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MASTER'S
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MASTER'S DISSERTATION
HOW TO AVOID GENDER BIAS IN CLASSROOM
INTERACTION?
A COOPERATIVE LEARNING EXPERIENCE.

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Tutor: Oriol Pallarés

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0. BILINGUAL ABSTRACT + KEY WORDS

This Master's Dissertation is based on data and experiences collected throughout a 2-month internship in a high school in Barcelona. Apart from reflecting in the current process of professionalization an English teacher has to go through, the researcher has also analyzed in depth two short recordings in order to draw tentative conclusions on the gender bias which occurs in classroom interaction and how cooperative learning can avoid it.

KEY WORDS

Gender role
Gender bias
Classroom interaction
Cooperative learning
Jigsaw reading technique

Aquest Treball Fi de Màster es basa en les dades i experiències acumulades durant unes pràctiques de dos mesos de duració a un institut d'educació secundària de Barcelona. A part de reflexionar sobre el procés actual de professionalització dels professors d'anglès, la investigadora també ha analitzat en profunditat dos extractes breus de gravació per extreure conclusions provisionals sobre els prejudicis de gènere que tenen lloc en les interaccions a l'aula i com l'aprenentatge cooperatiu pot evitar-ho.

PARAULES CLAU

Paper/rol del gènere
Prejudicis de gènere
Interacció a l'aula
Aprenentatge cooperatiu
Tècnica del *Jigsaw reading*

1. INTRODUCTION

Self-recordings have proved to be a powerful tool for educators who want to improve their lessons. While teaching, teachers do not have neither the time nor the means to analyse what they are doing and why they are doing it. That is the reason why recordings can help them to improve the quality of their lessons.

Throughout Practicum I and II student-teachers have been filming some of their classes in order to observe their work. This Master's Dissertation includes two of these small recordings, whose transcript has been analysed in order to draw a tentative explanation on the role of gender in classroom interaction with the help of literature. Apart from that, a cooperative working experience has been put into practice in order to check its effectiveness in avoiding gender bias.

This small scale empirical study is preceded by some lines about the school context, the methodology that has been used in order to write this Master's dissertation and an overall reflection on the process of professionalization. This reflection emphasises mainly in the experimental foreign languages project observed during the internship, the process of designing and implementing two teaching units and some of the activities implemented during the Practicum. The last section includes conclusions on both small scale empirical study and the reflection on the process of professionalization.

2. CONTEXT

The recordings, observations and notes which have made possible this Master's Dissertation have taken place in a secondary school in Barcelona. The school is situated in El Clot neighbourhood and it was actually the neighbours who demanded the construction of a new school back in the 90s. They collected signatures and made demonstrations until the school was officially inaugurated in 2000.

This high school, which hosts around 600 students¹, is characterised for being enrolled in many innovative projects which include a CLIL (Content and Language Based Learning) project, the 1x1 project (one netbook for every student), an autonomy project, etc.

The researcher² has mainly worked with three groups of students: two ESO year 3 groups (14-15 years old) and one ESO year 1 group (12-13 years old). The main characteristic which needs to be pointed out is the fact that all these groups have been following to a certain extent a semi-immersion program into English throughout the observation, regardless of being part of the CLIL project or not. Actually just the ESO year 1 group is part of the Maths through English subject, which is the main element of the CLIL project.

The researcher has been observing the following subjects: English with the three groups, P.E. and Citizenship with one of the ESO year 3 groups and Maths through English with the ESO year 1 class. The recordings that have been used in order to develop the small scale empirical study were made during a Citizenship class with ESO year 3 students and an English class with ESO year 1 students.

¹ The words student and pupil are interchangeably throughout the dissertation.

² The researcher is the same person as the student-teacher or in-service teacher, who has written the small scale study and the reflection on the process of professionalization after a 2-month internship in a secondary school. Whenever the paper refers to the student-teachers it is referring to the three student-teachers who did the internship together in the same school.

