



Factors influencing school readiness and behavioral problems of elementary students

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ABSTRACT

Elementary Students experienced poor self-management and a lower level of school readiness. The purpose of the study is to identify the level of school readiness among elementary students with behavioral problems. It also aimed to identify the influences of self-regulation skills, parenting style, and transition support programs on school readiness and behavioral problems. The study involved 113 of 519 Year One student from six schools in the State of Perak, Malaysia, categorized as students with behavioral problems. The Year One Pupil's Readiness Instrument (IKMITS), Behavioral Problems Scale, Self-Regulation Scale, Parents Authority Scale, and Transition Activities Scale were utilized to collect the data for this study. Descriptive results showed that the level of school readiness among students with behavioral problems was moderate. Self-regulation skills and parenting style were revealed to be two major variables that impact school preparation and behavioral difficulties in the Partial Least Squares Structural Equation Modeling (PLS-SEM) study.

Keywords: school readiness, behavioral problems, self-regulation

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INTRODUCTION

Students who are ready for school could benefit from the learning activities carried out in schools and are more successful academically (Franko & Zhang, 2021; Schmerse, 2020; Faqumala, Suminar, & Pranoto, 2020; Grimmer, 2018; Xie & Gan, 2017). In fact, they also have improved social skills and are better equipped to adjust to a new educational setting. However, it is indicated that not all students are ready for elementary schools when making the transition from preschool. This suggests that at the beginning of every school term, teachers may confront many new students who are having behavioral problems. The common behavioral problems exhibited by Year One students include disturbing others, trouble sitting still, not following the teacher's instructions, and making noise in class (Reardon & Portilla, 2016; Chan, 2010). The issue also leads to increased teacher stress, school disciplinary problems as well as lower students' performance. The problem worsens when many elementary schools in Malaysia have large class sizes (Hou & Hoon, 2016). According to Hou & Hoon (2016), the average class size in Malaysian national type elementary schools is 32 students. Due to a few relatable studies, the level of school readiness among Year One students and its link to behavioral issues seem to be concealed. There is a probability that the student's behavioral problems are related to their school readiness (Welsh, Bierman, Nix, & Heinrichs, 2020; Hosokawa & Katsura, 2019; Blair & Raver, 2015). However, factors that influence school readiness and behavioral problems among Year One students are found to be limited. Hence, it was unable to establish effective classroom management strategies and interventions.

According to the Ecological Model of School Readiness (Xie & Gan, 2017), three main factors influenced children’s school readiness (a) child, (b) family, and (c) school factors. Additionally, Bronfenbrenner’s (1979) ecological model of child development and the school transition model includes Child’s personal factor and his/her proximal social environment (e.g., family and school) as the factor which influences their readiness for school. In terms of personal factors, the lack of self-regulation skills can lead to poor self-management and a lower level of school readiness (Blair & Raver, 2015). Correspondingly, findings of Faqumala *et al.* (2020) on 220 preschoolers (110 males and 110 females) showed that self-regulation skills can influence school readiness. Geiger (2019). confirms the conclusions of the investigation that students with greater self-regulation skills are able to concentrate, control their own emotions, respond to information, have positive interaction relationships with teachers and peers. Thus, they can adapt successfully to the new educational environment (Faqumala *et al.*, 2020; Blair & Raver, 2015).

According to Hosokawa & Katsura (2019), the role of the family has the greatest influence on a child’s school readiness. A warm and supportive parenting style may help the child to be independent and ready for school. Due to the acquired skills, a child is able to cope with the unfamiliarity at the beginning period of school This finding is also supported by empirical evidence that family factors influence Year One students’ school readiness and behavioral conduct (Peterson, Bruce, Patel, & Chamberlain, 2018; Reardon & Portilla, 2016). In terms of school factors, past studies have shown the essentials of children’s academic learning such as relationships with teachers and between peers as well as a commitment between parents and school affect the level of student’s school readiness (Franko & Zhang, 2021; Schmerse, 2020; Marti *et al.*, 2018). Teachers ’failure to detect students’ problems early in school is believed to result in a student receiving only half of the benefits of teaching and learning processes implemented in schools. The school’s transition programs throughout new school terms are designed to assist students to prepare for primary school (Urbina Garcia, 2014; Chan, 2010). Research showed that Year One students are more ready for school after going through transition activities and demonstrated lesser behavioral problems (Welsh *et al.*, 2020; Hosokawa & Katsura, 2019; Marti *et al.*, 2018). Figure 1 depicts the research’s conceptual framework.

