Research Paper

Learning Readiness and Educational Achievement among School Students

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ABSTRACT

Learning readiness is the prerequisite conditions for the effective learning process among school students. This study examined the relationship between learning readiness and educational achievements of school students. For this purpose, researcher adopted the cross sectional survey design and employed the self-administer questionnaire from 400 students of a cluster. After this, the collected data was analyzed with inferential statistical measures like Karl-Pearson correlation and regression analysis. The findings of this study divulged that there was significant relationship between learning readiness and students' educational achievement. Considering it, the learning readiness contributes highly to the student learning achievement. Overall, it is concluded that creating learning readiness among students is essential tasks for achieving high educational achievement among students. Thus, the absence of learning readiness spoils the teaching learning process which means every efforts turns meaningless in academia.

Better education helps to flourish individuals' capacities, but without learning readiness it can't be possible. Learning readiness is the degree of concentration and eagerness to learn among students. According to Thorndike (1989) the law of readiness is the first primary law of learning which means that learning takes place when an action trend is aroused through preliminary modification, deposit or attitude (as cited in Gandhi, 2010). In another words learning readiness implies a level of particular mindedness and excitement to do something (Hayden, 2008). When an individual is ready to do an act of learning intrinsically they can learn effectively with greater satisfaction but when they weren't ready to learn all the efforts done by them and others will go waste.

Learning readiness is the overall state of student readiness, family readiness and school readiness (United Nations International Children's Emergency Fund [UNICEF], 2012; United States Department of Health and Human Services [USDHHS], 2014) where all the circumstances are favorable for students and they ultimately lead them to want to learn

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readily. The student readiness is that individual state of student where he or she is physically, mentally and emotionally ready to learn. Similarly, the school readiness is defined as that complete preparedness of school (entire teachers) to create a favorable environment (United Nations Educational, Scientific and Cultural Organization [UNESCO], 2007) which contributes to achieving the best learning among their students. Likewise, Alexander, Entwisle, and Bedinger (1994) mention family readiness as the complete preparedness of family (parents) to send their child to school to learn and to create a favorable environment at home to help their child gain the best level of learning. These three: student readiness, school readiness and family readiness are the major components of learning readiness and they lead towards high educational achievement among students.

Educational achievement is the total outcome of learning among the students (Khadka, 2017) which is achieved through teaching learning process. It signifies the effectiveness of educational process which is conducted in the schools as the classroom activities as well as indoor activities. It deals with the class examination results (Magnus & Peresetsky, 2018). Educational achievement represents the performance outcome (Steinmayr, Meiβner, Weidinger, & Wirthwein, 2015). It indicates the degree to which an individual has fulfilled the certain goals. Furthermore, it focuses on those activities which specifically concentrate in instructional environments of school (Steinmayr et al., 2015).

Learning readiness is essential for the better educational performance of the students in learning process (Deyo, Huynh, Rochester, Sturpe, & Kiser, 2011). Every effort to provide quality education in school becomes meaningless due to the absence of student readiness in learning. If the student is prepared to learn, he can learn rapidly and if the student is not geared up to learn, he cannot learn successfully (Prakash, 2012). Without learning readiness, it leads to decrease the educational achievement of students. It also decreases the efficiency and effectiveness of classroom teaching and also wastes huge government investment in the school education.

In the present context the academic achievement in schools are in degrading order which is clearly pictured out from the data about School Leaving Certificate (SLC) and Secondary Education Examination (SEE) published in different examination date. The Exams Controller Office (ECO) of Nepal claimes that in 2015 only 47.39 percent students achieved success in exam (as cited in Ministry of Education [MOE], 2015). Likewise, 37.55 percent students only achieved above "C" grade in their SEE exam in Nepal (Ministry of Education, Science and Technology [MOEST], 2018). As well as Department of Education ([DOE], 2014) reveals that the promotion rate, repetition rate, dropout rate, and survival rate of grade 6-8 was 90.1, 4.6, 5.3 and 74.6 respectively. These facts clearly indicate the low educational achievement in the schools of Nepal whether they are community or institutional. So, poor academic achievement of students signifies the poor quality of education in Nepal.

