Investigating the Relationship Between Student Motivation and Academic Performance

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Abstract: In this section, the significance of motivation in the academic sphere as well as a definition of the concept of motivation are discussed. The state of mind that enables one to exert additional effort in order to accomplish something novel is referred to as motivation. It could be either mental or physical. In this section, the purpose, aims, and questions posed by the research are outlined. The goal of the research is to determine whether or not there is a correlation between students' levels of motivation and the impact that level of motivation has on their academic achievement. There is an emphasis placed on the acquisition of primary quantitative data. Following are the 55 responses that were gathered in conjunction with the 13 questions that were posed to the respondents. For the purpose of data analysis, IBM SPSS software was utilised. The discussion is on the correlation that exists between various variables and hypotheses, as well as the results obtained from the input of individuals. Evaluation is done to determine how closely the effects and the literature review are related. It can be observed that the experimental evidence has been satisfied by both the literature study and the theoretical interpretation. It has been determined that there is a positive influence, which in turn has excellent implications for the academic motivation of students.

1. Introduction

Intrinsic motivation is created with the performances of the students in their academic system throughout all types of groups. Extrinsic motivation also plays a vital role in influencing people and in the performances of students as they grow up. Achievement motivation generally directs the energy toward achievements, and higher motivation among students helps to achieve greater success in their lives. Without motivation, the students sometimes make some decisions, like easily drifting off and losing interest, which can be caused by poor academic performance. Motivation to the students helps to push them to try hard and to go beyond the boundaries in comparison with the minimum requirements.

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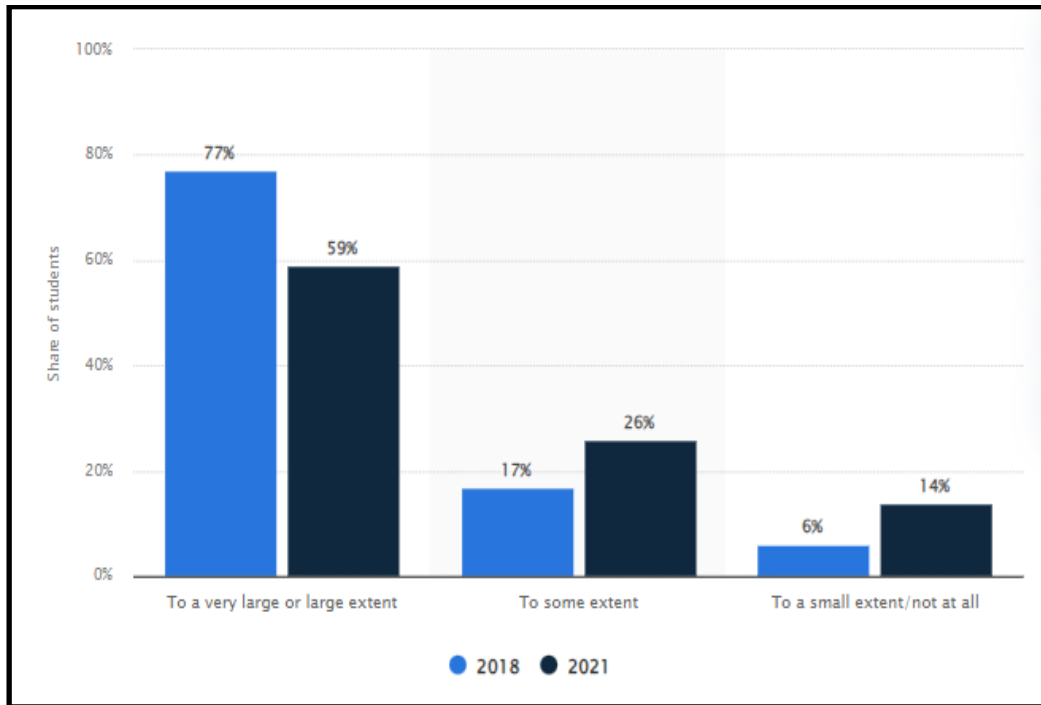
Figure 1: Secondary education students who were motivated to study in Denmark from 2018 to 2019 [23]

The above figure 1 shows that in March 2021, there were more than three university students who were motivated in a great context. It is also seen that due to a lack of motivation in their education, the students did not get interstate in their academics due to Covid-19 times. It is also seen that motivation helps to uplift the enthusiasm of students about different activities that they should do. If students can get motivated to achieve something while fulfilling their tasks, then they can exert their full-time effort and energy [8]. Those students who are motivated are more likely to learn different contents in different situations as they know about different contents and their causes.

