THE USE OF MULTIDISCIPLINARY PROJECTS AS AN EFFECTIVE STRATEGY TO PROMOTE TEAMWORK COMPETENCY

M.Ll. Alonso Borso di Carminati

Universitat Politècnica de València (SPAIN)

Abstract

This work describes the promotion of the teamwork´s competency acquisition, in Television Production students, by their participation in a lab practice group activity. The activity simulates the real production process of a cultural audio guide, which requires the cooperation of all the group members amongst themselves, and also with groups of students from different disciplines. In this project, the degrees involved were Audiovisual Communication, Engineering, Business Administration and Tourism.

The students from Audiovisual Communication took part in the writing and recording of the audio scripts. For the development of this phase of the activity, they had to interact -both virtually and physically- with the students from other disciplines involved in the project. Some Google education applications were utilized for maximizing the collaborative work and the input tracking from all team members. For example, the students in this group received the documentation originally from the Engineering students –through google drive- and had to collaborate with the students from Tourism in composing the written scripts in google docs. To complement the online phases of the project, team members had to arrange real meetings with their counterparts in the other disciplines. As an example, students from Audiovisual Communication provided their Tourism peers with technical knowledge and facilities, in order to perform the recording of the audio tracks in three different languages. Following this experience, all groups of students filled an individual self-assessment rubric of the team work competency, acquired by their participation in this project. They also submitted an unstructured self-reflection assignment.

This experience has been used to model with the students a real life working situation, close to the professional world working practices and demanding the team work skills required outside of the campus environment. The students have been challenged to put into practice those real life group work strategies and also to be autonomous in reflecting upon their performance as team members during this activity.

The development of this project –together with its effectiveness- is analysed for each of the groups involved. Finally, we compare the reflections of the students -regarding their acquisition of the team work competency- both in this multidisciplinary practice and in other single-discipline practices of the Television Production subject.

The conclusions indicate that multidisciplinary projects can be used as an effective strategy to promote teamwork competency, during lab practices with Television Production students.

Keywords: Multidisciplinary, teamwork competency, cooperative learning, google education, television.

1 INTRODUCTION

Several degrees across all disciplines are currently experimenting with audio and visual recordings, as a way to introduce innovative strategies and methodologies for integrating cross curricular competencies [1] in the curriculum. Some authors are specifically using these tools for research into teamwork acquisition in the form of scenarios simulation [2], data collection, or self-recording and diaries [3], [4]. The majority –or near totality- of these endeavours are concentrated on students from only one area of practice, mainly medicine or other health related professions.

In the field of Television in Higher Education, there have been some intents of organising joint ventures with other disciplines, in which students may both acquire specific and transversal competencies [5]. However, in the general practice teachers remain focused in approaching cross curricular competencies –including teamwork competency- in the centre of one-discipline only teams of students. This situation is radically opposite from what students are going to encounter in the real life working teams, where they will be a part of a mixed crew of technical specialists, humanities and

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other types of professional background´s members. The convenience of formulating multidisciplinary education programs has already been noted in professional teams who share this particular mix of technical and non-technical experts on the same work force [6]. In a recent initiative with groups of mixed students [7] it was noted that –besides students lacking an understanding of one another´s role- they expressed interest in learning how to improve working together for a common goal.

This work describes an experience to promote the teamwork´s competency acquisition, in Television Production students, by their participation in a lab practice group activity. The activity simulates the real production process of a cultural audio guide, which requires the cooperation of all the group members amongst themselves, and also with groups of students from different disciplines. In this project –that took place in the academic year 2014-2015- the participating degrees were Audiovisual Communication, Engineering, Business Administration and Tourism.

The development of this project –together with its effectiveness- was analysed by the groups involved in the Audiovisual Communication degree. Finally, we compare the reflections of these students -regarding their acquisition of the team work competency- both in this multidisciplinary practice and in other single-discipline practices of the Television Production subject.

