



# Impact of Students' Motivation on Learning Effectiveness of Undergraduates in Sri Lankan State Universities Mediating Effect of Effort

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## Abstract

The learning effectiveness of students is an important determinant of any university's success. Even though, many determinates of learning effectiveness are founding extend literature, students' motivation is little investigated and the effects on learning effectiveness in Sri Lankan context, it has not been studied yet. Bridging the gap in the context, the current study assessed the impact of students' motivation on learning effectiveness of undergraduates in Sri Lankan state universities. Motivation is separated into intrinsic motivation and extrinsic motivation. In this research only focused intrinsic motivation of undergraduates. This was carried out as a cross-sectional study among a sample of 210 undergraduates including only the University of Kelaniya. Simple random sampling was applied to select the sample. Primary data was collected through a standard questionnaire as google form via online mode through a survey. The collected data were analyzed with the support the SPSS employing correlation, regression and descriptive statistics. Further, effort acts as the partial mediator for impact of students' motivation on learning effectiveness. It is found that there is a moderate positive relationship between students' motivation and learning effectiveness, and also a positive impact of students' motivation on learning effectiveness through the effort is found. This study's findings provide better guidance for university undergraduates to become more productive and effective undergraduate through national universities in Sri Lanka. It is recommended to state universities to take necessary action to develop students' motivation in an appropriate manner.

**Keywords:** Effort, Intrinsic Motivation, Learning Effectiveness, Students' Motivation.

## Introduction

Students are an important part of universities. In state universities, the ultimate purpose is to create more productive Undergraduate from university to job market. Students Learning Effectiveness plays an essential role in producing the highest quality graduates. Learning Effectiveness is the degree to which learning outcomes have been achieved or that learning is

effective (Rogers, Theule, & Adams, 2009). Employers consider learning effectiveness as one of the key factors in recruiting employees, especially fresh graduates. But one question that always remains in the mind of researchers is why some undergraduates perform well in their academic performances while others do not. Many studies have been carried out to determine factors affecting to learning effectiveness. There are many factors effect to the undergraduates learning effectiveness. Such as procrastination, academic self-efficacy, students' motivation, task commitment, self-control etc.

Based on this literature researchers can identify students' motivation as the one main factor affecting learning effectiveness. Motivation is seen as a person's effort to accomplish his/her duties, dedicating the needed effort and continuing it. Students' motivation is as essential factor in the students learning process, the success of the students studying process is depending on it. Motivation leads them to reach their goals. Therefore, motivation is the key to open the future success of the students.

Self-determination theory differentiates individual motivation by considering two types: intrinsic and extrinsic. Intrinsic motivation is measured along the dimensions of the will to succeed, mastery needs to challenging tasks, and the meaningfulness of academic performance (Tella, 2007). Extrinsic motivation refers to external sources of influence on a students' motivation and is sub- divided into socialization and rewards. Sri Lankan university background mainly focuses on intrinsic motivation and this research mainly focuses on how students' intrinsic motivation impact learning effectiveness.

Many studies examined the relationship between motivation and academic performance (Arulmoly & Branavan, 2017; Afzal, Ali, Khan, & Hamid, 2010; Ayub, 2010). When reviewing the literature, the following contextual gaps are identified. Even though most of the articles relating to motivation and learning effectiveness done for many foreign countries, seems to lack of articles related to Sri Lankan context. Moreover, not measure the effect of students' motivation on learning effectiveness using the effort as the mediator. ThereforeIn this study researcher is going to assess the impact of students' motivation on the learning effectiveness of the State Universities in Sri Lanka. The study is vital because it have the ability to reveal how motivation of students helps to get good grades in their academic life.

According to this research, researcher focuses on the problem of **“What is the impact of students' motivation on learning effectiveness of undergraduates in Sri Lankan state universities”**.

Through the literature, researcher hope to build and identify the direct and indirect relationship between students' motivation (student's intrinsic motivation) and learning effectiveness, as well as an indirect relationship mediated by effort of undergraduates using the Sri Lankan state universities. And also, this study used to explain the theoretical background and practical aspects of each variable. This research will help to enrich the current knowledge about learning motivation and identify the effect on motivation on learning effectiveness for the persons who refer to the research paper. Especially, undergraduates and future research could be referred to

the research paper to get knowledge about the problem area and conduct research for new problem areas.

