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Additional Information

TED TALKS APPLIED TO EDUCATION OF ARCHITECTURE STUDENTS

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Abstract

Integral formation is essential for students since it allows them to develop academic, professional and social competences. It is University's responsibility to provide this full development of the individual; therefore Ted Talks were used in this experience as a tool to tackle these aspects.

The activity was undertaken throughout an academic trimester with students of 2nd course of Architecture Degree. Students had to investigate and search for a Ted Talk related to Architecture. It had to be inspiring for the rest of the class and deal with social responsibility. This experience was planned to be a source of reflection and motivation for the students. On the other hand, the videos had to be in English with the purpose of improving students' language skills.

A total of 7 Ted Talks on different topics were visualized and debated in the classroom.

Finally, the students evaluated the activity by means of a questionnaire.

Results showed that students' assessments were positive since the experience helped them learn about new aspects related to Architecture, social responsibility and, moreover, their language skills were improved (listening, English vocabulary, expressions and debate).

Keywords: Ted Talk, motivation, social responsibility, Architecture.

1. INTRODUCTION.

Lifelong learning and integral formation of the students are essential pillars according to European Space for Higher Education, [1]. Therefore, University has an important role within this issue. Teaching professionals must address Higher Education in a wide scope: development of attitude, skills, criteria and a set of core values [2]. In this line, experiences related to integral formation and transversal competences are increasing in the classrooms [3].

On the other hand, Information and Communication Technologies (ICTs) provide easy access to information, reducing the spatial-temporal barriers [4]. Nowadays, the internet allows teachers to use a broad range of tools in order to work some specific aspects in class; and Ted Talks are one of these tools. These are global conferences about Technology, Entertainment and Design, that deal with "ideas worth spreading" [5].

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Several authors have conducted research on this field. Cassidy and Thelwall [6] performed a study to examine TED videos through bibliometric and webometric indicators, in order to provide insights into the type and scope of their impact. They concluded that videos about science and technology had the greatest impact on the public, and even more if they were presented by academics. Another example is the experience reported by Hay que subirlo: Díez Minguela and Añón Higón [7], who studied how to foster self-learning among the students using the TED-ed platform. They concluded that it contributed to make the learning process more dynamic, it stimulated debate and it also improved the interaction between the students and teacher.

Hence, using this particular tool (TED platform) within the frame of Architecture, the present experience was carried out with the purpose of developing several skills on the students: ethics, social responsibility, eagerness to learn new things and English linguistic competence.

Ted Talks also acted as a source of inspiration and reflexion which contributed to the integral formation of the students.

2. MATERIALS AND METHODS

This work was undertaken during 3 months (January-March 2015), with a group of 7 volunteer students of 2nd year of the Architecture School, who wanted to participate.

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At this point, students have already gained knowledge about topics related to calculus, technology, graphic design, urbanism and history. However, they need to explore by themselves some other aspects of Architecture which they are interested in. Thus, Ted Talks were thought as a useful help for this purpose.

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Students had to search on the internet, investigate and select a Ted Talk related to Architecture to be watched in class. The topic of the Talk should be one of his/her interest on the condition of transmitting some useful values to the rest of the class.

Each week a different Ted Talk was visualized in class. Since the class sessions lasted 3 hours, one hour was dedicated weekly to this activity.

2.1. Instructions

In order to develop this experience in a proper way, instructions for the students were clearly set at the beginning of the trimester:

- Each student had to select and work individually on a Ted Talk of his/her interest.
- The duration of the Ted Talk should range between 10-20 minutes so that the essential message and fundamental ideas were addressed in a clear and direct way.
- The language of the Talk should be English (with the possibility of Spanish captions).
- Before the Ted Talk was visualized, the student had to make a short speech in front of the class, explaining why he/she chose that specific Talk; which values he/she wanted

to transmit to the class and what questions he/she wanted to bring up to reflect on.

- The student also had to elaborate an English-Spanish glossary of 10 keywords related to the Talk and show it in class before the projection. The aim was that the rest of the students got a better understanding of the topic.
- At the end of the visualization, the student had to raise some questions to generate debate in class and further discussion of the content. The debate was moderated by the teacher.