Despite the fact that previous research has suggested that self-regulation skills, parenting style, and transition activities can impact school readiness and subsequently affect the extent of behavioral problems exhibited by students, there is still a lack of empirical studies that examined the influences of these variables. In addition, there is also a lack of studies that examined Year One students’ school readiness and behavioral problems. Most existing studies focus on the literacy skills of elementary students. To fill the literature gaps, this study aims to (1) determine the level of school readiness among Year One students with behavioral problems and (2) examine the relationships of self-regulation skills, parenting style, and transition activities on school readiness and behavioral problems of these students.

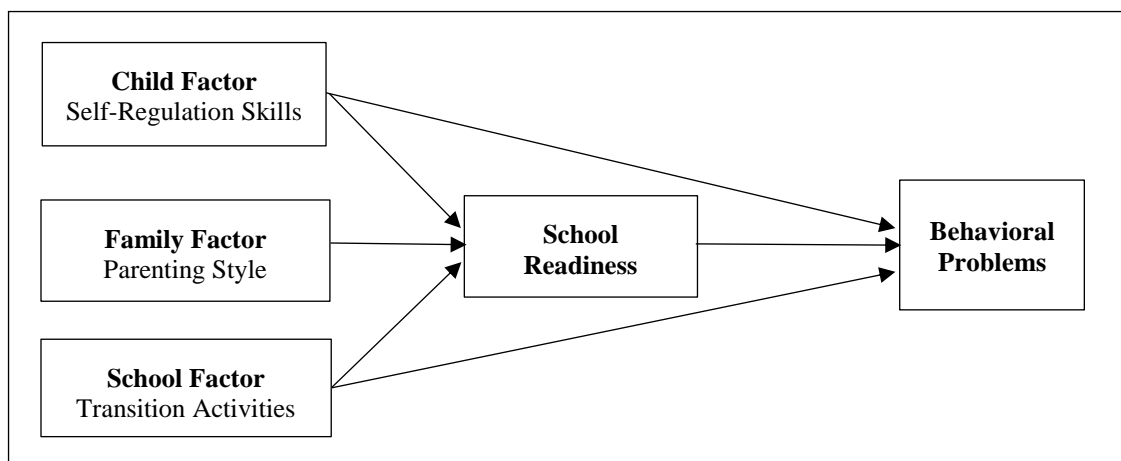


Figure 1. Conceptual Framework

METHOD

Design

This study adopted a quantitative descriptive correlational research design. The descriptive correlational research design was chosen because it is presumably appropriate in investigating problems, such as school readiness, and useful in determining the relationships between the studied variables. Quantitative survey data were obtained from Year One students with behavioral problems to allow a detailed description of school readiness. The researchers also aimed to identify the relationships and influences of self-regulation skills, parenting style, and transition activities on students' school readiness and behavioral problems. To ensure its feasibility, A pilot study was managed prior to the actual study. Educational Policy, Planning, and Research Division (EPRD), the Ministry of Education Department, the Perak State Educational Department, the schools involved as well as the School of Educational Studies, Universiti Sains Malaysia all gave their official approval to conduct the study.

Sampling

The samples for this study consisted of Year One elementary school students with behavioral problems. To select a sample that demonstrates behavioral problems from Year One population, the Multi-Stage Sampling technique was employed. In this study, the first stage of data collection involved cluster sampling. A total of 519 Year One student from six elementary schools in the State of Perak were randomly sampled for first screening purposes. Cluster sampling allowed researchers to select samples from clusters or schools located in the Kerian and Larut, Matang, and Selama districts in the state of Perak. This was followed by purposive sampling. 113 Year One student were identified as having behavioral problems and were included as samples for this study. Students with learning disabilities were excluded from the sampling procedures.

Research Instruments

For this investigation, instruments were utilized as the instrument to collect data, namely IKMITS, The Behavioral Problems Scale, The Parent Authority Scale and Self-Regulation, and the Transition Activities Scale. The IKMITS or in Malay Language '*Instrumen Kesiediaan Murid Prasekolah ke Tahun Satu*' (The Instrument of Preschool Students' Readiness in Year One) was developed by the Ministry of Education in 2012. It is an instrument suitable to gauge 6-7 years old children's readiness to school in terms of physical, socio-emotions, and cognitive dimensions. Additionally, the study uses The Behavioral Problems Scale which was adapted from the Social Skills Rating System (SSRS) (Gresham & Elliott, 1990). The Year One Student's Readiness Instrument (IKMITS) and Behavioral Problems Scale were answered by 19 Year One class teachers. Teachers were considered as appropriate responders because they could offer genuine judgments on school readiness and behavioral problems of pupils under their supervision.