1.1. Aim and Objectives

The main aim of this study is to find and evaluate the relationship between the motivation of the students and the assessment of their academic performance. The main objectives of the research are:

RO1: To know details about the student's motivation and the relationship of it with their academic performance
RO2: To determine the impact of the student's motivation on academic performances
RO3: To find the challenges that the teachers are facing to motivate students that are actually helpful for the enhancement of the academic performances of the students
RO4: To give the solutions to the issues that may help the teachers who are facing themes at the time of motivating students in academic

1.2. Research questions

The main questions of the research are:

RQ1: What is students' motivation and relationship with it with their academic performance?
RQ2: What is the impact of the student's motivation on academic performance?
RQ3: What are the challenges that the teachers are facing to motivate students that are actually helpful for the enhancement of the academic performances of the students?
RQ4: What are the solutions to the issues that may help the teachers that are facing them at the time of motivating students in academics?

1.3. Hypotheses

H1: The motivation of students plays an important role in the enhancement of the academic performance of the students.
H0: Motivation of students has no role in enhancing the academic performances of students.

The main issue faced at the time of motivating the students is the lack of classroom environment and instruments. The teachers are facing issues to motivate the students and to make learning more interesting, which can help to create interest among the students [20]. The students are giving priority to other things, and they are not too attentive in class. Individual students sometimes face issues related to health and mental health.

The issue has arisen as the classrooms are not too well equipped and may help to grow interest among students. There are many schools where there is a lack of instruments for visualization of learning. The traditional style of teaching does not seem interesting to the students. Visualization of the topic and understanding it can help to get motivated [11]. However, the teachers are facing issues with a lack of funds and arrangements of learning tools.

This is a main issue among the whole world because the era is going to be digital. The total system and situation are digitized day by day, and some different schools and colleges are implementing new and high-technology equipment to make the topic more interstate. The students are also busy with social media and digital systems for a long time, and they are getting addicted and they are losing interest in studying [22]. Figure 2 shows a great number of Teens are using social media more than once a day, constantly 16%, and this is hampering their study. They are losing interest in studying, and great motivation to reduce it is needed [13]. There are also a great number of Teens who are using social media several times a week.

This research will shed light on different points that may help to know the impact of motivation on study performances and the issues that are being faced along with their solutions. This research has great significance for different aspects related to motivation and students' academic performances. The research can help to know the importance of motivation in enhancing the academic performances of the students. This may help the students to judge themselves and to understand their faults and also can help the teachers to motivate the students to enhance their academic careers.
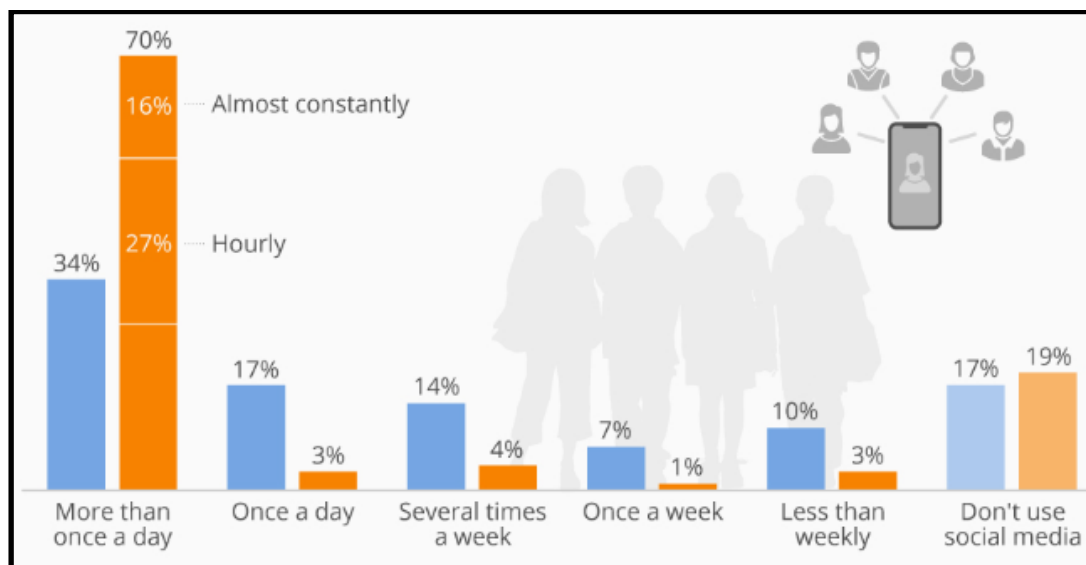

