

## Correlation Between Self-Regulation and Children's Readiness to Enroll Primary School

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### Abstract

This research aims to find out correlations of self-regulation to children's readiness in enrolling primary school. This quantitative research used associative method. The population consisted 5,284 children aged 5-6 year old in Semarang municipal. The techniques of sampling used multistage random sampling. There were 220 children consisting of 110 male and 110 female children. The technique to collect the data was questionnaire in which the filling system was read aloud by the researcher as assistance. Self-regulation was measured by Head-Toes-Knees-Shoulders (HTKS) task. Meanwhile, the readiness was measured by readiness scale to enroll primary school. The hypothesis test used regression test. The results showed that  $t_{count} = 1.847 > t_{table} = 1.651$ . The sig score was  $0.006 < 0.05$ . It meant there was correlation of self-regulation to children's readiness to enroll primary school. Then, the effects of sex types as moderating variable with  $P = 0.709$ , larger than 0.05, showing that there was no difference in male self-regulation and female self-regulation to their readiness in enrolling primary school. Thus, it could be concluded that self-regulation influenced the children's readiness to enroll primary school. However, both male and female children, they did not have significant difference. Thus, parents, teachers, and governments should cooperate in preparing children enrolling primary school level not only in term of children's readiness aspect but also the external aspect, such as parents' readiness and school readiness.

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## INTRODUCTION

Readiness is a unit to show how far preschool children are ready to succeed at school. Children's readiness to enroll school is significant academic achievement predictor at whole primary schools (Quirk *et al.*, 2017). This readiness is important to be owned because children whom are ready to enroll schools provides advantages and advancement for further development. Meanwhile, children whom are not ready yet would experience frustration if they are placed in academic environment (Majzub & Rashid, 2012).

Lee *et. al* (2018) mentioned that readiness scores of students attending preschool were different to those whom missing it. Children attending early childhood education would bring long-term benefit for their educational success later within school prospect and life. It means that readiness is needed in further education, included early childhood education. When children have proper readiness, they will be easy to adjust themselves following the next level materials.

Constructivist theory states that primary school readiness of children is not an empowerment matureness nor external empowerment from the environment but it undergoes through long-term exchanging series of process which are considered more successful in preparing the readiness. Individuals develop through series of considerable levels. However, children are facilitated to construct new understanding through activities, physical, and mental interaction of themselves (Seefeldt & Wasik, 2008:32).

The fact, in society, especially Semarang municipal, there are so many parents thinking that the only aspect needed by children to enrol primary school is cognitive aspect. It covers reading, writing, and calculating. Thus, in its practice, when the children are ready to enroll primary schools, many parents ask them to be able in reading, writing, and calculating because of rigid competition to enrol favorite school.

Sartika *et al.*, (2011) stated that such rigid competition in educational world made parents struggling to improve their children as early as

possible to prepare their primary school readiness.

Parents and teachers may have different point of views about preparing students' readiness in enrolling primary school. Parents will more prioritize academic readiness while teachers will focus on social and emotional readiness aspects of children, included independency (Rahmawati, 2017).

A study shows that in America, children faced difficulties to cooperate (62%), to follow order (51%), and to cooperate in larger group (51%). Having difficulties on both social and emotional skills will influence on their attention and politeness in the class. Thus, school should focus more of its teaching on skill and emotional control under guidance of school counseling (Curby & Qingyuan, 2018).

The aspects needed for children's readiness in enrolling primary school are: first, physical health a basic need of children must be fulfilled, included healthy meal provision and sufficient sleeps. Second, social competence children must be able to follow acceptable rules in environment, to control their behaviors, to cooperate, to respect adult's authorities, to communicate feeling and needs appropriately to be accepted socially. Third, it is emotional matureness. It is child's ability to control his behavior, cooperation, and respect upon adult's authority and feeling communication. Fourth, linguistic and cognitive abilities the expressive language of children. Fifth, communication and cognitive abilities needed by children to face new experience and learning opportunity (Janus & Offord, 2007). Table 1 is a summary of readiness indicators used in this research.

