READINESS LEVEL OF KINDERGARTEN CHILDREN*

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Abstract

The primary purpose of this study is to examine the readiness level of kindergarten children to find out the various factors that related to readiness for schooling. Descriptive questionnaire survey method and cross-sectional approach were used in this study. A total of 240 kindergarten students participated in this study. Students from urban areas have higher readiness skills than those from rural areas. Boys have higher verbal skills and lower visuomotor skills than girls. Attending preschool is the only predictor for verbal skill. The higher the father's education, the higher the readiness level of children. But the younger the mother's age, the higher the readiness level of children. Furthermore, age of children can be the predictor of visuomotor skills but it has the less beta value then other predictors. With regard to the whole readiness test, the results revealed that the age of kindergarten children, their father's education and attending preschool were significantly related with the readiness level of kindergarten children although children's age is not relatively the best predictor for children's readiness level.

Keyword: Readiness Level, Verbal skills, Visuomotor skills

Introduction

Readiness is any aspect of physical, mental, emotional or experiential maturity which is requisite for the learning activities. Readiness level is a good indicator which is closely related future performance and achievement of the individual concerned. So it is imperative for the parents to train their children to get to satisfactorily required level of readiness according to their age and to create a conducive and stimulating environment for their children.

Significance of the Study

The current fashion among the parents is a strong desire of sending their children to school before school admission age. In considering school admission problems, readiness level of children should be taken into account seriously in addition to age demarcation. The prevailing system of admission

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of children to school is totally based only on age with assumption that children will be ready for schooling by the age of five years.

Therefore in considering for school admission, in addition to age factor, other necessary traits and skills must be taken into account. Most of the teachers widely accepted that the children who have reached the year of five will have certain level of maturity and are ready to learn. Parents and teachers expected all children to profit equally well under the provision of the same instructional materials and methods.

With the help of verbal and visuomotor test, the teacher can arrange and manage the classroom setting and learning situations to meet the needs of the children. Therefore the readiness level of the children to enter primary level become more complicated and higher than that was required past few decades. Hence, the teachers should know the child's readiness level and basic requirements of schooling for their progress in academic achievements. But there is no empirical evidence to show that children of five years of age have developed all the necessary traits and skills for schooling. Children of the same age may have different levels of readiness for schooling.

Although a child's readiness for school can be viewed as a complex interplay between the child's entry skills, Kindergarten Diagnostic Tests Scores are among the best predictors of later academic performance (Snow, Burns, & Griffin, 1998). Accordingly, by the use of KDI, the researcher tries to investigate the readiness levels of Myanmar kindergarten children and explore how different in the readiness level of kindergarten children between children from urban and rural areas.

Purpose of the Research

(1) To examine the readiness level of kindergarten children

(2) To compare the readiness level of kindergarten children from urban and rural areas

(3) To find out the various factors that related to readiness for schooling

Definitions of Key Terms

School readiness: School readiness refers to the child's attainment of a certain set of emotional, behavioral and cognitive skills needed to learn, work, and function successfully in school (Dinwiddie, 1999).

Readiness level: Readiness level is a good indicator which is closely related to the future performance and achievement of the individual concerned (Dinwiddie, 1999).

Review of Related Literature

The concept of readiness can be related to achievement in various school subjects and at various levels of the curriculum. "Traditionally, however, readiness refers to the intellectual and social characteristics of kindergarten and first grade children. Readiness may be defined as a general responsiveness to instruction or as specific intellectual abilities that are predictive of the development of reading or of arithmetic skills" (Leton & Rutter, 1973).

Readiness as defined by Ausubel (1959) refers to "the adequacy of existing capacity in relation to the demands of a given learning task." "Generally, readiness refers to the capacity for meeting successfully certain expectancies or for achieving particular levels of performance" (Brandt, 1971).

Characteristics of School Readiness

Stated in simple terms, school readiness means that a child is ready to enter a social environment that is primarily focused on education. Research has suggested that many aspects of children's lives influence their preparation for formal school learning, including cognitive, social, emotional, and motor development, and, most importantly, early home, parental, and preschool experiences. Consideration of school readiness must take into account the range and quality of children's early life experiences.

The following list of behaviors and or characteristics are often associated with early school success:

1. Ability to follow structured daily routines.

2. Ability to dress independently.
3. Ability to work independently with supervision.
4. Ability to listen and pay attention to what someone else is saying.
5. Ability to get along with and cooperate with other children.
6. Ability to play with other children.
7. Ability to follow simple rules.
8. Ability to work with puzzles, scissors, coloring, paints, etc.
9. Ability to write their own name or to acquire the skill with instruction.
10. Ability to count or acquire the skill with instruction.
11. Ability to recite the alphabet (or quickly learn with instruction).
12. Ability to identify both shapes and colors.
13. Ability to identify sound units in words and to recognize rhyme.