Figure 2: Use a chart of social media among teens [13]

2. Literature Review

### 2.1. Definition of students' motivation

Figure 3: The aim behind the motivation of students and causes to get interested in Academics [19].

For learners to achieve or get something, it is important to get some positive feelings from their learning and experience some accomplishments (fig.3). As per the views of Theobald [19], satisfaction is the result of achievements, an inherent joy feeling with going through the act of learning. This feeling is called motivation, which is important for achieving something. The feeling may be because of internal feelings or maybe for external things like prizes, reading systems for achievements, or it may be for believing in a better sense of being fair in some subject. As per the statement of López-Fernández et al. [12], in academic careers also, students need this feeling to go ahead and achieve something. To understand the subject and to get the juice of total learning at last, the aim or uses of the academic field should be known by the students.

Different ways may help to show the path to get achievements or to know the results of academics. As per the points of view of Duchatelet & Donche [5], the students should know all these things, and the teachers should do this. This motivation may help students to know the importance of growth in academics and to work hard for it. A motivated student who knows his aim and the cause or root behind it can get interested in doing hard work to become successful [6].

2.2. The Impact of the students' Motivation in academics
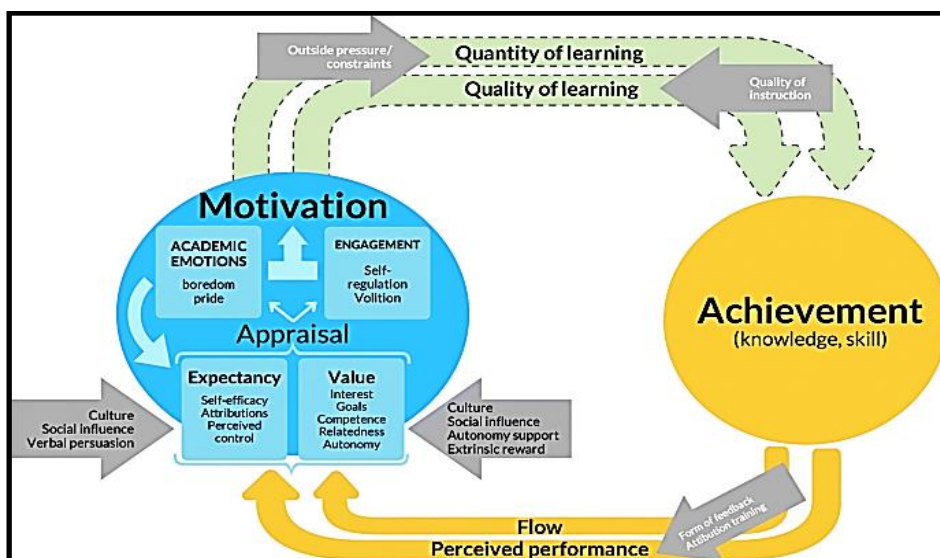
Figure 4: Impact of motivation in academics [17]

It has been seen from the report that motivated students have gained more success in their academic lives (fig.4). As per the point of view of Rose et al. [17], academic motivation can be referred to as the cause and behaviours in different ways that are related to academic functions and success. Motivation in class may help to persist longer in class, become more attentive in classes, and give greater effort to the study. As per the statement of Borah [3], motivating students may help them to learn something more deeply and to think deeply can help to open a new way of thinking. Motivation to the students can also help to bring results standardized in the class tests. As per the assessment of Gonzalez-Ramirez et al. [9], motivation contains several things like enhancement of academic emotions, engaging self to the study, and appraisal system with the help of appraisal can create expectations and can make learning give value to the study and academics. As per the insights of Trigueros et al. [21], all these things should be created by teachers, parents, and other friends or elders, as the students do not know about the journey. Motivation can help to know about the quality and quantity of study that can help them to get their achievements. High motivation can help to achieve great performance in the management of academics.

