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Effects of Motivational Orientation on Learning Drawing in students with Intellectual Disability in Lahore

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Abstract

Motivation donates to a person's desire, need, or urge to perform any action. Motivational orientation defines the reasons working behind the motivation to perform that action or achieve the goal. The study was planned to explore the effects of motivational orientation on the learning of drawing in students with intellectual disabilities (ID). A stratified random sampling technique was used to select 200 students with ID (147 male, 53 female) from Lahore Division belonging to the age range 10 to 21 years. The Scale of Intrinsic versus Extrinsic Orientations in the classroom Questionnaire (IEO) developed by Harter (1981) containing 30 items (score 1 describes most extrinsic and score 4 describes most intrinsic) was used to identify the motivational orientation of the students with ID. Beery VMI 6th.ed (Beery, 2010) containing 24 drawing shapes were administered to explore the learning of drawing skills in the students with ID. Both scales were found to be reliable for the given population as the alpha reliability of IEO and Beery VMI were 0.953 and 0.950 respectively. Results obtained by using the statistical techniques of ANOVA, correlation, and regression analysis indicated that ID students with intrinsic motivation have a significant positive relationship with drawing learning whereas extrinsic motivation was found to be negatively correlated with the learning of drawing. It was recommended that intrinsic motivational orientation should be developed in students with ID so that their learning could be enhanced.

Keywords: Motivational orientation, intrinsic, extrinsic, intellectually disabled, drawing

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List of Acronyms

IM	Intrinsic Motivation
VMI	Visual Motor Integration
EM	Extrinsic Motivation
SPSS	Statistical Package for Social Sciences
ID	Intellectual Disability
IDA	Intellectually Disabled Adolescents
IEO	Intrinsic / Extrinsic Orientation
SDT	Self-determination theory

Introduction

Motivation is said to be a cause for acting or working in a certain mode. Motivation is the cause of the result of which people set goals and get willing to do something or move for action. Motivation not only affects people in their everyday life but also has a very strong influence on the learning process of students. Intrinsic motivation is usually determined as "performing some action for its interest" as a child plays baseball without any reason, just because he wants to play it. On the contrary, extrinsic motivation is a quest for a contributory aim, playing baseball by a child is just because he wants to achieve a trophy or to please his parents.

Motivational orientation is defined as a cultured characteristic of personality that presents individuals in terms of enticements that are influencing in motivating their behaviors, whether intrinsic or extrinsic in a task. Students who satisfy with intrinsic factors of task (creativity, accountability, contest, learning chances, responsibilities, and goal achievements) are thought to be as motivated intrinsically (I.M). Students who resist displeasure by concentrating on task extrinsic factors (security, comfort, ease, and security) are known as extrinsically motivated. Intrinsic learners work harder on tasks than extrinsically motivated learners. IM are overachievers and EM is underachievers (Switzky, 2006).

Self-determination theory (SDT) introduced by Ryan & Deci (2000), is a motivational theory focusing on behavior growth and well-being. In explaining the reality of motivation, this theory emphasized the mental aspects of humans, i.e., cognition, perception, behavioral and experiential results (Ryan & Deci, 2000). SDT considers that it is useful to describe types of motivation while exploring motivation, and not studying the total amount of motivation the individuals have. The theory distinguishes motivation in autonomous and controlled motivation and stresses that autonomous motivation results in good quality and maintenance in learning (Deci & Ryan, 2010). Ryan & Deci (2016) are of the view that autonomous motivation results in more academic achievements than controlling motivation. They propose that autonomous motivation is the best representation of intrinsic motivation which is inner and natural motivation having interest and enjoyment (Ryan & Deci, 2016). Subsequently, the nature of IM is being described as a natural innate tendency (Ryan & Deci, 2000), and an example of self-determination and autonomous motivation (Ryan & Deci, 2016). Wang & Eccles (2013) suggest that although motives can be sensible, they are often thought to be hidden. IM is doing an activity without external reward, i.e., curiosity, participating, and working without external force or rewards. IM is also known as the opposite of extrinsic

motivation which emphasizes controlling behavior using punishments or rewards. Researchers argue for the importance and application of extrinsic motivation in the classroom (Cameron & Pierce, 2002). The issue is on the rewards which weaken the IM. However, well organization of extrinsic rewards seems useful for students with mild intellectual disabilities (Witzel & Mercer, 2003).

