The Impact of Action Control and Dispositional Hope on Self-Regulated Learning among University Students in Pakistan

ªSana Bashir*, ᵇMuhammad Irfan, ᶜRizwana Amin, ᵈWajiha Shahid, ᵉSania Yaseen, ᶠMuhammad Sheeraz, ᵍGulzar Bibi

ª *Department of Psychology, Bahauddin Zakariya University Multan, Pakistan.*

ᵇ *Department of Agronomy, Bahauddin Zakariya University, Multan, Pakistan.*

ᶜ *Department of Psychology, Bahria University, Islamabad, Pakistan.*

ᵈ *Riphah International University, Lahore Campus, Pakistan.*

ᵉ *Institute of Agricultural Extension, Education and Rural development, University of Agriculture Faisalabad, Pakistan.*

ᶠ *Department of Agri. Business and Marketing, Bahauddin Zakariya University, Multan, Pakistan.*

ᵍ *Department of English linguistics & Literature, Lahore Leads University, Lahore, Pakistan.*

*Corresponding Author Email ID: sanabashir24@gmail.com

A B S T R A C T

This study was focused on examining the impact of action control and dispositional hope on self-regulated learning strategies and course achievement among university students. The data were collected from different Departments of Bahauddin Zakariya University Multan. Their age range was 18 to 33. After collecting the data statistical analysis was done. The study was carried out with a sample of 350 students from different Departments of the University. A booklet consisting of three questionnaires; Action Control Scale (ACS-90), Adult Dispositional Hope Scale and Self-regulated Learning Strategies Questionnaire. Age, gender, qualification and CGPA were included as demographic variables. Results indicate that action control is negatively correlated with dispositional hope and learning strategies. Whereas dispositional hope is positively correlated to all learning strategies. Results also show that action control does not predict student's performance but has an indirect effect through learning strategies. Action control predicts learning strategies. So, learning strategies are working as a mediating variable between action control and students' performance. On the other hand, dispositional hope predicts student performance; it also predicts learning strategies. The results of the Sobel test show that learning strategies are working as a mediating variable.

Keywords: Action control, Dispositional hope, Learning strategies, CGPA.

INTRODUCTION

Self-regulated learning is a procedure that facilitates students in controlling their feelings, emotions, and behaviours to make them able to successfully achieve academic success. All this happens whenever a student manages many of his volunteer actions to achieve academic success. The students fully concentrate on their studies, despite thinking about something different (Jabusch, 2016). Traditional beliefs focus on the cognitive processes underlying learning: such as beliefs, expectations and attributions. There are certain other characteristics of a person that can affect learning and learning strategies adopted by the students. Action control and dispositional hope are those traits that can affect learning strategies

(Mellard et al., 2013). As per Kuhl's (1998) action control theory, there exist variations among individuals in regulating their emotions and immediate sensations. Consequently, students possessing effective action control can implement more successful learning strategies. Conversely, hope is regarded as a motivational force in positive psychology. Individuals with high levels of hope can navigate challenges successfully. The two components of hope, namely agency thought, and pathway thought, can influence the learning strategies embraced by students, and these strategies, in turn, can impact the academic performance and grades of the students.

Researchers have identified many self-regulatory skills which have been used by many students. Goal level,

persistence, effort, and self-efficacy are the self-regulation constructs with the strongest effects on learning, accounting for 17% of the variance in learning (Sitzmann and Ely, 2011). Pintrich and De Groot (1999) presented a style of self-regulated learning that involves three kinds of strategies: cognitive strategies, metacognitive strategies and resource management strategies like controlling the actual situations. Cognitive strategies include repetition, elaboration and critical thinking (Amalia et al., 2018). Cognitive strategies may or would possibly not show a deep level of processing. Rehearsal is the repetition of the material with the use of memorizing something. Elaboration is usually a deeper level skill through which we sum up the material. The organization consists of methods such as outlining the product and making connections among different parts of the material. Critical Thinking consists of viewing anything critically. Critical thinking involves clarifying meaning, analyzing arguments, evaluating evidence, judging whether a conclusion follows, and drawing warranted conclusions (Hitchcock, 2017).

