

NEW DIMENSION FOR ELEMENTARY SCHOOL READINESS INSTRUMENT IN PRE-SCHOOL CHILDREN, BANDUNG, WEST JAVA, INDONESIA

Retno Pangestuti¹, Hendriati Agustiani², Surya Cahyadi³, Anissa L Kadiyono⁴

^{1,2,3,4} Doctoral Program of Psychology, Universitas Padjadjaran, Indonesia

Abstract School readiness for elementary level is very important to supports the child's academic achievement and adjustment. The faced problem is the instrument of school readiness more focused on the assessment of the cognitive dimension only. This study aims to develop a more comprehensive instrument for elementary school readiness, covering the dimensions of social-emotional, health and physical development, learning approaches, language development and communication, cognition and general knowledge, plus a new dimension, namely the moral & religion of children. Through in-depth observation of the child's development, this instrument can be used by an early childhood teacher, a parent or a school psychologist. Item number arranged in this instrument consists of 83-items. The question contents have been validated through evidence based on test content and construct validity by Confirmatory Factor Analysis (CFA) using LISREL programs. Results of the test using the instrument on 103 pre-school age children are filled by 12 early childhood teachers, get results-Cronbach alpha coefficient for 0.931 indicate that the instrument is feasible to measure the child's elementary school readiness. Therefore school readiness can be measured not only from cognitive aspect, but also in moral and religion aspect. It will make school readiness measurement will be more comprehensive.

Keywords: Elementary school readiness instrument, moral & religion dimensions of children, content validation.

1. INTRODUCTION

At the beginning of the new academic year, the topic of school readiness of children has always been a major issue among parents, educators including experts in the field of psychology and education. Almost all Indonesian private elementary schools, use the selection for new students. Implementation of the school readiness assessment for children who will attend elementary school is often make a debate.

School readiness is very important for pre-school children before they enter elementary school. It can support the success of academic achievement and social adjustment in school. Children who are not yet ready to go to school growing to be difficult to adapt to the school environment. They experience frustration in school, indifferent, showing psychosomatic symptoms, breaking down the school and poor performance (Katherine, et al, 2014)¹. Another study from Landry & Smith (2008)² concluded that the negative impact on children who are not yet ready to go to school is the appearance of

physical aggression, bullying and often interrupt the activities of other children

Data from preliminary study, 40% young parents in Jelekong, Bandung prefer to put their children in non-formal education courses for reading, writing, and arithmetic rather than following the Early Childhood Education or kindergarten. They think it is more necessary to pass the Elementary School readiness instrument. The debate also occurred among educators. Many teachers and principals approve the execution of the test in order to measure the school readiness, to characterize the learning type and to predict the academic success. Nevertheless, there are many that disagree. They argue that the cognitive development of children aged 5-6 years do not have to reach the level of competence for reading, writing, and complex arithmetic. Some early childhood teachers also disagree in the elementary school selection test because its only considers the children's cognitive.

Based on the background described, the aim of this study was to develop school

readiness instrument that more comprehensive for children in Bandung, West Java.

2. SCHOOL READINESS CONCEPT

The concept of school readiness is defined since several decades ago with the concept of maturity of the child begins to learn formally. Monks (1998)³ tried to change the perception of maturity in school into the school's ability not occur spontaneously but is determined by environmental factors. In a broader discussion, Meisels incorporated within the Centre National Child Development and Learning (1998)⁴ define school readiness as motivation, emotional, physical and intellectual capacities of children that will bring success in a learning situation. Basic school readiness not only focus on cognitive potential of children, but also on other aspects of development include child motor development, social-emotional and language development of children (Pears, 2014)⁵

Puchalla & Muhajarine (2010)⁶ emphasizes that the definition of school readiness can be different in each country or region in the world depends on the social context and time. Thus the value of the local context could determine the things that determine school readiness in a place or a country. Researchers try to look at policies related to school readiness in Indonesia. Regulation of Indonesian Minister of Education and Culture (Permendikbud) No. 137/ 2014 about Standards for Early Childhood Education in Indonesia contains some of the standards used in assessing the maturity of the child at the age of 5-6 years includes religion and moral dimension⁷.