I.M. is generally defined as 'doing an activity for the sake of it' as a kid plays baseball, he plays not for any reason but because he wants to play it (Reiss, 2012). I.M. is known for engaging in an activity for its own sake (Linnenbrink & Pintrich, 2002). Personal interest reflects the interest of the individual in a specific topic (Gangolu, 2019). Personal and situational interests both have a big influence on academic achievements. Academic achievements, skills to study and interest can be enhanced by collapsing interests of students (Linnenbrink & Pintrich, 2002). Teachers should understand the factors that promote intrinsic motivation to cultivate intrinsic motivation in their students. These factors include:

Curiosity: It thrusts students to research and study merely for the pleasure of knowing and excelling in their field.

Challenge: When students are challenged with some tasks it helps them to work and achieve their goals by utilizing their optimal potential.

Control. When we are focused on goals, we try our best to control anything which may affect the outcome of the task.

Recognition: This is an innate desire of human beings to get appreciated and acknowledged by others for their efforts.

Cooperation: Cooperation is required for collaboration and teamwork to achieve common goals.

Competition: It is sometimes taken as a negative activity but to offer a challenge competition is necessary.

Fantasy: It is required to solve many problems of day to life.

Motivational constructs effects on achievements and learning of intellectually disabled adolescents. Motivation involves a personal interest in a subject or an action. Motivated learners are fascinated, and they learn and accomplish things because of their curiosity. A very vital component of motivation is self-efficacy which is the belief in the capabilities to do a job. Self-efficacy is related to a higher level of achievement and learning as well as academic outcomes. Students with higher self-efficacy are more persistent and higher in learning and continue difficult tasks. Self-efficacy is related to positive outcomes, persistence, cognitive engagement, and actual achievements (Ryan & Deci, 2020).

Intellectual disability is considered as limited intellectual functioning and poor adaptive behaviors which hinder the person from normal

functioning, and it manifests before the age of 18 (Schalock, 2014). Students with ID have a lower level of motivation to explore and get expertise in any new skill than students without intellectual disabilities. It is evident that today the living styles and opportunities to learn for students with intellectual disabilities are different from those of the children in the 1990s but, the notion of intellectually disabled students having less motivation has proven to be unchanged (Ryan & Deci, 2013; Harris & Greenspan, 2016). Several recent researchers have found the motivation to master new skills in students with intellectual disabilities while performing different tasks. The teachers planned the tasks with varying degrees of complexity so that every child may experience an appropriate level of challenge to improve the engagement of students to put sustained effort for its completion and mastery. It would not be astonishing if students with intellectual disabilities become discouraged by increasing disappointments, but few studies have found motivation in adolescents with intellectual disabilities (Gilmore & Cuskelly, 2014). Extrinsic and Intrinsic motivation has a strong impact on the learning of special needs students (Katz & Cohan, 2014; Cohen, 2015). Intrinsically motivated learners learn through struggle and that learning is long-lasting, contrary to extrinsically motivated learners' learning is short-term or not long-lasting. Pupils motivated intrinsically seem to be less dependent while the pupils motivated extrinsically are always dependent on others. Intrinsically motivated learners have high standards while extrinsic learners have low standards (Akin, 2009).

Healey (2008) theorized that some students exhibit intrinsic orientation in some subjects and extrinsic orientation in some other subjects. Within the literature, theoreticians (Markland, Ryan, Tobin & Rollnick, 2005) distinguished I.M &E.M, observing them as quite opposite which characterizes the student's orientation for school learning. So, the students are characterized as intrinsic or extrinsic in their style of learning. Expressions through drawing can define psychological moods and emotions (Picard & Gauthier, 2012). When children do draw on human and nonhuman topics then they portray the emotions in their drawings which also reflect their artistic, cognitive, and emotional development (Kapitan, 2012). Drawing, one of the beloved activities of children is being studied from various perspectives (e.g., motor skills, change in abstract knowledge, areas of cognitive development, emotional conditions, or personality characteristics), thus shedding light on different aspects of psychological functioning of children (i.e., emotional, cognitive, motor and perceptual). Lots of work has been done on the analysis of representative sides of drawing, especially of visual pragmatism with which the children portray

reality. As described by a researcher that drawing is much more than what it represents (Picard & Gauthier, 2012). Although it is commonly accepted that line drawings are an easier task for intellectually disabled students than abstract symbols (Slayton, D'Archer & Kaplan, 2010). Drawing allows intellectual disable students to demonstrate an age-appropriate developmental level (Smitheman-Brown & Church, 2015).