2.3. Challenges faced by the teachers to motivate students in academics

It has been seen that there are many efficient teachers in schools and colleges, but they are not getting enough chances to encourage or motivate the students. There are many schools and institutions where there are a number of students, and there are not enough teachers to handle them. As per the thinking of Pascoe et al. [14], some teachers do not have clear visions to detect and teach students and motivate them to study and provide detailed information for the future. Many students are too committed to their studies due to a lack of awareness, and they do not have the psychology to become successful and to get achievement in academics (fig.5).
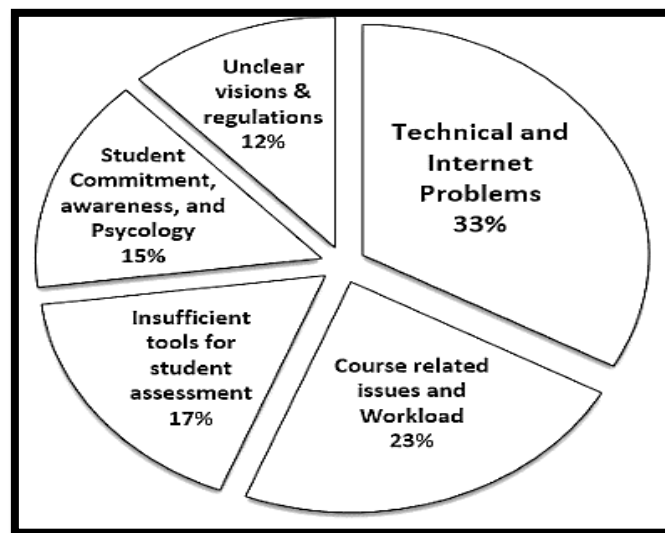

Figure 5: Issues faced by the teachers in motivating students [14]

They want jobs that can help them to manage their life with a minimum level of education. It has been seen that 17% of teachers are facing issues related to the instruments and tools that are helpful for students' assessments [16]. The issues that the students face and their analysis are important to motivate them with original points.

For lack of funds, the equipment shoes are helpful digitally for making visualization of the chapters, and three students are not accessing the topics. As per the statement of Amalia et al. [2], in recent times, there is another issue that uses social media. Students are being engaged with special media, their attention is being diverted, and they are not getting internet access in academics. The students are abusing their time on social media, and this is creating an issue in their mental situation. As per the statement of Clarin & Baluyos [4], the students are not interested in studying, though the teachers are telling them about the importance of studying. Technical faults are also seen, which a great issue is also for teachers who want to motivate their students.

3. Solutions for mitigating the issues related to motivating students in academics by teachers Investing funds

The Government of every country should invest more money in equipment that is helpful for making learning easier for the people. As per the reviews of Gurung [10], highly technological equipment may help with visualization and animation of the

topic, which may help to understand. These can also attract them to be more attentive in class. Investing more in academics may help to get technologies and digital experiences as well as mental. This can motivate the students to invest in their studies.

3.1. Restrictions on Social media

Social media platforms are affecting students nowadays. As per the insights of Dwijayani [7], nowadays, students are accessing different kinds of social media most of the time in a day, and they are binge-engaged with it. They are being diverted from their studies as they are engaged in it. In class, they are not also attentive to something new or to take lessons. As per the thinking of Rachmadtullah et al. [15], parents should be aware of their children by using their social media. There should be a time when they can use it, and at other times, they should use it in their study.

3.2. Outdoor games

Students should be invested in outdoor games as they can make them learn about different kinds of moral activities that are needed in their lives. As per the reviews of Acquah et al. [1], students are addicted to smartphones. They are not doing physical exposure either, and this is creating mental issues and creating an impact on their physical and mental health. They are not getting the motivation or enthusiasm for their study and cannot get a fresh mind. Through outdoor games, relations with friends, and interaction with them, and among the rules of the games, they can achieve some lessons that are needed in their academics.