Therefore, this study will be explained how to improve Sri Lankan undergraduates learning effectiveness through the motivation. Furthermore, based on the recommendations, undergraduates can change their learning styles and improve their effort. Ultimately, it enhances undergraduates learning effectiveness. This study provides foundations for policymakers (University Administration) to identify how the motivation of the student relates to their learning effectiveness. Finally, research study gives a fresh knowledge and expanded current knowledge about learning motivation related to learning effectiveness and effort of undergraduates.

The researcher aims to do this research study in State Universities in Sri Lanka. There are only 15 state universities in Sri Lanka under the direct control of the University Grants Commission. Therefore, limited numbers of students are annually admitted to the university. University students are high contribution to the Sri Lankan job market. The researcher intends to conduct this research using undergraduates from university of Kelaniya in Sri Lanka. The number of respondents to the study will take represent all faculties and all years' students. Based on the above scope, this study tries to identify impact of student's motivation on learning effectiveness of all undergraduates in all state universities in Sri Lanka.

## **Literature Review**

### ***Learning Effectiveness***

Learning effectiveness refers to the various forms of assessment and testing used to understand learners' feedback and identify their feelings after finishing a learning activity (Jui-Che Tu & Ku-Hsi Chu, 2020). Lin (2007) mentioned learning effectiveness is "the degree to which a learner acquires knowledge and skills or affection through studying or training in a specific field at a specific time in the acquired". In addition, learning effectiveness is a measurement indicator of learning outcomes and is one of the main items in the evaluation of teaching quality (Liu, 2002). From the perspective of students, learning effectiveness refers to a learning value that students can perceive themselves (Ganesh, Paswan, & Sun, 2015). Therefore, when students participate in learning activities, they can also learn about the performance of certain indicators or changes in certain behaviors through the evaluation of learning effectiveness (Pike, Smart, & Ethington, 2012). Drawing on the symbolic cognition view, Zaccone and Pedrini (2019) found that learning effectiveness is influenced by both individual and social factors. Researchers discovered network links, common understandings, and pro-sharing norms among the various aspects, as well as absorptive capability, knowledge sourcing initiative, and learning orientation among social factors.

The learning effectiveness obtained through evaluation is usually categorized into the two extremes of low achievement and high achievement. Low achievement refers to the standard level of student achievement below expected level. High achievement refers to the standard level of student achievement higher expected level. However, not all low learning achievements are caused by intellectual factors; there are many reasons for low achievement, such as learning habits, learning methods, achievement motivation, parental encouragement, and parental attitude

toward the child, degree of parental education, parental socioeconomic status, and birth order (Guo, 1999).

Scheerens (2016) found that cooperative learning will also help improve the effectiveness of learning. The learners' previous knowledge and experience, for the learning of new knowledge or new things, if this is not a necessary condition to help learners achieve successful learning in the new field, it is also one of the important factors that improve their learning effectiveness (Vicente, Hayes, & Williges, 1987).

### ***Student's Motivation***

The motivation of students is an important issue in higher education. Murray, Poole, and Jones (2006) defined motivation as a drive to fulfill a need. Motivation is defined as a "internal state or condition that initiates, guides, maintains, or directs conduct" in general (Kostelecky & Hoskinson, 2005). Motivation is one of the most important factors in universities or other educational sector especially when we are talking about the performance of the students in their studies. The motivation of the students is the element that leads students' attitude towards learning process. Number of studies has been conducted to probe the role of student motivation in academic performance and different definitions of student motivation have been used by various researches. Ames (1990) stated that motivation to learning is dependent on long-term, quality attachment in learning and commitment to the learning process. Bukhari, Khan, Shahzadi, and Khalid (2014) referred student motivation as an effort to enhance performance.

There are two types of motivation. First one is intrinsic motivation. It defined as, a person's interest in work or activity by look it as an opportunity to learn and participate without the sake of any external reward (Coon, Mitterer, Talbot, & Vanchella, 2010). Intrinsically motivated students keenly engage themselves in learning out of oddity, interest, or enjoyment, or in order to achieve their own scholarly and personal goals (Haider, 2015).

Extrinsic motivation can be defined as peoples' tendency to perform activities for known external rewards, be they tangible (e.g., money) or intangible (e.g., praise) Brophy (1986) "Motivation might come from the outside, such as the motivation to win medals, receive financial incentives, and gain media exposure. Dev (1997) viewed that extrinsically motivated student engages in learning slowly for obtaining a reward or for avoiding punishment.