Based on the Table 1, the measuring aspects of readiness are physical and mental developments, social competence, emotional matureness, cognition and language, communication skill and general knowledge.

There are two influential factors about child readiness in enrolling primary schools: internal and external factors. Internal factor deals with inner individuals, such as physical health and wellbeing, social competence, and emotional matureness, approach to learn, language and

cognitive developments as well as communication skill (Bhise & Shonawat, 2016).

**Table 1.** Child Readiness Indicators to Enroll Primary School

Aspects	Indicators
Physical and mental developments	Physical readiness to go school Physical health
Social competence	Hard and soft motoric skills Whole social competences Responsibility and respect Learning approach
Emotional matureness	Preparation to explore new things Helpful and pro-social behaviors Showing no fear and anxiety Showing no aggressiveness
Cognition and language	Showing no recklessness and hyperactive behavior Early literacy skill Having interest in calculating activities Advance literacy skill
Communication skill and general knowledge	Basic calculating skill Communication skill and general knowledge

Tarumi & Bredenberg (2009) stated that experience at the beginning of primary school enrolment tended to be less positive. Children adjusted themselves with school to be more accepted by the peers and teachers, to more instructional provision and positive feedbacks of teachers. Therefore, by this school adjustment as strong reason will allow students to do good deed in school environment, to the teachers and friends, and to deal with learning which allows them enjoying new assignments faced by them. It meant children need self-regulation.

Self-regulation is ability of children to direct their behaviors without being reminded by parents of other people. In this case, children are able to direct their actions to obey social rules. Self-regulation is a self-control to manage, direct and adjust behavior, thinking process, and emotion based on social environment (Amandah, 2016).

Self-regulation has great influences on social and emotional developments of children because poor socialization is caused by poor self-regulation. It is in line with Papalia *et al.*, (2016) stating that self-regulation is basic of socialization connecting all physical and cognitive aspects. Self-regulation ability allows involvement in learning activity and as basis in adjusting themselves to school (Blair, 2015).

Hossen *et al.*, (2014), sex types became predictors of self-regulation. His findings showed that male tended to have poor self-regulation

which influenced their school readiness. Female was assumed to have better self-regulation than male. Male were less able to control their cognition and behaviors. It is in line with Weiss *et al.*, (2013) telling that gender differences in school achievement could be seen on their self-regulation. There were differences found in female which were higher than male in mathematics achievement and self-regulation, especially dealing with behaviors.

In this research, self-regulation is measured by Head-Toes-Knees-Shoulders (HTKS) which is a structured observation task to measure self-regulation of children. In measuring it, it needs attention flexibility, performance memory, and inhibitor control (McChlelland & Cameron Ponitz, 2012). Concepts of HTKS, according to Ponitz *et al.*, (2008) consists of three things: inhibitor control measurement (a child should hinder and inhibit dominant response to model the checker), performance memory (a child must remember the task rule) and on focus of attention.

In this research, Head-Toes-Knees-Shoulders (HTKS) is a short game task requiring students to do the opposite things in a pairing rule series. As for example, children are asked to touch their heads. But, oppositely, they should touch their toes. The stages in measuring self-regulation were directly measured by scoring task of HTKS. During the task, children were given pairing behavioral rules (i.e., touch hand or touch toes) and were asked to do the opposite of what

was ordered. If children responded correctly for four or more items, they would be given ten additional items of two pairing rules (i.e. head or toe, knee or shoulder).

Children would get two points for each correct answer, one point for each self-correction (initial movement as incorrect response and final movement as correct response), and zero for each incorrect response. The score was ranged from 0 – 40 in which high score showed higher self-regulation and in reverse.

## METHODS

This quantitative research with associative (causal) approach aimed to find out correlation of self-regulation of children to their primary school enrollment readiness moderated by sex types.