Finally, the students evaluated this activity at the end of the trimester by means of a survey.

2.2. Topics of the Ted Talks

It was essential that students made this selection in a very careful way so as to avoid repetition and be able to work different topics and competences in class.

These were the videos presented:

- Ted Talk 1: "Why architects need to use their ears"
Link: <http://www.youtube.com/watch?v=o6MzSoEQA5U>
- Ted Talk 2: "Why we should build wooden skyscrapers"
Link:
https://www.ted.com/talks/michael_green_why_we_should_build_wooden_skyscrapers#t-761363
- Ted Talk 3: "How public spaces make cities work"
Link:
http://www.ted.com/talks/amanda_burden_how_public_spaces_make_cities_work#t-1033547
- Ted Talk 4: "How architecture helped music evolve"
Link: http://www.ted.com/talks/david_byrne_how_architecture_helped_music_evolve#
- Ted Talk 5: "Emergency shelters made from paper"
Link: http://www.ted.com/talks/shigeru_ban_emergency_shelters_made_from_paper
- Ted Talk 6: "Ingenious homes in unexpected places"
Link: https://www.ted.com/talks/iwan_baan_ingenious_homes_in_unexpected_places?language=en
- Ted Talk 7: "Why light needs darkness"
Link:
https://www.ted.com/talks/rogier_van_der_heide_why_light_needs_darkness?language=en

In summary, these were the topics addressed:

- Ethics in Architecture
- Social responsibility
- Sustainability and Environment
- Fine Arts and Architecture
- "Untouchable" materials in Architecture (sound and light)
- How Architecture can help after a natural disaster
- Green spaces for a more pleasant cities

- Live and work in a globalized world

Moreover, as stated before, the videos were visualized in English with the aim of improving language competences of the students. Nevertheless, Spanish subtitles were used for a better understanding.

After each video, a time for debate was set so that the students commented and discussed about the contents. At the end, the main conclusions were extracted, with the help of the teacher.

2.3. Survey and evaluation

Once the cycle of Ted Talks was completed, a last session was reserved to carry out a survey about the activity. The students had to fulfill a questionnaire in order to evaluate the experience. A total of 15 items were included in the survey; 14 of them to be assessed by means of a 5-point Likert scale, plus an open question at the end.

The first 14 items were rated on the basis of the Likert scale shown in Fig. 1:

A	B	C	D	E
Totally disagree	Disagree	Neutral	Agree	Totally Agree

Figure 1. 5-point Likert scale for assessing items 1 to 14

Items:

1. I found the activity interesting
2. Thanks to this activity I have learned about new things that I had not studied before in any other course
3. This activity has drawn my attention over new aspects of Architecture that I did not know
4. The fact that I could choose the topic of the Ted Talk was motivating for me
5. I'd rather the teacher chose the Ted Talks to watch in class
6. In my opinion, the topic of the Ted Talk I selected was motivating for the rest of my classmates
7. In my opinion, the topics of the Ted Talks chosen by my classmates were motivational and inspiring for me
8. This activity has allowed me broaden my English vocabulary
9. This activity has been useful to improve my English listening skills
10. I would have understood the content of the Ted Talk without any subtitles
11. This activity has made me reflect upon solidarity issues related to Architecture
12. This activity has strengthen my social awareness
13. My overall satisfaction level with this activity is high
14. I would like to repeat this activity in the future (explain the reasons)

Finally, the survey ended with an open answer question:

15. Which is the Talk that you recall the most? Why?

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3. RESULTS

The outcomes of the questionnaires are presented in Fig. 3:

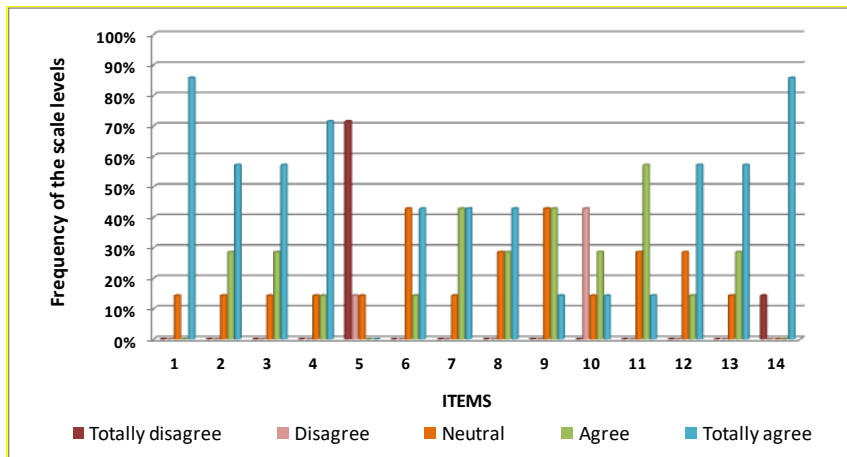


Figure 3. Main results of the survey

According to the outcomes summarized in figure 3, the main results of the present experience are:

1. 86% of the sample considered the activity interesting.
2. Hardly almost the whole sample (86%) agreed on the fact that they learned new things by means of this activity.
3. More than the half of the sample (57%) was totally agree on have discovered new issues about Architecture.
4. 85% of the subjects were motivated by choosing themselves the topic of the Ted Talk.
5. Almost the entire sample (85%) disagrees on being the teacher the one to choose the Ted Talks to watch in class.
6. Half of the subjects considered that their topics were motivating for the rest of the class.
7. 86% of the students believed that the Ted Talks selected by their classmates were inspirational for them.
8. 72% of the students considered that this activity was useful for increasing their English vocabulary.
9. More than half of the sample (57%) considered that this activity helped them improve their English listening skills.
10. More than 40% of the students claimed that they would have difficulties in understanding the Talk without any captions.
11. 71% of the subjects stated that this activity was useful to reflect on solidarity matters within the frame of Architecture.
12. More than 70% of the students confirmed that their social awareness was reinforced

thanks to this experience.

13. The overall satisfaction with this activity was rated as very high by 57% of the subjects and high by 29%.

14. All students but one agreed on willing to repeat this activity in the future. Their reasons were diverse: "It makes me reflect on different scopes of Architecture", "I consider this activity is an innovative way of learning", "It makes me aware of social issues", "It makes me think about how Architecture can help disadvantaged people", "I think this activity is a good tool to motivate the class". The student that disagreed argued that in his/her opinion there are other more interesting methodologies to provide information.

Regarding the open answer question:

15. Half of the students pointed out that their own Ted Talk was the one they recalled the most. The main reason was that they had worked on it.

On the other hand, the feedback of the students in each debate after the video was very positive. They were eager to comment and discuss the topics shown in the Ted Talks, from a constructive point of view. This helped work on emotional values which contribute to the integral formation of the students

4. CONCLUSIONS

The main core of this activity was helping develop transversal competences in the students such as social responsibility, ethics, social awareness, sustainability, etc... So it was perceived by the students. Thus, a high percentage (71%) stated that this exercise made them reflect on these matters as well as it pushed them to investigate about new aspects related to Architecture.

Besides, the overall assessment of the activity was very positive for most of the students participating, and a high percentage (86%) considered the experience interesting and motivating. Therefore, it was deduced that these kind of activities are welcome in class.

On the other hand, students considered that this experience was useful to improve their English language competences. It not only helped increase their English vocabulary (72% of the sample), but also their listening skills (57%). However, almost half of the students (43%) claimed that they needed subtitles to follow the Talks properly. This parameter indicates that students need to reinforce their English abilities to reach a sufficient level.

Some other specific conclusions can be commented:

Regarding results of items 4 and 5 together, it can be concluded that students had the initiative to choose themselves the Ted Talk rather than the teacher would do it. The competence "initiative" will be a very positive skill for their future.

Results of items 6 and 7 combined show that students were quite self-critical. While almost the whole sample (86%) considered that the Ted Talks of his classmates were inspirational and motivating, only the half of students considered that their Ted Talk was motivational for the rest of the class. Self-criticism is also a useful transversal competence.

In summary, a good indicator of the usefulness of this experience is that 86% of the students would repeat this activity in the future to improve their integral formation.

As a limitation, mention that the authors are aware of the small size of the sample; however, general unanimity in the answers lead to think that this activity would be welcome in samples of bigger size.

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