2 APPROACH

2.1 Planning

Each phase of the project had to be carefully planned by the teacher´s team. This difficulty was increased by the fact that students –and teachers- did not share common schedules or campus related resources, such as already shared online folders or the usual tools for automatically informing all students at once or making virtual groups. Another one of the main challenges teachers have encountered for planning this experience, is that the number of students in the general classrooms were very different from one discipline to another. Numbers ranged from 20 –in Engineering- to 90+ in Audiovisual Communication or Tourism. In order to balance this odd numbers, the group of teachers formulated different sets of teams, assigning one student of Engineering to each of the small work groups. For the students belonging to different campuses, like Gandía and Valencia- all communication and exchanges had to be dealt with through online platforms. For the students based on Gandía only, the ones from Audiovisual Communication and Tourism, it was possible to arrange both online tasks and other type of sessions to work together in person. One teacher –external to the subjects involved in the project- undertook the overall organisation of the online shared documentation and led the communication of guidelines to all the students involved. Each teacher explained his/her students the part of the project that included their particular subject contents. For the booking of common spaces and equipment, the Television Production teacher coordinated with the degree technicians to make sure that everything was available to students at the due times.

2.2 Development

For the beginning of the Project, Engineering final year students had to provide their correspondent groups with the documentation needed for the development of the written audio scripts. This documentation consisted of a Research paper on each of the topics, together with a technical sheet of relevant information. Two of the teams developed an Introduction for the audio guide, while each of the remaining groups worked on one specific building of the *Alquería*s, a type of traditional valencian farmhouses. The combination of all the different parts of the scripts, were designed to form together an audio guide specialised in valencian traditional heritage. The students from Audiovisual Communication took part in the writing and recording of the audio scripts. For the development of this phase of the activity, they had to interact -both virtually and physically- with the students from other disciplines involved in the project. Some Google education applications were utilized for maximizing the collaborative work and the input tracking from all team members. For example, the students in the Audiovisual group received the documentation originally from the Engineering students –through google drive- and had to collaborate with the students from Tourism in composing the written scripts in google docs (see Fig. 1, 2). To complement the online phases of the project, team members had to arrange real meetings with their counterparts in the other disciplines. As an example, students from Audiovisual Communication provided their Tourism peers with technical knowledge and facilities, in order to perform the recording of the audio tracks in three different languages. At this point, the teachers involved in this phase had to arrange and communicate to students a meeting´s schedule and also request permission for the use of the recording equipment and studios on campus. As has

been explained, for this encounter to be able to happen, considerable effort had to be put in from both students and teachers, since all the meetings had to take place outside of school hours and also the booking of the facilities did not match the general calendar of the Audiovisual Communication degree. Following this experience, all groups of students filled an individual self-assessment rubric of the team (see Fig. 3) work competency, acquired by their participation in this project. They also submitted an unstructured self-reflection assignment.