Persons with intellectual disabilities may have motivational orientations or systems which limit their academic learning, their problem-solving skills, and their adaptive behavior in performing social roles in various problem-solving situations. This motivational paradigm is an abandoned element of the description of intellectual disability and is particularly essential in an educational definition of mental retardation.

Motivation has always been an important factor in classroom learning. Intellectually disabled students are also found to have intrinsic or extrinsic motivation in them. Many intellectually disabled adolescents are prone to learn through intrinsic motivation, while some others learn through extrinsic motivation. Various learning variables are studied with intellectual disability but one variable which is more attractive for students with ID, and which is least studied in the research is 'Drawing'. Drawing is the subject in which intellectually disabled students show great interest, but this subject is slightly touched by researchers to motivation. So, the researcher feels the need for the study to find out the effects of motivational orientations on learning drawing in students with intellectual disabilities. Now the question is which kind of motivation affects more on learning of drawing in intellectually disabled adolescents. Can motivational orientation be used as a strong predictor of the learning of the children? So, the current study was designed to see the effects of motivational orientations on learning drawing in intellectually disabled adolescents and the possibility of considering motivational orientation as a predictor of learning.

Objectives of the Study

The following are the objectives of the study:

To explore the intrinsic and extrinsic motivational orientation of students with intellectual disabilities.

To explore the learning of drawing skills in students with intellectual disabilities.

To find out the effect of intrinsic and extrinsic motivation on learning drawing in students with intellectual disabilities.

Hypotheses

The following hypotheses were tested against their null hypothesis for this study.

H_1 There is a significant relationship between intrinsic motivation and learning drawing in students with intellectual disabilities.

H_2 There is a significant relationship between extrinsic motivation and learning drawing in students with intellectual disabilities.

H_3 There is a significant gender difference in the types of motivation of students with intellectual disabilities regarding the gender of students with intellectual disabilities.

H_4 There is a significant difference between types of motivation concerning the age range of students with intellectual disabilities.

H_5 There is a significant difference between types of motivation regarding the low, middle, and high socio-economic status of students with intellectual disabilities.

Methodology

A retrospective comparative research design of causal-comparative research was used, which involves investigating the research problem where the effects have already occurred. This type of research is conducted to determine whether a specific variable (cause) relates with another variable and does influence another variable (effect). A quantitative survey was used to collect information on types of motivation used for learning drawing of students with intellectual disabilities.

All 732 students with intellectual disabilities, enrolled in the 'Government Special Education Schools and Centers for intellectual Disabled Students of the Lahore division in 2020 were the population of the study. Two hundred intellectually disabled adolescents of the age range 10-21, studying in the Government Special Education Centers and Schools of Lahore division were selected through stratified random sampling as participants of the study.

Table 1
Sampling Framework

Division	Districts	Tehsils	Number of Schools/ Centre	Teachers	Students	
					Total	Students (10-21 years)
Lahore	Sheikhpura	5	5	13	164	102
	Kasur	4	4	10	176	146
	Nankana Sahib	3	3	8	142	94
	Lahore	7	7	41	477	390
	Total	19	19	72	959	732

Source: (Directorate of Special Education of Punjab).

The scale of Intrinsic vs. Extrinsic Orientation developed by Harter, 1981 was used. This is a teacher rating scale in which teachers select the intrinsic or extrinsic orientation according to students' motivational orientation. Harter described five dimensions of classroom learning which can be ascribed as having an intrinsic and extrinsic motivational pole:

Table 2
Subscales of IEO

Intrinsic Pole		Extrinsic Pole
A. Preference for Challenge	vs.	Preference for Easy Work Assigned
B. Curiosity/ Interest	vs	Pleasing the teacher/Getting Grades
C. Independent Mastery	vs	Dependence on Teacher
D. Independent Judgement	vs	Reliance on teacher's Judgement
E. Internal Criteria	vs	External Criteria

VMI 6th edition was used to measure the learning of drawing in result of their intrinsic or extrinsic motivation Beery.

