

LEARNING DIFFICULTIES IN METALLURGY LESSON: CASE STUDY IN TECHNICAL INSTITUTE OF BABYLON

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ABSTRACT

The Metallurgy lesson considered one of the hardest lessons taught in the Department of Mechanics at the Technical Institute of Babylon, Due to the failure of many students in passing the first attempt. The primary reason for writing this research that the success rate for the last five years was approximately 20% which is the lowest percentage among all lessons. Therefore this study came to look at the problems encountered by students during their study of this lesson by taking the 2012-2013 academic year as a test sample of 50 students in the second stage to suggest the key reasons for this difficulty in learning. Suggestions are made on ways to minimize the learning difficulty problems based on understandings of attitudes and motivation as well as the psychological understandings of how learning takes place.

Keywords: Learning Difficulties, Metallurgy lesson

INTRODUCTION

Metallurgy is one of the most important branches of engineering materials, due to enter the metals in various industries, so the process of teaching students institutes are very important for their work then as technicians in factories that produce various types of materials engineering, where you must have knowledge of integrated types of metallic materials as well as knowledge of their physical, thermal, chemical and properties, in order to know the conditions for the manufacturing process (FTE, 2010). For these reasons, Metallurgy proves a difficult subject for many students (Black, Harrison, 2004).

At the beginning of any course, students start their study with a set of beliefs about the nature of learning and what they intend to achieve. These beliefs are derived from earlier school and learning experiences as well as their current goals and motives (Biggs and Moore, 1993). An understanding of how students learn can help teachers to devise effective strategies for teaching. This requires that research into the learning process is made accessible (Clow, 1998).

Students with severe learning difficulties (SLD) have significant intellectual or cognitive impairments. This has a major effect on their ability to participate in the curriculum without support (DFE, 2010). They may also have associated difficulties in mobility and coordination, communication and perception and the acquisition of self-help skills. Students with SLD will need support in all areas of the curriculum (SAP, 2012). They may also require teaching of self-help, independence and social skills. Some students may use sign and symbols but most will be able to hold simple conversations and gain some literacy skills (Muhsin, 2005). To facilitate the development of students' views of knowledge, students need to be supported at the appropriate level. A student, who strongly believes that there is only one correct answer, will find an exercise, which shows a multiplicity of possible interpretations confusing and unhelpful (Ayas and Demirbaş, 1997).

THE WORK

The experimental sample was taken of the second phase students in the Department of Mechanics and the 50 students were subjected to control in terms of their attention in the lesson and through their activities in the hall and whether they ask questions or not, which indicates the extent of absorption of the lesson. In addition, the focus was on the teaching method followed by the teacher during his explanation of the study and their suitability to the level of the students. And has also been a focus on reading method in which a student, you are daily or focuses the student to read the day before the exam.

The study was divided into two sections:

1. The first semester: gather information in order to identify and assess the problem where the information has been collected from students and observe their behaviour in the classroom in addition to determine the method of study for study and note the teacher during his explanation of the study and their own way of teaching.
2. Second semester: evaluation of the results of the first semester exam and submission of proposals to improve the performance of students and solve the problems that led to a reduction in their academic level.

For the impact of the curriculum has been neglected because it is something imposed. It is difficult to change because it comes from Ministry of Higher Education.

RESULTS AND DISCUSSION

By the results that have been obtained through the follow-up of students during the first semester found that there was a problem to the proportion (15%) of the students to the manner of the teacher in the presentation of the lesson if somewhat mysterious manner well commensurate with the level of all students. Also been observed that the proportion (45%) of the students do not read the lesson properly, where are focusing their studies immediately before the exam, so that it does not cover the information fully to lack of time, or if some of them read within the groups do not aim primarily the basis for the study, but it became clear to us that more than one in These totals are impaired scientific level.

There was also the proportion (30%) of the students suffer the problem of lack of attention in class because of the teacher's style, inadequate educational means, and also because some students are non-scientific. Finally we found during this study that the teaching method used in the lectures were incompetent to cause problems for the proportion (10%) of the students where education is the way the blackboard (see Figure 1). These problems, which we presented in turn led to be degraded success rate in the first semester where it was (22%), as shown in Figure 2.

After observing these problems has been to develop a set of solutions to them in the second semester, so we asked the teacher to change the way teaching and use the simple method in the presentation of information to suit the majority of the students so the proportion of the problem of method in teaching to the teacher (3%). It was also to give tips to students need to read daily and not to neglect the lecture and only be read immediately before the exam to become proportion of this problem (13%) only.