The population consisted of 5,284 5-6 year children on Semarang municipal. The techniques of sampling was multistage random sampling. The numbers of the sample were 220 students, consisting of 110 male and 110 female. The variables consisted of self-regulation as independent variable (X) and child school readiness as dependent variable (Y) and sex types as Moderating variabel (M). Systematically it could be seen on Figure 1.

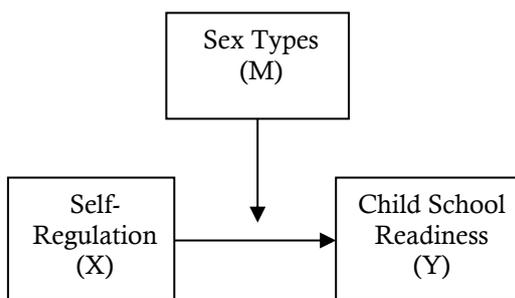


Figure 1. Research framework

The techniques of collecting data used primary school readiness scale and structured observation by using HTKS task to find out self-regulation of the children. The readiness was measured by readiness scale which was arranged based on school readiness theories. The school readiness instrument had  $\alpha$  coefficient 0.881 and HTKS  $\alpha$  coefficient 0.902.

The technique of analyzing the data used regression based path analytic framework which previously was classically tested in term of its assumption. It consisted of normality, heterosedacity, and multicolinierity tests.

## RESULTS AND DISCUSSION

This research consisted of independent variable (self-regulation), moderating variable (sex types), and dependent variable (child school readiness). The descriptive analysis is explained on Table 2.

Table 2. Descriptive Analysis

Variables	N	Mean	SD
Self-regulation	220	29.25	6.074
Preparation	220	75.50	8.462

Based on the Table 2 presenting descriptive analysis shows that the mean and standard deviation of self-regulation were  $M=29.25$  and  $SD=6.074$ . Meanwhile, the mean and standard deviation for preparation were  $M=75.50$  and  $SD=8.462$ . The descriptive statistics showed the mean was higher than standard deviation. Then, it was meant as good representation of data distribution.

On each variable of this research categories. The self-regulation variable category for both male and female is summarized on Table 3.

Table 3. Female Self -Regulation Category

Categories	Frequency	Percentages
Poor	19	17.1
Moderate	75	68.1
High	16	14.5

Based on the Table 3, it shows that females with very poor self-regulation was 19 with percentage 17.1%. There were 75 students with percentage 68.1% and 16 students with 14.5%.

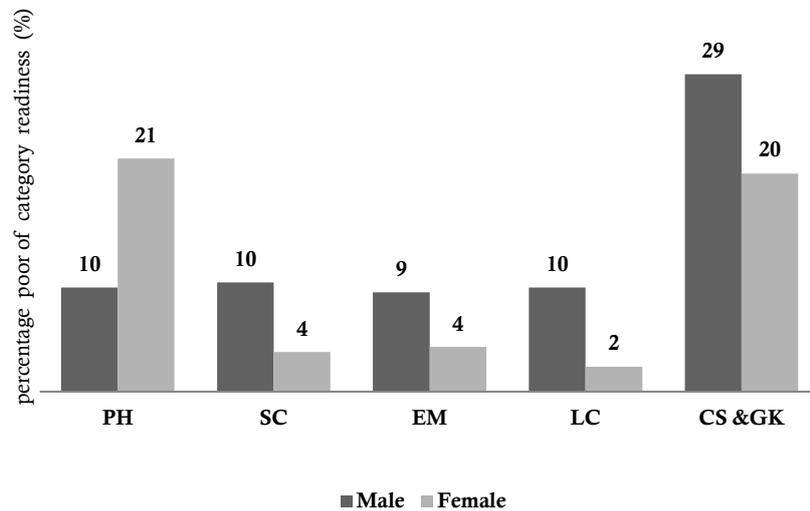
The male self-regulation is summarized in Table 4.

