THE INTERACTIVE LECTURING METHOD: AN EXPLORATORY STUDY FROM THE PERSPECTIVE OF INTERNATIONAL COLLEGE STUDENTS

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Abstract

The traditional one-way lecturing is no longer valid, despite numerous attempts of keeping it alive. The interactive lecturing method has emerged as an imperative among educational practitioners. Although this teaching practice has been frequently discussed in the context of Higher Education Institutions, students’ opinions regarding interactive classes have been rather neglected. This paper examines college students’ perceptions and beliefs related to interactive classes and in-class discussions and their outcomes. In doing so, an empirical research was undertaken among students of the Faculty of Economics at the University of Valencia in Spain. Data were collected during December, 2016 and January and April, 2017. A quantitative research method was performed for data analysis. Both Spanish and international students participated in this study, thus providing important implications on the international level. The results suggest that interactive lecturing should be an imperative for scholars/professors, although some differences were observed among students according to their nationalities.

Keywords: interactive lecturing, in-class debates, college students, international groups.

1 INTRODUCTION

Nowadays college students “have active thought, abundant emotion, great ambition and the imagination to the future.” [1, p. 23]. They are strongly encouraged to have reflective minds through student mobility programs [2], which seek to enrich their experiences of studying abroad and inspire their study enthusiasm. Unfortunately, not all teachers have adapted their teaching practices to this new teaching environment and continue to lecture as nothing has changed.

Zhou (2006) has discussed differences between traditional and modern teaching. The traditional education considers knowledge as a kind of education result and is focused on the quantity of knowledge that teachers are able to instil to the students. On the contrary, modern teaching practices, based on constructivist learning theory, are focused on students and their role of active seekers of knowledge. The role of the teacher here is to help students find the knowledge, instead of trying to instil as much as knowledge as possible. This suggests that quality of the process of gaining knowledge instead of quantity of knowledge itself needs to be at the core of nowadays teaching practices [1].

Accordingly, a number of authors suggested that interactive classes are mandatory if an efficient teaching wants to be pursued [1, 3, 4, 5]. Ponomariova (2016) has recently discussed three learning models that currently coexist in educational practices in Higher Education Institutions, namely: a) passive; b) active; and c) interactive learning models. According to the first model, the teacher manages and controls the learning process, while students have a rather passive role of listeners and follow teacher’s instructions. This model implies that teachers have a strong authority. Instead, the active learning model is based on active participation of students and implies a more democratic teaching style. Finally, interactive learning model is focused on both teacher-learner and learner-learner approaches and is characterized by joint problem-solving, exchange of information, and strong interaction between teachers and students, as well as between students themselves [6]. There is a general agreement in the literature that interactive lecturing method is considered as the educational best practice [7].

In their study on University students’ expectations of teaching, Sander et al. (2000) specified that during interactive lectures, teachers deliver a presentation and students take or are provided with notes. They are constantly asked questions and encouraged to think and ask questions themselves. In addition, they may be required to carry out some exercises so teachers can follow their progress and provide them an appropriate feedback [8]. Zhou (2006) suggested that this teaching methodology
improves students’ analytical, practical, and creative skills and encourages their performance and enthusiasm [1].

Liu et al. (2015) have recently examined the integration of interactive technologies in the classrooms and found that technology applications do not guarantee a better learning performance among students nor ensure teaching efficiency [9]. This finding implies that interaction doesn’t have to be necessarily supported by new technologies.

However, students’ perceptions of the interactive lecturing method seem to be rather neglected. Sander et al. (2000) examined opinions of 395 first-year college students of three British Universities and found that students expected to receive formal and interactive lectures, although they had preferences for interactive lectures and group-based activities. Regarding teachers’ attitude and expertise, students identified “teaching skills” and “approachability” as the most important qualities of a good teacher. The authors examined students’ perceptions from a multidisciplinary perspective, as students enrolled in three different study programs participated in the study, i.e. Medicine, Business Studies and Psychology. In general, more similarities in expectations and preferences than differences were found between the three groups [8].

Similarly, Ernst and Colthorpe (2007) studied the efficacy of interactive lecturing among students with diverse science background, i.e. one group with a high level of science background and another without any science background. The findings revealed that the adoption of interactive lecturing method significantly improved learning outcomes among both groups. More specifically, students with limited prior knowledge showed a similar learning outcome to those students with a good science background. This result suggests that interactive lecturing is established as an efficient teaching practice, capable of arising interest and motivation, even among students who were expected to perform poorly owing to their previous lack of knowledge on the subject [7].