Parent and Family Influences on School Readiness: Family environment is very important in shaping children's early development. Some family factors that can influence school readiness include: Low family economic risk: Poor readiness for school is often associated with poverty. Stable family structure: Children from stable two -parent homes tend to have stronger school readiness than children from one -parent homes and from homes where caregivers change frequently. Enriched home environment: Children from homes where parents talk with their children, engage them in conversation, read to them, and engage in forms of discipline such as time-out that encourage self-discipline have stronger readiness skills.

What parents can do to help prepare children for school: A great deal of variability exists in developmental and skill levels within young children. This is normal, and many children will not have developed to the level of others at the same age. Nevertheless, parents can help their children develop the skills they will need to be ready for school. The following list is a collection of activities that parents can do with their children to increase their child's general readiness for school:

- Read books to and with your child.
- Spend time with your child, including playing, cuddling, and hugging.
- Create and enforce a routine within your home that your child needs to follow (i.e., times of meals, naptimes, and bedtimes).
- Take time to talk to your child.
- Encourage and answer questions from your child.
- Engage in informal reading and counting activities at home.
- Promote your child's cognitive development by showing and encouraging your child to think about the world around them.
- Promote play that helps develop literacy skills, problem solving skills, creativity, and imagination.
- Familiarize children with the alphabet and with numbers.
- Ensure opportunity to develop social skills through playgroups or more formal preschool activities.
- Encourage behaviors that demonstrate respect and courtesy.
- Encourage children to accept responsibility and build competence through simple chores such as putting toys away and picking up clothes.

Methodology

Sample of the Study

To collect the required data, kindergarten children were selected as the participants of this study by using the random sampling technique. Total number of 240 students was involved as the participants in this survey.

Instrumentation

Readiness tests such as KDI, MRT and Lollipop Tests were reviewed thoroughly and adapted to meet the needs of the Myanmar children for writing test items. The readiness test is composed of 13 sub-tests and it has a total of 72 items. These are auditory memory, concept mastery, form perception, general information, number skills, verbal associations, verbal opposites,

vocabulary, body awareness, visual discrimination, visual memory, visuomotor integration and gross motor skill.

Data Analysis and Research Findings

Analysis of Verbal and Visuomotor Skills of Kindergarten Children

In considering the readiness level, both verbal skills and visuomotor skills were taken into account. By using the descriptive procedure for the data obtained from readiness test for kindergarten children, the differences with regard to each subtest were explored. The verbal and visuomotor skills of kindergarten children can be analyzed and revealed the differences of readiness level among them (see Table 1 and Figure 1).

Table 1: Means and Standard Deviations for Readiness Level of Kindergarten Children

Types of Skills	Mean	Standard Deviation	Mean Percent
Auditory memory	4.73	.61	94.6 %
Concept mastery	3.36	1.09	67.2 %
Form perception	4.23	.91	84.6 %
General information	4.64	.68	92.8 %
Number skill	4.07	.99	81.4 %
Verbal association	4.82	.42	96.4 %
Verbal opposite	4.50	.76	90 %
Vocabulary	4.90	.35	98 %
Body awareness	3.30	2.07	47.1 %
Visual discrimination	4.70	1.28	78.3 %
Visual memory	10.75	2.55	89.6 %
Visuomotor Integration	1.37	1.07	27.4 %
Gross motor	4.53	.70	90.6 %