The intrinsically motivated students are very energetic, self-directed, competing, and find themselves enjoying their studies as compared to the students who are extrinsically motivated by putting less efforts and find themselves constrained to learn and to get maximum admiration or rewards.

### ***Effort***

We make efforts, individual and collective, to lift heavy weights, to solve issues, to concentrate, to quit smoking, to climb mountains, to persuade people, to understand obscure texts, to improve our language skills, to conceal our vices, to resist temptations, to seduce, to learn, to earn money, to stay calm, to win games, to raise children, to write clearly, and such as. Not only do we make

efforts, we also value efforts in various ways. We deem them unpleasant, praiseworthy, efficient, vain, irrational, and tenacious (Massin, 2017).

The concept of effort has regularly been involved in many areas of philosophy. Such as philosophy of action, moral philosophy, philosophy of causation, political philosophy, philosophy of mind and philosophy of law and such as. As well as in many research areas outside of philosophy. Examples are psychology of emotion, of motivation, of education and learning, of tactual perception, of attention; evolutionary psychology; classical, neoclassical, welfare, labor, institutional, behavioral economics; exercise physiology; sport sciences; biomechanics; sociology; legal studies; ethology (Massin, 2017). Several studies have found effort to be a mediator between motivation and academic performance (Atkinson, as cited in Tella, 2007; Elliot, McGregor, & Gable, 1999; Schwinger, Steinmayr, & Spinath, 2009; Faser & Killen, 2005).

## **Hypotheses and Conceptual Framework**

### ***Impact of students' motivation on learning effectiveness***

Recent research has shown that individual motivation plays a crucial role in the effectiveness of student learning. Following these researches, researcher found a positive association between intrinsic motivation and learning effectiveness and a negative association between extrinsic motivation and learning effectiveness. Zaccone and Pedrini (2019) mentioned that intrinsic motivation has a positive impact on learning effectiveness because it provides a personal commitment. Previous studies have found out that student with high intrinsic motivation and low extrinsic motivation display better learning outcomes than other students (Vansteenkiste et al., 2009). Motivation increases the speed of work, and a person is doing everything to achieve their goal. It provides energy and learner achieve the task because she has a direction (Rehman & Haider, 2013). Having considered all these facts, it could be hypothesized that,

### **H1-There is a significant impact of Students' motivation on Learning Effectiveness**

#### ***Impact of student's motivation on effort***

Mediation refers to an internal response in an individual to a stimulus that causes them to act in a certain way (Woodworth, as cited in Baron & Kenny, 1986). In this research, effort is a mediator. Significant relationships between motivation and effort were also found (Davis et al., 2006). Goodman et al. (2011) mentioned that students' motivation positively impact on the effort. This research indicated that students who lack motivation put in less effort and also students who high motivation put in high effort. Additionally, a multiple regression analysis of the data indicated that intrinsic motivation is the predictor of academic performance, followed by effort. Hence it could be hypothesized that,

### **H2-There is a significant impact of Students' motivation on effort**

#### ***Impact of effort on learning effectiveness***

A certain amount of effort has to be exerted to reach the desired performance level (Grabe, 1979). Some studies have shown that a positive relationship exists between effort and learning

effectiveness, yet there have been mixed results with regard to this relationship (Natriello & McDill, 1986). A relatively good measure of student effort appears to be time spent on assignments (Natriello & McDill, 1986). The amount of time spent on homework and class attendance was found to have a positive effect on student learning effectiveness. Goodman, et al., 2011 found that students' effort is a most important to achieving high learning outcomes. The students have a high effort; they can achieve higher learning effectiveness than students who have low effort. Hence it could be hypothesized that,

