Novel and Stable Lecturers' Point of View about University Students Working Groups.

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Abstract: - Many educational methodologies could be applied in the university classrooms. One of the teaching methods that is being increased in the university is the workgroup methodology. Our research tries to identify which differences exist between novel and stable lecturers when they use working groups in their educational methodologies. In this work we are going to show if the grade of use of the workgroup technique is different according the status of the lecturer (novel lecturers vs. stable lecturers) and we will discuss all results obtained in our research for all basic techniques of working groups. In our final discussion, we will show that the use of working group techniques doesn't seem to be affected by the stability of the lecturers or their age in the university, in opposition to what many people think, so it is not needed different training for novel than for stable lecturers.

Key-Words: - Novel vs. Stable Lecturers, Working Groups, Active Methodologies.

1 Introduction

One of the main issues at the university is to train its lecturers for teaching using the appropriate methodologies depending on the educational environment. This environment is different according the degree course. Many teaching methodologies exist for teaching knowledge:

- Lecture (unidirectional monologue or bilateral exchange).
- Reading.
- Audio visual materials (CD ROM, video, etc).
- Individual research (Internet, literature review, etc).
- Case studies.
- Problem Based Learning.
- Group discussion.
- Field work (observations, discussions, etc.).

On one hand, several teaching years should give a lecture enough knowledge to use training methodologies, and, on the other hand, once a lecture is stable in the university, he/she can give more attention to educational methodologies.

Our research tries to identify which differences exist between novel and stable lecturers when they use working groups in their educational methodologies.

We are going to analyze three issues:

- How many times group based activities are used with lecturer's students?
- Does the lecturer feel trained to use active methodologies based on groups?
- What things are needed to set off or to improve the use of these methodologies?

There are many works that argue the advantages for the university students given by using group-based methodologies [1-11]. However, university lecturers have very few information about the real advantages and drawbacks of these types of methodologies [12], in the Spanish education at least, specially when they are compared with traditional teaching lessons based on lectures. On the other hand, most of those lecturers that know the theory don't know how to implement them or have very few examples of implementation techniques. Shaw et al. [13] consider that there are few works related with group-based methodologies where there are university students and they encourage to think about it.

The rest of the paper is structured as follows. Section 2 describes and compares traditional teaching with working group methodologies. The method used to achieve our goals is explained in section 3. Section 4 shows the results we have obtained. Finally, section 5 gives and discusses our conclusions.

2 Traditional teaching versus using groups in university teaching.

Traditional teaching is concerned with the teacher being the controller of the class, learning environment and what the students must learn. The teacher assumes the main role of provide information and contents to the students through traditional lecture classes [3; 14]. This information use to be given in logic, structured a lineal manner [15], with examples, solving problems on the blackboard, proposing tests and problems for homework and correcting this tasks given for homework [3].

On one hand, the lecturer writes on the blackboard or shows slides and reads, straining his/her voice, the content of the subset. Usually this content could be found in a textbook or in the notes of the year before [16].

The students, in their way, use to have a passive behaviour. They are seated writing routinely what the lecturer is writing on the blackboard, or showing in the slices, reading the contents of the subject or solving problems, or just dreaming awake. When the lecturer asks a question to the students, usually a student from the first file answers that question, while many others avoid looking to the lecturer at that moment. When the class finishes, students are encouraged to do some homework related to the exercises that have been working in the classroom. It happens every day [16]. Students only take and accept the information and the knowledge provided by the lecturer [3, 14]. Because of it, many people considers that traditional teaching encourages superficial learning to the students (memorizing and replying contents) [4, 7, 15].

However, complex learning that require comprehension, application, analysis, synthesis and critics to the content, need an active participation of the student in the learning process. So he/she passes from receiving information to the knowledge evaluation and organization [14]. This manner of learning provides a higher lasting knowledge retention [15].

Between proposed alternatives to the traditional learning we can find problem/project based learning, case study or active learning [3, 7]. First option implies a radical change, because it forces to break the degree courses into isolated subjects (it use to happen in the Spanish university. The second option (case study method) forces students to grapple with exactly the kinds of decisions and dilemmas managers confront every day. It is used as part of professional development. The third option (active learning) could be a good alternative which is also compatible with the fact of breaking the knowledge into separated subjects as it use to happen in many university degree courses. Active learning employs discursions that are guided by the lecturer. Students participate asking questions that are answered in the classroom by a workgroup [3].