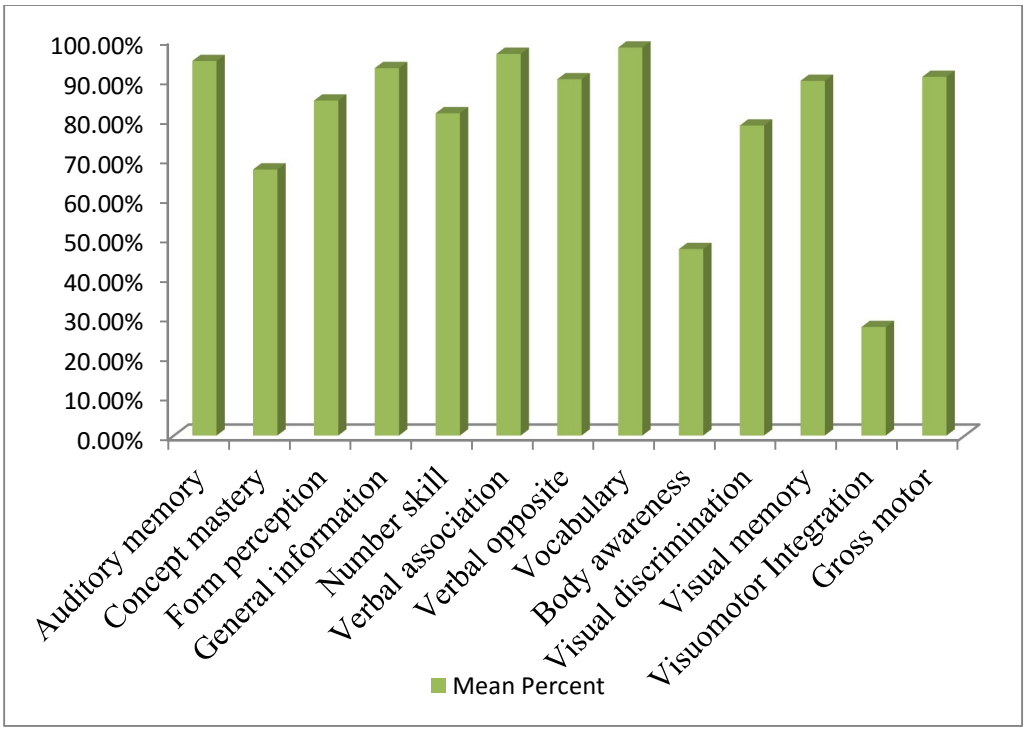


Figure 1: Mean Percent Comparisons for Each Readiness Skill of Kindergarten Children

Based on the descriptive statistics shown in Table 1, the mean percentage for vocabulary ability of kindergarten children was the highest (98%) and that for other skills was also high except visuomotor integration. In visuomotor integration skills, the mean percentage was the lowest (27.4%). That is why the majority of children have not still reached the satisfactory level of visual perception and motor control.

The subtest of body awareness in which one of the items is to draw a picture of a person, most of the children cannot draw well a picture of a person with body parts such as head, eyes, mouth, nose, ears, neck, body, arms, hands and legs. The ability of detail drawing and skill by which a child draws a man, boy, girl or woman indicates the stage he has reached in perception and fine motor control. The children's drawings are classified into five categories such the criteria as incomplete, below average, average, above average and superior. Results are as shown in Figure (2).

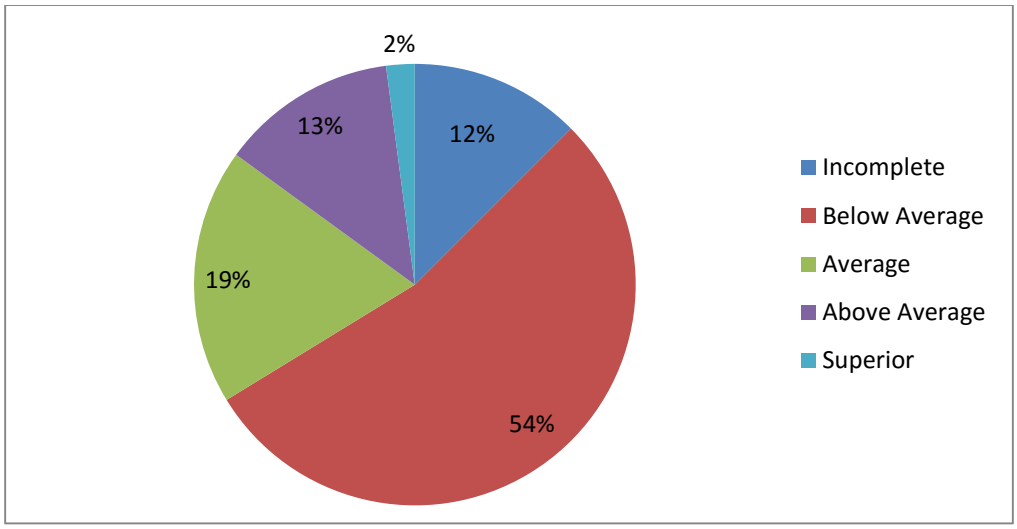
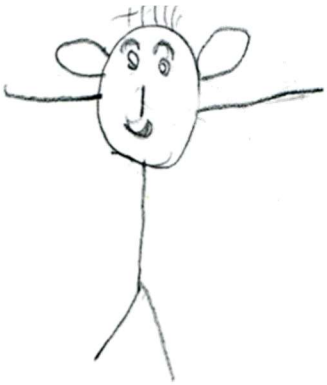


Figure 2: Percentages of Each Category in Body Awareness Subtest

Sample drawings of children's for various categories (superior (2%), above average(13%), average(19%), below average(54%) and incomplete (12%)) of drawing ability are shown below.

