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RESEARCH PAPER

Validating Directed Motivational Currents in the Acquisition of English as a Second Language

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ABSTRACT

The present research intends to study Directed Motivational Currents i.e. a novel psychological construct in the acquisition of English as second language (ESL) in the context of KP, Pakistan. DMC has recently been introduced in the field of applied linguistics specifically, in L2 motivation. The main aim of the present study is to identify the DMC cases in the population of KP, Pakistan. For this purpose, the researcher has adopted a quantitative method of research where the data has been collected and analysed quantitatively. In connection to the data collection process, the data has been collected from the ESL learners at universities, colleges and language institutes through questionnaire. The quantitative data collected though questionnaire has been analysed through SPSS. The major findings of the study revealed that true DMC cases exist in the KP, province of Pakistan. Moreover, DMC cases in KP, Pakistan can be found across various linguistic, cultural and regional backgrounds. Based on the major findings of the study it is recommend for the future researchers to conduct qualitative/mixed method studies in other provinces of Pakistan. In Pakistani context, English teachers would be introduced to this novel Directed Motivational Currents in order to enhance their teaching-learning processes.

KEYWORDS Directed Motivational Currents, DMCs and Language Learning, Identification of DMCs

Introduction

Directed Motivational Currents is a new motivational construct which is related to the different periods of highly motivated behavior in the achievement of a personally significant well defined end goal (Dörnyei, Henry & Muir, 2016). This new construct contains intensive engagement, consistent effort and a positive impact where a person shows a highly motivated behavior that exceeds normal expectations. These DMCs are experienced by a majority of individuals in various contexts, particularly in the context of learning a second language, as reported by Muir in 2016. Muir, in his Ph.D. dissertation, identified instances of DMC across different parts of the world, explaining this unique phenomenon. Apart from Muir's study, another Ph.D. thesis by Ibrahim in 2016 analyzed the DMC qualitatively, and only a few articles have been published related to DMC. This suggests that there is still a need for further exploration and analysis of DMC in various L2 learning contexts (Muir, 2020; Muir & Gümüş, 2020; Wang et al., 2017; Ning and Cai, 2019).

The present study focuses on DMCs within the context of learning English as a second language in Pakistan (Hassan et al., 2023(a), Gul et al.,2022(a) and Ali et al.,2022). However, this study takes a unique approach by examining DMCs in the context of acquiring a second language within Pakistan's multilingual society. The primary focus is on identifying DMC trends among L1 Pashto speakers and L1 Urdu speakers in the process

of learning English as a second language in KP, Pakistan (Gul et al.,2022(b) and Sajjad et al.,2023).

Literature Review

Directed Motivational Currents (DMCs) is a new theory with its focus on L2 motivation focus on intensive motivational surges intended to achieve well defined goals (Dörnyei, 2005). This type motivation is influenced by contextual and personal factors which create a motivational momentum in the achievement of personalized and clearly defined goals (Dörnyei et al., 2015 and Gul et al.,2023(a)). DMCs are experienced by learners who perform exceptionally well. With the beginning of this motivational surge, the individual begins to work harder than normal, and this surge pushes him/her towards pursuit of their goals (Muir & Dörnyei, 2013), so much so that this motivational surge is felt by people nearby as it is quite powerful.

Key Aspects of Directed Motivation Currents

In order to provide a comprehensive understanding of DMCs, Dornyei, Henry, and Muir (2016) have used various research possibilities both within and beyond L2 motivation research. While individual contributions cannot provide a full explanation of the DMCs, these researchers state that a thorough explanation can be achieved by considering all the elements collectively. The following sections focuses on the theoretical foundation of the five key features of DMCs: goal/vision orientation, the start of a DMCs, DMC structure, positive emotional loading, and the end of DMCs.

Goal orientedness is the first and key feature of a DMC where the individuals caught up in DMC have a well-defined goal (Henry et al., 2015). Dörnyei et al. (2015) also highlight the significance of personalized and clearly-defined goals to create this type of motivational momentum. Furthermore, Dörnyei et al. (2014) highlight that DMC cannot be attained without a well-defined and clear goal.

The second significant aspect of the DMCs includes a defined starting point, closely related to a specific triggering factor that initiates action. DMC experiences start from a well-known source connected to essential conditions, including contextual, personal, and temporal factors, along with the presence of a unique triggering stimulus. Due to several combinations, these triggering factors can be different and some common features have emerged from various sources with similar insights from research on flow theory. Dornyei et al. (2016) suggest that it is reasonable to explore this aspect of DMCs by assuming that the prerequisites for entering a state of flow are equally applicable to the DMC experience. Dörnyei, Ibrahim, and Muir (2015) state that every DMC experience starts with an identifiable starting point and those who are in DMCs are quite aware of their DMC starting points. According to Muir & Dörnyei (2013) every DMC has a clear starting point and the DMC cases know when and why their DMCs start.