Associated with the development of moral and religious values in pre-school children, there are two theories that became grounded theory of this dimension, namely the theory of moral reasoning associated cognitive structure Piaget and Kohlberg's theory of moral development (in Bergman, 2002)⁸. This paper describe the concept of Piaget on moral development of children that developed to the stage of cognitive development. For pre-school age children ages 4-6 years, can be divided into two stages, namely moral realism and moral autonomy. In the first stage, the child's behavior is controlled automatically with the regulations, while in the second stage around age 7, the child

does not look rigid to obey the rules. Piaget's theory has supported Kohlberg to outlining the moral development of children. Referring to this theory, pre-school children 4-6 years get in on the pre-conventional stage. Child's moral behavior is controlled by the consequences of his actions that could arise in the form of reward and punishment.

3. RESEARCH METHODS

Subjects in this study amounted to 129 people, with details of 4 experts in educational psychology and child development to acquire professional judgment; 5 kindergarten teachers and 1 manager of kindergarten also 4 teachers elementary school and madrasa in the process of cognitive debriefing; 12 the early childhood teachers participated in charging the test for 103 pre-school aged 5-6 years in the village of Jelekong and Cipadung, Bandung, west Java, Indonesia. Subjects were selected randomly in two sundanese village.

The study took place in three stages:

1. Researchers adapt the school readiness instrument from The Early Development Instrument (EDI) developed by Janus & Offord (2000, 2007)⁹ and school readiness measurement tool developed by Kertapati (2009)¹⁰.
2. Researchers add the dimension of moral and religion based on the results from depth interview and Focus Group Discussion by the kindergarten and elementary teachers. We also adjusted by Regulation of Indonesian Ministry of National Education (Peraturan Kementerian Pendidikan dan Kebudayaan No 137 Tahun 2014) about Standards for Early Childhood Education to develop indicators and item corresponding.
3. Validation of the content is done through professional judgment by the method of discussion and interview to the experts of Educational Psychology and Child Development at the Faculty of Psychology, University of Padjadjaran, West Java, Indonesia. While cognitive debriefing process is done through focus group discussions in two groups of teachers, the teachers of elementary school/ madrasah and early childhood teachers.
4. Try Out
The instrument that has been prepared by the steps above are then distributed to the

respondents in the village of Jelekong and Cipadung, Bandung, West Java, Indonesia. Procedure explanation given by early childhood teachers is as follows. Each early childhood teachers observe around 8 until 9 children. Observations include the behavior of students in 6 school readiness dimensions

5. Test reliability & validity

The data obtained then tested reliability using Cronbach alpha-approach and construct validity using Confirmatory Factor Analysis with LISREL Programs.

4. RESULTS

Table 1. Dimension and sub dimension of School Readiness

DIMENSION	SUB DIMENSION
Social-emotional	Emotional Development
	Self Concept
	Social Competence
Moral & Religion	Religiosity
	Morality
Health & Physical Development	Motor Skill Development
	General Health & Development
	Vision & Hearing
	Knowledge of self-care and healthy life style practice
Aproches to Learning	Ability to Sustain Attention
	Task persistence
	Ability to follow direction
	Eagerness to learn new things
	Creativity
	Eagerness to learn new things
Language	Recognizing the printed word
	Word reading
	Vocabulary
	Reading comprehension
	Emergent Literacy
	Language Development
Cognition &	Conceptual understanding of

General Knowledge	number
	Conceptual understanding of mathematical operations
	Conceptual understanding of shapes
	Process of Problem solving
	Ability to make inferences

Content & Construct Validity

This research using evidence based on test content¹¹ by experts review process using method of discussion and interview. The main purpose of this process was to gain validation of respondents on item-item school readiness instrument. There are 83 items considered as valid from 112 items that proposed by researchers. Construct validation process followed by analyzing the results of the trial test on 103 early childhood that has been filled by their teachers. The results from Confirmatory Faktor Analysis (CFA) are as illustrated by the graph below:

