



Recommendations for Changes in Education Practice in Sociology for Students

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ABSTRACT

The fundamental subject behind various professions is education beliefs. Both learning and teaching are complex tasks. An effective communication between the student and the teacher is essential to implement these tasks. A proper language, symbolism and technical vocabulary is essential for realizing the basics of instructions in Sociology. There are many difficulties faced by the students in learning Sociology such as; complexities with abstract direction and time concepts, mistakes like recalling, reading and writing numbers, reversals, omissions, transpositions, substitutions and additions. This paper of research has been designed to identify the existing difficulties faced by the students in learning Sociology and recommend some solutions and changes in the education practice, which could be made in Sociology teaching for the students. The research study encapsulates a survey, which comprise of 14 teachers of Sociology and 200 students. Both open-ended and closed ended questions were present in the questionnaire, which was designed for the proposed research. Some of the common difficulties encountered by the students in learning Sociology is identified in the present scenario and also the perceptions of the teachers about the mathematical difficulties faced by students were identified and recommendations were made finally, which were contemplated on the learning strategies and the beliefs of the students.

Keywords: education, strategy, difficulties, beliefs etc.

INTRODUCTION

Mathematical learning and teaching need communication on sides of both the students and the teachers. Mathematical language comprises of learning on making and sharing meanings of Sociology utilizing appropriate contextual language that is higher than responding and recognizing the isolation words (Mulwa, 2015). Communication problems in Sociology also arise out of differing languages of the students and the teachers. It is an important point to discover the reasons behind the low performance of the students in Sociology (Jiromaru et.al, 2015). Discovering the ways, where the mathematical learning complexities in students are essential to suggest recommendations for mathematical educational development of students. There is a need for exploring a proper Sociology education system to overcome the mathematical learning complexities by students than guiding them with those difficulties (Scherer et.al, 2017). The learning in Sociology is associated with problem solving or principle

learning or concept learning. Cognitive effort and activity is essential on the part of the students, for processing higher order learning. A high cognitive learning process is essential in mathematical learning as this learning need cognitive processes that are abstract in nature and are related to each other in the processes and content of Sociology. There are three essential factors, which have an influence on the mathematical learning such as individual factors, instructional factors and demographic factors. The educational level of parents, gender etc are some demographic factors influencing mathematical learning. Instructional techniques and strategies etc are some instructional factors and self-learning, arithmetic ability, concentration or motivation etc defines the individual factors, which influence the Sociology learning.

The proposed paper is aimed at exploring the factors influencing mathematical learning, the problems encountered by students in mathematical learning, the perceptions of teachers regarding the difficulties faced by the students in learning Sociology and finally some recommendations are suggested for education practice in mathematical learning for the student's learning Sociology.

RELATED WORKS

(Tuncay Saritas and Omur Akdemir 2009) identified the factors impacting students' Sociology achievement for a better instructional design. Opinions of the students in the Sociology department were collected. The results of their identification indicated that the instructional methods and strategies, concentration or motivation of teachers and their mathematical competency were the three factors that influence the design decisions in Sociology. Their study recommends for creation of alternative teaching and innovative learning strategies for an efficient mathematical education.

(Mohamed Al-Agili et.al 2012) identified the factors that influence the achievement of the students in Sociology by conducting research on the students in Libya. The results of their analysis indicate that in Sociology, the attitude of the students and the attribution of the teachers were the lowest and highest factors respectively that influences the achievement of the students in Sociology. Their study help the teachers for identifying the gaps that exists in their teaching methodology and helps the educational institutions for preparing the programs in educational development, especially in enhancing the effectiveness of teaching.