The Self-Regulation Scale, Parents Authority Scale, and Transition Activities Scale, on the other hand, were answered by the parents since they could provide specifics about their child's self-regulation abilities, parenting style, and transition activities. Parent Authority Scale and Self-Regulation Scale were developed by Kanammah (2014). In addition, the Transition Activities Scale was adapted from Urbina Garcia (2014), which measures the transition support activities carried out at elementary school during the beginning of the school term.

Data Analysis

Quantitative The descriptive analysis to determine the level of school readiness among Year One students were rigidly analyzed. The Structural Equation Modeling (SEM) was employed to examine the relationships of self-regulation skills, parenting style, and transition activities on school readiness and behavioral problems of these students. The partial Least Squares (PLS) approach is a component-based SEM. It is a linear regression technique that estimates path models using the multiple indicator latent constructs (Hair, Sarstedt, Ringle, & Gudergan; 2017). The structural model is systematically evaluated with respect to the estimates and hypothesis test

regarding the causal relationship between exogenous and endogenous variables specified in the path diagram.

The initial stage in data analysis, particularly for inferential analysis, is to screen research data and examine analytical assumptions. This step aims to confirm that the study data meet the important assumptions of an analysis. The first assumption that needs to be met is that the study data must be normally distributed. In this study, data normality was identified using Skewness and Kurtosis statistics. In this study, the value of skewness is in the range - 0.94 to 0.83 while the value of kurtosis was in the range of - 0.70 to 0.23. Kline (1998) advocated that data can be considered normal if the skewness value is in the range of ± 3.00 while the kurtosis is ± 8.00 for normal data distribution, the most ideal skewness, and kurtosis values are 0. In this study, it was clear that normally distributed for each variable of self-regulation skills, parenting style, transition activities, school readiness, and behavioral problems to prove normally distributed data referees.

FINDING AND DISCUSSION

Finding

Descriptive analysis

Table 1 showed the results of descriptive analysis on the level of school readiness among Year One students with behavioral problems. Overall, the students have moderate level of school readiness ($M = 2.60$, $SD = 0.72$). As for the different dimensions of school readiness, the highest mean score was recorded by the socio-emotions readiness ($M = 2.87$, $SD = 0.64$), followed by physical readiness ($M = 2.61$; $SD = 0.77$) and cognitive readiness ($M = 2.52$, $SD = 0.76$). This suggests that children with behavioral problems seem to be least ready in terms of cognitive development. They may not be able to meet the academic demand of elementary school education. Nevertheless, all of the dimensions have yielded moderate level mean scores. When the different items on school readiness were analyzed, it was found that the respondents have the highest mean score in terms of gross motor skills ($M = 3.10$, $SD = 0.78$) and the lowest mean score in terms of concentration in class ($M = 2.21$, $SD = 0.91$), which corresponded with their lower readiness in the cognitive dimension.

Partial least squares structural equation modeling (PLS-SEM)

The data set was saved as comma-separated values and entered into Smart PLS 3.0 after the descriptive analysis. To identify the relationships of self-regulation skills, parenting style, and transition activities on school readiness and behavioral problems of these students, the Partial Least Squares Structural Equation Modeling (PLS-SEM) via Smart PLS 3.0 was harnessed. PLS-SEM is able to produce a comprehensive model which comprises confirmatory factor analysis (CFA) and path analysis (Hair *et al.*, 2017). The estimation of structural models consists of two stages, notably the estimation of the measurement model (outer model) and the estimation of the structural model (inner model). The measurement model assessed the reliability and validity of the structural model. The composite reliability (CR), additionally, is the reliability indicator that gained a generally accepted value of 0.70 and above. In terms of validity, all item loadings were evaluated to determine their discriminant validity. The relationships between the variables were tested using Pearson correlation analysis with a significance threshold of 0.05. The results of the correlation test are precisely shown in Table 2. The correlation coefficient (r) is an indication of the value of measuring the strength of the relationship between two variables. The value of r has an interval between + 1.00 and - 1.00 (Chua, 2006).

Measurement model

To assess the measurement model, the internal consistency reliability and validity of the reflective measurement model were first evaluated (Hair *et al.*, 2017). Table 2 showed the constructs (self-regulation skills, parenting style, transition activities, school readiness, and behavioral problems) and their respective item loadings. The quality of a model can be assessed through convergent validity, factor loadings, internal consistency reliability or composite reliability, and also discriminant validity (Hair *et al.*, 2017). The t and p values were derived with

nonparametric bootstrapping of 5,000 samples, all the five constructs reported average variance extracted (AVE) value of greater than 0.70, as shown in Table 2. The results showed that there was adequate convergent validity. In terms of factor loadings, all the indicators yielded loadings between 0.83 to 0.95, which were above 0.70 (Hair *et al.*, 2017). In addition, the value of Cronbach's alpha (α) of the latent variables fell between 0.79 and 0.92, implying that all the latent variables fulfilled the minimum value of 0.60 for exploratory purposes and 0.70 for confirmatory purposes. The values did not exceed 0.95, which also indicated good internal reliability (Hair *et al.*, 2017). The measurement model was reliable and has achieved convergent validity.