3.3. Training to the teachers

Many teachers have not gotten proper training. This has an impact on their teaching. As they are not habituated to the modern approach to learning, the students are not getting motivated with their class, and they are not getting inserted. As per the reviews of Gurung [10], the old teachers should be given training to enhance, encourage, and motivate the students with their learning approaches.

3.4. Alderfer's ERG theory of motivation
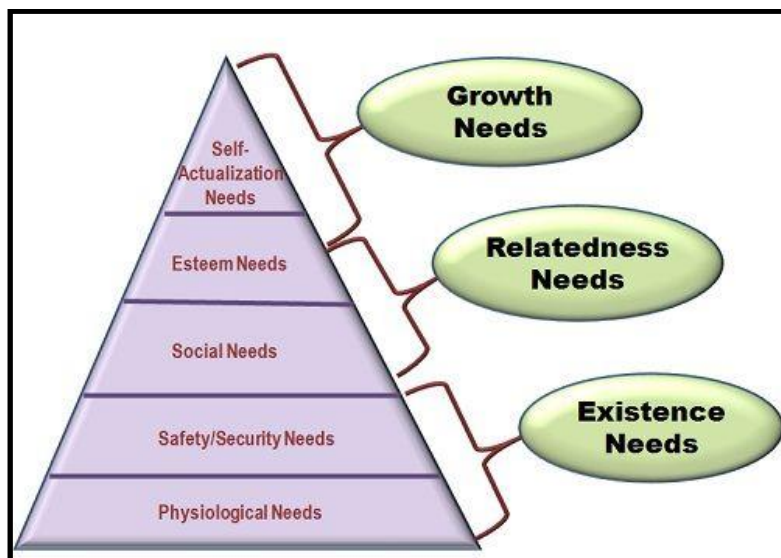
Figure 6: ERG theory [18]

Clyaton Alderfer developed a model related to motivation, and there are three components in this theory (fig.6). Existence, relatedness, and growth are the three factors. There are three needs, and humans are motivated by all these. Existence helps to survive people psychologically and physically. As per this theory, it can be said that individual students can be motivated, and as per their motivation, the other two results are dependent. Motivation is the only key that is related to the growth upward and downwards [18]. Therefore, in this context of the study, it can be said that if the students are motivated to study, they can see growth in their academics.

4. Methodology

In this study, the Primary quantitative method of the research has been followed. For data collection, primary data has been used, and for data analysis, quantitative methods are used. A descriptive design of the research and a deductive approach is used to fulfil this today. Deductive research has a great help to find the relation between the hypothesis and the conclusion of the study. The questionnaire has been made for primary data collection that is consistent with 13 questions. The survey was done among 55 people, and their responses have been collected. And IBM SPSS was used for interpreting the data statistically. IBM SPSS is a software that is helpful in interpreting data statistically to draw any conclusion with the help of ANOVA, Correlation, and frequency analysis [16]. Relations between different variables have been analyzed with the help of descriptive and demographic data collection.
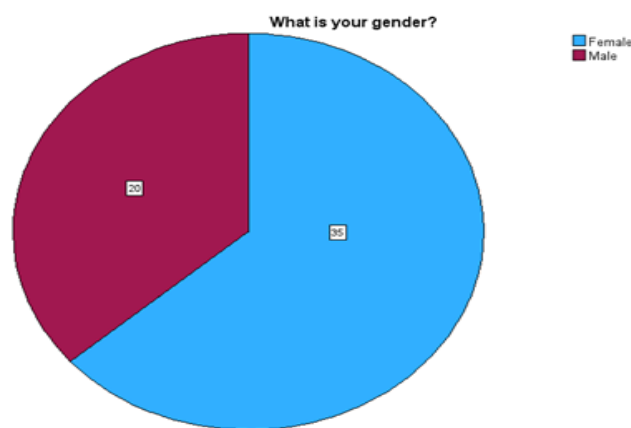
5. Finding and Analysis

5.1. Demographic Analysis

5.1.1. Gender

Table 1: Gender analysis

Gender	Frequency	Percent	Valid Percent	Cumulative Percent
female	35	63.6	63.6	63.6
Male	20	36.4	36.4	100
Total	55	100	100	

Figure 7: Gender

Fig. 7 and Table 1 help to analyze the response rate of the participants as per their gender. Therefore, this figure 7 indicates that 35 female participants are taking part in this survey process, whereas 20 male participants are allowed to take part in this process. Figure 7 is based on the response rate of the participants according to their gender. 63.6% of female respondents take part in this process, and it is considered the maximum response rate for participants. Therefore, 36.4% of male participants also take part in this data collection process.

