MEANINGFUL LEARNING IN THE PRACTICE

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Abstract: This work shows the key variables to put into practice the meaningful learning in the classroom. Some aspects of the research to take into account are: open work, motivation, context, creativity, concept map and curricular adaptation. It also shows the benefits it has for teachers and the improvement of students in both aspects behavioural and those related to good academic results.

1   Meaningful learning variables.

It is proved that Novak's concept map is very good for the learning process provided the following variables are considered.

The variables to put the meaningful learning into practice are:

- Open work: to be able to work with different students.
- Motivation: to improve the classroom atmosphere and make the students be interested in the activities.
- Environment: to make a connection between what the students learn with what surrounds them.
- Creativity: to foster students' imagination and intelligence.
- Concept map: to connect concepts.
- Curricular adaptation: for the students with educational needs.

1.1   Open work

Open work fosters the meaningful learning making students more autonomous in the learning process.
To make students do open tasks and foster their self learning.

1.2   Motivation

Motivation is basic for the learning process and to keep a high level of work in the classroom.
In order to make learning positive, motivation must be part of the task, apart from other external motivations, with the adult consent. To use attractive and different materials is an incentive way to learn. Motivation is directly related to learning.
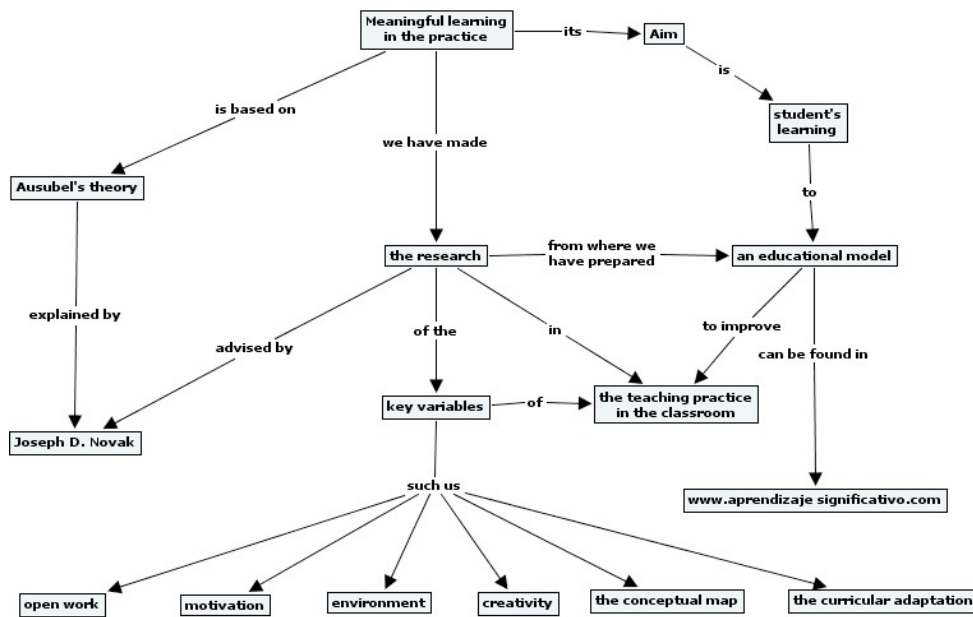
1.3 The environment

Students are more involved in the activities if the tasks are related to their daily life improving their participation in the learning process.

1.4 Creativity

Creativity is the field of imagination, inventiveness, divergence. Creativity is related to intelligence; being a combination, an association and a transformation of known elements to get a good new original result. Creativity makes it possible a great variety of ways to solve the same problem. To use the teacher's imagination and inventiveness makes students get new and divergent results.

1.5 The concept map

Concept maps are a powerful resource when learning concepts and they make concepts clear in terms of definition and relation. It is useful during and after the learning experience. Learning in a meaningful and connected way is fostered. Concept maps give meaning to the worked concepts. It manages to give enough connection to make solid structures of meaningful learning knowledge. (Novak 1984, Cañas 2000, González 2008).

1.6   Curricular adaptation

Students with educational needs can be benefit with the use of the concept map.
We can work the higher levels of the map with these students and both the higher and lower levels with the more advanced.

2   Advantages: heterogeneity and discipline

- Teachers are satisfied with the work done.
- Positive students' response.
- Students are devoted to work and learning.
- Discipline problems are reduced.
- It allows working with different kinds of students.
- All students can learn.
- Good learning results.
- Teachers are advisors of the educational activities.

3   Meaningful Learning Seminar

A Seminar with educators of different subjects and levels is periodically carried out at the Institut de Ciències de l'Educació in the Universitat de les Illes Balears. Its purpose consists in achieving meaningful learning experiences in the classroom. Teachers are required to learn how to control the principles of meaningful learning and put them into practice. They just have to advise learners on the production of their work and good results will be obtained.

During the Seminar teachers manage to control the principles of meaningful learning step by step. They realize that good results are obtained when a motivating open work is developed. In other words, schoolwork must be related to the environment, must involve high levels of creativity and significance to engage students in meaningful learning. Thus it becomes an exciting activity for both teachers and learners.

4   Training courses and seminars

We are running training courses and seminars in order to encourage teachers to use concept mapping, meaningful learning and collaborative work. These courses take place in several high schools and universities, such as the Institut de Ciències de l'Educació (ICE) of the Universitat de les Illes Balears, in the Associació de Mestres Rosa Sensat in Barcelona, in the Universitat de Girona, and in Secondary Schools from Menorca, Tenerife and Palma de Mallorca.

We organize talks in which trainee teachers have free entrance. Prior to participate in debates, students read our ebook during their academic year at the Universitat de les Illes Balears (Departament de les Ciències de l'Educació i Didàctiques específiques). They also elaborate works for a subject called General Didactics, led by professor Jerma Payeras.

Our ebook is freely available

As a result of that Seminar an ebook entitled "El aprendizaje significativo en la práctica. Cómo hacer el aprendizaje significativo en el aula" has been published. That ebook is freely available on the Internet www.aprendizajesignificativo.com (Ballester, 2002)

In March 2008 our ebook has already received 1,000.000 visits on its web page. At the moment we are working on its translation into English, which is expected to appear in. January 2009. That English book will be entitled "Meaningful learning experiences. How to do meaningful learning in the classroom ", and it will be freely available on the Internet.

5 The CD-ROM about Meaningful Learning Experiences promoted by the Canary Islands Government

The above mentioned CD-ROM comes from a free ebook published in the island of Tenerife (Canary Islands, Spain). A coach technical team, which received special support by the local government, followed that ebook module by module, applied it in some institutions and carried out some seminars in Primary and Secondary Schools in the whole island. Nowadays there are plenty of them.

During the current academic year (2007-2008) some modifications are being made to it in Tenerife. Moreover, meaningful learning experiences are also being accomplished in islands such as Las Palmas de Gran Canaria. By the way, we uploaded that CD-ROM making it freely available on the Net www.aprendizajesignificativo.com

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