Table 1. Mean and standard deviation on school readiness

| School Readiness Dimensions | Mean (M) | Standard Deviation (SD) | Level of Readiness |
|--|-------------|-------------------------|--------------------|
| Physical | 2.61 | 0.77 | moderate |
| The student is able to obey school rules. | 2.78 | 0.81 | moderate |
| The student has difficulties in following teachers' instructions. | 2.48 | 0.81 | moderate |
| The student can keep their own books without reminders. | 2.37 | 0.99 | moderate |
| The student is able to draw lines neatly (fine motor skills). | 2.69 | 0.93 | moderate |
| The student is able to write neatly (fine motor skills). | 3.10 | 0.78 | high |
| The student is able to carry out various motor movements (gross motor skills). | 2.82 | 0.84 | moderate |
| The student is able to take care of their own hygiene. | | | |
| Socio-emotions | 2.87 | 0.64 | moderate |
| The student is able to interact with other students in class. | 2.73 | 0.81 | moderate |
| The student can adapt to the new school environment. | 2.90 | 0.74 | moderate |
| The student can participate in group activities. | 2.78 | 0.75 | moderate |
| The student is able to respond to the class teacher. | 2.85 | 0.74 | moderate |
| The student shows empathy towards other students. | 2.54 | 0.92 | moderate |
| The student is able to control their own emotions. | 2.46 | 0.93 | moderate |
| The student can take turns. | 2.59 | 0.91 | moderate |
| Cognitive | 2.52 | 0.76 | moderate |
| The student is repeatedly unable to understand the teaching in class. | 2.52 | 0.94 | moderate |
| The student is unable to complete the teacher's learning assignments. | 2.50 | 1.00 | moderate |
| The student has basic numeracy skills. | 2.64 | 1.02 | moderate |
| The student is unable to respond to the teacher's queries. | 2.75 | 0.90 | moderate |
| The student is capable of completing his or her homework. | 2.69 | 0.95 | moderate |
| The student is able to spell well. | 2.56 | 0.97 | moderate |
| The student will ask questions if having problems in understanding the lessons in class. | 2.51 | 1.03 | moderate |
| The student has a short attention span in class. | 2.21 | 0.91 | moderate |
| Overall | 2.60 | 0.72 | moderate |

Note. low ($M = 1.00 - 2.00$); moderate ($M = 2.01 - 3.00$); high ($M = 3.01 - 4.00$)

Table 3 showed the discriminant validity of the measurement model, as the degree to which items differentiate, especially between constructs or measure distinct concepts. Discriminant validity was assessed based on the correlation values between the measures. As shown in Table 3, the items loaded more strongly on their respective constructs between the model. The correlations for each construct were less than the square root of the AVE measuring that construct, which implies that there was adequate discriminant validity in the model.

Table 2. Results of the measurement model

| Construct | Outer Weight (Outer loading) | Statistic-t | AVE | CR | α | Correlations between constructs | | | | |
|-----------------------------------|------------------------------|-------------|------|------|----------|---------------------------------|---------|---------|--------|------|
| | | | | | | A | B | C | D | E |
| Self-Regulation Skills (A) | | | 0.80 | 0.92 | 0.87 | 1.00 | | | | |
| Reg1 | | | | | | | | | | |
| Reg2 | 0.35 (0.92) | 29.28** | | | | | | | | |
| Reg3 | 0.40 (0.84) | 40.22** | | | | | | | | |
| | 0.37 (0.92) | 34.60** | | | | | | | | |
| Parenting Style (B) | | | 0.78 | 0.92 | 0.86 | 0.73** | 1.00 | | | |
| PS1 | 0.43 (0.93) | 40.17** | | | | | | | | |
| PS2 | 0.36 (0.89) | 43.68** | | | | | | | | |
| PS3 | 0.34 (0.83) | 29.43** | | | | | | | | |
| Transition Activities (C) | | | 0.86 | 0.92 | 0.83 | -0.06 | 0.28** | 1.00 | | |
| TA1 | 0.46 (0.90) | 26.27** | | | | | | | | |
| TA2 | 0.62 (0.95) | 37.62** | | | | | | | | |
| School Readiness (D) | | | 0.87 | 0.95 | 0.92 | 0.47** | 0.56** | -0.30** | 1.00 | |
| SR1 | | | | | | | | | | |
| SR2 | 0.36 (0.95) | 42.80** | | | | | | | | |
| SR3 | 0.41 (0.93) | 41.71** | | | | | | | | |
| | 0.31 (0.92) | 32.61** | | | | | | | | |
| Behavioral Problems (E) | | | 0.82 | 0.90 | 0.79 | -0.33** | -0.38** | 0.14 | -0.20* | 1.00 |
| BP1 | 0.49 (0.88) | 11.84** | | | | | | | | |
| BP2 | 0.61 (0.93) | 12.43** | | | | | | | | |