Superior **Above Average** **Average**

Below Average **Incomplete**



Comparison of Readiness Level of Kindergarten Children by Areas

To examine the readiness level of kindergarten children from urban and rural areas, descriptive statistics for verbal skills and visuomotor skills of kindergarten children for both areas were computed. The analysis revealed the differences in means and standard deviations of verbal and visuomotor skills by urban and rural areas (see Table 2).

Table 2 : Descriptive Statistics for Verbal and Visuomotor Skills by Areas

Areas / **Skill**	**Urban (Yangon Region) (N=120)**	**Rural (Kyonpyaw) (N=120)**
Verbal Skills	$\overline{X}$= 36.4 (2.49)	$\overline{X}$= 34.18 (3.66)
Visuomotor Skills	$\overline{X}$= 26.37 (2.70)	$\overline{X}$= 24.88 (4.85)

Note: The numbers in the parentheses are the value of standard deviations.

As hypothesized, mean differences were found concerning verbal and visuomotor skills as shown in Table 2. It showed that the mean scores of students from urban areas are higher than that of those from rural areas in both verbal and visuomotor skills. Moreover, the independent sample t-test was used to examine whether these differences are significant or not.

Table 3: The Results of Independent Sample t-test for Readiness Skills by Areas

Readiness Skills	t	df	sig (2-tailed)	Mean Difference
Verbal Skills	5.52	238	**.000**	2.23
Visuomotor Skills	2.93	238	**.004**	1.49

The results of t-test (see Table 3) confirmed that in verbal and visuomotor skills, there is statistically significant difference between urban (Yangon Region) and rural (Kyonpyaw) areas ($p<0.01$). It is said that kindergarten children from urban areas have higher readiness level than those from rural areas in terms of verbal and visuomotor skills (see Figure 3).

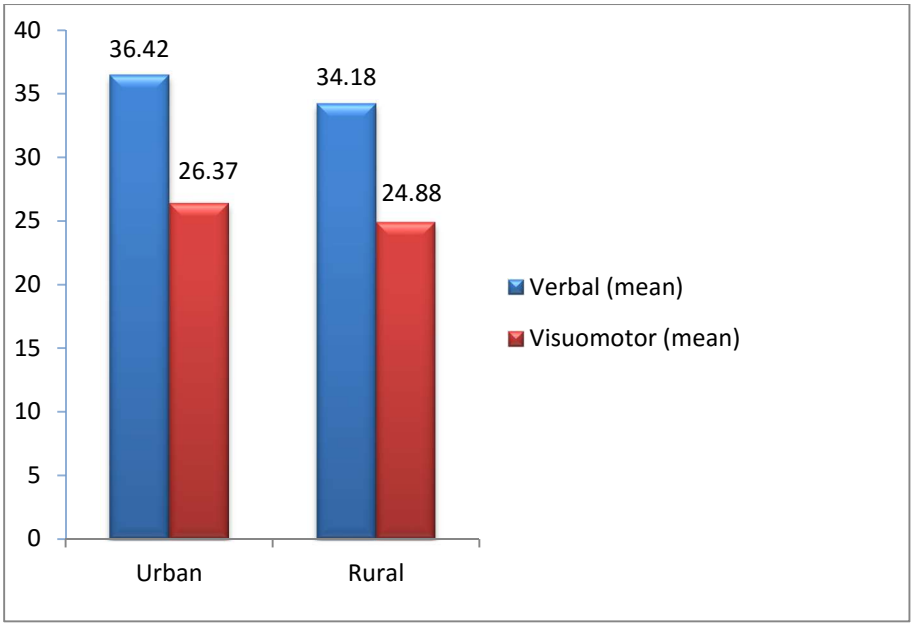


Figure 3: Mean Comparison for Verbal and Visuomotor Skills of Kindergarten Children by Areas

The Relation Between Verbal Skills and Personal Factors of Children

In order to find out personal predictors that related to readiness level of verbal skills (RL (V)) and visuomotor skills (RL (VM)), simultaneous multiple regression will be used.

