STUDIES ON MOTIVATION AND LEARNING STRATEGIES OF PROSPECTIVE TEACHERS AT HIGHER EDUCATION LEVEL

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Abstract

Motivation is a key element which facilitates students to adopt different learning strategies according to high, moderate and low level of motivation. The research aimed to identify the relationship between the levels of motivation in prospective teachers and their learning strategies. The research was correlational in nature. A survey method was used to collect data. The population included all the prospective teachers in a public university. The sample of 300 prospective teachers was randomly selected for data collection. Motivation strategies for learning questionnaire (MSLQ) were adopted as a research instrument to collect data. Data were analyzed by applying the Pearson r correlation technique using SPSS. Findings revealed that high motivation of prospective teachers showed positive significant correlation with all learning strategies except 'help-seeking', while a moderate level of motivation and low level of motivation in prospective teachers showed positive significant correlation with other learning strategies except 'effort regulation'.

Keywords: *Motivation, learning strategies, Prospective teachers, MSLQ, Higher education*

Introduction

Successful learning of students is consistently associated with their motivation. Tallent- Runnels et al. (2006) emphasized the information about learners' motivation is the main factor to design an effective instructional plan. This may help educators to improve learning of students. It is a well-known fact that learners' capability to raise their enthusiasm to participate in overall activities related to academics has been considered as a significant factor to understand their performance and learning (Wolters, 1999). Research related to learning strategies and motivation also reported that beliefs of learners about motivation and their learning strategies are associated with their learning (Pintrich & Schunk, 2002; Pintrich, Wolters, & Baxter 2000; Schunk & Pajares, 2002; Zimmerman, 1989). Weinstein, Husman, and Dierking (2000) define learning strategies as "the different combinations of activities students use while learning, with greater variability over time or as any behaviors that facilitate the acquisition, understanding or later transfer of knowledge and skills" (p. 727). Chamot (2004) define learning strategies as "the thoughts and actions that learners take in order to achieve learning goals" (p. 14).

Students use strategies willingly so that they may recognize themselves. Learning strategies are important factors in research that aimed to describe the motivation and learning strategy of students as its understanding allow students to report learning strategy they are using and to progress their learning (Chamot, 2004; Grenfell & Macaro, 2007). Generally, leaning strategies of students are dynamic in nature and established to meet learning goals which can be developed in short time span (Zlatovix,

Balaban, & Kermek, 2015). There are multiple studies that analyzed the motivation and learning strategies of learners in varied subjects, adopting diverse instructional techniques, or by the use of various means of multimedia (e.g. Abeysekera & Dawson, 2015; Morales, Hernandez, Barchino, & Medina, 2015; Zlatovix, et al., 2015). Consequently, owning an effective learning strategy is vital to gain high performance in learning (Mascarell, & Cabedo, 2014). Empirical research strives to identify an ideal learning strategy for students in order to facilitate them. Furthermore, it is mandatory to apprehend the motivational level and learning strategies of students in order to facilitate lecturers at higher education level to improve their teaching (Arquero, Byrne, Flood, & Gonzalez, 2009; Arquero, Fernandez-Polvillo, Hassal, & Joyce, 2015). Pintrich, Smith, Garcia, & McKeachie (1991) analyzed the learning strategies of learners that might be categorized into three basic aspects; cognitive, resource management and metacognitive strategies. Later on, studies link the learning strategies and motivation by analyzing the perceptions of students about their learning strategies to determine academic achievement (Loyens, Magda, & Rikers, 2008). Further research aimed a comparison of motivation and learning strategies used by students.

Crede and Philips (2011) conducted a meta-analysis of 59 articles that exhibit results on the association between various scales of the motivation of students and their learning strategies such as self-efficacy, effort regulation, and, time and study management were the highly associated learning strategies. Learning strategy of self-regulation has currently emerged as more significant, focusing the approach where learners imitate, monitor and try to manage their learning (Winne, 1995; Zimmerman, 2000; Eom, & Reiser, 2000; Boekaerts & Cascallar, 2006). Paris, Lipson and Wixson (1983) described that students learning strategies are not enough to show improvement in their learning, but students must be motivated to practice learning strategies and to establish their cognition and effort. According to Yates (2004) "motivation is the internal power that drives individuals to act in order to satisfy their desire" (p. 159) Azrien and Adnan (2006) investigated the association between components of motivation and self-regulated learning. They found that most of the motivational factors are significantly associated with the components of self-regulated learning. Pintrich, et. al. (1991) included nine learning strategies in 'Motivation Strategies for Learning Questionnaire (MSLQ)'. Rehearsal.