Nevertheless, to the best of the authors’ knowledge, there are no empirical evidences on comparison of national and international students regarding their perceptions of interactive lecturing. This paper approaches this issue through a cross/cultural analysis. Although culture was categorized in different typologies, such as, national, industrial, occupational, corporate, and organizational [10], there is a general agreement among researchers to consider national culture as a valid criterion of measurement in cross-cultural research.

After the introduction presented in the first section, this paper has been divided into three additional sections. In the second section, the methodology of our empirical investigation is described, more specifically data collection and sample profile. The third section deals with data analysis and findings. In the fourth section, conclusion, implication, and future research possibilities are gathered.

2 METHODOLOGY

The objective of this paper is to analyze college students’ perceptions and beliefs related to interactive lecturing. As previous studies have shown that national culture can influence perceptions of college students [11, 12, 13, 14], perception of interactive lecturing is examined from a cross-cultural perspective. In particular, indicators that students perceive as highly important in the context of interactive lectures were identified and their perception is compared among students according to their cultural backgrounds. The items were assessed using a 5-point Likert-type scale anchored from 1 (strongly disagree) to 5 (strongly agree).

The empirical research was conducted using an online structured questionnaire that students were asked to complete during their classes. Data collection took place in December, 2016 and January and April, 2017 among Spanish and international students of the Faculty of Economics at the University of Valencia in Spain.

Prior to data collection, discussions groups with students were established in order to identify relevant indicators of interactive classes. This technique has been frequently used in researches conducted in the University contexts [15]. The objectives of participation in the discussion were clearly communicated to students. A number of indicators emerged from discussion groups as highly relevant in the context of interactive lecturing, namely:
Preferences for interactive over traditional lecturing;
Interactive lecturing and increase of attention;
Interactive lecturing and better understanding of the topic;
Students asking questions;
Students answering questions;
In-class debates;
Real life examples that stimulate discussion;
Illustrations that stimulate discussion;
Visiting academics that share their knowledge and experience and stimulate discussion;
Visiting practitioners that share their knowledge and experience and stimulate discussion;
Participation of other students;
Interaction with other students;
Continuous homework;
Continuous assessment and teachers’ feedback; and
Teachers’ attitude: authoritative vs. easy-going.

The sample consisted of 146 students, 52 (35.6%) male and 94 (64.4%) female. Most of them were between 21 and 23 years old (58.9%), while 21.9% and 15.8% were between 24-26 and 18-20, respectively. Only 3.4% of respondents were older than 26. Regarding their nationalities, 70 (47.9%) students were Spanish, while 76 (52.1%) were international students. Among international students, the most representative group was composed by German students (10.3% of the total sample), followed by Italian (4.8%), Dutch (4.8%), French (4.8%), Polish (5.3%), British (2.7%) and Austrian (2.7%) students. The sample profile is presented in Table 1.

Table 1. Sample profile

<table>
<thead>
<tr>
<th>GENDER</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>52</td>
<td>35.6</td>
</tr>
<tr>
<td>Female</td>
<td>94</td>
<td>64.4</td>
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<table>
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<tr>
<th>AGE</th>
<th>Frequency</th>
<th>%</th>
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<td>21-23</td>
<td>86</td>
<td>58.9</td>
</tr>
<tr>
<td>24-26</td>
<td>32</td>
<td>21.9</td>
</tr>
<tr>
<td>&gt;26</td>
<td>5</td>
<td>3.4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NATIONALITY</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spanish</td>
<td>70</td>
<td>47.9</td>
</tr>
<tr>
<td>Other</td>
<td>76</td>
<td>52.1</td>
</tr>
</tbody>
</table>

3 DATA ANALYSIS AND RESULTS

Descriptive statistics analyzes, using SPSS software, was conducted to answer the research objectives. The analysis of frequencies of the item “preferences for interactive over traditional lecturing” was first performed in order to understand whether students prefer interactive classes over traditional ones and to what extent. Following the literature review, interactive classes were defined as those that, besides teacher’s lecturing, involve students in classroom by encouraging them to participate in discussions, answer and ask questions, and are continuously required to present their work assignments in order to have a feedback from teachers. In contrast, traditional classes were defined as those that consist of teachers lecturing only, without students’ involvement.
Among 146 students, more than half of them (53.9%) strongly agreed with the statement that they prefer interactive classes over traditional ones, while 34.9% agreed (evaluating it with 4 out of 5 points). Only 6.85% claimed they disagreed (3.4%) and strongly disagreed (1.4%) with the statement. In addition, we examined frequency distribution of the items that measured teacher’s attitude. A total of 74.7% respondents claimed that they strongly (32.9%) agreed (41.8%) with the statement that they prefer easy-going teachers. On the other hand, 38.5% of students responded that they strongly (7.5%) agreed (30.8%) with the statement that they preferred authoritative and strict teachers.