Table 4. Male Self -Regulation Category

Categories	Frequencies	Percentages
Poor	19	17.1
Moderate	77	70
High	14	12.6

Based on the Table 4, there were 19 students categorized poor with 17.1%, moderate with 77 students or 70%, and high category with 14 students or 12.6%.

The school readiness data shows there were several students whom were ready to enroll the school. Here is the category of the data for both male and female students as summarized in figure 2 until 4.

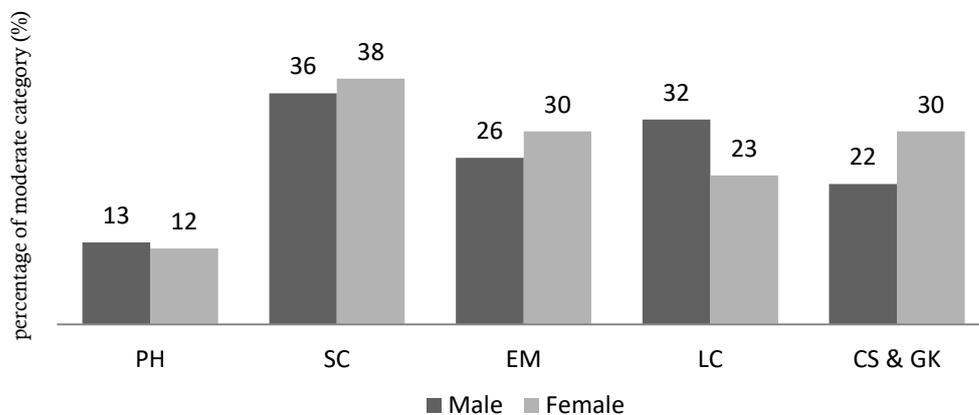


**Figure 2.** Poor School Readiness Category

The Figure 2 poor school readiness category show that aspect physical healthy, social, emotional matureness, language & cognition, and than communication skill and general knowledge (CS &GK) shows that male have a higher unprepared than female. Female are superior to male. Except for aspects of physical development according to that gender will affect children's play activities. Play activities will affect children's development. Female will play less

energy-consuming games when compared to male. For example throwing a ball, running, jumping away or other physical activities this difference does not mean that female are less healthy than male, but rather the public's view that female should be gentle and behave smoothly.

The Figure 3 showing the details of moderate school readiness category.



**Figure 3.** Moderate School Readiness Category

Figure 4 Moderate school readiness category shows that social, emotional matureness, cognitive and language development and communication skills and general knowledge in male and female have almost the same percentage. According to Diana (2010) the factors that influence child development are childcare patterns in the form of attitudes and behavior of mothers or other caregivers in terms

of their proximity to children (providing food, caring, hygiene, giving love and so on).

Other research factors that influence social development of early childhood according to Wulandari *et al.*, (2013) namely family environmental factors, factors from outside the home, and factors influencing children's experiences.

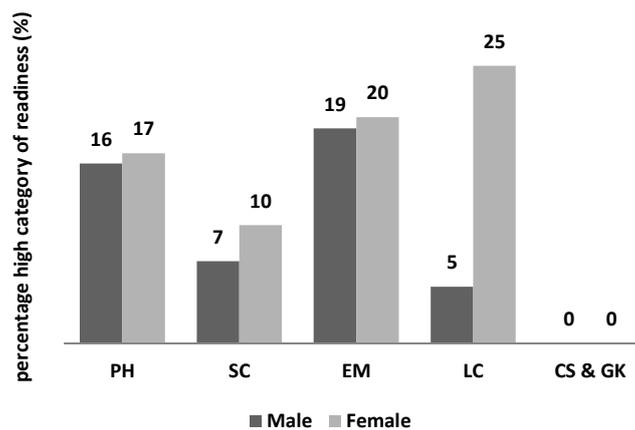


Figure 4. High School Readiness Category

In the figur 4 High School Readiness Category show that language development in female higher than male. Rahmanianti (2018) states that 20 utterances spoken by 2 year old children sound changes are more likely to occur in female than in male. It means that the vocabulary of female is more than that of male. Adinta (2008) states that children's language development is influenced by environmental factors, gender, health factors, intelligence. Children's language development will be known from their intelligence. Children who have a normal level of intelligence or above, usually experience rapid language development. While children who experience mental retardation will be very poor in language.