These strategies involve recitation or naming an object to be learned from a list. These are commonly used in simple actions and initiation of information in short-term memory rather something in long-term memory. It helps students to influence their attention instead of developing the construction of information and producing internal connections in knowledge or relating it to previous knowledge. Elaboration. These strategies facilitate learners to save information in long-term memory and construction of knowledge by developing associations between objects to be learned. These strategies comprise summarizing, generative note-taking, creating analogies and paraphrasing which support the student to connect and integrate new information with previous one. Organization. These strategies support students in the selection of suitable information and to construct an association between the knowledge to be learned. These strategies include outlining, clustering, and selection of the main theme in content material. It is an endeavor, effortful, active, and outcomes in which students thoroughly participate that ultimately results in their improved performance. Critical thinking. It is the extent to which learners apply prior information to current conditions with the purpose reach decisions, solve problems, or critical analysis in light of excellent standards.

Metacognitive self-regulation. This reflects the cognizance, information, and regulation of cognitive activities. Self-regulatory met cognitive actions are made of3 general processes including: (a) planning,

(b) regulating, and, (c) monitoring. Time and study environment It includes forecasting, scheduling and management of one's own time for study. It does not only include planning of time durations for study but also the efficient application of that time towards realistic aims. The time schedule may involve different levels e.g. daily, weekly, monthly etc. Management of 'study environment' includes time management and contains planning, scheduling, and controlling time for study. Management of 'study environment' comprised of arrangement about some where a student works. Preferably, study environment of students must be organized, quiet, and free from sounds or visual interruptions. Effort regulation. This is a learner's capability to manage their struggle and consideration in the face of uninterested and distracting activities. It is self-management which indicates determination to complete goals of a study in the presence of distractors or difficulties. It is significant in academic achievement as it not only indicates goals determination but also controls the persistent practice of learning strategies. Peer learning. Collaboration with peers has been identified as an effective factor for performance. Discussions with a peer can assist a student to understand the content of the subject and in-depth understanding which one might not be able to achieve on its own. Help-seeking. It comprises help from teachers as well as from peers. Good learners know when they are in need to take help from others and capable to recognize somebody who may offer help to them. The study aimed to identify the relationship between prospective teachers' levels of motivation and their learning strategies. Main objectives of the study are; a) to identify the relationship between a high level of motivation of prospective teachers and their learning strategies; b) to identify the relationship between moderate level of motivation of prospective teachers and their learning strategies; c) to identify the relationship between low level of motivation of prospective teachers and their learning strategies. Research Methodology The research design was correlational in nature. A survey was conducted to collect data from the sample selected for the study. Population and sample The population of the study consisted of all prospective teachers in the institute of education and research, University of the Punjab, Lahore. For data collection procedure, a sample of 300 prospective teachers was selected class-wise by applying random sampling technique.

Table 1 Descriptive *of sample*

		f	%
Gender	Male	58	19.3
	Female	242	80.7
	Total	300	
Program 4	year Hons.	189	63.0
	2 year Master	111	37.0
	Total	300	
Year of Study	1st	74	24.7
	2nd	41	13.7
	3rd	107	35.6
	4th	78	26.0
	Total	300	

Instrument. Motivated strategies for learning questionnaire (MSLQ) was adopted as an Instrument for the study MSLQ is a self-reported instrument that was prepared by Pintrich, et al., (1991) It has been widely applied in research studies related to motivation And learning strategies of students at

college and university level It contains two scales, First is motivation scale comprised of 31 statements and other is about learning strategies

Containing 50 statements.

Table 2

Reliability of 15 subscales of MSLQ

	Component	Subscale	No. of Statements	Cronbach Alpha Value
Motivation Scale	Value	Intrinsic goal orientation	4	.64
		Task value	6	.85
		Extrinsic goal orientation	4	.84
	Expectancy	Control beliefs	4	.73
		Self-efficacy for learning and Performance	8	.89
	Affective	Test anxiety	5	.76
Learning Scale	Cognitive and met cognitive Strategies	Rehearsal	4	.62
		Elaboration	6	.75
		Organization	4	.61
		Critical thinking	5	.70
		Met cognitive Self-regulation	12	.82
	Resource Management Strategies	Time and study environment	8	.78
		Effort regulation	4	.67
		Peer learning	3	.63
		Help-seeking	4	.75

A semantic differential scale is used in MSLQ to collect responses on statements. Two poles of semantic scale are "not at all true for me" and "very true for me" with 5 points in between them. Data collection and analysis Data collection was done by administering MSLQ to the prospective teachers. The data were analyzed by using SPSS version 22. Firstly, Data were categorized for highly motivated, moderately motivated and low motivated Prospective teachers on the basis of the mean score on motivation scale according to the MSLQ manual (Pintrich, et al., 1991). A Shiparo-Wilk's test and visual inspection of their histograms, normal Q-Q plots and box plots showed that responses of prospective teachers on MSLQ were approximately normally distributed for both male and female, with the skewness of 0.264 (SE =0.314) and a kurtosis of -0.01 (SE = 0.618) for males and a skewness of -0.117 (SE = 0.156) and a kurtosis of -.564 (SE = 0.312) for females. Thus a parametric statistics could be applied for analysis. Pearson correlation coefficient was applied to identify the relationship between motivation and learning strategies of prospective teachers for each level of motivation.