The third feature that distinguishes Directed Motivational Currents (DMCs) is their unique structure. This structural aspect makes them different not only from the concept of flow but also from the framework of any other motivational construct due to their distinct self-renewing properties. The structure of a DMC actively contributes to maintaining the motivational flow (Dörnyei et al., 2016). Three essential components are highlighted here, which, when examined together, provide a theoretical explanation for this phenomenon: automatic behavioral routines, subgoals, and progress checks, and positive feedback.

The main positive emotional tone that exists in all Directed Motivational Current (DMC) experiences. This emotional state is marked by a trivial sense of happiness, satisfaction, and general well-being. Those individuals engaged in DMC experience feel a distinct feeling of satisfaction, contentment, and a profound sense of connection between their activities and their sense of self**.** This experience is not isolated but has a deep influence on how individuals engage with the world around them. Yin (2018) explored various features in the DMC experiences and is of the view the positive emotionality as a salient feature. The DMC cases are being filled with empowering positive emotions and the activities those are boring are regarded as enjoyable for the achievement of goals (Henry et al. 2015 and Gul et al.,2023 (a)).

The significance of the final phases of a Directed Motivational Currents (DMCs) is obvious when it is studies in the context of language learning. Language acquisition is a lifelong process that continues even after the end of DMC motivation and thus a DMC or DMCs become a part of this lifelong process of language process. Henry et al. (2015) are of the view that a DMC has an end point sometimes DMC ends abruptly upon the achievement of a goal while other times DMC gradually decreases and ends The motivation at the end of a DMC can decrease, similar to what happens after a concert or any other event, or it can gradually decrease. Some of the important factors given bellow that can result in a loss of motivation in a DMC.

Material and Methods

The present study follows quantitative method approach to investigate L2 motivation within the framework of Directed Motivational Currents. Quantitative method is suitable for the analysis of motivational factors due to their characteristics of structured data collection and statistical nature. Many researches have been conducted through quantitative method using surveys, questionnaires, or similar instruments for the identification of statistical relationships and correlations among diverse variables in the field of L2 motivation. This quantitative aspect allows the quantification of motivational factors and the measurement of their impact on second language learning.

Population and Sample

The researcher in the present study focuses on the residents of the Khyber Pakhtunkhwa province in Pakistan where L2 learners are always engaged in the process of learning and acquiring English as a second language. The researcher has selected 1300 participants for the present study though stratified sampling technique as the population of the study is heterogeneous in terms of linguistic background, socio-cultural context as well as educational background. Thus, the population presents different stratums and the researcher has selected representative samples from each stratum randomly. In addition to this, the data has been collected from four various institutions and many other common places in order to reach a variety of participants and responses.

Reliability of the DATA

A reliability analysis was then conducted for the selected factors based on both method scale and scale if item deleted through Cronbach alpha statistic.

Table 1
Reliability

Cronbach's Alpha	N of Items
.845	12

Table 2
Reliability Statistics if Item Deleted

Items	Cronbach's Alpha if Item Deleted
When looking back now, I have very good memories of this time.	.844
During this time, I was able to work more productively than I usually can.	.830
I surprised myself with how much I was able to do.	.838
Many times it felt like a real struggle to keep going.	.842
This experience helped me to achieve all I had wanted to and more.	.830
I think something special happened to me during this experience	.829
At the time, this project became a central part of my life	.828
The people around me could see, I was experiencing something special	.829
It didn't feel like hard work at the time I caught up in the flow	.829
I remember thinking about my goal all the time	.830
I often imagined myself achieving my final goal	.844
It was a really enjoyable experience	.828

Table 3
Reliability Statistics (Non-DMCs)

Cronbach's Alpha	N of Items
.929	12

The results of the test are given in Tables 1 and 2. The result of reliability based on Cronbach alpha statistic is 0.845 for scale. While the reliability based on Cronbach alpha statistic in case of it item deleted shown in Table 3 shows that, the reliability of all the items are less than 0.845, suggesting that all items are important to be considered in the analysis. Thus, the resulting DMC Disposition scale comprised all 12 variables coded based on 5 point Likert scale, with strong internal consistency between these 12 variables which is 0.845. Apart from this, the internal consistency of the non-DMC group was also calculated in Table 3 for 966 participants which is recorded as 0.929.