(Kiwanuka et.al 2015) identified the factors influencing the achievement of Sociology of first year students in a school of Central Uganda. The Ugandan Students' achievement was measured on terms of school and classroom level. The conclusions of the study highlighted that out of the considered variables for their research, parental support, class climate, classroom assessment, perceptions of the students about Sociology achievement, peer influence, gender and socio-economic status were the striking factors, which influences the achievement of Sociology students. However, their research had some drawbacks. Inaccurate information was provided regarding the Sociology teaching quality measurement. Also the effectiveness of the classroom and students were less due to the insufficiency of the measured variables at the school and classroom level. The study recommends for performance assessment for girls and boys in diverse mathematical areas.

(Sidabutar 2016) analyzed the efforts for enhancing mathematical learning score results as needed by lesson based and competency based curriculum of high school students. The objective of his research was to examine the impact of multiple innovated model of teaching for enhancing the achievement of the students in Sociology. The result of his analysis indicated that the teaching innovation with the use of web and social media were got as enhancing and effective student ability for understanding the mathematical concepts. The contextual teaching model of Sociology was found effective when compared to the conventional teaching model of Sociology. Significant differences were observed between the mathematical models in his study.

(Yeh et.al 2019) described the way of achieving interest and achievement in Sociology by designing a game contemplated learning environment known as Math Island. It is a construction game of management that encompasses mechanisms within the Sociology knowledge and curriculum. The results of the design incorporation indicated that the mathematical achievement of students increased in the word and calculation problems. The experimental group of students performed well in those problems when compared to the students of the control group employed in the study. Also a high interest was observed among the students in the design. But the design requires content difficulty, quantity and diversity.

(Trenholm and Peschke 2020) carried out a review on the communities' perceptions of practice of teaching online; Sociology for undergraduate students. The variations between the teaching communities are identified by elucidating the variations between modalities of teaching. Their review concluded that the new technological sophistication and mathematical abstractions made the construction of an effective and efficient online environment for learning Sociology. Their study concluded with the principles such as resisting of pedagogies that are dichotomizing and emulating the new technological qualities in the media.

METHODOLOGY

The research sample has 200 students of standard 10, where there are 98 boys and 102 girls and fifteen Sociology teachers, where 7 of them are male and 8 of them are female. The teachers have experience ranging from 2 to 25 years. The data about the students are gathered with the assistance of complexities in learning Sociology subjects, with a questionnaire based on this. The questionnaire designed for the research comprised of both open-ended and closed ended questions. The data about the teachers are gathered with another questionnaire designed for the same research. Thus, two questionnaire were designed for this research; one for gathering data about the students and the other for gathering data about the teachers. The questionnaire for gathering data about the teachers covers three eminent sections such as; learning environment, affective and cognitive control; complexities while teaching Sociology and finally the use of strategy and style of teaching Sociology. The students and teachers were given 45 minutes for responding to the questionnaire given for the research. Percentage analysis was employed to analyze the data for the research and the relationships between the perceptions of the students and teachers were analyzed for getting the results.

RESULTS

Initially, the perceptions of the teachers about the mathematical learning complexities of the students were examined. Of the provided possible reasons, which are associated with learning environment management and affective and cognitive learning by students, the teachers felt that absence of previous knowledge about Sociology and sufficient effort were the eminent reasons that lead to the complexity of mathematical learning by the students. 15 reasons, which were got out of the perceptions of the teachers regarding the Sociology learning complexities by the students, are listed in table 1.

Table 1: Reasons got out of perceptions of the teachers about mathematical learning and complexities by the students.

Sl. No.	Reasons for complexities of students in Sociology learning	Mean Value on 5-point scale
1	Complexity in varying questions in the mathematical forms.	4.71(0.94)
2	Absence of self efficacy.	4.64(0.94)
3	Complexity in identifying the principles of Sociology.	4.5(0.9)

