Interactivity Technologies to Improve the Learning in Classrooms Through the Cloud

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ABSTRACT

In this paper, the authors present a cloud system that incorporate tools developed in HTML5 and JQuery technologies, which are offered to professors and students in the development of a teaching methodology called flipped classroom, where the theoretical content is usually delivered by video files and self-assessment tools that students can display from home. This system aims to eliminate the technical limitations to facilitate communication and a real learning process by monitoring and evaluating the students and teachers. Highlighting main functions, the authors do find: the wizard of quality content, visual interactive wizard, the audio note as tool for audio records, and finally the graphical evaluator that provides a graphical and intuitive result, providing a clear image of the theoretical and practical difficulties that students experience.

KEYWORDS

1. INTRODUCTION

New technologies are achieving much prominence in society, but also in education. It is not yet clear whether they will be positive and effective, or instead will harm both students and teachers. How does this affect education?

The illustrious American philosopher and linguist Noam Chomsky reflected on this section, the impact of new technologies in education. He believes that to make good use of them, the first thing, is that the student should have a good frame of reference, which must move, look properly and know how to differentiate the true and correct information. For this, you need someone to teach you all this, and who better than his teacher. He says that having the internet so much information all that can happen if the student does not follow the above steps is harm, because it can store data in different objectives pages but both are completely out of touch. This aspect is where the professor, who can direct his students on the right track, teach good search methodology, indicating them good quality pages, etc. But for the teacher to have a positive and effective way, students have to manage new technologies fluently (Bartolomé, 2000).

Education, like almost every other area of our society has evolved by leaps and bounds in recent years. Traditional teaching techniques, based mainly on explaining the professor and students taking notes can still be useful at times, but today education revolves more around encouraging students to arouse their curiosity and desire to learn.

As a result of this trend, have emerged new teaching techniques. Many of these teaching techniques are not new. However, the use of new technologies available to us today can give a new approach to extend in our classrooms.

Teaching and learning techniques are organized by the teacher network, through which he seeks to achieve his objective. They are mediations in the end. As mediation, it has behind a great symbolic charge on the personal history of teachers: their own social formation, their family values, their language and their academic training also affects the own teacher learning experience in the classroom. The techniques of learning and teaching practice are in constant liaison with the personal and professional skills of teachers, without neglecting other elements such as group characteristics, physical conditions of the classroom, work content and time (Davini, 2008).

One of the teaching techniques that we will study, is called Flipped classroom (Tucker, 2012), thus, we will try to understand and include a number of interactive elements based on a cloud based system, through which the student and the teacher increase their communication and provide elements for a better evaluation of the content and the students assessment with the information collected through this system.

2. TEACHING METHODS: STATE OF ART

Education, like almost every other area of our society has evolved by leaps and bounds in recent years. Traditional teaching techniques, based mainly on the professor explaining and students taking notes, can still be useful at times, but today education revolves more around encouraging students to arouse their curiosity and desire to learn. Following this trend has emerged, therefore, new teaching techniques. Many of these teaching techniques are not new. However, the use of new technologies available to us today can give a new approach, to extend in our classrooms.

The educational methods result from the direct application of teaching. However, each teacher adapts the method the group and the level of the students. There is a global classification of teaching methods according to Neciri, I. (1979) in his book "Towards the dynamic general didactics", described this classification as shown below:

1. **According to the form of reasoning**:
   a. **Deductive methods** (such as lectures, for example) are sorted and consist of a series of linked arguments made by the teacher. These methods are based mainly in the speech teacher. Applications or particular cases derived from the statements made by the teacher.
   b. **Inductive methods** (an example would be the method of business games) are participatorier since the teacher assumes the role of facilitator and has to get students to learn from their own interaction. These methods are based mainly on action, as opposed to deductive based, as noted above, in the words of the teacher. Unlike deductive methods, inductive start from particular observations to establish general rules or statements.
   c. **Analog Methods:** Data are presented in order to make comparisons leading to a conclusion by similarity
2. Depending on the activity of students:
   a. **Passive Methods:** The burden of the teaching falls on the teacher.
   b. **Active Methods:** The burdens of the teaching fall on the students and, therefore, are eminently participatory.

   Regarding student work:

3. **Individual Work:** Assigned tasks to be solved by students in isolation.
4. Collective work: assigned tasks to be solved in groups by students.

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