As depicted in Table 2, students assessed highly most of the indicators of interactive lecturing. The item that received the highest mean value is "preference for real life examples that stimulate discussion" (M=4.74), followed by believes that interactive lecturing increases their attention (M=4.36) and helps them understand the topic better (M=4.29). The item “teacher's drawing and illustration on blackboards in order to stimulate discussion” also reached a high mean value (M=4.29), as well as the items “preferences for interactive over traditional lecturing” (M=4.23), “interaction with other students” (M=4.12), “easy-going teachers’ attitude” (M=4.01), “in class-debates” (M=3.97), and “visiting academics that share their knowledge and experience and stimulate discussion” (M=3.84).

Several items reached more moderate scores, such as: a) participation of other students as a source of motivation for interaction (M=3.45); b) perceived usefulness of continuous homework (M=3.40); c) authoritative teachers’ attitude (M=3.18); and d) continuous assessment of assignments (M=3.07). Surprisingly, all students assessed with rather low mean values the items that measured their level of being comfortable with asking teachers questions (M=2.54) and answering them (M=2.53).

To observe whether there are significant differences in students’ opinions regarding their national culture, descriptive statistics and nonparametric tests were carried out for data analysis. Total sample was divided in two subsamples, one composed of Spanish students (N=70) and another composed of international students (N=76). When comparing the two subsamples, the Kolmogorov-Smirnov test was first performed in order to check the normality of data distribution. The results showed that the data were not normally distributed, owing to the fact that all the examined items had critical values lower than .05. Therefore, the Mann-Whitney U test was completed, comparing two independent samples, as it is a nonparametric method that should be performed when data are not normally distributed. This test was used to determine whether the obtained differences between the two compared subsamples are statistically significant [16].

The results reported in Table 2 suggest that Spanish and international students perceive almost equally the following items: a) preference for in-class debates; b) perceived utility of continuous homework; c) visiting practitioners that share their knowledge and experience and stimulate discussion; d) participation of other students as a motive for interaction; and e) real life examples that stimulate discussion.

Further, Spanish students assigned higher scores to the majority of other items, namely: a) preferences for interactive over traditional lecturing; b) interactive lecturing as a source of increased attention; c) interactive lecturing as a source of better understanding of the topic; d) illustrations that stimulate discussion; e) interaction with other students; and f) easy-going teacher’s attitude. However, the non-parametric Mann-Whitney U test showed statistically significant differences for only two items: a) interactive lecturing as a source of increased attention (with a very high significance level of 99%) and b) interactive lecturing as a source of better understanding of the topic (with a lower significance level of 95%).

On the other hand, international students evaluated higher than Spanish students the following items: a) being comfortable with asking questions; b) being comfortable with answering question; c) perceived usefulness of inviting to class visiting academics that share their knowledge and experience and stimulate discussion; d) perceived usefulness of continuous assessment of their assignments and teacher's feedback and e) preference for authoritative and strict teachers. Statically significant differences are observed only in the case of the last time, with the significance level of 95%.
Table 2. Interactive lecturing: Descriptive statistics