Table 4: Simultaneous Multiple Regression Analysis Summary for Personal Predictors of Verbal Skill

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	33.958	1.528		22.229	.000
age level	.266	.354	.048	.753	.452
father's job	-.148	.168	-.065	-.882	.379
mother's job	-.221	.125	-.115	-1.770	.078
father's education	.396	.211	.155	1.878	.062
father's age	.143	.237	.057	.601	.549
mother's age	-.095	.263	-.034	-.360	.719
Siblings	.076	.183	.028	.416	.678
Preschool	1.627	.517	.237	3.145	**.002**

It was found that there was the significant difference between such variable as attending preschool and verbal skills ($p< 0.01$). Attending preschool (P) is only the best predictor for verbal skills, $\beta = 0.24$, $p = 0.002$, $p < 0.01$ in positive direction. This model can be defined as in the following equation:

$$RL\ (V) = 33.96 + 1.63P$$

Note: RL (V) = Readiness Level of verbal skills, P = Attending Preschool

And then, other predictors for visuomotor skills are also investigated (see table 5).

Table 5: Simultaneous Multiple Regression Analysis Summary for Personal Predictors of Visuomotor Skill

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	21.533	1.830		11.76	.000
Father's education	.821	.253	.267	3.24	.001
Mother's age	-.729	.315	-.215	-2.31	.022
Age level	1.076	.424	.161	2.53	.012

The results revealed that the age of kindergarten children (A), their father's education (FE) and mother's age (MA) were significantly related with the visuomotor skills of kindergarten children, for father's education, $\beta = 0.27$, $p = 0.001$, $p < 0.01$, for mother's age, $\beta = -0.22$, $p = 0.022$, $p < 0.01$ and for children's age, $\beta = 0.16$, $p = 0.01$, $p < 0.01$. Then the model can be defined as in the following equation:

RL (VM) = 21.53 + 0.82 FE - 0.73MA + 1.08A

Note: RL (VM) = Readiness level of visuomotor skills

FE = Father's education

MA = Mother's age

A = Children's age

According to above equation, the higher the father's education is, the higher the readiness level of children. But the younger the mother's age is, the higher the readiness level of chidren. This may be because the young mothers are more active, alert and healthier than old mothers so as to strengthen the visuomotor skills of children. Age of children was the predictor of visuomotor skills but it has the less beta value ($\beta = 0.16$) than other predictors. With respect to readiness level of both verbal and visuomotor skills, simultaneous multiple regression was conducted. (See Table 6)

Table 6: Means, Standard Deviations and Inter-correlations for Readiness Skills and Predicator Factors

Variables	Mean	SD	Father's Education	Attending Preschool	Age level
Readiness level	60.92	6.209	0.384**	0.355**	0.003
Predictor Factors					
1.Father's Education	3.79	1.299	-	0.588**	-.262**
2.Attending Preschool	.63	.484	-	-	-.202**
3. Age level	1.56	0.597	-	-	-

** P<0.01

Table 6 showed that father's education, age level and attending preschool are significantly correlated with the kindergarten children's readiness level. Preschool experiences were also affective for the kindergarten children's readiness level. Those who attended preschool before entering kindergarten have significantly high readiness levels. Preschool experiences can benefit the readiness level of kindergarten children.

As expected that there may be other factors which related to readiness level of kindergarten children, there are two other predictor factors that are highly related to readiness level. Therefore, to compare the strength of these predictors the beta coefficients were analyzed. The values of beta coefficients are presented in Table 7.

Table 7: Simultaneous Multiple Regression Analysis Summary for Personal Predictors of Readiness level

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	56.941	2.287		24.902	.000
Father's education	1.282	.637	.268	2.012	.045
Preschool	2.579	.975	.201	2.645	.009
Age level	1.275	.634	.123	2.010	.046

All of the factors depicted in Table 7 are either statistically significant and, therefore, associations with readiness are statistically strong.

The results revealed that the age of kindergarten children (A), their father's education (FE) and attending preschool (P) were significantly related with the readiness level of kindergarten children although children's age was not relatively a good predictor for children's readiness level. Then the model can be defined as in the following equation:

$$R\ L = 56.94 + 1.28FE + 2.58P + 1.28A$$

Note: RL = Readiness level

FE = Father's education

P = Attending preschool

A = Children's age

These findings showed that readiness level was dependent on father's education, attending preschool and age. Children who have high readiness levels can achieve success in their later academic performance. Readiness skills are the best predictors for later academic performance.

5. Conclusion

The National Education Goals Panel (1997) outlined five dimensions of school readiness associated with (a) health and physical development, (b) emotional well-being and social competence, (c) approaches to learning, (d) communication skills, and (e) cognition and general knowledge. Parents are calling for more structured learning (Garrett, 2001). For instance, they ask that long day care centers have pre-school programs with an emphasis on pre-reading and pre-numeracy skills to ensure that their children are 'ready for school' and are not falling behind in a knowledge acquisition race, which is starting ever younger. On the other hand, researchers and early childhood educators are recognizing the importance of less structured aspects of early childhood learning on children's readiness for school.

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