In the realm of higher education, the interplay between individual psychological factors and academic achievement has garnered significant attention. The present study seeks to investigate the multifaceted relationship between Action Control, Dispositional Hope, self-regulated Learning Strategies, and Course Competence among university students. Action Control, as conceptualized by Kuhl (1998), revolves around the individual's ability to regulate emotions and moment-to-moment feelings, potentially influencing their approach to learning. Concurrently, Dispositional Hope, recognized as a motivational force in positive psychology, introduces elements such as agency thought and pathway thought, which may contribute to students' ability to navigate academic challenges. The overarching aim is to discern the extent to which these psychological constructs shape the self-regulated learning strategies employed by university students and subsequently impact their overall competence in academic courses.

The intricate dynamics between Action Control, Dispositional Hope, self-regulated Learning Strategies, and Course Competence warrant careful examination, as the findings could offer valuable insights into enhancing educational practices and support mechanisms for university students. Understanding how these psychological factors intertwine within the context of higher education is pivotal for educators, administrators,

and policymakers aiming to foster an environment conducive to effective learning and academic success.

METHODOLOGY

The present study was a descriptive study that is based on survey research. The purpose of the present study is to explore the impact of action control and dispositional hope on self-regulated learning strategies and course competence among university students. The data were collected from different departments of Bhauddin Zakariya University Multan. Students doing BS Masters and M.Phil. were chosen as respondents using convenient sampling.

The sample consisted of 350 (age range from 18 to 33 years) students, 150 males and 200 females. Age, gender qualification and CGPA were also included as demographic variables. To find the personality differences in action control state Kuhl (1985) formulated the Action Control Scale (ACL) which comprised 36 items, which have three subscales. The items of the ACS-90 consist of short statements related to our routine life; each statement consists of two options. Individuals have to choose one of the statements that are appropriate for them. One option indicates action state, and the other is the indication of state orientation. While scoring the ACS one is for action orientation and zero is for state orientation. Snyder (1991) developed the Adult Dispositional Hope Scale, which comprised 12 items. The purpose of the scale was to assess the level of hope in individuals. Four of its items are used to explore pathways of thought and four of its items are for agency thinking. Four of its items are distractors, which are not used for scoring purposes. Participants respond on a 5-point Likert scale (Snyder, 1991; Moraitou, 2006). The MSLQ was developed by Pintrich (1991) to assess self-regulated learning. The MSLQ is comprised of two subscales, one for the motivational part and the second for is learning strategies part. In this study the learning strategies part was used to measure the learning strategies of university students.

Three learning strategies have been selected which are commonly used by the students: rehearsal, critical thinking and peer learning. The learning strategies section is comprised of 50 items, that are divided equally into nine subscales. Participants responded on a 7-point Likert scale. Descriptive statistics, correlation, regression analysis and sobel tests were applied on the data using Statistical Package for Social Sciences (SPSS).

RESULTS

In this section, statistical analysis of data is presented. Descriptive statistics was used to measure mean, standard deviation and alpha reliability. Pearson coefficient correlation was calculated to examine the relationship among action control, dispositional hope and self-regulated learning strategies. Regression analysis was conducted to analyze the moderating effect of personality traits between action control, dispositional hope and learning strategies.

Reliability Analysis

The reliability of the data was measured using the Cronbach alpha technique. The standard value for the alpha is 0.60, and the value exceeding the standard value is considered acceptable. The data in this regard ae given in Table 1. The reliability of ACS and Self-regulated learning strategies was 0.70 and the reliability of ADHS

was 0.79 which is higher than the standard value of 0.60. This implies that all the scales used had adequate reliability.

Table 1. Cronbach's Alpha of Scales.

Scales	Cronbach's Alpha	Item No.
Action control scale (ACS)	0.70	36
Adult dispositional hope scale	0.79	12
Self-regulated learning strategies	0.70	15

Descriptive statistics

Descriptive statistics include mean, standard deviation, minimum and maximum values of the collected data. In descriptive, skewness of data was also measured which reflects the normal distribution of the data. Information in this regard is given in Table 2.

Table 2. Descriptive statistics for the study variables.