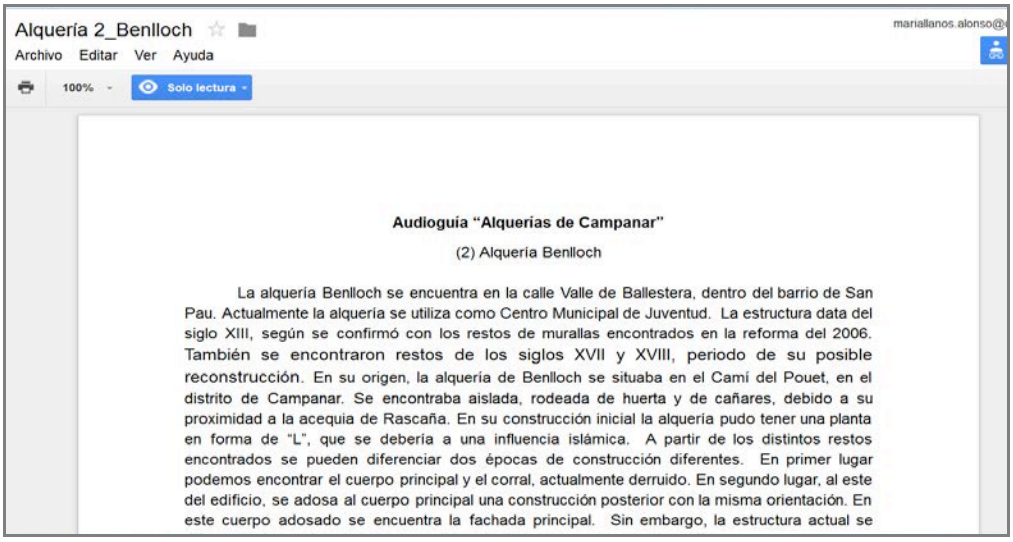
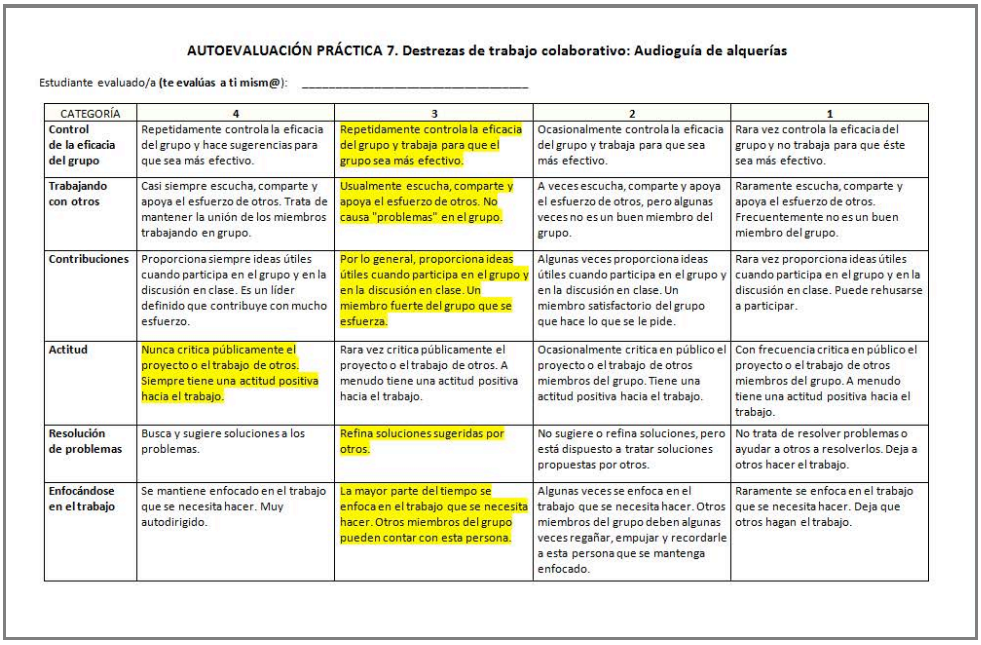


Figure 1. Script developed collaboratively by the students in google docs.

Figure 2. Script translation, developed collaboratively by the students in google docs.



AUTOEVALUACIÓN PRÁCTICA 7. Destrezas de trabajo colaborativo: Audioguía de alquerías