So teaching learning processes without learning readiness is less effective and further becomes a serious threat for promoting educational achievement among students. Thus, absence of learning readiness becomes a great obstacle to providing quality education. In Nepalese academic field, studies regarding learning readiness of students are scarce. In this backdrop, this study is one of the pioneer studies especially in the field of education. So, this research aimed to examine to what extent the learning readiness influenced the educational achievement among students in school? To that end, this study raised the question: Does learning readiness contribute to educational achievement in school students? Concerning this

issue, the researcher recognized the most crucial question as "What is the relationship between learning readiness and educational achievement of school students in Kathmandu District?"

LITERATURE REVIEW

Effective learning is the most crucial attribute of whole educational system. Without effective learning, education cannot succeed to achieve its goals and purposes. Learning readiness is the prerequisite for getting success to achieve the goals and objectives of education within students (Gandhi, 2010). Learning readiness is the process of creating favorable circumstances for whole effective teaching learning process which contribute to enhance academic achievement (USDHHS, 2014) in students. Subsequently, without learning readiness students cannot make success in school.

The reviewing of these literatures (e.g. Prakash, 2012; UNICEF, 2012; USDHHS, 2014) indicates that the necessity of learning readiness for students to achieve better educational output. Without learning readiness the educational achievement among students tends to decrease. Thus, there is an intense necessity of wide study about learning readiness and educational achievement among school students. So this research is very important in Nepal to examine the learning readiness and educational achievement of students. For this reason, the researcher strongly believes that this study can be taken as a landmark to restructuring the teaching learning process by identifying the issue about learning readiness among school students in the context of Nepal. Therefore, it was hypothesized that:

H_1: *The learning readiness significantly enhances the educational achievement among students.*

METHODOLOGY

Research Design

Basically this study was based on the post positivism view point and it talks about the single reality (e.g. Creswell, 2009) as the educational achievement and it is the outcome of learning readiness. Researcher adopted the cross sectional survey design as the research design and it determines school of Kathmandu District as the study site. In addition, the entire school students (N = 394,651) of Kathmandu district (MOEST, 2018) were declared as the study population and among them, each and every individual student was identified as the unit of analysis. Then, researcher performed cluster sampling and took 400 students by employing the Yamane (1967) method at 95 percent confidence limit in this study.

Instruments

The researcher constructed survey tool and it consisted of scale for assessing learning readiness from the students. Basically, this tool was first employed in pilot testing. From pilot testing, researcher derived the Cronbach's alpha (α) values of the indicators belonging to scale. The obtained Cronbach's alpha (α) values were; Student readiness (.833), school readiness (.711) and family readiness (.875). It means these three categories of the scale were highly reliable which refers that it had high internal consistency (e.g. Santos, 1999; Bhattarai, 2015). Consequently, this entire process ultimately constructed this scale in well standardized outline. Similarly, the information about educational achievement was collected by the exam reports of school, and the researcher only took the scores of English and Nepali subjects as the markers of educational achievements of students in this study.

Method of Analyzing the Data
The collected data was analyzed with the help of inferential statistics (Karl Pearson correlation and regression analysis) to examine the relationship between learning readiness and educational achievement. Before employing the parametric tests, researcher performed some statistical assumptions for ensuring the suitability of these tests. The linearity, normality, no multicollinearity and absence of autocorrelation were the fundamental assumptions for testing Karl Pearson correlation and regression analysis (Sreejech, Mohapatra, & Anusree, 2014). The results of these tests are as follows.

Testing Assumption of Linearity: This assumption signifies the linear relationship between dependent and independent variables. While performing this test, researcher plotted the learning readiness against educational achievement (total score) and found the straight line. The constructed straight line refers that the data patterns were found in linear form (e.g. Field, 2009) in figure 1.