From these options, we are interested on researching in the workgroup methodology. Several techniques allow us to teach working the students in groups [17]:

- Role-plays: It consists on representing a concrete space and action previously defined with some elected figures. The students, that are involved, interact freely in the elected environment. Every one adjusts his/her role to the others.
- Fish-bowl: It consists on forming 2 concentric circles of persons. One of them (the one inside) discusses or acts about a topic while other group observes. The observers could have some pre-established criteria of observation.
- Jigsaw: It consists on breaking down a very big group into subgroups (e.g. a group of 30 students could be broken down into 6 groups of 5 students). These subgroups interact during some moments to share tasks. When the time is finished, a spokesperson must be chosen to shown to all other groups the subgroup conclusions. There is another manner to interact: the subgroups members are numbered, then five new groups are created with six components (all members number 1 together, all members number 2, etc.).
- Ice-breakers: They are short and carefree exercises are given to the students. They will release the creativity of the students and to promote an adequate atmosphere in the classroom to make their development easier.
- Brainstorming: It is a technique to generate a great number of ideas. The participants express their ideas as they produce them, without giving matter about their applicability or about the other type of mental filters. It can be carried out in a many variants: the members give their idea without establishing any shift. They use their notes to collect ideas (they could be organized easily).
- Multi-vote: It consists on grading a list of ideas (giving points from 1 to 10 to every idea), or limiting the number of votes that are meting every student (e.g. to vote only the most important ideas in the list). They are ordered as a function of the number of votes and the group discusses and summarizes the results. It could be used combined with other techniques like the nominal group or the brainstorming.

Although many lecturers give tasks to the group of students, there is not a workgroup culture and an active learning method culture in the actual model of teaching techniques in many universities [3; 18]. Lecturers propose the tasks in groups to reduce the number of Works to correct or to give the students the opportunity of experiment by their way what is work in group, but without supervising or guiding the process. Although some of them give some initial instructions explaining the type of product, they want and suggest the materials to be used. But they are focused on training contents and consider that the process of how groups should work and set up must be explained by other person [2].

Some of the habitual justifications given by the lecturers to avoid devoting time to train students in Workgroups and guiding his/her process are the following ones [2, 19]:

- The subjects don't have enough time to use some of this time in group activities that use to be show and prevent to give all the topics of the subject.
- The students wish to learn by themselves without being manipulated by the lecturers; the lecturer considers that the students make it correct without the support of the lecturer, so the lecturer doesn't know how to help because he/she doesn't have enough time for making activities.
- One of the main problems to implement this type of teaching methodologies is that the groups of students are quite large (25 or more students) to foment their participation [4]. To exceed the problem of the size of the group, it is needed additional lecturers (the university must contract more lecturers) and there has to be available rooms to give the lecture. Another choice is to use creative alternatives like to break the class and ask to a part of the students some autonomous activities while the rest of the students stood in groups with the lecturer.
- To prepare and adapt any exercise to be given using workgroup techniques implies to consume many time, so not all lecturers are able to dedicate his personal time to it.
- The lecturer is afraid to loose the control of the classroom [14, 20]

In our research we are going to investigate if the grade of use of the workgroup technique, and what they need, is different according the status of the lecturer (novel lecturers vs. stable lecturers).

3 Method

For our research purposes, we have created a workgroup activity with 43 university lecturers that assisted to 2 lecturer training workshops. 22 novel lecturers assist to the first workshop. These novel lecturers had less than 4 years of teaching experience. 21 stable lecturers assist to the second workshop. All these lecturers had a stable contract with the state or with the university and had more than 4 years of teaching experience.

The subjects given by the lecturers in our research for both groups were very different: Chemistry, Biology, Statistical Study, Business, Electronic Technology, Structure Theory, Computer Science and so on.

Stable lecturers' classrooms were a little more overcrowded than novel lecturers classrooms. The number of students attending to the novel lecturers classrooms is between 15 and 45 students (most of them with less than 25 students. While in stable lecturers classrooms the groups are between 15 and 100 students (most of them with more than 45 students).

Almost all stable lecturers thought that they were novel in using workgroup methodologies with their students and they were not trained in it. However, only third of novel lecturers had read quite about group methodologies and had implemented some techniques with them.

Every one of the groups (novel and stable) was preparing individually the meeting for 20 minutes. This preparation consisted on answer a questionnaire with open questions related with the use of the workgroup methodology with their students. Then, they met for 30 minutes in groups of 5 people to show their opinions and annotate the contributions of the all members of the group. Next, they made new groups having a representative of each one of the initial groups and each one of the group explained his/her information for 30 minutes. We have used data obtained from the individual answers of the open questions questionnaire and the annotations given during the second meeting of each one of the groups.

4 Results

Table 1 shows the grade of use of the different basic techniques of working groups. Figure 1 also shows graphically the comparative between them. The grade of the use of basic techniques is generally very similar in stable lecturers than in novel lecturers. The most popular ones are brainstorming, jigsaw and ice-breakers.

