	Total	55	25	30		.929

Based on the table above, the items used are 30 items. The reliability coefficient of Cronbach's alpha variable I-Adapt Measurement is .929. The final selection used a confirmatory factor analysis (CFA) model, and the remaining 30 items proved to have a good model fit with the lowest factor loading of 0.64 and the highest .88. The distribution of the loading factor values on the 30 fit items is shown in table 3.

Table 3.
Loading Factor Value of Modified Measurement Model I-Adapt Measurement

Dimension	Item	*Loading Factor*	Number of Items
Crisis	Item 1	.74	
	Item 9	.75	
	Item 12	.69	4
	Item 17	.70	
Work Stress	Item 21	.73	
	Item 32	.82	
	Item 35	.73	3
Creativity	Item 10	.79	
	Item 16	.78	
	Item 36	.74	3
Uncertainty	Item 39	.74	4
	Item 40	.79	
	Item 43	.75	
	Item 47	.64	
Learning	Item 5	.67	5
	Item 11	.74	
	Item 38	.73	
	Item 46	.67	
	Item 49	.65	
Interpersonal	Item 18	.72	4
	Item 30	.80	
	Item 42	.83	
	Item 50	.75	
Cultural	Item 6	.70	3
	Item 19	.76	
	Item 25	.76	
Fisik	Item 8	.79	4
	Item 13	.88	
	Item 45	.80	
	Item 48	.84	
		Total	30

Discussion

This study was designed to validate the i-adapt measurement scale in the context of guidance and counseling teachers in Indonesia. There are two validations in this study, that is content validaty and construct validaty. Content validaty using data from expert reviews and pilot studies. While construct validation using confirmatory factor analysis.

The first evidence based on test content analysis was carried out by calculating the mean score comparability and similarity of the results of the forward translation synthesis with the backward

translation synthesis. The mean score of comparability is 5.66 – 7.00, while the mean score of similarity is in the range of 5.33 to 7.00. Based on these calculations, 5 items have a mean score of < 6.00, namely items 1, 8, 11, 32, and 52. So the ten items need to be observed and revised.

Item 5 "*I take responsibility for acquiring new skills*", according to the results of backward translation, the sentences that need to be observed are "*responsibility*" and "*responsible*". The two words have the same meaning and do not deviate from the intended meaning of the initial statement item. The meaning of responsible language emphasizes responsive character while taking responsibility focuses more on responsible behavior. The original item 8 "*I enjoy learning new approaches for conducting work*". The results of the backward translation criticize the word "*conducting*" and become the word completing "*I enjoy learning new approaches for completing works*". The two words have different meanings, conducting is doing while completing is finishing. In the context of Indonesian culture, completing is more appropriate than just finishing, because there is a meaning to completeness.

Item 11 *"I adapt my behavior to get along with others"*, the sentence that needs to be observed is the word *"adapt"*. In the initial item, the word "*adapt*" means to adapt, while the results of the backward translation use the word "*adjust*". The word adapt has almost the same meaning as adjust, but "adjust" is more of a compromise. Item 32 "*I am usually stressed when I have a large workload*", while the backward translation results have differences in the word "have a large workload" to have "*overload works*" item 52 also has differences in the use of the word "*changing*" with the word "*dynamic*", the two words have the same meaning, only the difference is that the word dynamic is more of a process. If applied to the context of BK teachers in Indonesia, it is more appropriate to use the word dynamic. The second evidence-based analysis is the content validity index, both based on the level of the scale (content validity index scale) and at the item level (content validity index item). The content validity index (CVI) is an assessment by expert judgment on the scale based on aspects of relevance, importance, and clarity. The results of the calculation of the average acceptable CVI value of .83 (Polit et al., 2007; Polit & Beck, 2006). The results of the CVI analysis show that the S-CVI score is 0.925 > .800, meaning that the overall scale is considered good. While the I-CVI score, 3 items have a score of .04 (items 22, 23, and 27), and 7 items have a value of 0.06 (items 1, 2, 32, 35, 45, and 47).

Furthermore, the analysis of evidence based on the internal structure was carried out using confirmatory factor analysis with the AMOS program version 22. I-Adapt Measurement is a multidimensional model consisting of 55 items with eight dimensions, namely the dimensions of crisis 6 items, work stress 5 items, creativity 5 items, uncertainty 8 items, learning 9 items, interpersonal 7 items, cultural 5 items, and physical 10 items. The results of the analysis show that the fit parameters are still not as expected. 25 items have a loading factor value of < .50 so a modification of the model is carried out by removing items that have a low loading factor. The discarded items are the dimensions of crisis (items 22 and 27), work stress (items 3 and 15), creativity (items 4,7, and 33), cultural (items 2 and 14), and physical (items 20, 26, 41, 51, 52 and 55. Cronbach's alpha reliability coefficient of the I-Adapt Measurement instrument is 0.929, indicating that this instrument has a high level of reliability. The final selection used a confirmatory factor analysis (CFA) model, and the remaining 30 items proved to have a good model fit. , all loading factors are more than 0.50, CFI = .919 is greater than .90 including the good fit category, and RMSEA = .060 is less than .08. So that in the future only 30 items are used as a measure of I-Adapt Measurement.

Conclusion

The I-Adapt Measurement variable consists of 8 indicators with a total number of items in the initial instrument of 55 question items. The results of the evidence-based content analysis show that the difference between the results of the forward translation synthesis and the results of the backward translation synthesis lies in the use of language, but has almost the same meaning. 4 items need to be observed from the aspect of language use. The results of the CVI analysis show that the S-CVI score is .925 > .800, meaning that it is considered good overall. While the I-CVI score, 3 items have a score of .04 (items 22, 23, and 27), and 7 items have a value of .06 (items 1, 2, 32, 35, 45, and 47). The summary of the final selection results is 30 items used and 25 items wasted, the full description is presented in Table 4.16 and Figure 4.4. The items that were wasted were the dimensions of crisis (items 22 and 27), work stress (items 3 and 15), creativity (items 24 and 37), uncertainty (items 23, 28, 28, and 54), learning (items 31, 34, 44, and 53), interpersonal (items 4, 7, and 33), cultural (items 2 and 14) and physical (items 20, 26, 41, 51, 52, and 55). The reliability coefficient of Cronbach's alpha of the I-Adapt Measurement instrument is .929, indicating that this instrument has a high level of reliability. The final selection used a confirmatory factor analysis (CFA) model, and the remaining 30

items proved to have a good model fit, all loading factors were more than .50, *chi-square* = 787,809 (p=0.000), *GFI* = .837 and *AGFI* = .809 greater than .80, included in the marginal fit category, while *CFI* = 0.909 and *TLI* = .900 greater than .90 included in the good fit category, and *RMSEA* = .060 which was smaller than .08. So that in the future only 30 items will be used as I-Adapt Measurement.

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