4	Learning slowly the mathematical concepts.	4.5(0.9)
5	Do not have the ability to connect varying topics.	4.43(0.89)
6	Complexity in following the Sociology class.	4.43(0.89)
7	Absence of teamwork.	4.36(0.87)
8	Absence of time management.	4.36(0.87)
9	Complexity in understanding the mathematical questions.	4.36(0.87)
10	Lack of interest of the students in Sociology.	4.36(0.87)
11	Absence of mind in the classroom.	4.36(0.87)
12	Resistance to get assistance from friends or teachers.	3.81(0.76)
13	Absence of exiting mathematical knowledge.	3.13(0.63)
14	Absence of needed practice by the students.	3.36(0.67)
15	Inability to adapt to new technological learning.	3.30(0.66)

Many of the Sociology teachers feel that students are not making the needed efforts for learning Sociology with a proper time management and getting help for learning Sociology. The above factors are considered relevant as factors that lead to complexities in learning Sociology. On the perception of the teachers, in teaching Sociology, high number of students in a class, complexity in rapid understanding of mathematical concepts and absence of needed perquisites by the students are creating the teaching complexities in Sociology. The next part of the research explores about the perceptions of the students regarding their complexities in learning Sociology, complexity with efficacy beliefs associated with Sociology, students' perceptions on mathematical instructions given by the teachers, motivation and seeking help from others. Thus, the perceptions of the students regarding the difficulties in learning Sociology are analyzed under the above research themes.

The following figure indicates the perceptions of the teachers about mathematical learning and complexities by the students.



Figure 1 Perceptions of the teachers about mathematical learning and complexities faced by the students. Perceptions of the students regarding the complexities in learning Sociology

Table 2 represents the perceptions of the students regarding complexities in learning Sociology.

Sl. No.	Reasons for complexities in learning Sociology by students	% of response
1	Forgetting Sociology learning materials	52.1%
2	Rapidly forgetting mathematical formulae	21.2%
3	Less ability to learn	7.3%
4	Toughness of Sociology	11.2%
5	Complexity in understanding Sociology	8.2%

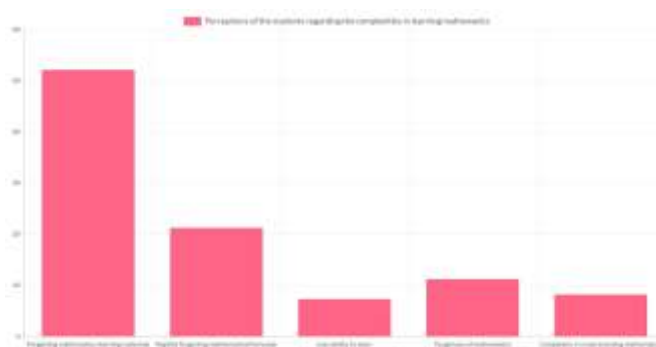


Figure 2 Perceptions of the students regarding the complexities in learning Sociology

Most of the students perceive mostly about forgetting of the Sociology learning materials (52.1%) as the striking reason for complexity in learning Sociology irrespective of the perceptions of the students regarding the toughness of Sociology. The other striking causes were observed as rapidly forgetting mathematical formulae (21.2%); absence of knowledge about the way of learning Sociology (7.3%); toughness of Sociology (11.2%) and complexity in understanding Sociology (8.2%), which is related to the toughness of the subject. Figure 2 represents the perceptions of the students regarding the complexities in learning Sociology.

Perceptions of the students regarding easiness in learning Sociology based on instructions given by the teachers

Table 3 indicates the reasons based on perceptions of the students regarding the easiness in learning Sociology.

Sl. No.	Reasons for easiness in learning Sociology by students	% of response
1	Learning Sociology is easy and also easy to understand.	25.81%
2	Quality instruction is given by the Sociology teachers.	17.19%
3	Practice makes Sociology learning easier.	33.56%
4	Instructions of teachers are essential in easing learning in Sociology.	23.45%

From the above mentioned reasons, many of the students perceive that practicing frequently on the mathematical problems, makes it an easier subject (33.56%). Some students feel that learning mathematic is easy and also easier to understand (25.81%). Most of the students perceive that quality mathematical instructions given by the teachers are essential in making the subject easier for learning (23.4%). Low response is observed on the perception of the students regarding the quality instruction given by their Sociology teachers (17.19%). Hence this area needs improvement. The following figure represents the reasons based on perceptions of the students regarding the easiness in learning Sociology.