Beery VMI 6th edition was used to measure the learning of drawing as a result of their intrinsic or extrinsic motivation. Beery VMI 6th Ed provides approximately 600 age-specific norms. This consists of basic gross motor, fine motor, visual, and visual-fine motor development. The full form of the test was used which is for 2-18 years old adolescents. The full form contains 24 drawing items consisting of single lines, single shapes, integration of lines, and shapes. The study was piloted on 20 intellectually disabled children for establishing reliability and validity who were not part of the study sample.

Table 3
Reliability of Beery VMI

Sr. No	Scale	Shapes	Alpha Coefficient
1.	Beery VMI	24	0.950

Table 3 indicates the value of the Coefficient of Alpha Reliability for Beery VMI was 0.950, showing it was a reliable instrument for this research sample.

Table 4
Reliability of IEO

Sr. No.	Sub-Scales	Items	Coefficient
1.	PC	06	0.863
2.	CL	06	0.726
3.	IM	06	0.695
4.	IJ	06	0.83
5.	IC	06	0.75
IEO (overall)		30	0.953

The value of the Coefficient of Alpha Reliability for IEO shows that it was a reliable instrument for this sample. The researcher used the instruments to get responses from the sampling population. The researcher asked the teachers about students with intellectual disabilities to fill out the questionnaire of motivation for their students. The researcher herself get the responses of the students with intellectual disabilities in drawing tests and noted the participants' response reliability. Data were analyzed by using SPSS with the help of means, standard deviations, and frequencies. For assessing the significant correlation between motivational orientations and learning drawing, correlation and regression were computed.

Results

Demographic Variables

Frequencies and percentages of demographic variables were presented in tabulated form.

Table 5

Frequencies and percentages of Demographic Variables including gender, age range, socioeconomic status (SES) and district wise frequencies of students

Sr. No	Variables	Categories	frequency	Percentage
1	Gender	**Male**	149	74.5
		Female	51	22.5
2	Age Range	**10-13 years**	92	46
		14-17 years	90	45
		18-21 years	18	09
3	SES	Low (10000-25000)	**95**	47.5
		Middle (26000-40000)	90	45
		High (above 40000)	15	7.5
4	No of ID students	Sheikhpura	**19**	9.5
		Kasur	49	24.5
		Nankana Sahib	39	19.5
		Lahore	93	46.5
	Total	19	19	72

Table 5 shows the gender of IDA which includes 149 (74.5%) males and 51 (25.5%) females with a diversity of age groups studying in special schools and centers for ID in the Lahore division. Of the majority of students with intellectual disabilities, 95 (47%) belonged to low and middle socio-economic status (SES) and only 7.5% belonged to high SES. From the total 200 samples, 19 students (9.5 %) belonged to schools of district sheikh Pura, 49 (24.5%) were from Kasur, 39 (19.5%) from Nankana-sahib, 93 (46.5%) were from district Lahore.

Descriptive Analysis of VMI

Table 6
Frequencies and percentages of VMI

Sr. No	VMI	Frequency	Percentage
1	Below average	74	37
2	Average	52	26
3	Above average	74	37

The above table shows that few students are on average range in performing the drawing test of VMI and most of the IDA perform above or below average in the drawing test of VMI.

Table 7
Mean, Range, Standard deviation, and variance of VMI

Sr. No	Mean	S.D	Variance	Range	
				Min	max
Total VMI Scores	50	10.0	100.0	28.28	69.23
Averages of VMI	02	0.862	0.744	1.0	3.0

The table above shows the mean as 50 and the Standard deviation as 10.0 for total VMI scores and mean as 2 and the standard deviation as 0.862 for averages of VMI scores.

Descriptive Results of IEO

Table 8
Frequencies and percentages of IEO

Sr. No	IEO	Frequency	Percentage
1	Intrinsic male	31	15
2	Intrinsic female	20	10
3	Extrinsic male	118	58
4	Extrinsic female	31	15
5	Total Intrinsic Orientation	51	25.5
6	Total Extrinsic Orientation	149	74.5

The above table shows that out of a total of 149 (74.5%) male IDA 31 (15%) are intrinsically motivated while 118 (58%) are found to be extrinsically motivated. Of the total female IDA 51 (25.5 %) there are 20 females (10%) who were intrinsically motivated and 31 (15%) were extrinsically motivated. It can be concluded that from a total IDA 200 IDA, 51students (25.5%) were intrinsically motivated 149 IDA (74.5%) were found to be extrinsically motivated, and that female IDA are found to be more intrinsically motivated, and males are found to be mostly extrinsic motivated which shows that most of the overall IDA are extrinsically motivated.

