

## Reinforcement Teaching-Learning Process by Using Improved Lecture Notes In Biology- A Case Study Based in A High School Class



### Education

**KEYWORDS :** Biology Teach, Student, Handout Material

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### ABSTRACT

*In this paper, the results of applying customized lecture notes on Biology is presented. Results of a study case developed in an public high school (located at Brazilian's Amazon Region) are discussed. The method allowed present the topics in an easy to learn form, helping the student to be acquainted to the field. By using the methodology, it is avoided present the topics exclusively in the standard formal way. The case study has been done with students of the 3<sup>o</sup> grade, in year 2014. The adopted dynamic has been based on reading and subsequent discussion of the selected topics. This allowed some important discussions about the themes, between the students and the professor. Students were able to explained their ideas and asking questions, based on their personal experiences and curiosities about the themes discussed. As a result, a considerable improvement on the student performance has been observed.*

### INTRODUCTION

Human beings are embedded on a context of a determined society. Because of this, it is need to assimilate sme moral, cultural, linguistic and other values. Such values may influence the way that a particular person interacts with other ones e the way his knowledge is built.

The education objective should, firstly, provides some conscience, allowing to perform benefic intervention in the reality and the society that they are embeded, adapting is being adapted by his own environment( Oliveira et al. 2012).

The actual difficulties, that the Brazilian teaching is passing provides several challenges to the teachers of basic disciplines such as Biology, for instance. I has been noted that country needs a deeper restructuring of its educational system, for the schools must form well prepared citizens, having open minds to new ideas. The educational actors must search for the development of such intellectual preparation, unleashing the creativity power of the student. For that, it is need, that the teachers and the students must cooperate in learning process. As a result, the students will be improved their potential and in their respective actuation area. Hamawaki and Pelegrini (2009) have argued that the school is not only an educational center, but a social, cultural and political center too.

The application of the discussed concepts in any subject is extremely important for the learning, because what is observed are the difficulties that learning process is passing, which need to pass in a way that facility the learning, in the way that discussed themes can involving reflecting what is been studied. Because of this, it is necessary to reinvent dynamics and efficient classes, because, it doesn't need so many budgets, like computers and digital accessories.

Some concepts, principles and tools can be find in different sources, but always following the same objective and trajectory: A better learning. And the knowledge to how to use that in the school context and involving students in that process, it will make all the difference. To elaborates didac-

ticism material as a tool that promotes the clearly, motivation and inclusion of the student in his learning trajectory.

Handout is made with a set of dates, a note of a book's margin or wrote, page or a set of pages that discusses about a subject abstract and/or explanations. The teacher can left his contribution after made the handout.

In this way, the objective with that work was to demonstrates the importance of the handout made with auxiliary tool in the learning teaching process.

### MATERIALS AND METHODS

This work was realized in the second semester of the year 2014, at the Escola Estadual Esther Virgolino, with 22 students of third year of the high school and biology's teacher. The material was made by the own teacher of the curricular component, had been used, by the made, gadgets, like computers, paper, ink and printer. The method that was adopted was: (i) In all classes, the students received a handout with the subject that will be discussed, it was did in the starting of the class; (ii) After, it was did an individual reading of the material for each student, and during the reading of the subject, it was explained by the teacher with the auxiliary of a white board, brush, eraser and data-show; (iii) In the end of the class, the students received a activity about the class subject to answer and to attach in their own notebook.

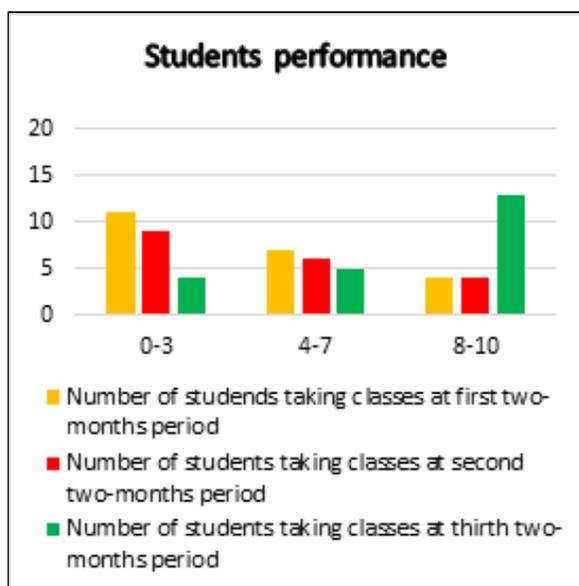
### RESULTS

It was observed that during the classes, the use of the handout and the class individual reading, enabled discussions about the subject mentioned and during the class, the students interact, integrating the class more, enabling the interest by the questions themes. In the classes, was observed a growing interest by the studied themes, in function of the dynamic proposed by the discussions.

This methodology permitted the students a more active participation, valuing the life experience of each case, referring to the studied biology topics. Many context examples

were provided by own students, based on the their own habitat.

The use of the proposed methodology conducted a qualitative and quantities improvement in the interests of the students by the biology subject. In the qualitative way, it was observed a high level of interest and student participation during the classes. For another point, the quantities point, it was observed that the embedded methodology enable to a progressive increase of the student's rates, leading to the increased of the class performance, as showed in the Figure 1. It can be observed, in the Figure 1, that before the application of this methodology (first two-month period) the performance of the class in the biology subject was weak, with the most of the rates between the interval [0,3] (in the 0 to 10 scale of rates). The class performance have a significantly improvement during the evaluation period, and it eas observed that, in the third two-month period, the most of the rates passed to a more high scale of rates level, between the [8, 10].



**Figure 1: Class performance in relation of the evaluations that were bimestrial applied in the 3<sup>o</sup> year of the high level.**

According to Oesterreich and Montoli (2010), the teacher need to break the traditional model, that is still present in many schools, and accept a behavior change, that the teacher is a mediator, and passed that in a more didacticism form, and not been the owner of the knowledge, because he has the right of doesn't know everything, became a collaborator with his own students, where passes a exist a change of dialogs and ideas, main characteristics of a significant learning.

Carneiro et al.( 2005), says the collaboration and the conjunt construction; a creative activity; a explored information, promoting a learning for the discover; a new student profile, a student actively building your own learning; the possibility to keep the individually through the tools that leading in consideration the individuals student's characteristics.

## CONCLUSION

With the developing of this work, it is concluded that the handout, although been a traditional teaching method, it can be of extremely importance to the learning when it was used in conjunct of the student's effort and the teacher mo-

tivation. That will awake the scientific curiosity, the observation capable, and the students interesting, improving the teaching quality. Another important point, observed as a result of the adopted practice, was a high increment in the student's participation, which, with consequence, possibilities to obtain a considerable increase in the performance of the students's rates.

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