Figure No. 1 Linearity between learning readiness and educational achievement
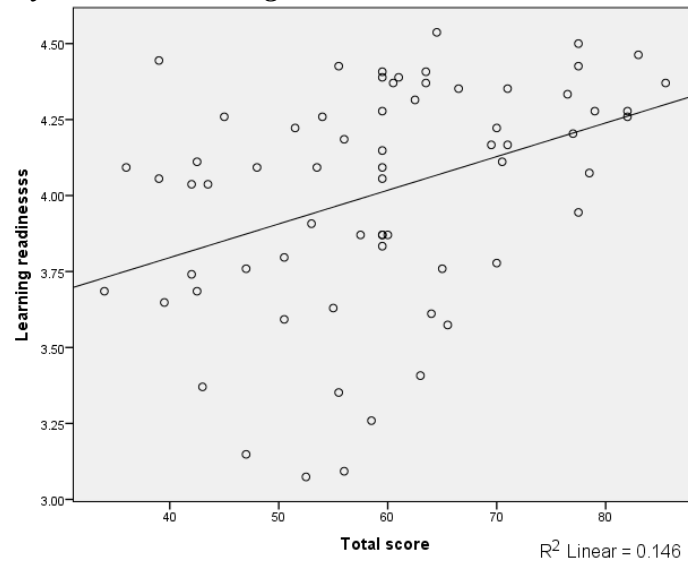
Testing Assumption of Normality: The normal distribution of data was ensured by computing the Skewness and Kurtosis in this research. The entire derived values of Skewness are distributed between .154 to -.838 respectively. Similarly, all the derived Kurtosis values also range between .957 to -.638 respectively. These entire values of Skewness and Kurtosis reflect the normal distribution of data where the normality ranges between +1 to -1 (Garson, 2012).

Testing Assumption of Multicollinearity: The occurrence of multicollinearity gave the unreliable results (Barton & Peat, 2015). This means, there is absence of multicollinearity for performing regression analysis. Therefore, researcher employed the tolerance and Variance Inflation Factor (VIF) to identify the problem of multicollinearity in table 1.

Table No.1 Multicollinearity between learning readiness and educational achievement

Model	Variables	Collinearity Statistics	
		Tolerance	**VIF**
1	Educational Achievement	1.00	1.00

a. Dependent Variable: Learning readiness

Garson (2012) states that the tolerance value (T<0.2) and VIF (>4.0) refers the absent of multicollinearity. In this context, Table 1 reveals the tolerance value (T<1.00) and VIF value (>1.00) respectively. These both values indicated that the dataset of this study was free from multicollinearity.

Testing Assumption of Autocorrelation: Autocorrelation refers to a lack of independence from each other. The lacking of independence between variables results in the occurrence of invalid confidence intervals and significance tests (Shrestha, 2017). For ensuring absence of autocorrelation, researcher adopted Durbin-Watson test and got 1.681 values between learning readiness and educational achievement. This value falls between 1.5 and 2.5 (Garson, 2012). This derived value indicated that there was no autocorrelation.

After ensuring the normal distribution, linearity, absence of multicollinearity and autocorrelation collectively allowed to examine the relationship between learning readiness and educational achievement of students via employing parametric test (Singh, 2007) in this study.

RESULTS

Relationship between Learning Readiness and Educational Achievement
This part deals with examining the relationship between learning readiness and student achievement as well as enhancement of learning readiness leading to increase in student achievement in schools. For this purpose, researcher adopted the Karl Pearson coefficient of correlation and regression analysis as the statistical tools. Furthermore, researcher used the achievement scores as the markers of educational achievement of students in this section. These scores are sorted out in five levels according to Singh (2007), which were; negligible (0-0.2), low (0.2-0.4), moderate (0.4-0.6), high (0.6-0.8) and very high (0.8-1.0) respectively. As well as researcher obtained correlation between learning readiness and educational achievement of students in table 2.