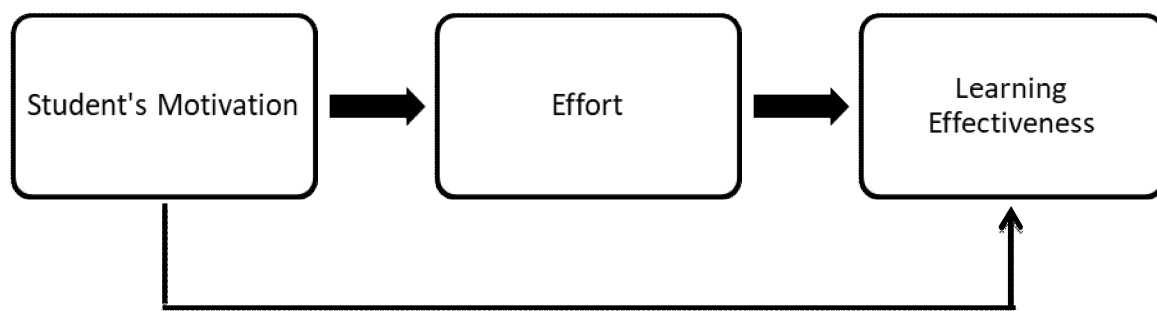
### **H3-There is a significant impact of effort on Learning Effectiveness**

#### ***Indirect impact of students' motivation on learning effectiveness***

Several studies have found effort to be a mediator between motivation and academic performance (Atkinson, as cited in Tella, 2007; Grabe, 1979; Fraser & Killen, 1995). Goodman, et al. 2011 found that effort is partially mediate the relationship between intrinsic motivation and learning effectiveness. The results imply that students, who are generally intrinsically motivated, have an inclination to apply effort and thus perform well academically. Literature supports the view that although achievement motivation has an impact on learning effectiveness, a certain amount of effort has to be exerted in order to reach the desired outcome (Grabe, 1979; Sikhwari, 2008). Effort is perceived to be an important factor for high academic performance by those who have strong achievement motivation (Atkinson, as cited in Tella, 2007). Thus, it could be hypothesized that,

### **H4: Students' motivation has significant impact on Learning Effectiveness through Effort**

The relationships discussed above are graphically represented in Figure No 1.



**Figure 01. Conceptual Framework**

## **Methodology**

This study is a quantitative study which tries to find out the solution for the research problem of “Impact of students' motivation on learning effectiveness of undergraduates in Sri Lankan state universities”. The current study has focused on testing the formulated hypotheses and the established association in the research model that would be considered as explanatory research. Current study is concerned with the survey strategy which involves deductive approach.

Quantitative data were gathered through standard questionnaire from selected sample which has met the accepted standards of reliability and validity in its original scales.

Measurement scales of three variables in the research model were adopted from previous researches & discussed in coming sub section in details. The dependent variable; learning effectiveness was assessed using the items scale (8 items) suggested by Analyzing the relevance of peer relationships, learning motivation, and learning effectiveness developed by Jui-Che Tu and Ku-Hsi Chu (2020). Respondents were required to mention their level of agreement for the statements given on a five-point Likert scale fixed at 1 = strongly disagree and 5 = strongly agree. The independent variable: students' motivation was assessed as a multi-dimensional construct adopting the "The University Student Motivation and Satisfaction Questionnaire version 2 (TUSMSQ2)" measurement scale of Neill (2004). The total number of 10 items anchored on a five-point Likert scale (1= very false and 5= very true) were used under two dimensions: Self-exploration-05 items; Altruism-05 items. The mediator: effort was assessed using the items scale (9 items) suggested by SESQ developed by See Lam and Jimerson (2008). Respondents were required to mention their level of agreement for the statements given on a five-point Likert scale fixed at 1 = never and 5 = always.

## **Data Analysis and Results**

Quantitative data of research findings of the researcher evaluated and analyzed using 'Software package for social science (SPSS statistic 23.0). Next, researcher use the descriptive statistics for analyzing data and outcomes of this descriptive statistics such as means, standard deviation was presented in table format. And researcher run the reliability and validity test, correlation, regression and find out the adequacy by using SPSS for analyzing the data collected of the study. The researcher applied a cross sectional survey to collect the data using questionnaire. The population of the study is undergraduates in the State Universities in Sri Lanka. According to the Mogan table, the sample size of this study is 375 undergraduates in the University of Kelaniya in Sri Lanka. To collect the primary data from respondents, researcher distributes 250 questionnaires among undergraduates via e-mails. The author distributes google forms in online platforms to collect primary data and get back 210 google forms from respondents.