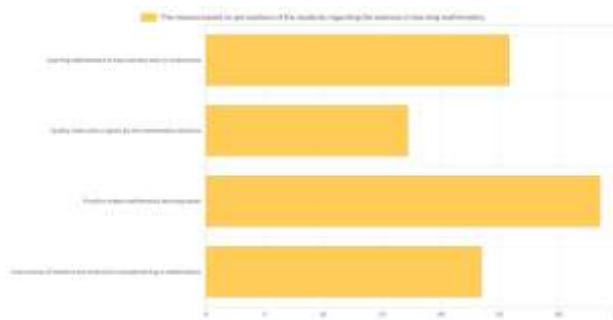


Figure 3 The reasons based on perceptions of the students regarding the easiness in learning Sociology Perceptions of the students about the gender and motivational beliefs

This section deals with the perceptions of the students about the gender and motivational beliefs associated with the high complexity in learning Sociology. Table 3 indicates the perceptions of the students about the gender associated with the high complexity in learning Sociology.

Table 3: Perceptions of the students about the gender associated with the high complexity in learning Sociology

Sl. No.	Gender	% of response
1	Male	64.4%
2	Female	35.5%

By taking into account, the gender of the respondents or the students, it was observed that the boys (64.4%) highly felt the complexity in learning Sociology, when compared to the girls (35.5%). Moreover, the perceptions of the students about their complexity in learning Sociology are related to the beliefs such as effort, interest, task value and self-efficacy.

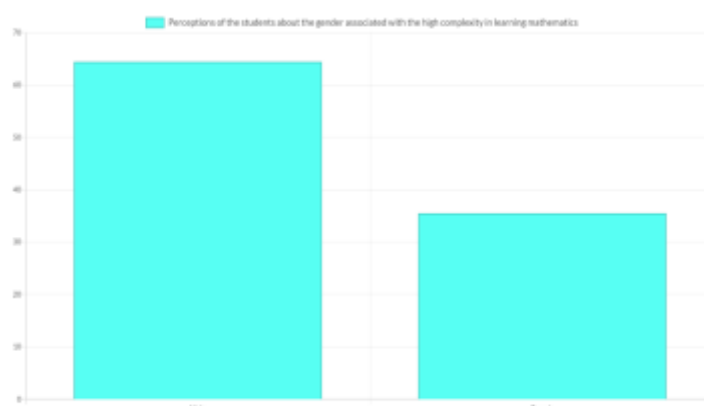


Figure 4 Perceptions of the students about the gender associated with the high complexity in learning Sociology

Table 4: Perceptions of the students about the motivational beliefs in learning Sociology

Sl. No.	Beliefs	% of response
1	Self-efficacy in practicing Sociology.	57.1
2	Valuing Sociology higher than other subjects.	15.2
3	Interest in learning Sociology.	10.6
4	Seeking mathematical assistance from others.	17.1

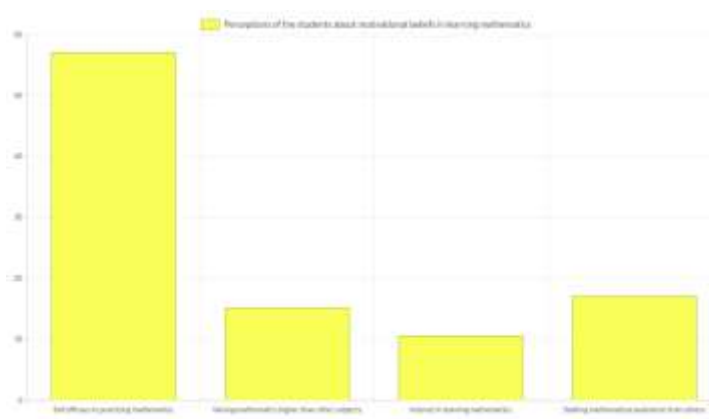


Figure 5 Perceptions of the students about the motivational beliefs in learning Sociology