Table No. 2 Learning readiness and educational achievement of students

Constructs	SR	SCR	FR	LR	ES	NS	EA
SR	1						
SCR	.641**	1					
FR	.263*	.344**	1				
LR	.698**	.646**	.682**	1			
ES	.562**	.318**	.200	.516**	1		
NS	.393**	.167	.182	.303*	.771**	1	
EA	.497**	.249*	.202	.423**	.927**	.953**	1

SR = Student readiness, SCR = School readiness, FR = Family readiness, LR = Learning readiness, ES = English score, NS = Nepali score, EA = Educational achievement
**. Correlation is significant at the 0.01 level (2-tailed).
* . Correlation is significant at the 0.05 level (2-tailed).

Table 2 reflects that there is high correlation ($r = .641$, $p <0.01$) between student readiness and school readiness. But remaining components show the low correlation with each other like student readiness-family readiness ($r = .263$, $p <0.05$) and school readiness-family readiness ($r = .344$, $p <0.01$) respectively. As an entire learning readiness, it makes positively high correlation with its entire dimensions. The correlation between learning readiness and student readiness ($r = .698$, $p <0.01$), school readiness ($r = .646$, $p <0.01$) and family readiness ($r = .682$, $p <0.01$) respectively. These correlations depict that student readiness had high correlation with learning readiness than other readiness.

As well as the given statistics indicates the very high correlation between the obtained scores of students in their exams taken by their schools. Both English and Nepali subjects were very highly correlated ($r = .771$, $p < 0.01$) with each other among students. In spite of this the obtained total scores were also very highly correlated to these two subjects Nepali ($r = .953$) and English ($r = .927$) at 0.01 level of significance. This result indicates that there is significantly high degree of positive correlation between the achievements in different subjects which were obtained by students in their examination. As well as it also established that there is very high degree of correlation between entire educational achievement and achievement in English as well as Nepali subjects among school students.

In addition, the table 4 also reflects that learning readiness makes moderate correlation ($r = .423$, $p < 0.01$) between total score among students. In case of particular subjects, there is moderate correlation ($r = .516$, $p < 0.01$) between learning readiness and English subject but it seems only low correlation ($r = .303$, $p < 0.05$) in case of Nepali subject comparatively. In other hand, most of the dimensions of learning readiness made significant correlation to the academic achievement of students. Among these dimensions, student readiness makes moderate correlation ($r = .497$, $p < 0.01$) and school readiness makes low correlation ($r = .249$, $p < 0.05$) with total obtained score of students. Moreover, there is no significant correlation between family readiness and total scores of students.

In context of student readiness, it demonstrates the positively moderate correlation ($r = .562$, $p < 0.01$) with English score and low correlation ($r = .393$, $p < 0.01$) with Nepali subject respectively. As well as in case of school readiness makes low degree of correlation ($r = .497$, $p < 0.01$) with English subjects but demonstrates no significantly correlation with Nepali subject comparatively. Besides this the entire family readiness does not reflect significant correlation between the scores of English and Nepali subjects.

Overall, there is moderate correlation between the learning readiness and educational achievement of students as the total score of students in their subjects. On the other hand, all the dimension of learning readiness shows significantly positive correlation but its degree varies with each other. There is also very high degree of positive correlation between the scores of English and Nepali subjects among school students.

Influences of Learning Readiness on Educational Achievement

This part aims to examine the influences of learning readiness on educational achievement by operating regression model $Y = a + bx$ (e.g. Kerlinger, 2011) in this study. In this regression model, 'x' and 'Y' refer as independent and dependent variables respectively. As well as 'a' and 'b' are taken as constant and regression coefficient respectively. This regression analysis gives the three output; model summary, ANOVA table and coefficient table respectively while computing it (Table 3).