Data screening and preliminary descriptive analysis were conducted using SPSS (version 23.0). Demographic data comprised with current academic year in the university, lecture attendance, age and gender. Those variables will be used only to describe the composition and characteristics of the sample used in the study. Out of the 210 respondents, 7.1% respondents are recorded as first year, 18.1% respondents are recorded as second year, 24.3% respondents are recorded as third year and 50.5% respondents are recorded as fourth year. The total sample gender wise comprised of around 27.1 % female and 72.9% male. 17.1% of respondents are in the age group of 20-22 years and 74.8 % of respondents are in the age group of 23-25 years and 8.1 % of respondents are in 26-28 years. According to the lecture attendance 71.4% respondents' lecture attendance is good, 25.2% respondents' lecture attendance is fair and 3.3% respondents' lecture attendance is poor.

### ***Measurement Model***

The measurement model was tested with the intention of determining the validity and reliability of the measures utilized to symbolize each construct. Sampling adequacy and the sphericity were ensured through the Kaiser Meyer Olkin (KMO) measure and Bartlett’s Test respectively. As the KMO coefficient is greater than 0.7 for both variables and the Sig. value is less than 0.05, statistically it is claimed that the study sample of observations is adequate enough to proceed with explanatory factor analysis. And also to ensure the reliability measurements in used scales or the questionnaire internal consistency statistics were used.

**Table 01. Summary of validity and reliability statistics table**

<b>Variables</b>	<b>No. of Items</b>	<b>Cronbach's Alpha</b>	<b>KMO</b>	<b>Sig.</b>
Learning Effectiveness	8	0.894	0.902	0.000
Students' Motivation	10	0.939	0.939	0.000
Effort	9	0.877	0.880	0.000

According to the above table no 01 the measures adopted in assessing Students' Motivation and Learning Effectiveness proved to be reliable for the context of the current study. All the variables exceeded the acceptable standard of reliability of 0.7. The results of Cronbach’s Alpha test for Students' Motivation and Learning Effectiveness and also Effort, which suggests that the internal reliability of each instrument is satisfactory. All the instruments had a high degree of internal consistency reliability. For accepting sample size to do factor analysis, KMO statistics should be greater than 0.7, sig value should be less than 0.05 and more than 100 respectively. According to above details the results indicate that sufficient correlation exists among the variable to proceed with this study sampling adequacy is significant.

### ***Structural Model***

The objective of carrying out structural model is to identify the Pearson correlations coefficient which was computed for students’ motivation with learning effectiveness to assess the strength of the association. Correlation analysis was done between learning effectiveness and students’ motivation. And it was found that, a positive correlation between students’ motivation and learning effectiveness ( $r = 0.353$ ). And the significant value is below 0.01 at a 99% confidence interval. Hence, students’ motivation is significantly correlated with learning effectiveness.

Linear regression analysis was used to test the hypotheses advanced for one variable's impact on another variable. According to that, linear regression was done to test the hypotheses of the current study.

### **Hypothesis test 01**

(H1-There is a significant impact of students’ motivation on learning effectiveness)

**Table 02. Regression Analysis Results-Model Summary**

<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Std. Error of the Estimate</b>	<b>Sig.</b>
1	.353a	0.125	0.49784	.000



Table 02 depicted the R and R Square values of the computed research model. The R-value represents the sample correlation is 0.353, which indicates a positive correlation. According to the model summary R square is 0.125. Accordingly, it can be concluded that students' motivation has 12.5 % impact on the learning effectiveness. And also the sig value is 0.000 which is less than the level of significant, the impact is significant and there is enough evidence to accept the H1.

### Hypothesis test 02

(H2-There is a significant impact of students' motivation on effort)

**Table 03.Regression Analysis Results-Model Summary**

<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Std. Error of the Estimate</b>	<b>Sig.</b>
1	.465a	0.216	0.56142	.000

Table 03 depicted the R and R Square values of the computed research model. The R-value represents the sample correlation is 0.465, which indicates a positive correlation. According to the model summary R square is 0.216. Accordingly, it can conclude that of students' motivation has 21.6% impact of on the effort. And also the sig value is 0.000 which is less than the level of significant, the impact is significant and there is enough evidence to accept the H2.