Note. $t > 2.57$. * $p < 0.05$; ** $p < 0.01$.

AVE = average variances extracted; CR = Composite Reliability; α = Cronbach's Alpha

Table 3. Discriminant validity of the construct

| Construct | (1) | (2) | (3) | (4) | (5) |
|----------------------------|-------------|-------------|-------------|-------------|-------------|
| (1) Self-Regulation Skills | 0.88 | | | | |
| (2) Parenting Style | 0.79 | 0.89 | | | |
| (3) Transition Activities | -0.08 | -0.28 | 0.93 | | |
| (3) School Readiness | 0.54 | 0.60 | -0.31 | 0.93 | |
| (4) Behavioral Problems | -0.33 | -0.42 | 0.13 | -0.22 | 0.91 |

Note. Square roots of average variances extracted (AVEs) shown on diagonal

Table 4. Collinearity statistics (VIF)

| Construct | Indicators | VIF |
|----------------------------|---|------|
| (1) Self-Regulation Skills | Cognitive | 4.77 |
| | Metacognitive | 1.64 |
| | Behavior regulation | 4.68 |
| (2) Parenting Style | Set clear rules | 1.79 |
| | Emphasize discipline | 2.82 |
| | Promote responsible behavior | 2.60 |
| (3) Transition Activities | Transition activities before school enrolment | 2.05 |
| | Transition after school enrolment | 2.05 |

Table 5. Results of model fit

| | Saturated Model | Estimated Model |
|------------|-----------------|-----------------|
| SRMR | 0.086 | 0.086 |
| Chi-Square | 312.962 | 312.962 |
| NFI | 0.727 | 0.727 |

Hence, in view that multicollinearity is a common problem when estimating linear models, it was assessed in this study. Collinearity was measured based on the variance inflation factor

(VIF). The VIF identifies a correlation between independent variables and the strength of that correlation. VIF between 1 to 5 suggests that correlations exist but are not severe enough to warrant corrective measures (Garson, 2016). As shown in Table 4, there was no value exceeding the threshold of $VIF > 5.00$, suggesting that no collinearity issue was present between the indicators.

The evaluation of the model fit in this study was conducted using three model testings namely Chi-Square, Standardized Root Mean Square Residual (SRMR), and Normal Fit Index (NFI). The model would be considered to have a good fit and acceptable if the value of SRMR is below 0.10 (Garson, 2016). According to Bentler and Bonett (1980), the model is acceptable if the value of the Chi-Square is more than 0.90. The value of NFI is between 0 to 1, which that value close to 1 indicates a high model fit.

Based on Table 5, the results showed that the value of the Saturated Model (Measurement Model) Fit, and the Estimated Model (Structural Model) Fit have the same value. The results revealed that the model has a good fit because the value of SRMR was below 0.10 and the value of NFI showed that the model in this study was 72.7% (0.727) better than on the null model. Besides, it can also be discerned that the value of Chi-Square was more than 0.90. Thus, to summarize, the model fit indices in this study indicated that the model is a good fit and acceptable.

Structural model

The structural model consists of the constructs and potential causal dependencies between endogenous and exogenous variables. The structural model was assessed based on R^2 values and the significance of the path coefficients (Hair, *et al.*, 2017). The t -values were used to determine the significance of each path coefficient.

Table 6. Decision on hypotheses

| Hypothesis | | β | SE | t -Value | Decision |
|------------|--|---------|------|------------|---------------|
| H1 | Self-regulation skills → school readiness | 0.26 | 0.17 | 5.63** | supported |
| H2 | Self-regulation skills → behavioral problems | - 0.01 | 0.07 | - 3.68** | supported |
| H3 | Parenting styles → school readiness | 0.34 | 0.22 | 7.03** | supported |
| H4 | Parenting styles → behavioral problems | - 0.43 | 0.09 | - 4.26** | supported |
| H5 | Transition activities → school readiness | - 0.19 | 0.18 | - 3.35** | supported |
| H6 | Transition activities → behavioral problems | 0.02 | 0.07 | 1.47 | not supported |
| H7 | School readiness → behavioral problems | 0.04 | 0.03 | - 2.11* | supported |

Note. * $p < 0.05$; ** $p < 0.01$; β = path coefficient; SE = standard error.