Table 9

Mean, Range, Standard deviation and variance of subscales of IEO

Sr. No		Mean	S.D	Variance	Range	
					Min	max
1.	Preference for challenges	2.11	0.789	0.623	1	5
2.	Curiosity/Interest	2.24	0.946	0.895	1	9
3.	Internal Mastery	2.15	0.800	0.640	1	3.8
4.	Internal Judgement	2.15	0.826	0.682	1	4.83
5.	Internal Criteria	2.13	0.793	0.629	1	3.8
6.	Overall IEO	2.15	0.747	0.559	1	3.6

The mean scores of the sub-scale PC of IEO are 2.11 with SD 0.789 and a variance of 0.623. The mean score, SD, and variance of the CI sub-scale are 2.24, 0.946, and 0.895 respectively. The mean score of the IM sub-scale is 2.1 with an SD of .800 and variance of .640. The mean, SD, and variance of the subscale of IJ are 2.1, 0.826, and 0.682. The mean, SD, and variance of the subscale of IC are 2.1, 0.793, and 0.629. The mean score, SD, and Variance of overall IEO are 2.159, 0.747, and 0.559.

Table 10

Independent sample t-test on difference in IEO between male and female.

S. No	Gender	N	Mean	SD	T-value	p-value
1	Male	149	2.07	0.714	-2.7	0.036
2	Female	51	2.40	0.792		

The Mean IEO of male ID adolescents (2.07) is lower than female ID adolescents (2.40). The higher mean of female IDA on the motivation scale shows that intrinsic motivation is high in females and is statistically significant. Therefore, the third hypothesis is accepted as there is a significant gender difference in types of motivation in students with intellectual disabilities.

Means of three types of SES (i.e., low, middle, and high) were compared with IEO scores of ID adolescents through ANOVA and the results were tabulated and analyzed.

Table 11

ANOVA comparison of IEO and Different Socioeconomic status.

Variance	Sum of Squares	df	Mean Squares	F	Sig
Between Groups	39.94	92	0.412	1.102	0.314
Within Groups	40.05	107	0.374		
Total	78.00	199			

Table 11 represents an ANOVA comparison, which indicates the calculated f-value (f=1.102) with a significance of (0.314) which shows that there is no significant difference in motivational orientations in students with intellectual disabilities belonging to different socioeconomic statuses. Therefore, null hypothesis 5 is accepted.

Table 12

ANOVA comparison of IEO and Different Age Groups

Variance	Sum of Squares	df	Mean Squares	F	Sig
Between Groups	39.32	92	0.427	1.05	0.391
Within Groups	43.29	107	0.405		
Total	82.62	199			

Table 12 represents an ANOVA comparison, which indicates the calculated f-value (f=1.05) with a significance of (0.391) which shows that there is no

significant difference in motivational orientations in students with intellectual disabilities belonging to different age groups. Therefore, hypothesis 4 is rejected.

Analysis of Correlation and Regression

Table 13

Correlation between Motivational Orientations and drawing scores on VMI (N=200)

	Intrinsic Orientation	Extrinsic Orientation
Pearson Correlation	0.332	-0.332

** P< 0.01

Table 13 shows that Intrinsic motivational orientation has a significant (p< 0.01) positive correlation with the learning of drawing (r = 0.332). Whereas the extrinsic motivational orientation has a significant (p< 0.01) negative correlation (r=-0.332). The results revealed that with the increase of intrinsic motivation drawing learning improves and with the increase of extrinsic motivation the learning of drawing decreases.

Table 14

Summary of Regression Analysis of Extrinsic Motivation on Learning Drawing

	R	R. Sq.	Adj. R. Sq
Extrinsic Motivation	0.332	0.110	0.106

Standard multiple regression analysis was carried out to find out whether extrinsic orientation could significantly predict the learning drawing of students with intellectual disabilities. Results indicated that only 11.1% of the variance in the data can be explained by the predictor variable i.e., extrinsic motivational orientation. Therefore, it is the intrinsic motivation that is mainly responsible for enhancing learning drawing in intellectually disabled children.

Table 15
ANOVA in regression analysis showing the influence of extrinsic motivation on learning drawing

Model	Sum of Squares	df	Mean Squares	F	Sig
Regression	2191.111	1	2191.111	24.498	0.000
Residual	17708.889	198	89.439		
Total	19900.000	199			

The above table indicates results of ANOVA in regression analysis where extrinsic motivation (overall) was a negatively significant predictor of learning drawing of students with intellectual disability as significant level is smaller than 0.05.