<table>
<thead>
<tr>
<th></th>
<th>Total sample (N=146)</th>
<th>Spanish students (N=70)</th>
<th>International students (N=76)</th>
<th>U test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>Preferences for interactive over traditional lecturing</td>
<td>4.23</td>
<td>.990</td>
<td>4.33</td>
<td>.912</td>
</tr>
<tr>
<td>Interactive lecturing and increase of attention</td>
<td>4.36</td>
<td>.861</td>
<td>4.56</td>
<td>.605</td>
</tr>
<tr>
<td>Interactive lecturing and better understanding of the topic</td>
<td>4.29</td>
<td>.894</td>
<td>4.46</td>
<td>.695</td>
</tr>
<tr>
<td>Students asking questions</td>
<td>2.54</td>
<td>1.308</td>
<td>2.39</td>
<td>1.219</td>
</tr>
<tr>
<td>Students answering questions</td>
<td>2.53</td>
<td>1.216</td>
<td>2.41</td>
<td>1.123</td>
</tr>
<tr>
<td>In-class debates</td>
<td>3.97</td>
<td>.813</td>
<td>3.97</td>
<td>.868</td>
</tr>
<tr>
<td>Real life examples that stimulate discussion</td>
<td>4.74</td>
<td>.685</td>
<td>4.77</td>
<td>.663</td>
</tr>
<tr>
<td>Illustrations that stimulate discussion</td>
<td>4.29</td>
<td>.779</td>
<td>4.39</td>
<td>.687</td>
</tr>
<tr>
<td>Visiting academics that share their knowledge and experience and stimulate discussion</td>
<td>3.84</td>
<td>.945</td>
<td>3.79</td>
<td>.899</td>
</tr>
<tr>
<td>Visiting practitioners that share their knowledge and experience and stimulate discussion</td>
<td>4.14</td>
<td>.944</td>
<td>4.16</td>
<td>.879</td>
</tr>
<tr>
<td>Participation of other students</td>
<td>3.45</td>
<td>1.139</td>
<td>3.41</td>
<td>1.083</td>
</tr>
<tr>
<td>Interaction with other students</td>
<td>4.12</td>
<td>.878</td>
<td>4.20</td>
<td>.809</td>
</tr>
<tr>
<td>Continuous homework</td>
<td>3.40</td>
<td>1.061</td>
<td>3.41</td>
<td>.970</td>
</tr>
<tr>
<td>Continuous assessment and teacher's feedback</td>
<td>3.07</td>
<td>1.143</td>
<td>3.01</td>
<td>1.161</td>
</tr>
<tr>
<td>Teachers’ attitude: authoritative</td>
<td>3.18</td>
<td>.976</td>
<td>2.97</td>
<td>.978</td>
</tr>
<tr>
<td>Teachers’ attitude: easy-going</td>
<td>4.01</td>
<td>.906</td>
<td>4.13</td>
<td>.833</td>
</tr>
</tbody>
</table>

Note. For a better readability of the results, mean values are reported instead of mean ranks for the two subsamples.

* Significance level = 90%, ** Significance level = 95%.

4 CONCLUSIONS

The purpose of this paper was to identify critical aspects of interactive lecturing and their assessment among national and international students. Our findings suggest that in general, students have positive attitudes towards interactive lecturing. All students showed a great preference for discussions where teachers provide real life examples and strongly believe that interactive lecturing increases their attention and helps them understand the topic of the course better. They also seem to perceive usefulness of inviting to class academics and practitioners that share their experiences and knowledge and encourage their interaction, although among the two they prefer the second ones. Teachers are therefore encouraged to embrace interactive teaching practices, paying specific attention on the mentioned indicators, and do their best in helping their students to develop their interaction skills.

However, despite the fact that students seem to like interacting with other students during classes, they do not seem to feel very comfortable interacting with teachers, nor by positing nor by answering questions. Nevertheless, it should be noted that these two items were assessed under the condition of big size groups (more than 30 students), meaning that group size might moderate students’ willingness to interact. The students’ answers might have been different if the group size was not specified and would have probably answered differently if smaller groups were considered. However, further research is necessary to corroborate this assumption. In addition, students in general do not
seem to like much continuous assignments and their evaluation by teachers. Finally, they like better easy-going teachers than those that are strict and authoritative.

When cultural backgrounds of students were considered, in general, Spanish students showed a greater propensity for interaction. However, they liked less asking and answering teachers’ questions than their international colleagues did. This finding suggests that social and communication skills of Spanish students are not as high as international students’ ones. Still, other factors might have influenced this result, such as personal factors, knowledge, or experiences of students. Implication for teachers is that they need to motive students to be more involved in class, show them that their opinions matter and that their effort is worthwhile, thus fostering their engagement and creativity.

Interestingly, students’ perceptions of interactive lecturing outcomes also seem to change according to their national cultures. Thus, Spanish students perceived significantly higher that interactive lecturing is useful for increase of their attention and for understanding the topic better. Another interesting finding is that international students showed a significantly higher preference for authoritative teachers than Spanish students did.

However, several items were assessed almost equally by Spanish and international students, such as perceived usefulness of in-class debates, continuous homework, and practitioners intervention in class. This finding is in line with some other studies [e.g. 17], which suggest that national culture does not always explain differences in students perceptions and behaviors.

Finally, owing to the small sample size approached in this research, future contributions are necessary to corroborate findings of this study on a more representative number of students, both national and international. In addition, instead of considering international students as a rather homogenous group, future studies need to approach significant number of students coming from the same culture.

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