Table 6 showed that seven hypotheses have been tested. All the t -values were significant except for H6. Self-regulation skills had significant effect on school readiness ($\beta = 0.26$, $p < 0.01$) and behavioral problems ($\beta = - 0.01$, $p < 0.01$). The findings suggest that as self-regulation skills develop, school readiness may improve and, at the same time, behavioral problems may decrease. Table 6 also displayed that parenting styles have significant effect on school readiness ($\beta = 0.34$, $p < 0.01$) and significant negative effect on behavioral problems ($\beta = - 0.43$, $p < 0.01$). The finding exposes that when parenting practices improve, such as setting clear rules for the child to follow, emphasizing disciplines, and encouraging responsible behaviors, students are likely more ready for school and deliberately demonstrate lesser behavioral issues. Transition activities, however, were found to have significant negative effect on school readiness ($\beta = - 0.19$, $p < 0.01$) and insignificant effect on behavioral problems ($\beta = 0.02$, $p > 0.05$). The results revealed that the transition programs in elementary schools may fail to assist the students in terms of school readiness and decreasing their behavioral problems. Nevertheless, the effect of school readiness on behavioral problems was shown to be significant ($\beta = 0.04$, $p < 0.05$).

The coefficient determination (R^2) was used to determine how much variance of the endogenous variable can be explained by the exogenous variable and its value is between 0 to 1. Value of R^2 approaching the meaning that the exogenous variable contributes almost all the information needed to explain the variation of endogenous variable. A small value of R^2 , on the other hand, indicates that the ability of the exogenous variable to influence the endogenous

variable is severely constrained. The value of R^2 can decrease or increase when an exogenous variable is included in the model.