Table 16
Coefficient in regression analysis to predict extrinsic motivation on learning drawing

Variable	Beta	Std. Error	T	Sig
Extrinsic	-.332	1.534	-4.950	0.000

The results of regression analysis in table 16 revealed that extrinsic motivational orientation negatively and significantly predicts (β= -.332; $p<$ 0.05) drawing learning in students with intellectual disabilities. Additionally, a negative t-value (t= -4.950) also indicates a reversal in direction of the effect so extrinsic motivation can negatively predict drawing learning.

The study aimed to explore the types of motivation in students with intellectual disabilities. The study revealed that out of 149 males, 31 had intrinsic motivation and 118 had extrinsic motivation. whereas out of 51 females, 20 had intrinsic motivation and 31 had extrinsic motivation which shows that females had more intrinsic motivation than males as the mean of the female is 2.40 which is higher than the male mean score of 2.07. The finding is similar to the results of Boggiano, Main & Katz (2011) who conclude that girls are more intrinsically motivated than boys.

The study aimed to explore the effects of motivational orientations on learning drawing. For analyzing the effects, t-test, ANOVA, and correlation were computed. The results supported the first three alternative hypotheses as statistically significant differences were found between intrinsic motivation, extrinsic motivation on learning drawing, and significant differences in types of motivation and gender. On the contrary, no

significant difference was found between types of motivation on age and socioeconomic status of students with intellectual disabilities therefore fourth and fifth null hypotheses are accepted. Contrary to the results of Switzky (2007) who found that with increasing chronological age and increasing social class intrinsic motivation increases.

It was also found that the intrinsic motivational orientation and the drawing scores were significantly positively correlated (r= 0.332) which indicates that with the increase of intrinsic motivation drawing learning increases. This is similar to the research conducted by Fischer, Malycha & Scharfmann (2019) who found a significant positive relationship between intrinsic motivation and creativity and concluded that increasing intrinsic motivation increases creativity in students. The extrinsic motivational orientation and the drawing scores were significantly negatively correlated (r= -0.332) which shows that the increase of extrinsic motivation decreases drawing learning, supported by the findings from Areepattamannil, Freemann & Klinger (2011) which concluded that adolescents with increased extrinsic motivation had poor school performance than adolescents with intrinsic motivation.

The results of the present study indicated that learning drawing has a statistically negative correlation (t = -0.332) with extrinsic motivation. Regression analysis revealed that extrinsic motivation negatively (t=-4.950, β = -0.332) and significantly predicted learning drawing in students with intellectual disabilities. This means that with the decrease of extrinsic motivation, drawing learning of students with intellectual disabilities could increase. Dom (2017) has also found that intrinsic motivation is significant for academic achievements.

In sum, the results of the present study depict that although most of the students with intellectual disabilities (149) were found to have extrinsic motivational orientation, few students with intellectual disabilities (51) had intrinsic motivational orientation. But the results show that those who have intrinsic motivation seemed to have good learning of drawing while those who had extrinsic motivation were not good at drawing learning. Frieling, Schuengel, & Embregts (2017) also concluded that intrinsic motivation is the positive predictor for academic achievements and that extrinsic motivation had a negative predictive effect on the academic achievements of adolescents.

Conclusions

It was found that the intrinsic motivational orientation shows a positive relation with drawing learning. Intrinsic motivational orientation (overall)

has a statistically ($p < 0.01$) significant positive relationship with the learning of drawing in students with intellectual disabilities. While all the extrinsic motivational orientation has a significant negative correlation. The results of ANOVA in regression analysis indicated that extrinsic motivation was not a significant predictor of learning drawing of students with intellectual disabilities.

Recommendations

The following recommendations can be made based on the analysis of the study.

The research was conducted within the Lahore division and its results may not be generalized for the entire country. Therefore, it is suggested to replicate the research in other cities by increasing the target areas and sample size.

The study suggests the need to incorporate intrinsic motivation in students with intellectual disabilities so that the learning of drawing in IDA can be increased.

Studies are needed on the effects of intrinsic and extrinsic motivation on other learning areas of IDA, which can affect the levels of learning of students with intellectual disabilities.

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