

## **Elementary Education Students' Self-Directed Learning Readiness and Its Association with Academic Achievement: A Study in the Context of Pakistan**

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### **Abstract**

In Pakistan, an elementary school is, typically, a child's first experience of the real world. Training elementary school teachers in such a way that they may be able to support and develop their young charges is vital. Self-directed learning is a characteristic of independent learners necessary for survival in the 21<sup>st</sup> century. The aim of this study was to examine the association of elementary education students' self-directed learning readiness (SDLR) with their academic achievement. A quantitative paradigm and cross-sectional design was adopted for this study. The master of elementary and early childhood education students (session 2016-2018 & 2017-2019) from the University of the Punjab, Lahore, Pakistan made up the population of the study. The researchers employed total population sampling. A modified SDLI, developed by Su-Fen Cheng, Chien-Lin Kuo, Kuan-Chia Lin, and Jane Lee-Hsieh (2009), was used to gather data about SDLR. The CGPA of the respondents was used as a gauge for their academic achievement. Analysis of the data revealed that the respondents' SDLR was moderately high and no gender disparity exists based on gender. However, a correlation between the two variables of the study does exist ( $r = .234, p = .001$ ). Moreover, regression analysis showed that academic achievement can be predicted by SDLR levels ( $R^2 = .055, F = (1, 185) = 10.672, p = .001$ )

**Keywords:** Elementary education students, academic achievement, self-directed learning readiness (SDLR)

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## **Introduction**

To be successful in any field, it is crucial to make informed decisions based on the understanding of emerging trends. This is especially true for the mother of all professions, teaching. In order to be effective, teachers need to stay ahead of the curve; they need to be educated about the changes and challenges in the education world. They also need to learn how to deal with them. It needs to be second nature for educators. Teachers need to stay in the loop to be able to provide support to their students to the best of their abilities. Therefore, there is a need to educate the pre-service teachers in such a way that they become familiar with not only the theoretical as well as the practical aspects of their profession. Teachers, particularly elementary school teachers, face several problems in the classroom regularly. It is up to them to take initiative to diagnose them and employ the available resources to devise a solution. This is what Knowles (1975) described as self-directed learning. Another scholar, Gibbons (2002), defined this phenomenon as increasing one's knowledge and skills by employing any available means, at any time and at any age.

Keeping in view the demands of the educational setting, it is logical to instill in pre-service teachers the competences to adequately immerse themselves in self-directed learning (El Gilany & Abusaad, 2013). This capability is termed as SDLR.

This study aimed to investigate the correlation of SDLR and academic achievement for the elementary education students. The findings of this study may help to corroborate the existing literature.

## **Literature Review**

Review of the literature reveals an inconsistency in the results. The findings of the previous studies are summarized below:

Recent studies conducted by Hussain, Sabar, and Jabeen (2019) in Lahore, Pakistan and by Fadila and Elsayed (2018) in Mansoura, Egypt revealed that no significant correlation exists between SDLR and academic achievement. Hussain, Sabar, and Jabeen (2019) also found that SDLR levels do not vary with demographic qualities. This parallels the findings presented by Klotz (2011) in her research. Similarly, Deyo, Huynh, Rochester, Sturpe, and Kiser (2011) found no correlations between the variables.

Zanjani, Ajam, & Badnava (2017) along with Jaleel and OM (2017), in separate studies, determined a positive relation between the subjects' SDLR and academic achievement. Similarly, Alotaibi (2016) discovered a strong link between SDLR and academic achievement among Saudi nursing and medical emergency students. Harriman (1990), Darmayanti (1993), Morris (1996), Hsu and Shiue (2005), and Kan'an and

Osman (2015) arrived at the same conclusion. However, they vary in their results about the difference in SDLR with respect to demographic groups. Hsu and Shiue (2005) found that SDLR was dependent on prior academic performance, Morris (1996), and Harriman (1992) found a disparity on the basis of age while, Darmayanti (1993) found that female respondents exhibited a greater readiness for SDL.