Results and conclusions

The relationship between the motivation of prospective teachers and their learning strategies is described by Pearson *r* value significant at the p=0.01 level (2-tailed) for each level of motivation.

Table 3 *Relationship between the motivation levels of prospective teachers and their learning*

strategies.

Sr. no.	Learning strategies	High level of Motivation	Moderate level of	Low level of
1.	Rehearsal	.142	.455**	.342**
2.	Elaboration	.140	.311**	.146
3.	Organization	.179	.351**	.328**
4.	Critical Thinking	.260*	.371**	.278*
5.	Met cognitive self-regulation	.217	.394**	.449**
6.	Time & Study Environment	.160	.255**	.185
7.	Effort Regulation	.081	-.009	-.061
8.	Peer Learning	.123	.266**	.356**
9.	Help Seeking	-.126	.248**	.156

**Correlation is significant at 0.01 levels (2-tail)

The table 3 shows that high level of motivation in prospective teachers has weak positive correlation with learning strategies containing organization, rehearsal, critical thinking, time and study environment, elaboration, met cognitive self-regulation, peer- learning, and effort regulation. While high level of motivation in prospective teachers has negative correlation with help seeking learning strategy. Thus it is concluded that high motivation level of prospective teachers are equally associated with organization, rehearsal, critical thinking, time and study environment, elaboration, met cognitive self-regulation, peer-learning, and effort regulation as learning strategies but not associated with help seeking learning strategy. Results reveal that moderate level of motivation in prospective teachers has moderate positive correlation with learning strategies containing elaboration, rehearsal, met cognitive self-regulation, organization, and critical thinking; positively weak correlation with peer-learning, help seeking, and, time and study environment. While a moderate level of motivation in prospective teachers has negative correlation with effort regulation learning strategy. Hence, it is concluded that moderate motivation level of prospective teachers associated with organization, elaboration, rehearsal, met cognitive self-regulation, and, critical thinking as learning strategies more than help seeking, peer-learning, and, time and study environment as learning strategy but not associated with effort regulation as learning strategy. Findings show that a low level of motivation in prospective teachers has moderate positive correlation with learning strategies including organization, rehearsal, time and study environment, met cognitive self-regulation, and peer-learning; weak positive correlation with critical thinking, elaboration, and help seeking. While a low level of motivation in prospective teachers has negative correlation with effort regulation learning strategy.

Hence, it is concluded that low motivation level of prospective teachers is associated with rehearsal, organization, time and study environment, met cognitive self-regulation, and peer-learning as learning strategies more than critical thinking, elaboration, and help seeking as learning strategies but not associated with effort regulation as a learning strategy.

Discussion and recommendations

Motivational beliefs of the learners and their learning strategies are associated with each other. The study was conducted to identify the relationship between the levels of motivation and learning strategies of prospective teachers. Findings of the research revealed that high motivation level of prospective teachers associated with different learning strategies equally with learning strategies e.g. rehearsal, organization, elaboration, critical thinking, time and study environment, met cognitive self-

regulation, effort regulation, and, peer-learning, however, it is not associated with help seeking learning strategy. It might be due to the high level of motivation which related to other learning strategies including effort regulation, organization, time and study environment etc. that they have a negative relation with help seeking learning strategy. Other findings of the research revealed that moderate motivation level of prospective teachers has association with learning strategies, e.g. rehearsal, critical thinking, organization, elaboration, and metacognitive self-regulation as learning strategies more than time and study environment, help seeking, and peer-learning. On the other hand, results concluded that moderate motivation level of prospective teachers has no association with effort regulation as a learning strategy; this might be due to reason that one might need high level of motivation to use effort regulation as a learning strategy as, according to Pintrich, et al.(1991), it is self-management which indicates determination to complete study goals even in the presence of distracters or difficulties.

Another finding concluded that low motivation level of prospective teachers has association with learning strategies, e.g. time and study environment, rehearsal, organization, peer-learning, and, met cognitive self-regulation more than critical thinking, elaboration, and help seeking as learning strategies. This might be due to the low level of motivation in prospective teachers that they use elaboration, critical thinking, and help seeking as learning strategies less as compared to the other learning strategies. Moreover, results concluded that low motivation level of prospective teachers is not associated with effort regulation as a learning strategy which is consistent with the findings of Kim, Park, Cozart, and Lee (2014). Thus it is recommended for lecturers at higher education level to plan their teaching in a way that is helpful to motivate prospective teachers so that they may choose different effective learning strategies. Use of different learning strategies may improve their academic performance. A follow up study could be conducted to identify the use of learning strategies by prospective teachers with respect to their motivation level.

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