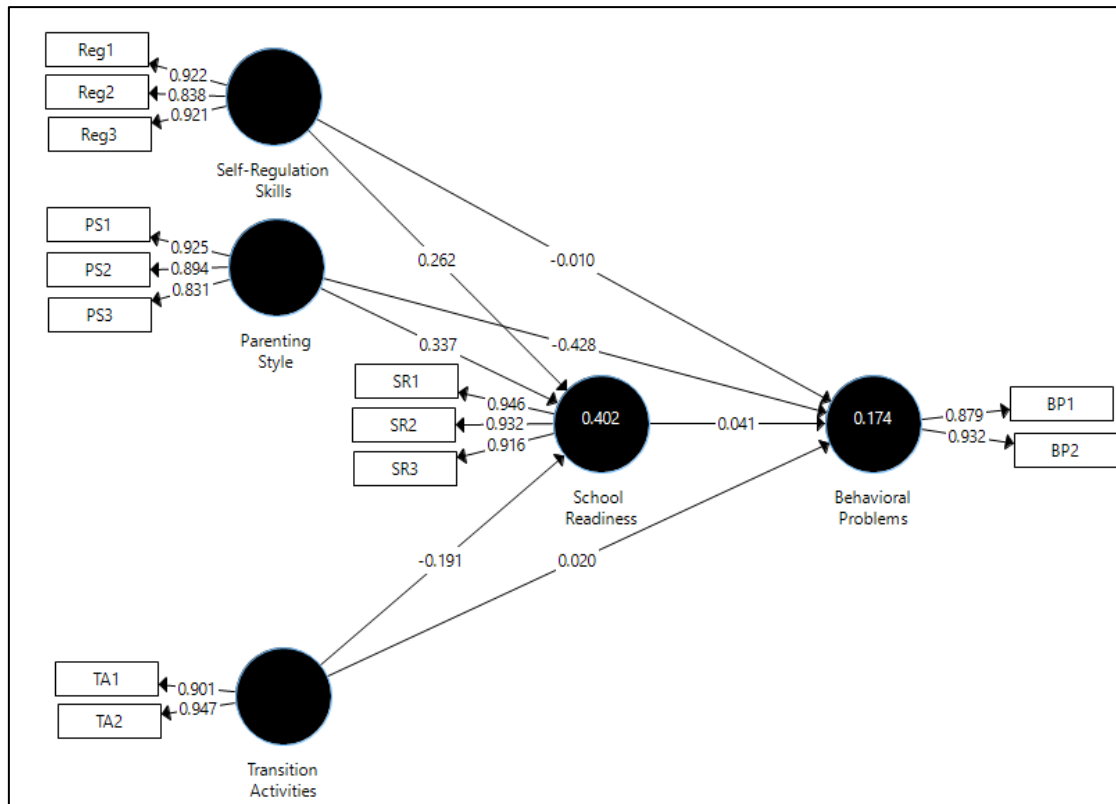


Figure 2. Results of the Structural Model

Based on Figure 2, the values of coefficient determination (R^2) for school readiness were 0.402, which suggests that 40.2% of the variance in school readiness is explainable in students' self-regulation skills, their parenting styles, and transition program at elementary school. Nevertheless, the contributions of the first two factors were more significant. A total of 59.8% of the change in school readiness was the result of other undiscussed factors in the study. In addition, these factors also explained that 17.4% of the behavioral problems as the coefficient determination (R^2) recorded were 0.174. This study also revealed that school readiness and behavioral problems were considered to have a positive relationship. This suggests that students' behavior problems are mostly influenced by school readiness (combination of parenting styles, self-regulation skills, and transition activities).

Discussion

The majority of Year One students with behavioral problems have a moderate level of school readiness. The findings contradicted previous research, which suggested that children with behavioral problems have a low level of school readiness. These students can be more ready for school after undergoing some intervention since their readiness is not extremely poor. School readiness is not only influenced by environmental factors such as parenting styles and school transition programs but also by their self-regulation skills (Faqumala *et al.*, 2020). Upon enrolment in elementary school, students ought to be ready in terms of cognitive skills. They need to have basic literary and numeracy skills to cope with the academic demand of the Year One curriculum (Faqumala *et al.*, 2020). The results of this study showed that Year One students have a low level of readiness in the cognitive dimension, which implies that the students are deficient in cognitive skills. Students are encouraged to have fundamental literacy and numeracy skills as well as adequate perception, attention, imitation, and memory skills to help them learn in class. All these skills are essential for academic learning and preparing the child for the academic tasks

in schools. This finding is supported by previous studies that cognitive skill has strong relationships with basic reading, writing, and math skills (Franko & Zhang, 2021; Faqumala *et al.*, 2020). Year One students who have built a strong foundation of cognitive skills can cope with the academic demand when they start school. In fact, these students also have better general knowledge and problem-solving skills. On the contrary, those with low readiness in the cognitive dimension would be disadvantaged as they are likely to find the school subjects and exercises too challenging. They tend to exhibit behavioral problems and low academic performance (Schmerse, 2020). Poor concentration is another issue in the cognitive dimension. As a result, Year One students may not be able to pay attention in class, follow teachers' instructions, complete homework, respond to teachers and engage fully in the learning activities. Teachers can help students with poor cognitive skills by scaffolding them in learning. To improve students' concentration in class, teachers may facilitate fun activities. Group activities can also be conducted to help students forge relationships with others which may decrease the possible social problems among students. However, support from school administrators is needed to allow teachers to carry out activities and interventions to improve Year One students' school readiness (Franko & Zhang, 2021; Ismail, Abdullah, & Abdullah, 2018).

The results of structural equation modeling revealed that Year One students' school readiness and behavioral problems are rooted in their self-regulation skills. It explains 40.2% of the variance in school readiness and 17.4% of the behavioral problems among Year One students. This finding suggests that school readiness intervention should focus on improving students' self-regulation skills and decreasing the number of their behavioral problems. Students with high self-regulation skills have a higher attention span in class and are able to control their emotions in new and stressful situations (Blair & Raver, 2015). Students with self-regulation abilities are better able to adjust their own behavior and thinking process without needing to be reminded by adults, are more compliant with social rules and are more smoothly familiarized with the new school environment (Faqumala *et al.*, 2020). Students with higher self-regulation skills are also able to influence their own socio-emotions development and academic achievement (Geiger, 2019). As a result, students are more prepared for the academic and social demands in elementary school (Kanammah, 2014).

Self-regulation, however, is not a skill that develops naturally as the child ages. It is a skill that needs to be learned and nurtured (Grimmer, 2018; Ng, 2010). Parenting styles were discovered to have a substantial impact on students' school readiness and behavioral conduct. Parenting styles refer to how parents brought up their children (Kanammah, 2014). It shapes the students' characters and influences their behaviors in schools and in life. Parents are the closest people to their children. Hence, they play a significant agent role in shaping the child's cognitive, emotional, and behavioral development (Kanammah, 2014). Parents can cultivate good habits and provide appropriate routines to promote obedience, discipline, and responsibility among children. Provided clear rules are set for the child to follow, disciplines can be enforced, and responsible behaviors can be shaped since young (Hosokawa & Katsura, 2019; Reardon & Portilla, 2016). Parents with an authoritative style potentially promote the development of self-regulation skills which prepare children to be prepared in schools as they enforce appropriate control settings and continuous discipline in a warm home environment. They constantly maintain their communication with their child, care about their learning and life. As a whole, the findings of this study found that parenting styles are crucial in laying the foundation for school readiness, as supported by past studies (Welsh *et al.*, 2020; Hosokawa & Katsura, 2019; Peterson *et al.*, 2018; Reardon & Portilla, 2016).