### Hypothesis test 03

(H3-There is a significant impact of effort on learning effectiveness)

**Table 04.Regression Analysis Results-Model Summary**

<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Std. Error of the Estimate</b>	<b>Sig.</b>
1	.420a	0.177	0.48285	.000

Table 04 depicted the R and R Square values of the computed research model. The R-value represents the sample correlation is 0.420, which indicates a positive correlation. According to the model summary R square is 0.177. Accordingly, it can conclude that of effort has 17.7% impact of on the learning effectiveness. And also the sig value is 0.000 which is less than the level of significant, the impact is significant and there is enough evidence to accept the H2.

(H4: Students' motivation has significant impact on learning effectiveness through effort)

Test the hypothesis advanced for the mediation role of effort on the impact of Students' motivation on learning effectiveness. Here, the researcher used the Sobel test to generate the results.

## Hypothesis test 04

**Table 05. Sober Test's Result**

Input:		Test statistic:	Std. Error:	p-value:
a	.275	Sobel test: 3.51886456	0.02141316	0.0004334
b	.274	Aroian test: 3.4846287	0.02162354	0.00049282
s <sub>a</sub>	.051	Goodman test: 3.55412975	0.02120069	0.00037923
s <sub>b</sub>	.059	<input type="button" value="Reset all"/>	<input type="button" value="Calculate"/>	

According to the calculation results, the Sobel test's test statistic is 3.51, with the associate p-value is 0.000, which is less than 0.05. thus, the mediation effect of effort is statistically significant. And effort found to be a partial mediator.

## Discussion of the Findings

In the current study, the general objective would be to identify the impact of students' motivation on learning effectiveness. Few scholars studying the relationship between students' motivation and learning effectiveness found different results given in different subjects and industries. Here are the overall analysis results; the researcher can conclude a significant positive moderate relationship, whereas the significant positive impact of students' motivation on learning effectiveness.

According to the correlation analysis, the study's first hypothesis shows significant positive relationship between students' motivation and learning effectiveness. Afzal, Ali, and Khan (2010) study found positive and mutually causal relationship between student's motivation and learning effectiveness. The sample of 342 undergraduates studying in different universities of Pakistan was selected. This relationship is reciprocal, meaning that more motivated students perform better and student who perform better become more motivated. Students' who are intrinsically motivated take up tasks or achieve good academic results for their own interest and for their own learning. These types of students are truly interested in learning and in achieving high goals. This shows in their overall consistent performance. Zaccone and Pedrini (2019) mentioned that intrinsic motivation has a positive impact on learning effectiveness because it provides a personal commitment. And also Haider (2015) Extrinsic motivation has less positive impact on learning effectiveness of students' than intrinsic motivation. The data was collected from 120 students from the three different departments of The Islamia University of Bahawalpur. Means the intrinsically motivated students performs well than the extrinsically motivated students. Finally, they found that motivation has a positive impact on learning effectiveness. Some of which has moderate, and some has low relation with motivation. According to the current study results, students' motivation positively impacts on learning effectiveness of undergraduates. It shows a 12.5% mediation impact.

The current study found effort to partially mediate the relationship between intrinsic motivation and learning effectiveness. Goodman et al. (2011) mentioned that students' motivation positively impacts on the effort. This research indicated that students who lack motivation put in less effort

and also students who high motivation put in high effort. In this research study, the regression analysis confirmed a significant positive relationship between students' motivation and on learning effectiveness. It shows a 21.6 % mediation impact.

A certain amount of effort has to be exerted to reach the desired performance level (Atkinson, as cited in Tella, 2007; Grabe, 1979). The students have a high effort; they can achieve higher learning effectiveness than students who have low effort. Effort is perceived to be an most important factor for high learning effectiveness by those who have strong achievement motivation (Atkinson, as cited in Tella, 2007). As a result, generated from the current study, there is a significant positive relationship between effort and learning effectiveness in the Sri Lankan context; also, it recorded significant impact, which is 17.7%.

Goodman et al. (2011) found that learning effectiveness is affected significantly and almost equally by both intrinsic motivation and effort. It can be concluded that intrinsic motivation and effort, in this sample, have an approximately equal predictive strength on learning effectiveness. The results imply that students, who are generally intrinsically motivated, have an inclination to apply effort and therefore perform well academically. Literature supports the view that although achievement motivation has an impact on learning effectiveness, a certain amount of effort has to be exerted in order to reach the desired outcome (Grabe, 1979; Sikhwari, 2007). According to the current study results, effort significantly mediates the impact of students' motivation on learning effectiveness.