Estudiante evaluado/a **(te evalúas a ti mism@)**: _____

CATEGORÍA	4	3	2	1
Control de la eficacia del grupo	Repetidamente controla la eficacia del grupo y hace sugerencias para que sea más efectivo.	Repetidamente controla la eficacia del grupo y trabaja para que el grupo sea más efectivo.	Ocasionalmente controla la eficacia del grupo y trabaja para que sea más efectivo.	Rara vez controla la eficacia del grupo y no trabaja para que éste sea más efectivo.
Trabajando con otros	Casi siempre escucha, comparte y apoya el esfuerzo de otros. Trata de mantener la unión de los miembros trabajando en grupo.	Usualmente escucha, comparte y apoya el esfuerzo de otros. No causa "problemas" en el grupo.	A veces escucha, comparte y apoya el esfuerzo de otros, pero algunas veces no es un buen miembro del grupo.	Raramente escucha, comparte y apoya el esfuerzo de otros. Frecuentemente no es un buen miembro del grupo.
Contribuciones	Proporciona siempre ideas útiles cuando participa en el grupo y en la discusión en clase. Es un líder definido que contribuye con mucho esfuerzo.	Por lo general, proporciona ideas útiles cuando participa en el grupo y en la discusión en clase. Un miembro fuerte del grupo que se esfuerza.	Algunas veces proporciona ideas útiles cuando participa en el grupo y en la discusión en clase. Un miembro satisfactorio del grupo que hace lo que se le pide.	Rara vez proporciona ideas útiles cuando participa en el grupo y en la discusión en clase. Puede rehusarse a participar.
Actitud	Nunca critica públicamente el proyecto o el trabajo de otros. Siempre tiene una actitud positiva hacia el trabajo.	Rara vez critica públicamente el proyecto o el trabajo de otros. A menudo tiene una actitud positiva hacia el trabajo.	Ocasionalmente critica en público el proyecto o el trabajo de otros miembros del grupo. Tiene una actitud positiva hacia el trabajo.	Con frecuencia critica en público el proyecto o el trabajo de otros miembros del grupo. A menudo tiene una actitud positiva hacia el trabajo.
Resolución de problemas	Busca y sugiere soluciones a los problemas.	Refina soluciones sugeridas por otros.	No sugiere o refina soluciones, pero está dispuesto a tratar soluciones propuestas por otros.	No trata de resolver problemas o ayudar a otros a resolverlos. Deja a otros hacer el trabajo.
Enfocándose en el trabajo	Se mantiene enfocado en el trabajo que se necesita hacer. Muy autodirigido.	La mayor parte del tiempo se enfoca en el trabajo que se necesita hacer. Otros miembros del grupo pueden contar con esta persona.	Algunas veces se enfoca en el trabajo que se necesita hacer. Otros miembros del grupo deben algunas veces regañar, empujar y recordarle a esta persona que se mantenga enfocado.	Raramente se enfoca en el trabajo que se necesita hacer. Deja que otros hagan el trabajo.

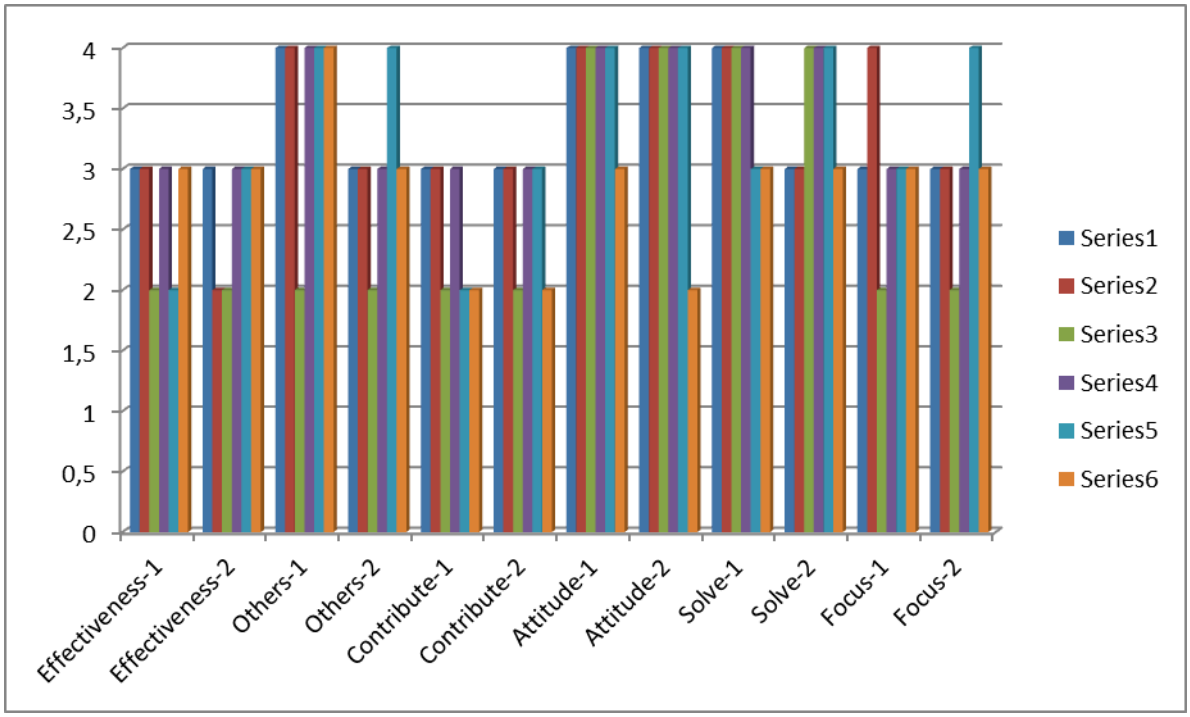
Figure 3. Example of rubric for the team work competency