5.1.2. Age Group

Table 2: Age analysis

Age	Frequency	Percent	Valid Percent	Cumulative Percent
10-25 years	20	36.4	36.4	36.4
25-40 years	35	63.6	63.6	100
Total	55	100	100	
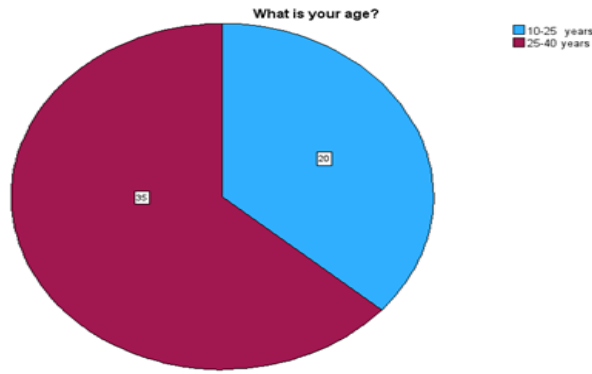
Figure 8: Age Group

Figure 8 and Table 2 are based on the frequency related to the age group of the participants. Therefore, 20 participants are based on the 20-year to 25-year age group. Moreover, 35 participants are based on the 25-year to 40-year age group. Figure 8 indicates the response rate of the respondents, which is based on their age group. Moreover, 36.4% of participants are based in the 20-year to 25-year age group. 63.6% response rate participants are based on 35 years to 50 years age group, and it is the maximum response rate for participants according to their age group.

5.1.3. Profession

Table 3: Profession analysis

Profession	Frequency	Percent	Valid Percent	Cumulative Percent
Others	5	9.1	9.1	9.1
Students	30	54.5	54.5	63.6
Teacher	20	36.4	36.4	100
Total	55	100	100	
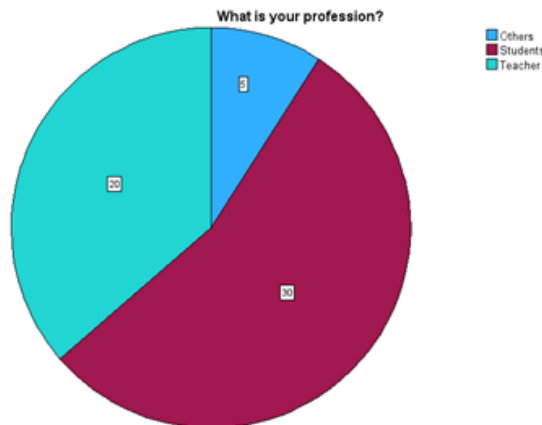
Figure 9: Profession

Figure 9 and Table 3 indicate the responses according to their income level. Thirty numbers of respondents are based on the students' category; therefore, 20 participants belong to the teacher category. Figure 9 indicates the response rate of the participants, which is based on their income level. The maximum response rate of participants belongs to the students' category, and their response rate is 54.4%.

5.2. Statistical Analysis

5.2.1. Descriptive Analysis

Table 4: Descriptive analysis of different variables

	N Statistic	Minimum Statistic	Maximum Statistic	Mean Statistic	Mean Std. error	Std.Deviation Statistic	Kurtosis Statistic	Kurtosis Std.Error
DV	55	2	5	3.82	0.127	0.945	-0.818	0.634
IV 1	55	2	5	4.27	0.131	0.971	0.435	0.634
IV2	55	4	5	4.55	0.068	0.503	-2.04	0.634
IV3	55	4	5	4.55	0.068	0.503	-2.04	0.634
IV4	55	4	5	4.82	0.052	0.389	0.91	0.634
Valid N (listwise)	55							

Table 4 indicates the "Mean" and "Standard deviation" values of the variables. The "Mean" value of the first variable is 4.27, and the "Standard Error" is .131.