The third factor was the school transition program, which refers to activities that are harnessed to help preschoolers make the transition into elementary school (Welsh *et al.*, 2020; Grimmer, 2018; Urbina Garcia, 2014). School transition programs are commonly conducted prior to and after student enrolment in elementary school. The program aims to help students adapt to the new school environment and academic expectations. However, this study found that transition programs have a significant negative effect on school readiness and an insignificant effect on behavioral problems. Prior studies showed that effective transition activities or programs require the involvement of parents, peers, elementary school teachers, preschool teachers and the school

community (Marti *et al.*, 2018; Urbina Garcia, 2014). Hence, the transition activities at elementary school may not be sufficiently comprehensive for students with behavioral problems.

One of the possible reasons for this issue is the lack of parental involvement in school activities and the lack of communication between teachers and parents. The Parent-Teacher Association (PTA) should collaborate with the school administration to ensure the involvement of parents, teachers, and students when carrying out transition activities. Active parental support and involvement possibly ensure a more successful implementation of transition activities (Marti *et al.*, 2018; Urbina Garcia, 2014). At the beginning of the school term, the school may work closely with parents to manage and reduce behavioral problems among Year One students. Effective transition programs likely improve students' self-regulation skills and get them ready for school (Marti *et al.*, 2018). Parent's involvement in programs and activities (e.g., attending parent-teacher conferences, attending workshops, taking part in school activities) organized by the school to help students' preparedness in school. The component to support children more ready from the socio-emotions and cognitive dimensions and gains child's self-regulation skills in school namely the involvement of parents who attend workshops and meetings to discuss ways to help their children prepare for school as well as materials provided by the school and guiding their children at home (Marti *et al.*, 2018). The involvement of parents in the intervention programs for school readiness also led to a decrease in the potential behavioral problems. A more effective transition program is also advisable for preschools to support the transition of these students before they move into elementary school. More customized interventions can also be designed to help these students make a smoother transition into elementary education. This study found that Year One students with behavioral problems were less cognitively ready: particularly in terms of attention skills. The example of intervention is providing the students with strategies to enhance their attention span, ability to follow teachers' instructions, to complete their own homework, to respond to teachers' questions, and to engage them in learning activities.

The concepts of school readiness include the readiness of students, families, and schools. The three parties can influence the psychology and behavior of young students. Parents are suggested to ensure that their children are ready for school in terms of academic skills by laying a strong foundation through good parenting and quality preschool education. School, on the other hand, needs to provide support to accommodate students from diverse backgrounds and different levels of readiness. Special talks can behold with the parents to create awareness about parental roles in developing children's self-regulation skills and their impact on school readiness. This will help parents prepare their children for school. Teachers can also organize intervention programs to improve elementary school students' self-regulation skills. In addition, teachers are also suggested to communicate with parents about the problems faced by their children in school and find solutions together. It is important for parents to work closely with teachers to overcome issues related to school readiness.

CONCLUSION

School readiness is important as it impacts students' learning and performance in elementary school. This study has researched the school readiness issues among Year One students with behavioral problems. Three factors that are related to the school readiness of these students were namely self-regulation skills, parenting styles, and transition activities. These factors explained about 40% of the variance in school readiness among students with behavioral problems. The findings lend support for the Ecological Model of School Readiness (Xie & Gan, 2017), which proposed that school readiness could be influenced by the child, family, and school factors. Future studies can further explore other potential personal, family, and school factors that are related to the school readiness of students with behavioral problems. To track the development and school readiness of these students from preschool to elementary school, longitudinal studies are recommended to be the further studies. The transitions interventions at the elementary school can be accountably personalized to focus on the specific issues of students with behavioral problems. Future studies should focus on developing collaborative programs that involve family, teacher, and school to prepare students for a smooth study life transition into Year

One. In conclusion, school readiness among students with behavioral problems is a complex issue. To minimize this problem, students' personal factors, parenting styles, and transition activities must be taken into account and there are needs for schools to consider students' individual factors and work closely with parents to deal with this problem effectively.

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