Table 1. Number of lecturers using group activities

Technique	Stable Lecturers	Novel Lecturers
Role playing	5	6
Multivoting	0	4
Jigsaw	10	9
Ice-breakers	8	7
Fishbowl	0	0
Brain storming	14	9
Total	21	22

Many lecturers considered that the role playing technique couldn't be used in their subjects (9 stable lectures and 7 novel lecturers). It was also something similar with the fishbowl technique (4 stable lecturers and 4 novel lecturers). On the other hand, all stable lecturers that used any of these basic techniques were happy with their results. 3 novel lecturers said that they didn't like the experience of using jigsaw or ice-breakers methodologies.

Great differences in the perception of lecturers' preparation to set up workgroup activities with their students are not appreciated. The 50% of both stable and novel lecturers is considered to be ready for workgroup activities (30% of them is able to work with it and the 20% are only ready for some cases like small groups, laboratory practices and other activities). Lecturers, that consider they are not ready to work with workgroups in the classroom, said that it is given because they do not have enough preparation and knowledge about workgroup techniques. On the other hand, those that consider they are ready, admit that for this type of activities it is needed many time and effort to prepare the tasks and control and evaluate the works of the students of the groups. But, they are motivated to learn and improve the workgroup methodologies that they are using.

About the lecturer's necessities, there is again an agreement between novel and stable lecturers. The greatest necessity (50% of the lecturers) is to have more knowledge about what are the best workgroup techniques to use in the classroom. The following necessities are related with the preparation of usable materials:

- They must be attractive
- Lecturer must know how to evaluate the activities (which system has to be used, the weigh for each individual and group activity and how to distinguish between individual notes and notes for the whole group).
- How to motivate the students for their participation in the classroom activities and avoid shirking.

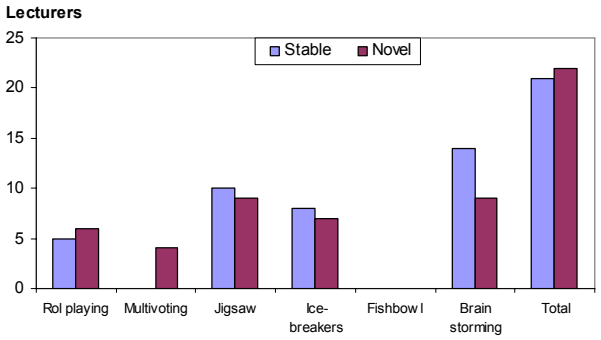

Figure 1. Group activities comparison.

- Examples of application of the techniques in similar contexts (similar subjects or with the same number of students).
- Less number students in their classrooms
- They need more time to be used for adapting their teaching to the workgroup methodology.

All these necessities have been discussed by more than a third of the members of the workshops.

Two issues are different for both stable and novel lecturers. On one hand, stable lecturers think that they need to set up all techniques to learn from the experience (this aspect was not discussed by the novel lecturer's group). On the other hand, novel lecturers wondered if the workgroup methodology was really useful (it was not questionable by stable lecturers).

5 Discussion and Conclusion

The grade of use of the workgroup techniques, the perception of the lecturer of being ready for setting up workgroup techniques and what university lecturers need to encourage the workgroup technique with the students, don't seem to be affected by the stability of the lecturers or their age in the university.

Both type of lecturers use some of these workgroup techniques sometimes. It is also baked up by several authors [6, 7], although most of the lecturers use traditional lectures.

To adapt the teaching methodology and to promote the workgroup methodology, lecturers need to be motivated and some of their necessities must be covered. Some of these necessities are the need of training in working groups, and diminish their insecurity in their capacity and their knowledge about these techniques (how to use these techniques with their students, how to prepare their materials, evaluation guides, efficient evaluations, examples and recommendations to motivate the students). All of them are interested on having small groups as T. Kalliath and M. Laiken stated in [10].

One of their major interests is the appreciation by the institution of the effort and time consumed to adapt the teaching to those new methodologies [5, 14]. Some of them are not confident with the improvement of the results of the students when these methodologies are used [14, 21]. There were more worries in the novel lecturers' workshop.

We think that this research could be useful for the university managers and for the lecturers training responsible, because it states that lecturers affront several problems in the university system that have been manifested in other works. Moreover, it seems that it is not needed different training systems for stable lecturers than for novel lecturers, because both have nearly same lacks and interests about working groups methodologies. May be it is better to form training courses according the topic of the lecturers' subjects or according the number of students that they have in their classes (group size). This way will help them sharing experiences and examples that could be useful for their partners because of their similar topic.

We also consider that our investigation has several limitations. On one hand, the number of lecturers is not enough to be a representation of the whole universities because all lecturers became from the same university and the number of lecturers is not too large. But, the goal of our research was doing a qualitative exploration of the university situation that could allow us identify the most relevant variables. By this way, we could start new quantitative researches with the objective of demonstrate if the keys we have concluded are confirmed for many lecturers. Nevertheless, we have taken some measurements from similar activities from other Spanish universities with similar results to the ones presented in this paper. On the other hand, the participants were chosen because they were registered in an educational training workshop, so all them was interested on working group methodologies.

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