Results and Discussion

Analysis of Data Set Based on Gender

Table 4
Gender wise analysis

Variable	Categories	Frequency	Percent	Cumulative Percent
Gender	Male	810	62.3	62.3
	Female	490	37.7	100.0
	Total	1300	100.0	

The table shows that, in the total 1300 respondents 810 are male and the remaining 490 are female. The percentage of male and female respondents are 62.30 and 37.70 with cumulative percentage 62.30 and 100 correspondingly.

Table 5
Age Wise Analysis

Variable	Categories	Frequency	Percent	Cumulative Percent
Age	17 and under	79	6.1	6.1
	18 to 21	589	45.3	51.4
	22 to 30	505	38.8	90.2
	31 to 40	77	5.9	96.2
	41 to 50	50	3.8	100.0
	Total	1300	100.0	

Results show that, out of a total of 1300, 79 respondents, with a percentage and cumulative percentage of 6.10 are below 17 years of age. Similarly, the participants 18 to 21 years of age are 589, which are more in number than the other categories, with percentage and cumulative percentages of 45.30 and 51.40, respectively. 505 respondents fall in the age group of 22 to 30 years with percentage and cumulative percentages of 38.80 and 90.20. 589 respondents are 18 to 21 years old, with a percentage of 45.3, while 77 respondents are 31 to 40 years old, with a percentage and cumulative percentage of 5.90 and 96.20. The minimum number of respondents falls in the 41 to 50 age group, with 50 frequency and cumulative percentage of 3.80 and 100.00, respectively. However, there was no one above 50 years old in the selected sample.

Table 3
Education Level Wise Analysis

Variable	Categories	Frequency	Percent	Cumulative Percent
Education	Undergraduate	77	5.9	5.9
	Graduate	616	47.4	53.3
	Master and above	574	44.2	97.5
	Other	33	2.5	100.0
	Total	1300	100.0	

Results shows that, out of the 1300 selected respondents, 77 are undergraduate with a percentage and cumulative percentage of 5.90, maximum number of respondents, 616, are there as graduates with a percentage and cumulative percentage of 47.40 and 53.30, respectively. Similarly, master and above respondents are 574 with percentage and cumulative percentage of 44.20 and 97.50, a minimum number of respondents. 33 are there in the education category "other" with a percentage and cumulative percentage of 2.50 and 100.00, respectively.

Table 7
DMCs Recognition and Personally Experienced

DMCs Identification	**I Recognize this type of intense motivation**		**I personally experienced this type of intense motivation**	
Categories	Frequency	Percent	Frequency	Percent
Strongly Disagree	232	17.8	105	8.1
Disagree	80	6.2	211	16.2
Neutral	202	15.5	204	15.7
Agree	415	31.9	408	31.4
Strongly Agree	371	28.5	372	28.6
Total	1300	100.0	1300	100.0

Results show that 232 respondents strongly disagreed, 80 disagreed, and 202 were neutral, with a percentage of 17.80, 6.20, and 15.50 with recognition of this type of intense motivation. While 415 agreed and 371 strongly agreed, with percentages of 31.90 and 28.50 in recognition of this type of intense motivation. This means that around 39.50 percent of

selected respondents did not recognize this type of intense motivation and the remaining 60.50 recognized.

Similarly, 105 respondents strongly disagreed, 211 disagreed and 204 were neutral to the question of personally experiencing this type of intense motivation, with the percentage of 8.10,1 6.20 and 31.40. While 408 agreed and 372 strongly agreed, with percentages of 31.40 and 28.60 when asked whether they have personally experienced this type of motivation. However, it has been observed that 40.00 percent of respondents did not personally experience this type of intense motivation, and 60.00 percent personally experienced this type of intense motivation. With questions related to recognition and personal experience of this type of motivation, 786 (60.50 percent) respondents and 780 (60.00 percent) were found to either agree or strongly agree.