Variables	M	SD	MIN	MAX	Skewness
ACSP	1.4538	.15222	1.08	2.25	.565
ACSH	17.8886	2.04579	14.00	37.00	2.296
ACSV	.8935	1.67162	13.00	22.00	.028
ADHSA	.12203	2.28290	4.00	16.00	-.408
ADHSP	11.0400	2.32184	5.00	16.00	-.235
LSR	21.0771	8.19339	6.00	35.00	-0.83
LSCT	25.5286	9.82763	8.00	42.00	-.140
LSPL	16.7429	6.61787	4.00	28.00	-.023

Table 2 shows the descriptive statistics for all variables included in the study. The maximum mean in the action control scale was 17.8886. The maximum mean for ADHP was 11.0400. The maximum mean in learning strategies was 25.5286. The Skewness index was within an acceptable range. Skewness helped in selecting appropriate statistical tests especially correlation, as assumptions of normality were fulfilled.

Correlation Analysis

Correlation refers to the association between the two variables. It assesses how changes in one variable are associated with changes in another variable. The result of a correlation analysis is a correlation coefficient, which quantifies the degree of correlation between the variables. The Skewness of data allowed the correlational analysis and the information received in tabulated in Table 3. The significance level was set at 95 and 99%.

Table 3 indicates a correlation between action control, dispositional hope and learning strategies. The results indicate that Action control is negatively correlated to dispositional hope (r= -0.645 p = 0.000) and learning strategies (r= -0.630 p = 0.000). Whereas dispositional hope is positively correlated to learning strategies (r=0.968 p = 0.000).

Regression Analysis

Regression analysis is a statistical method used to examine the relationship between one dependent variable and one or more independent variables. It aims to model and quantify the influence of the independent variables on the dependent variable. The goal of regression analysis is to understand the nature of the relationship, make predictions, and identify the strength and direction of the associations between variables. In this study, CGPA and learning strategies were two dependent variables whereas action control and

dispositional hope were independent. Data in this regard are given in Table 4.

Table 4 indicates the regression analysis showing the impact of action control and dispositional hope on CGPA and learning strategies. The results indicate that action control does not directly predict CGPA. Whereas action control predicts learning strategies and learning strategies predict CGPA. These results indicate that with the unit increase in diversity in the learning strategies there is a likelihood of more CGPA among students. Similarly, action control is predicting an increase in learning strategies among teachers.

Table 3. Correlation analysis.

Variables	ACSP	ACSH	ACSV	ADHSA	ADHSP	LSR	LSCT	LSPL
ACSP	1	.113*	.085	-.655**	-.645**	-.630**	-.629**	-.631**
ACSH		1	.086	-.630**	-.626**	-.621**	-.613**	-.621**
ACSV			1	-.630**	-.626**	-.620**	-.613**	-621**
ADHSA				1	.982**	.962**	.963**	.960**
ADHSP					1	.968**	.971**	.970**
LSR						1	.996**	.997**
LSCT							1	.995**
LSPL								1

*Significant at 95% level *Significant at 99% level

Table 4. Regression analysis showing the impact of action control and dispositional hope on CGPA and learning strategies.

Predictor	B	Std	Beta	T	P
Constant	2.978	.565		5.270	.000
ACS	-.580	.382	-.081	-1.516	.130
Constant	26.845	.515		52.143	.000
ACS	-15.355	.348	-.921	-44.083	.000
Constant	1.859	.103		18.067	.000
LS	.063	.023	.146	2.762	.006
Constant	1.629	.180		9.028	.000
ADHS	.177	.063	.148	2.800	.005
Constant	-3.125	.139		-22.459	.000
ADHS	2.620	.049	.945	53.860	.000
Constant	1.859	.103		18.067	.000
LS	.063	.023	.146	2.762	.006

Sobel Tests

The Sobel test, also known as the Sobel-Goodman test or Sobel's method, is a statistical test used to assess the significance of a mediation effect in a model. It is commonly employed in the context of mediation analysis to examine whether the indirect effect of an independent variable on a dependent variable through a mediator variable is significantly different from zero. The Sobel test determines whether the mediation effect is statistically significant, providing insights into the mechanisms through which the independent variable influences the dependent variable (Table 5).

Table 5. Sobel's test for the significance of mediation.

	Regression	B	SE	Sobel's test	P
Path A	AC predicting LS	-15.355	0.345	-2.7338	.000
Path B	LS Predicting CGPA	0.063	0.023		
Path A	DH predicting LS	2.620			.000
Path B	LS Predicting CGPA	0.063	0.023		

Dispositional hope predicted CGPA. Dispositional hope also predicts learning strategies and learning strategies predict CGPA. The result of the Sobel test shows that learning strategies are working as the mediating variable between action control and CGPA and between dispositional hope and CGPA.