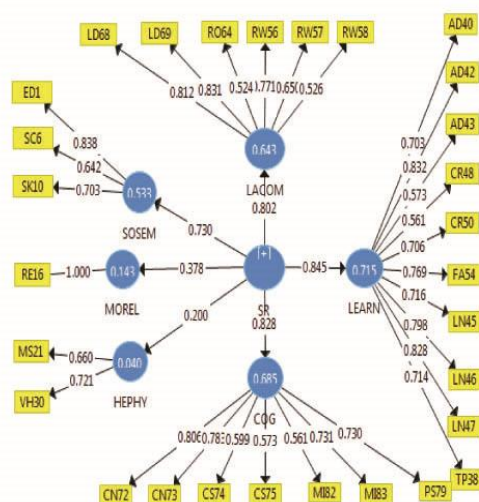


Fig.1 Factor Analysis of School Readiness instrument

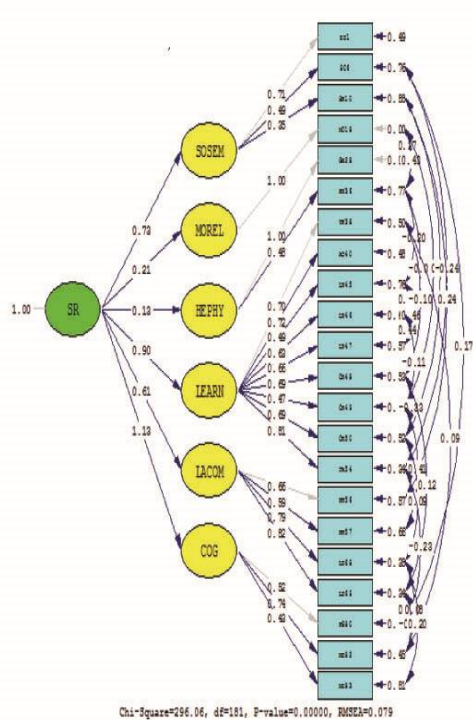


Fig.2 Factor Analysis of School Readiness dimensions and indicators

Test Reliability

The approach estimates used in this study is the internal consistency reliability Cronbach alpha. The calculation of the reliability of measuring instruments in School Readiness Basic filled out by teachers of early childhood education for children of pre-school respondents aged 5-6 for 103 students to produce a score $\alpha = 0.931$ This coefficient shows that school readiness instrument has good reliability and trustworthy for measuring elementary school readiness of children.

5. DISCUSSION

Preparation of the instrument in this study is based on an adaptation of the The Early Development Instrument (EDI) developed by Janus & Offord (2000, 2007) as well as a measuring tool school readiness compiled by Kertapati (2009) plus the dimension of the moral and religion contained in Regulation of Indonesian Ministry of National Education (Peraturan Kementerian Pendidikan dan Kebudayaan No 137 Tahun 2014) about Standards for Early Childhood

Based on the adaptation, acquired six dimensions and 26 sub-dimension developed into 112 items. Those items then submitted to four experts on educational and developmental psychology from Padjajaran University through professional judgment. The result is a 83 item declared valid and continued on the cognitive debriefing process through the focus group discussion by early childhood education teacher and elementary school teacher.

The next step is try out the instrument involving 103 pre-school aged 5-6 years in Sundanese village, Bandung West Java, Indonesia. After analyzing the items of school readiness instrument using Confirmatory Factor Analysis noted that from 83 items, only 29 items are valid. It means the items accurate to measure elementary school readiness. The results of analysis using the Goodness of Fit Statistics are:

- RMSEA = 0.079 < 0.08
- NNFI = 0.92 > 0.90
- CFI = 0.93 > 0.90
- IFI = 0.94 > 0.90
- GFI = 0.79 < 0.90

Due to four of the five indices Goodness of Fit Statistics is fit, means that the dimensions and indicators are suitable for measuring latent variables in School Readiness.

Reliability test using Cronbach alpha-approach resulted in a score $\alpha = 0.931$ indicates that the instrument is considered feasible for use as a child's basic school readiness instruments.

The main purpose of the assesment on elementary school readiness is to provide information to teachers and parents about the dimensions and any aspect of school readiness of children who still need to be developed further. Dimension or aspect that needs to be measured are child development in general, the physical-motor, cognitive, language, social-emotional and moral-religion. Elementary school readiness instruments that compiled in this study involves only one part, early childhood education teacher. Needed more comprehensive assessment by involving parents, families also school psychologist.

6. CONCLUSIONS

Outcomes of this study is the elementary school readiness instruments that can be used in the process of assessment of school readiness for children of pre-school age. The instrument can

be filled by early childhood teacher or a parent or the school psychologist based on the observation of the child's development. This instrument has been through validation of the content in the process of professional judgment and cognitive debriefing. Construct validity of this instrument analysed by confirmatory factor analysis. The results of try out on Sundanese pre-school children age 5-6 years old, get results-Cronbach alpha coefficients for 0.931 which showed that the instrument is feasible to measure elementary school readiness.

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