In testing hypothesis, requirement test was carried out. They were normality, heterosedacity, and multicolinierity tests. After carrying out assumption test, then to see the influence of self-regulation to school readiness, the researcher conducted regression test. The result is shown in Table 7.

Table 7. Regression Hypothesis Test

Variabel	t	Sig
Self-regulation	1.847	.006
Int_1	-.3737	.7090

Based on the table, it shows influences of self-regulation to school readiness of the students. It was proven by  $t_{count} = 1.847 > t_{table} > 1.6511$  and sig score 0.006 lesser than 0.05. It meant self-regulation influenced children's readiness.

Then, on the table, it is explained that int\_1 on t value is  $-.3737$  and sig socre  $0.790 > 0.05$ . It meant there was no difference between male and female self-regulation in preparing them enrolling primary school. It is in line with

Walness *et al.*, (2013) stating that there was no difference between male and female self-regulation in Asia. It was caused by cultural factors which put male and females equal in academic success.

Such culture in parenting and treating the children became influential factors to self-regulation of the children. Specifically, parents and teachers' control are important to develop

self-regulation of the children (Karreman *et al.*, 2006). Practices of such parenting is shown in cultural context where children are taught to regulate themselves, especially while facing environmental conflict (Jarmillo *et al.*, 2017).

Self-regulation correlated to school readiness. It greatly influenced social and emotional developments of the children because self-regulation was the basis of socialization connecting all physical and cognitive aspect development. In its practice, children with stronger self-regulation could implement social rules and standard as behavioral guidance (Sabole *et al.*, 2017).

Self-regulation is important aspect in determining individual's behavior. Self-regulation is individual effort in managing himself in an activity to involve metacognition, motivation, and active behavior. Self-regulation is not only about mental or academic ability but also how an individual manages and changes on an activity. It means an individual could effectively adapt with the environment as long as he could create control on psychological and behavioral process (Gufron & Rini, 2012:58). Indeed, self-regulation can be a basis of individuals to socialize. Individuals with better self-regulation could create positive social relationship with other people (Dariyo, 2011).

It is supported by McClelland M.M *et al.*, (2013) stating that self-regulation was useful for children, especially dealing with later life success for both long-term and short time. The advantages are school readiness, academic achievement at all primary schools, educational achievement at adult age, higher personal feeling, better capability to overcome stress, and digression of violating rules even risk of personal adjustment incapability.

Since self-regulation is so important, then adults should teach self-regulation to children. They have task to facilitate them managing their children's reaction. When a child really wants something, child could easily forget the existing rules. Self-regulation is important to teach as early as possible because once it is internalized, children will be responsible for everything done

by them. It could also be used to manage and control their own emotion and behaviors.

In contrast, at early childhood age, if self-regulation is not internalized, children tend to incapable of managing their behaviors (Nurbety & Pranoto, 2017). According to Blair & Raver (2015), self-regulation on children provides unison framework to study school readiness. This skill slows involvement in learning activity and provide basis for them to adjust with the school.

Self-regulation on children make them able to control attention and deny hindrances. They could control emotion and obey the rules at school and refrain them anger. They could learn to use more advance strategy in solving problem and be braver as well as understand more other people's feeling. They could help, share, and amuse his friends. The point is everything concerning to social aspects and positive emotions with other people. By having this self-regulation, children will notice how to speak politely to the teachers and friends as well as to obey the school rules.

## CONCLUSION

It could be concluded that there was influence of self-regulation to primary school readiness of the children. Self-regulation is important to teach as early as possible because it influences the initial life until further life of children.

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