Table No. 3 Regression analysis between learning readiness and educational achievement

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	R	R Square	Adjusted R Square
	B	Std. Error	Beta					
1 (Constant)	21.55	10.17		2.11	.03			
Learning readiness	8.82	2.34	.423	3.76	.00	.423[a]	.179	.166

a. Dependent Variable: Educational achievement
b. Predictors: (Constant), Learning readiness
c. Correlation is significant at the 0.01 level (2-tailed)

According to the table 3, the derived value of R (= .423) shows the moderate degree of correlation between learning readiness and educational achievement among school students. Firstly, it shows the value of adjusted R square (r^2 = .166 X 100 = 16.6%) and it indicates that the model was fairly fit to this data (e.g. Carver & Nash, 2012). Secondly, it mentions that there is a significant relationship (p<0.01) between learning readiness and educational achievement among school students. This statistical derivation shows that the overall model of regression analysis is significant to explain the educational achievement as the outcome of learning readiness. Finally, it signifies the regression model as (Y = 21.55 + 8.28x) and it can be projected as 'Educational achievement = 21.55 + 8.28 Learning readiness' respectively. This derived statistics indicated that 1 unit change in learning readiness brings 8.28 units changes in educational achievement in school students. It gives meaning that learning readiness makes 8.28 times (828 %) changes in educational achievement among students (e.g. Carver & Nash, 2012). Thus, learning readiness positively enhances the educational achievement (p<.05) of students.

DISCUSSION

Among the components of learning readiness, there is high correlation between student readiness and school readiness but remaining components show low correlation with other components. These all dimensions of readiness seem to have significant positive correlation with each other. As well as the dimensions of entire learning readiness (student readiness, school readiness and family readiness) make high degree of positive significant correlations between learning readiness. On the other hand, there is strong correlation between obtained scores in Nepali and English as the educational achievement. Probably this strong correlation between these two subjects is due to the similar nature as the language subjects. Likewise, when taken separately, these two subjects still show an elevated level of correlation with total score secured by the students in their exams.

On the other hand, there is a moderate level of correlation between learning readiness and student's educational achievement. In the dimensions of learning readiness, student readiness makes modest level of correlation to the educational achievement of students. It is similar to the Khattab (2015) where author concludes that those students who have high aspiration and expectation always achieve lofty educational achievement.

Similarly, the school readiness also shows the relationship with educational achievement in this study. The school readiness involved the eminent facilitated school and classroom performance of teachers. Al-Enezi (2002) generalized the studies done by Cash (1993), Earthman, Cash, & Berkum (1996), Hines (1996), and Lanham (1999). The authors found the relationship between school facilities and academic achievement in schools. Moreover, Wenglinsky (2001) states that effective classroom performances of teachers increases the high learning achievements of students. Hence, the well facilitated and effective classroom performances create the sound learning environment in school to learn.

So far as relationship between family readiness and educational achievement is concerned, there appears to be no association in this study. Despite this, Castro et al. (2015) claim there are strongest associations between families and the child's learning. They further mention that those parents who have high academic expectations for their child will always communicate with child and school about school activities. These types of parental involvements contribute in developing reading habits in their children (Castro et al., 2015). These differences in results were probably due to the topographic and contextual differences

of these two studies. This situation shows that there was no significant role of family readiness in determining educational achievement in this study. Due to this fact, the educational achievement of students seems only in moderate level.

Researcher derived that learning readiness contributed eight times changes in educational achievement. It further means that there is high level of influence in educational achievement due to learning readiness among school students. It is similar to the Saeid and Eslaminejad (2016) studies, where they claim that self-directed learning and academic efficacy increases the achievement in students. This self-directed learning and academic self-efficacy is closely related with learning readiness. Thus, learning readiness ultimately enhances the educational achievement among students. Without learning readiness in students, every effort made by student, school and families will turn to waste and give low educational achievement.

CONCLUSION

There is positive relationship between learning readiness and educational achievement among school students as explicated by this study. As this study shows that an increment in learning readiness brought eight times improvement in educational achievement of students. So learning readiness can be said to be the fundamental component for a better learning in students. That is why, to achieve better educational achievement in students, promotion of learning readiness is a must. In other words, in the absence of learning readiness in students, every effort and investment turn out to be meaningless just like pouring water in sand.

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Conflict of Interest
The authors carefully declare this paper to bear not a conflict of interests

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