5.2.2. Hypothesis 1

Table 5: Linear regression analysis

Model Summary[b]										
						Change Statistics				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df 1	df 2	Sig. F Change	Durbin-Watson
1	0.358[a]	0.128	0.112	0.89	0.128	7.788	1	53	0.007	1.347[a]
a.Predictors:(Constant),IV 1										
b.Dependent Variable: DV										

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.173	1	6.173	7.788	.007[b]
	Residual	42.009	53	0.793		
	Total	48.182	54			

a.Dependent Variable: DV
b.Predictors:(Constant),IV 1

Coefficients[a]						
Model		Unstandardized B	Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	2.33	0.546		4.264	<.001
	IV 1	0.348	0.125	0.358	2.791	0.007
a.Dependent Variable: DV						

As per Figure 9, the "Linear regression analysis" of the first hypothesis has to be addressed. Based on "The ANOVA", the significance value of the first hypothesis is 0.001, which is less than .05; it indicates that a "significant relationship" has to exist between dependent and first independent variables (table 5).

5.2.3. Hypothesis 2

Figure 10 is based on the hypothesis analysis of the second variable. The "R-value" as per this table is .018, and the "R Square value" is .000. Therefore, the "significance value" of this variable is 0.001; moreover, it is addressed by the "ANOVA" table.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
					Change Statistics					
1	.018[a]	.000	-.019	.953	.000	.017	1	53	.898	1.440

a. Predictors: (Constant), IV 2
b. Dependent Variable: DV

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.015	1	.015	.017	.898[b]
	Residual	48.167	53	.909		
	Total	48.182	54			

a. Dependent Variable: DV
b. Predictors: (Constant), IV 2

Coefficients[a]

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	3.667	1.180		3.106	.003
	IV 2	.033	.258	.018	.129	.898

a. Dependent Variable: DV

Figure 10: Linear regression analysis for Hypothesis 2

5.2.4. Hypothesis 3

"Linear regression analysis" of hypothesis 3 is highlighted in Figure 11. Therefore, the "R-value", which is indicated by this table, is 177. Moreover, the significance value as per the "ANOVA" table is 0.001; this value is also less than 0.05. After that, it is highlighted that a positive correlation is indicated between these variables.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
					Change Statistics					
1	.177[a]	.031	.013	.938	.031	1.721	1	53	.195	1.476

a. Predictors: (Constant), IV 3
b. Dependent Variable: DV

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.515	1	1.515	1.721	.195[b]
	Residual	46.667	53	.881		
	Total	48.182	54			

a. Dependent Variable: DV
b. Predictors: (Constant), IV 3

Coefficients[a]

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	5.333	1.162		4.590	<.001
	IV 3	-.333	.254	-.177	-1.312	.195

a. Dependent Variable: DV

Figure 11: Linear regression analysis for Hypothesis 3

5.2.5. Correlation Test

Table 6: Correlation test between a dependent variable and independent variables

			Correlations				
			DV	IV 1	IV 2	IV 3	IV 41
DV	*Person Correlation*		1	.358**	0.018	-0.177	-0.092
	Sig. (2-tailed)			0.007	0.898	0.195	0.506
	N		55	55	55	55	55
IV 1	*Pearson Correlation*		.358**	1	0.259	-0.311*	-0.111
	Sig. (2-tailed)		0.007		0.056	0.021	0.418
	N		55	55	55	55	55
IV 2	*Pearson Correlation*		0.018	0.259	1	-0.1	0.43
	Sig. (2-tailed)		0.898	0.056		0.468	0.755
	N		55	55	55	55	55
IV 3	*Pearson Correlation*		-0.177	-.311*	-0.1	1	.516**
	Sig. (2-tailed)		0.195	0.021	0.468		<.001
	N		55	55	55	55	55
IV 4	*Pearson Correlation*		-0.092	-0.111	0.043	.516**	1
	Sig. (2-tailed)		0.506	0.418	0.755	<.001	
	N		55	55	55	55	55
	**. Correlation is significant at the 0.01 level (2-tailed)						
	*. Correlation is significant at the 0.05 level (2-tailed)						

Proper correlations between the variables are indicated in Table 6. Therefore, as per this table, the "significance value" of the variables is .001, which is less than 0.05. Therefore, this indicates a positive correlation is highlighted between the variables.