DISCUSSION

The main purpose of this study was to find the relationships between action control and dispositional hope, on the one hand, and learning strategy use and course competence, on the other.

As the hypothesis was made that all variables would be correlated to each other. In action control inventory (preoccupation vs disengagement) dimension is positively correlated to two other dimensions of action control (hesitation vs initiative) and (volatility vs persistence). Whereas (preoccupation vs disengagement) is negatively correlated to agency thought and pathway thought. It is also negatively correlated to all learning strategies. Roy et al. (2008) explored that the use of learning strategies by the students was negatively associated with hesitation and volatility. In conclusion, the latest research show an inconsistent pattern of action control relationships to self-regulated learning and performance. Dispositional hope is positively correlated to all learning strategies. Research on dispositional hope, specifically on agency thinking, was found to positively affect the use of rehearsal, elaboration and critical thinking. This is according to its definition as an individual belief in their abilities to make goals for themselves and initiate and maintain motivation to use different methods to achieve those goals (Snyder, 2002). This finding can also be explained by taking into account the similarity shared between the agency (willpower) component of hope and self-efficacy since self-efficacy beliefs are strong predictors of educational outcomes and have been shown to correlate with self-regulatory processes.

Pathways thought appears to influence positively some higher-order learning skills, such as critical thinking. This finding could be explained based on the complex nature of the aforementioned strategies that are associated with one's ability to view a problem from multiple perspectives. However, way power as an elaborative pursuit of alternative cognitive strategies seems to impede performance, either directly or indirectly via inappropriate regulation of resource management strategy.

The hypothesis was made that the action control would affect CGPA, but the results indicate that action control has an insignificant impact on CGPA because the P value is greater than 0.05. These findings do not match with the previous research action control does not directly affect the CGPA. Whereas action control seems to affect learning strategies. Specifically, it was found that students manage their time and their environment. This finding is proved by previous research (Bembenutty, 1998; Jaramillo & Spector, 2004; Papantoniou, 2002; Roy, Vezeau, & Bouffard, 2008) that indicates that students due to their greater ability to get things done, an action-oriented individual are willing to monitor the effectiveness of their learning, to manage effectively their time and study environment and to exert a greater effort on leaning abilities, despite potential distractions.

The hypothesis was made that learning strategies would play a mediating role between action control and cgpa. Research show that learning strategies are the most important predictors of academic success (Bidjerano& Dai, 2007; Chen, 2002; Bandalos, Finney, & Geske, 2003). Specifically, these results suggest that students who monitor the effectiveness of their learning and manage effectively their time and study environment can perform well in comparison to those who lack these qualities.

According to the hypothesis, dispositional hope would predict academic success. Research has shown that hope in both its trait and state forms is a good predictor of many performance-related behaviours (Snyder, 2000). Dispositional hope was found to predict learning strategies adopted by the students. Students who are high in hope adopt good learning strategies for themselves. Research on dispositional hope, specifically on agency thinking, was found to positively affect the use of rehearsal, elaboration and critical thinking.

The present study provides some of the student's abilities and their effect on learning that teachers should know about them. This study explored that self-regulated learning strategies and course achievement are correlated to trait-like characteristics, like action control and dispositional hope. Also, self-regulated learning is learnable. It does not have a genetic basis. The outcomes of the present study show that teachers should be aware of the personality traits of students to achieve their academic goals (Bidjerano and Dai, 2007). From an intervention point of view, students should be assessed both formally and informally to check their level of action control and dispositional hope, so the instructor may

come to know who will adopt learning strategies naturally and who may not be able to develop these skills without training. By knowing the relationship between these two traits and learning strategies, instructors will be in a better position to make individualized interventions accordingly.

CONCLUSION

In conclusion, this study aimed to bring attention towards some deep links among self-regulated learning, action control and dispositional hope, rather than providing definitive answers. Therefore, the main contribution of the present study is the identification of trait-like characteristics, such as action control and dispositional hope, as a source of university students' self-regulated learning. This is deduced that dispositional hope was associated with different learning strategies which further amplified the CGPA of students. This implies that there is a need to work on learning strategies inside the classroom for effective learning. Capacity-building programs and training courses can help teachers to improve their learning strategies. Moreover, the integration of modern teaching tools like Technology centred approaches can enable learning attitudes and diverse strategies among students to promote the pathways for self-regulated learning among students.

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