Also been added and other educational means are (data show) in addition to blackboard where the percentage of problem and a way to supply (1%) and that affected the attention of students in the classroom, where increased their attention and their problem decreased to (8%) (See Figure 3). So the success rate increased in the second semester (69%), as shown in Figure 2.

CONCLUSIONS

From the information obtained, we can conclude that the manner of the teacher has a significant impact on the extent of absorption of the student information as stipulated in most theories of learning and an important lesson was difficult as well as how to read for students with reading daily is the most successful and not rely on the reading before the exam directly. As well as for educational means big role in pulling the attention of the student during the lecture and increasing attention in the classroom.

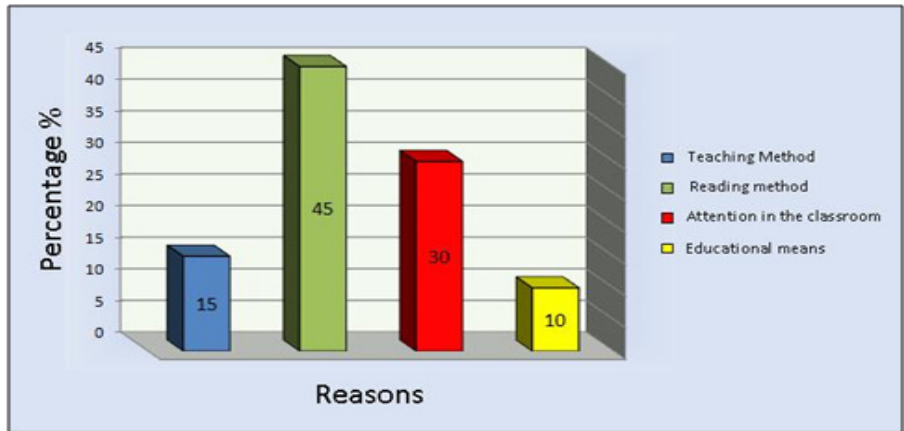


Figure 1. First semester

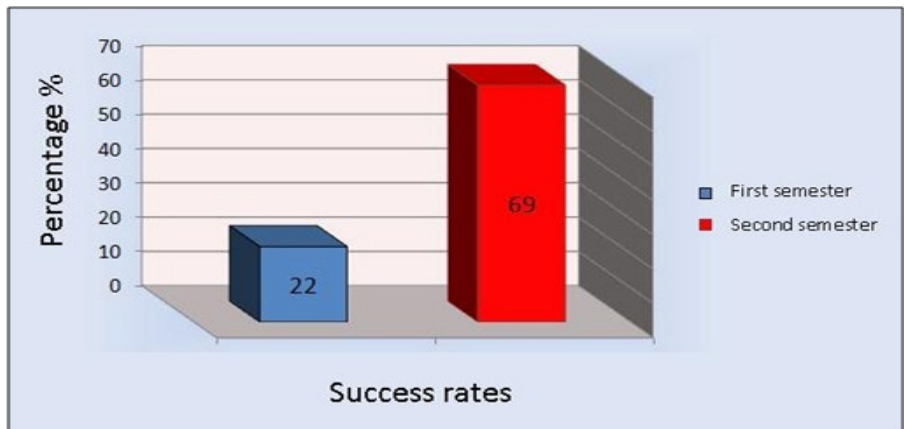


Figure 2. Success rates

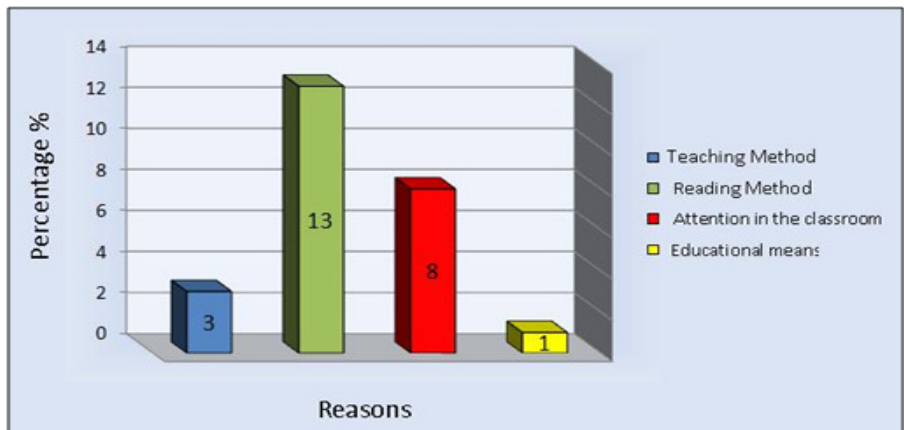


Figure 3. Second semester

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