6. Discussion

In the literature review, it has been seen that there is a great impact on the motivation of the teachers on their students. In the result section, it is also seen that most of the people have given their opinion that there is a great impact on the students' motivation in class.

As per the reviews of Gurung [10], most of the students do not know about their needs and their goals in academics. Their teachers know the way they can achieve success and growth in their academics. In the results, it is also seen that many teachers see the individual issues of the students. They can recognize the proper medicine that can help them motivate themselves to study by solving their issues. The children who have taken care of the teachers get motivated and have been more successful in their academic careers [16].

In the literature review, it is seen that there are several issues faced at different times by the students. Most of the students are addicted to social media, and they are not attentive in class. In the results, it is also seen that many teachers and students said that actually, the students are getting addicted to smartphones and social media. They are not paying attention in class, and this is hampering their study. As per the reviews of Acquah et al. [1], the process of traditional teaching is not absorbed by students nowadays. The visual representation, high technologies, and use of animation may help to attract the attention of the people. This equipment may help the students to become more motivated and to engage with the study.

Several teachers do not know about the different processes that can attract students nowadays. The personality of the teachers and different techniques to extract the performances of the students may be helpful. A rewards system and prices for appraisal or appreciation of the students can help them to become more motivated in class [19]. They can also get interested in their academics, and this may help to motivate them to their careers. If the students know about success and ways of success in their lives, they can be motivated to do as much as possible.

The importance of academic careers and the need or benefits of different ways of acting should be taught by the teachers. This may help them with great motivation, and this may help to enhance the number of motivated students. The issues faced by the students related to lack of mental and physical support and the issues that are being affected by the students should be removed, and these should be done by the teachers, parents, and elders; this may help the students to enhance their capacity for reading and tendency to become in the right part of the academic careers [10].

7. Conclusion

Therefore, it is possible to draw the conclusion that the level of motivation possessed by students is of critical significance to the development of their academic careers. If the students are aware of the requirements of the study and are able to take an interest in those requirements, then it is possible that they will take an interest in the study. The instructors must to make an effort to capture the attention of the class, and they should direct the pupils in a significant manner while also providing them with numerous opportunities for encouragement. It is possible that the kids will be able to pay greater attention in class as a result of this, and they will also become more engaged with their studies. There is a possibility that the results of their testing will be analysed. The problems at shoes, which are impediments to the students' lack of interest in the study and should be removed, include a weak presentation, traditional methods of learning, and a lack of training for the teachers. This may assist to improve the students' overall performance in the class. As a consequence, the desire to learn is of critical significance to academic performance, and the two are inextricably linked.

1.Appendices

1.1. Appendix 1: Survey link

https://docs.google.com/forms/d/e/1FAIpQLSfTP1DIuoID7XRfoiV2-8Z56R4hHjdHLBoQV_9uA3adBZ_6qw/viewform?usp=sf_link

1.2. Appendix 2: Questionnaire

1. What is your age?

- 10-25 years
- 25-40 years
- 40-60 years

2. What is your gender?

- Male
- Female
- Others

3. What is your profession?

- Teacher
- Students
- Others

4. Do you think motivation helps to enhance performance in academics?

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

5. Do you think students are facing a lack of mental and physical issues nowadays?

6. Do you think students are facing a lack of concentration during class sometimes?

7. Do you think students are getting addicted to social media and are ignoring their studies?

8. Do you think the lack of investment in modern equipment is affecting the motivation and attraction of students in their academics?

9. Do you think modern digital technologies are helpful for attracting and motivating students in their academics?

10. Do you think the traditional process of teaching is also one of the causes of hampering the encouragement of students?

11. Do you think students may get interested if they are rewarded and prized or get an appraisal for their performances in academics?

12. Do you think students are not getting interested as they do not know about the benefits and importance of academic careers?

13. Do you think students who are enlightened by the teachers and who are motivated by teachers are getting more success in life?

Conflicts of Interest Statement: No conflicts of interest have been declared by the author(s). Citations and references are mentioned as per the used information.

Ethics and Consent Statement: The consent has been obtained from the colleges during data collection and has received ethical approval and participant consent

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