A quick overview is enough to understand that the literature has inconsistencies. There is a gap in the understanding of SDLR, especially in relation to academic achievement. The present study is an attempt to fill in those gaps.

### **Objectives of the Study**

The objectives for this study were to:

1. Determine the level of SDLR for elementary education students
2. Investigate the relationship between elementary education students' SDLR and their academic achievement
3. Determine the effect of SDLR on academic achievement of elementary education students

### **Research Questions**

To achieve the objectives of the study, the researchers formulated the following research questions:

1. What is the level of SDLR for elementary education students?
2. Based on gender, what is the difference in elementary education students' level of SDLR?
3. What is the relationship between elementary education students' SDLR and their academic achievement?
4. What is the effect of SDLR on academic achievement of elementary education students?

### **Methodology**

The researchers opted for the cross-sectional design to determine the correlation of SDLR and academic achievement.

### **Population and Sample**

The population for this study was made up of the students of master of elementary education and master of early childhood education, registered in the session 2016-2018 & 2017-2019 in the Institute of Education and Research, the University of the

Punjab, Lahore, Pakistan. There were a total of 193 students registered in the morning and self-supporting programs combined. The researchers used total population sampling due to such a small and accessible population.

### **Instrument**

A modified self-directed learning instrument (SDLI) was used to measure elementary education students' SDLR. The original instrument was developed by Cheng, Kuo, Lin, and Lee-Hsieh in 2010. It was modified for use in Pakistani context by Hussain, Sabar, and Jabeen (2019). They also established its validity and reliability ( $\alpha = .83$ ). The instrument consists of 25 items distributed into four subscales; learning motivation, planning and implementing, self-monitoring, and interpersonal communication.

Academic achievement of the respondents was calculated through their third semester cumulative grade point average (CGPA).

### **Data Collection**

The classes of the respondents were visited by the researchers on multiple days to gather data. However, due to unavoidable circumstances, only 187 questionnaires were completed out of the intended 193 (response rate = 96.89%).

### **Data Analysis**

Researchers used the statistical package for social sciences (SPSS) version 23 for analyzing data. Along with descriptive statistics (mean, standard deviations), *t*-tests, Pearson Product-Moment correlation, and simple linear regression analysis were used to answer the researcher questions.

### **Findings**

The findings of the data analysis are described below:

**Table 1**

*Elementary education students' Score for SDLR and Its Subscales*

	Min	Max	<i>M</i>	<i>SD</i>
Learning Motivation	12	35	28.34	3.36
Planning and Implementing	17	35	27.91	3.75
Self-Monitoring	8	25	20.12	2.97
Interpersonal Communication	8	30	24.88	3.56
SDLR	50	123	101.26	11.32

Note: *N* = 187

The above table illustrates that elementary education students show a moderately high readiness for self-directed learning ( $M = 101.26$ ,  $SD = 11.32$ ). They also show a high score on all the subscales of the SDLI; learning motivation ( $M = 28.34$ ,  $SD = 3.36$ ), planning and implementing ( $M = 27.91$ ,  $SD = 3.75$ ), self-monitoring ( $M = 20.12$ ,  $SD = 2.97$ ), and interpersonal communication ( $M = 24.88$ ,  $SD = 3.56$ ).

**Table 2***Difference in the Level of SDLR and Its Subscales on the Basis of Gender*

	Gender	Mean	<i>T</i>	<i>df</i>	<i>p</i>
Learning Motivation	male	29.75	2.23	185	.027
	female	28.13			
Planning and Implementing	male	29.25	1.87	185	.063
	female	27.72			
Self-Monitoring	male	20.29	.297	185	.767
	female	20.09			
Interpersonal Communication	male	24.62	-.371	185	.711
	female	24.91			
SDLR	male	103.91	1.232	185	.220
	female	100.87			

Note: Male  $N = 24$ , Female  $N = 163$

The results of the independent sample *t*-test are summarized in the above table. It shows that no significant difference exists on the basis of gender in the any of the subscales, learning motivation ( $t(185) = 2.23$ ,  $p = .027$ ), planning and implementing ( $t(185) = 1.873$ ,  $p = .063$ ), self-monitoring ( $t(185) = .297$ ,  $p = .767$ ), and interpersonal communication ( $t(185) = -.371$ ,  $p = .711$ ). Moreover, there was no difference in the overall SDLR levels ( $t(185) = 1.232$ ,  $p = .220$ ).