It was observed from the research that the self-efficacy in practicing Sociology was higher for girls and lower for boys. The complexity in learning Sociology is higher when the self-efficacy for practicing Sociology is low. The students who consider Sociology as an easy subject was found to value Sociology higher than other subjects. Less interest in Sociology makes its learning a complex task. The students who consider Sociology as an easy subject feel free to get assistance about Sociology from others.

DISCUSSION

The perceptions of the students and the teachers, maps out the striking reason for Sociology being considered as a complex subject for students; is the absence of existing knowledge about Sociology. When the existing knowledge about Sociology is absent, it becomes complex and impossible for learning Sociology in the further classes. In the present scenario, the Sociology teachers perceive that it becomes complex for providing time to gain the existing knowledge about Sociology. They feel as worthless to instruct about newer contents of Sociology to the students lacking existing knowledge about Sociology or the students who do not know the basics about Sociology. The belief and confidence of the students in learning Sociology gradually decreases due to this. Thus, the teachers must spend some valuable time in creating awareness and perquisites regarding the learning strategy of the students. If the teachers fail to do so at this stage, then it leads to higher complexities of the students learning Sociology in their higher classes. This reduces the achievement of the students in learning Sociology in their higher classes. The basics of Sociology must be strengthened to the students for a better understanding. When the support of the teachers is larger, a better performance in Sociology would be observed on sides of the teachers. Many of the students believe that forgetting rapidly the learned materials as one among the striking reasons for absence of existing mathematical knowledge. Improper coding or lack of deep processing the learning material might be the reason for forgetting rapidly, the learned materials. Long term memory and deeper processing are promoted with strategies of deep learning. An integrated and rich knowledge structure is essential to be created by the students for remembering the learned material.

Recommendations

There must be some changes in the teaching strategies to help the students to understand Sociology. There are some teaching ways to help the students to understand Sociology better. An effective open conversation must be created at the beginning of the Sociology class, where the concentration of the students would be fully focused. Multiple representations must be utilized for introducing newer topics of Sociology to the students. These representations can be in the form of symbols, problem definition, picture or manipulative. The Sociology teachers must solve a single problem in multiple ways for a better understanding for the students. Communicating about the application of the mathematical problems in the real-world drives the students' interest in learning Sociology. The problems must be solved by the students with a proper reason, which must be explained by the students for determining their level of understanding on a particular problem. A new topic in Sociology must be preceded with the revision of the previous topic. The mathematical instructions must be developed in a way that minimizes the learning load. Meaningful concepts must be taught for a good memory and understanding. Deeper learning strategies must be instructed to the students such that it helps in enhancing memorization and understanding. The self-efficacy of the students must be tuned finely for increasing their practice. The students must be encouraged to develop their own curricular goals. This is important to trigger the effort in the students than their ability.

CONCLUSION

Present research reveals that the effectiveness of teaching by the teachers plays a vital role in making easier the Sociology learning. The teaching quality and interest of the students in learning Sociology plays a significant role in making Sociology easier to learn. The present research reveals that self-efficacy is absent in many students learning Sociology as this is an essential criterion defining the interest of the students to learn Sociology. The incapable feeling in a student makes him deal with complex mathematical problems. Self-practice in Sociology is lacked by many students and most of them prefer to memorize and repeat the instructions given in the classroom. The striking reason that was identified in the perception of the teachers regarding the complexities faced by the students in learning Sociology is the absence of needed effort made by the students and their self-efficacy in practicing Sociology. Absence of self-efficacy and interest were major reasons for less effort made by the students in learning Sociology. Thus, these two aspects must be enhanced for the better performance of the students in Sociology education.

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