## **Theoretical and Practical Implications**

The researcher found that the students' motivation was the one of the main factor that affects to the learning effectiveness. Students who are not motivated will not learn effectively. In terms of the practical implications of the current study an increased focus on the enhancement of students' motivation and effort levels can possibly positively affect students' learning effectiveness. The study has implications for university administrators, students and academic staff to identify students' motivation on learning effectiveness. If students have lower effort or motivation, it will directly affect their learning effectiveness negatively

University administration should address intrinsic and extrinsic motivations as separate motives. We can conclude that educational settings should spend the effort to increase students' intrinsic motivation since it would lead to a higher level of learning effectiveness. At a practical level, it means that university administration should prepare the ideal conditions, policies for improving intrinsic motivation of undergraduates. Furthermore, they can organize many events for improving intrinsic motivation of undergraduates. It directly impacts to the students for improving their learning effectiveness. An approach of this kind can enhance undergraduates' performance which can enhance student quality of university programs. Educational institutions would benefit by identifying the key contemporary motivational drivers amongst their scholars and use this information to improve and augment their current educational context.

Apparently, the motivation is a key factor in the success of students at all stages of their education, and educators (lecturers/teachers) should play a pivotal role in providing and encouraging that motivation in their students. Of course, that's easier said than done, as all

students are motivated differently and it takes time and a lot of effort to learn to get a classroom full of students enthusiastic about learning, working hard, and pushing themselves to excel. Moreover, students can use this information to improve and augment their current educational context. The parents as well as the government should engage in programs that can motivate the students to improve their learning effectiveness. By providing adequate facilities for the students to improve their motivation, the university can satisfy students and ultimately the society able to receive quality, skillful and effective undergraduate from the university premises.

## **Limitations**

The researcher found some limitations regarding the study. One of Major imitation was the population that considered to the study. The population was narrow down to undergraduates in the University of Kelaniya as the researcher's convenience. It is the small sample. Not consider other state universities in Sri Lanka. Therefore, the data and findings may not be representative of the completely Sri Lankan context.

Another major limitation was the difficulties in collecting data due to the prevailing situation of Sri Lanka. Hence, the sample had to be limited to the 210 instead of 375 samples according to the Gaskin (2014). Because of that, the generalization of the study findings and results may be questioned to the researcher. The researcher only considers one variable that are influencing the undergraduate's learning effectiveness. But there were many more factors affecting undergraduate's learning effectiveness in the extant literature. Furthermore, students' motivation is inadequate when assessing the undergraduate's learning effectiveness. Motivation has a main two parts. First one is Intrinsic Motivation. Second one is Extrinsic Motivation. But in this research only consider intrinsic motivation. It is another major limitation.

## **Directions for Future Research**

For future researchers can consider more oversized sample than current study to get a better outcome. When consider the bigger sample than that, future researchers can include other national universities and private campuses SLIIT, SLIAT, Vocational Training Institutes. By adding other institutes, future researchers can obtain more significant results on this theme.

A recommendation for future study is that effort be used as an independent variable. The results of the current study found that only intrinsic motivation affect learning effectiveness. Future researchers can consider both of intrinsic and extrinsic motivation. In this study, the researcher considers only one variable to assess the student's learning effectiveness. But in the extant literature mentioned, many variables influence the student's learning effectiveness. Future researchers can consider those variables for further analysis purposes. The current study considers only the undergraduate's learning effectiveness. But future researchers can research that topic by assessing the academic capabilities of the undergraduates in the border manner. Moreover, most of the higher education measure student's effectiveness by referring to a variety of criteria. In that case, by using those criteria, future researchers can assess the undergraduates' learning effectiveness.

## Conclusion

The current research was initiated to assess the impact of students' motivation on learning effectiveness. Accordingly, the researcher developed the hypotheses to achieve the present objectives based on the literature. Hence, the researcher randomly selected sample from University of Kelaniya in Sri Lanka. Primary data were collected using the standard questionnaire as the google form via online methods. Furthermore, the deductive approach was predominantly applied, and four hypotheses were advanced to test Study results. The researcher analyzed the data set using the SPSS package based on the two hundred and ten responses. The researcher used the correlation test to identify the relationship between variables and regression analysis to prove the impact of variables on each other. Study the impact of mediating effect use Sobel test for mediation analysis. As the results of the analysis, all hypotheses were accepted.

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