Table 8
Number of Times DMCs Experienced

Experience Motivational Intensity	Frequency	Percent	Total Percent
Never experienced	230	17.7	230 (17.70)
once but Not as intensive as above	349	26.8	625
Several time but not as intensive	276	21.2	(48.07)
Once similar	264	20.3	445
Several times similar	181	13.9	(34.23)
Total	1300	100.0	

Results illustrate that 230 (17.70 percent) never experienced this type of motivational intensity, 349 (26.80 percent) experienced this type of intensity once but not as intense as required for a true DMC group and 276 (21.20 percent) experienced this type of intensity several times but not as intense as required. Next, the table shows that 264 (20.30 percent) have experienced a similar type of intensity, but once and 181 (13.90 percent) have also experienced a similar type of intensity several times. It is concluded that from the selected 1300 respondents, 230 (17.70 percent) never experienced and 625 (48.07 percent) experienced one or several but not much as intensive; thus, a total of 855 (65.76 percent) were excluded from the total sample. Furthermore, 445 (34.23 percent) initially formed the DMC group out of a total of 1300, as they had experienced a similar type of motivational intensity once or several times.

Levels of Motivational Intensity Reported Throughout this Experience

The justification of the true DMC group was further explored by observing respondents' intensity levels. The respondents were asked to choose an option from 1 to 5 based on a point likert scale from "Not very much intensive = 1" to "Very much intensive = 5". The responses were noted and then divided into two groups based on DMC group (445) and others (855) responses. Furthermore, the differences in DMC and other groups' responses were explored using independent sample t-tests.

Table 9
DMC Group Verses the General Group in Terms of Intensity Level

	N	Mean	Std. Deviation	t-statistic	P-value
Intensity level	855	2.0538	0.76786	58.67	0.00
	445	4.4067	0.49178		

Results presented in Table 6 illustrate that the mean value for the other group (N = 855) was 2.05 with a standard deviation of 0.76, while for the DMC group (N = 445), the mean value was 4.40 with a standard deviation of 0.49. The mean value for the DMC group was recorded closer to scale 5 for very much intensive, indicating that the responses are either very intensive or very much intensive. The Standard deviation in the DMC group

was also recorded less than the other group, which also shows that, in the DMC group, respondents' responses are very close to each other. In contrast, in the other group, a high variation exists. Furthermore, the difference in mean values of the DMC and the other group was statistically significant as the t-value was high and the p-value was 0.00 less than 0.05.

Respondents' Views Regarding Repeating the DMCs

In order to explore the DMC group of respondents and identify the true representative of the DMC experience, respondents were asked to reflect upon their experience in detail. A chi-square test of independence has been used and the results are shown in Table 7. Results exhibit the actual and expected frequencies as recorded from the collected data from the respondents based on "level of intensity" and "experience again."

Table 10
Cross Tabulation of Intensity Level and Repeating DMCs

Intensity Level and Counts			Again		Total
			Yes	No	
Level of intensity	Not very much intense	Count	157	47	204
		Expected Count	150.0	54.0	204.0
	Less intense	Count	34	32	66
		Expected Count	48.5	17.5	66.0
	Similar Intense as DMCs	Count	433	181	614
		Expected Count	451.5	162.5	614.0
	Very Intense	Count	161	62	223
		Expected Count	164.0	59.0	223.0
	Very Much Intense	Count	171	22	193
		Expected Count	141.9	51.1	193.0
Total		Count	956	344	1300
		Expected Count	956.0	344.0	1300.0
Pearson Chi-Square	43.259	Df	4	P-value	0.000

The Table shows that "not very much intense" respondents were 204, of which 157 want to experience it again and 47 do not want to experience it again, while the expected counts are 150 and 54 and actual counts are 157 and 47. Similarly, results are given in the Table for less intensive, intensive, very intensive, and very much intensive scales. However, in all levels of intensity, the respondents' responses of (want to experience again) "Yes" are higher than the (do not want to experience again) "No" correspondingly. The Table also shows that the chi-square test value is 43.259, the degree of freedom is 4 and the p-value 0.00 indicates a significant difference exists between actual and expected. Thus, the DMC group is identified in this table that has similar intensity as DMCs and this group contains 443 respondents.

Further Analysis for the Identification of DMCs

In the above analysis, the possible DMC group was identified and the group contained 443 with similar intensity as DMCs. In the Table below, the intensity level of selected respondents has been divided into two groups i.e. not quite intense (Group A) and similar intense (DMC Group), instead of five. For further analysis, cross-tabulation, including the chi-square test, was used with (want to experience this type of motivation again) and the results are shown in Table 11. Results show that there is a significant difference between the observed and expected counts of both the groups. The total observed counts for group A are 855, of which 699 want to experience this again and 156

do not want to experience this, while the expected counts are 679.4 and 175.6 both greater than the observed counts. Similarly, in the group of DMC, the total observed counts are 445 of which 334 want to experience this type of intense motivation again and 111 do not want to experience this, while the expected counts are 353.6 and 91.4, respectively. The expected counts of the DMC group that wants to experience this motivation again are more than the observed counts, while found less for those who do not want to experience this motivation again. Furthermore, the two groups, DMC and non-DMC respondents with the desire to repeat this experience or not, are significantly different, with a chi-square value of 8.046 and a p-value of 0.005 (< 0.05).