**Table 3***Relationship of SDLR and Its Subscales, with Academic Achievement*

	<i>R</i>	<i>p</i>
Learning Motivation	.173*	.018
Planning and Implementing	.271**	.000
Self-Monitoring	.143	.050
Interpersonal Communication	.175*	.016
SDLR	.234**	.001

Note:  $N = 187$

\*Correlation is significant at the 0.05 level

\*\* Correlation is significant at the 0.01 level

The above table shows the relationship of SDLR and its subscales with academic achievement. The subscale self-monitoring showed no correlation with academic achievement ( $r = .143$ ,  $p = .050$ ). However, the remaining subscales show a weak positive correlation with CGPA: learning motivation ( $r = .173$ ,  $p = .018$ ), planning and implementing ( $r = .271$ ,  $p < .001$ ), and interpersonal communication ( $r = .175$ ,  $p = .016$ ). Similarly, SDLR has a weak positive correlation with academic achievement ( $r = .234$ ,  $p = .001$ ).

**Table 4**  
*Effect of SDLR on Academic Achievement*

Model	Variable	<i>B</i>	$\beta$	<i>T</i>	<i>F</i>	$R^2$	$R^2_{adj}$
1	(constant)	2.552		13.331	10.672	.055	.049
	SDLR	.006	.234	3.267			

$p = .001$

Simple linear regression was applied to test whether SDLR levels significantly predicted academic achievement of the elementary education students. The results are summarized in table 4. It was found that SDLR explained 4.9% of variance in the CGPA ( $R^2 = .055$ ,  $F = (1, 185) = 10.672$ ,  $p = .001$ ).

## Discussion

The aim of this study was to determine the correlation of elementary education students' SDLR with their academic achievement. It was also intended to ascertain the effect of SDLR on the dependent variable. The researchers selected the final year students of master of elementary and early childhood education because they have had a period of adjustment in their course and have a better understanding of their learning goals and demands of the prospective profession. Moreover, there is a smaller chance of them dropping out of the course and consequently a greater probability of joining the workforce as elementary school teachers. Education in Pakistan is heavily teacher-centered however; there is a rapid and abrupt change to student-centered methodology as the students move into higher education. The final year students have a better comprehension of the course format and their own strengths and weaknesses in this new scenario. They become relatively independent learners and, therefore, provide a clearer picture of the phenomenon under scrutiny for this research, self-directed learning readiness.

The findings of the present study confirm that a positive relation exists between the respondents' SDLR and academic achievement. The findings of the present study corroborate the findings of the research carried out by Harriman (1990), Darmayanti

(1993), Morris (1996), Hsu and Shiue (2005), and Kan'an and Osman (2015), Alotaibi (2016), Jaleel and OM (2017), and Zanjani, Ajam, & Badnava (2017).

## Conclusion

This particular piece of research study intended to determine the relation of SDLR with academic achievement for elementary education students. It was adjudged that the respondents display a high readiness for self-directed learning. There was, however, no difference was found on the basis of gender. SDLR has a weak positive correlation with academic achievement. Furthermore, analysis showed that SDLR of elementary education students significantly predicted their CGPA.

## Recommendations

The findings of this study lead the researchers to make the following recommendations:

1. Further studies may help to approve or disapprove the results of this study. Hence, additional research at different locales is highly recommended.
2. A longitudinal study may prove useful in determining the levels of SDLR and its relation with academic achievement.
3. Huang (2008) observed that SDLR could be affected by internal and external factors. The researchers propose studies to test how these factors effect and mediate the relationship between SDLR and academic achievement.

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