3 OUTCOMES

The students involved were very positive about their participation in a project with other disciplines, and they manifested a sense of enjoyment and having achieved the objectives of the technical practice. Students from the less technical disciplines –such us Tourism- appreciated particularly this opportunity to get to know other peers and to work in the environment of the digital recording studio. From the results of the self-evaluation rubric for the team work competency, most students reported very similar achievement in the single-discipline practices than in the multidisciplinary one. It appears though that for a number of students the ability to work with others was slightly impaired when working in the multidisciplinary team (see Others-2). This minor difference may be explained by the fact that the practice took place at the end of term, when they had already been working in the same one-discipline groups for more than three months. The fact that television students knew each other already very well, may have had an influence in some of the answers to the questionnaire. In the questions 1,3,4,5 and 6, we found very little differences between the answers student gave in 1 – one-discipline practices- and 2 –the multidisciplinary practice- while the second one had the added advantages that we have mentioned above. The conclusions therefore indicate that multidisciplinary projects can be used as an effective strategy to promote teamwork competency, during lab practices with Television Production students.

Table 1. Self-evaluation results for team work competency. Group 1.

Student	Effect-1	Effect-2	Oth-1	Oth-2	Contr-1	Contr-2	Att-1	Att-2	Sol-1	Sol-2	Foc-1	Foc-2
1	3	3	4	3	3	3	4	4	4	3	3	3
2	3	2	4	3	3	3	4	4	4	3	4	3
3	2	2	2	2	2	2	4	4	4	4	2	2
4	3	3	4	3	3	3	4	4	4	4	3	3
5	2	3	4	4	2	3	4	4	3	4	3	4
6	3	3	4	3	2	2	3	2	3	3	3	3
	16	16	22	18	15	16	23	22	22	21	18	18



Graphic 1. Self-evaluation results for team work competency. Group 1.

4 NEXT STEPS

This experience shows that according to Television Production student's perception, their team work competency can be well developed while they are part of a multidisciplinary group. However, the capacity for working with others (Others-2) may be slightly impaired in comparison to a one-discipline only learning situation. In order to maximise student´s effectiveness in the work field, together with their employability after they graduate, it may be beneficial to consider making multidisciplinary practices a part of the Audiovisual Communication curriculum. We could also investigate whether the differences we have found happen to minimise after a longer exposure to working with the same students from a different discipline. Considering the findings of the students about what they think they have learned from this activity, this same experience could be used to promote and evaluate the competence of Innovation, creativity and entrepreneurship -in the combined field of Audiovisual Communication and Tourism- and to promote regional heritage development related projects. Therefore, these practices draw a wide landscape of possibilities yet to be explored and that may contribute to design new learning experiences of students in a future.

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