Table 11
Cross-tabulation of Intensity Level and repeating DMCs

Variables	Categories	Counts	Again		Total
			Yes	No	
Level of intensity	Not quit as intense	Observed Count	699	156	855
		Expected Count	679.4	175.6	855.0
	Similar intense	Observed Count	334	111	445
		Expected Count	353.6	91.4	445.0
Total		Observed Count	1033	267	1300
		Expected Count	1033.0	267.0	1300.0
Chi-Square Tests					
			Value	**Df**	**P-value**
Pearson Chi-Square			8.046	1	.005

The Final DMC group

From the total 1300 respondents, it was found out that 445 of them are reported similar level of intensity i.e. DMC. While during further exploration of DMC group in Table 1.8, 334 respondents reported who want to experience this again and 111 do not want to experience this again. Thus the final DMC group for the further exploratory analysis comprised 334 respondents who reported similar level of intensity and desire to experience it again. The reason for the removal is to reach the true DMCs with the intention to experience this type of motivation again in their lives.

The Effect of Gender on the Responses

In this part of the analysis, the impact of gender was measured on the selected participants' responses in the following tables.

Table 12
The Effect of Gender on the Responses of Non-DMCs

Variable	Gender	N	Mean	Std. Deviation	Std. Error Mean
Level of intensity	Male	623	2.9567	1.33216	.05337
	Female	343	2.6297	1.25187	.06759

Table 12 shows that, from a total of 966 Non-DMC study participants, 623 are male and 343 are female. The mean value for male participants' intensity level is 2.95 with a standard deviation of 1.33, while for female participants, the mean value is 2.62 and the standard deviation is 1.25. The mean value of the male participants is greater than the mean value of female participants.

Table 13
Independent Samples Test for Effect of Gender in Non DMCs

Variable	T	Df	P-value	Mean Difference	Std. Error Difference	95% C.I of the Difference

						Lower	Upper
Level of intensity	3.728	964	.000	.32692	.08769	.15484	.49901

In Table 13, t-test results for comparison of the mean value has been represented. Results show a significant difference in the intensity level of male and female participants in the Non-DMC group as the p-value was recorded as 0.00, much lesser than 0.05.

Table 14
The Effect of Gender on the Responses in DMCs

Variable	Gender	N	Mean	Std. Deviation	Std. Error Mean
Level of intensity	Male	254	4.4291	.49593	.03112
	Female	80	4.5000	.50315	.05625

Table 15
Independent Samples Test for effect of gender DMC comparison

Variable	T	Df	P-value	Mean Difference	Std. Error Difference	95% C.I of the Difference	
						Lower	Upper
Level of intensity	1.111	332	.268	.07087	.06380	.19638	.05464

Tables 14 and 15 show the impact of the selected participants' responses based on their gender in the DMC group. The results exhibit that 254 are male, and 80 are females. The mean value for the intensity level of male participants is 4.42 with a standard deviation of 0.49, while for female participants, these values are 4.50 and 0.50 respectively. The mean value of female participants was recorded more than male participants. The results show that no statistically significant difference exists in the level of intensity of male and female participants in the DMC group, as the p-value was recorded as 0.268, much higher than 0.05.

Conclusion

It has been observed in the quantitative analysis that learners and general public in KP, Pakistan are motivated to learn English language as most of them (60%) recognize the intense motivation that has been described in the questionnaire. Although some of them have not personally experienced the DMCs like intense motivation, still they are aware of the fact that individuals in any learning environment are highly motivated. Among these individuals, 34.23 percent of them have personally experienced DMC like motivation once or several time. It is a significant finding as it validates the existence of the DMCs and intensive motivation like DMCs. These DMCs contain both male and female second language learners and thus confirms the findings of the previous research i.e. (Dörnyei et al., 2014; Ibrahim, 2016; Dörnyei et al., 2015 and Henry et al., 2015). They have also validated DMCs and highlighted these distinct features of a DMC experience.

Recommendations

Based on the findings and conclusion of the study, the following points are recommended.

1. Qualitative and Mixed studies would be conducted in Pakistani context in order to study DMCs like intense motivation in depth.
2. English Teachers in Pakistani context would be introduced to a novel Directed Motivational Currents in order to enhance their teaching-learning skills.

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