3. GLOBAL OBJECTIVE

This Master's Dissertation aims to reflect on the professionalization process undergone by the student-teacher throughout an 8-month TED Master's; reflection on the content of the classes, the practical side of theory, opportunities and difficulties arisen along the process and, above all, reflection on aspects which need to be improved.

Apart from this general goal, this Master's Dissertation also intends to summarise the results obtained from a small-scale empirical study based on two short lesson recordings and their corresponding transcriptions. This empirical study can be considered another piece of evidence of gender bias in the classroom context, what substantial research has already documented: boys receive the majority of teacher's attention. Taking this premise as the starting point an observation on gender-mixed cooperative learning groups was done in order to determine its effectiveness in neutralising gender bias. The questions the researcher has tried to answer after analysing the transcripts and after looking at specific background literature are as follows:

- Is it true that boys participate more actively than girls in class?
- If so, why does it happen?
- Do gender-mixed cooperative groups foster gender equality in classroom interaction?

Although any conclusion shall be considered tentative due to the shortness of the recorded vignettes, the results are of vital importance for any teacher who is concerned about giving girls and boys the same learning opportunities. Avoiding gender inequalities in the classroom can actually be regarded as the first step towards a gender-egalitarian society.

4. METHODOLOGY

A combination of several methodologies has been utilised in order to develop this Master's Dissertation. As it is composed of two main sections (the empirical research and the overall reflection), two differentiated methodological approaches have been followed.

The small scale empirical research utilised the classroom-based approach, where the researcher observed what occurred in a classroom. Apart from observing, the teacher collected data which she later analysed. The data used for the research paper includes two video recordings, field notes and the texts assigned to the students in order to do the task. Regarding the recordings, it must be taken into account that two different vignettes of about three minutes each were selected for analysis. Each one of them has been transcribed and analysed (counting the number of words, analysing the discourse...) in order to find features to refute or support previous academic research on the topic. Thus, background reading has also been necessary to carry out the pertinent research on two main aspects: the role of gender in classroom interaction and cooperative learning. Apart from that, a qualitative approach was also necessary in order to interpret the significant amount of data collected.

The overall reflection also utilises the classroom-based approach. For this specific section the researcher analysed several data sources: field notes, students' productions, pictures, peers' and tutors' comments, etc. Some background reading was also necessary to describe events which took place during the internship.

Every data has been collected during Practicum I and II in the different classes the student-teacher has participated in.

Both sections' main goal is professional development for teachers of whatever speciality.

Last but not least, the whole Master's Dissertation has been reviewed by the University tutor and four peer-students to ensure reliability.

5. OVERALL REFLECTION ON THE PROCESS OF PROFESSIONALIZATION

Throughout the Master's classes student-teachers have been discussing about concepts such as diversity, classroom management, interaction, CLIL, cooperative learning strategies, etc. Nevertheless, it has not been until the internship, mainly the second one, that they have been able to make these concepts tangible. On the other hand, evidently student-teachers needed some previous knowledge in order to take the most of their internship. During the 2 months internship the student-teacher has had many opportunities to observe these phenomena and even to put some of them into practice. The Master's would have been almost nonsense without the Practicum because it consists in a professionalising Master's. That is why the Practicum plays such an important role. Combining the amount of work they were assigned and their stay at the school has been very hard, but they have learned so much that they cannot think of a better way to learn than experiencing it live.

5.1 THE EXPERIMENTAL FOREIGN LANGUAGES PROJECT AT THE SCHOOL

The school where the internship took place is enrolled in an autonomy project where English is given a lot of importance. A **PELE (Experimental Foreign Languages Project)** is a project whose goal is to integrate project based learning methods, oral productions, innovative actions and CLIL in the foreign language school curriculum.

The idea came from a nearby primary school, where they started a project in order to integrate English and content. The high school did not want to fall behind and started the PELE, so there is a deep interconnection between the high and the primary school.

The foreign language project in the school is developed through the following subjects and programs:

- Maths in English for ESO years 1, 2 and 3
- Art in English for ESO year 3
- Physical Education in English for ESO year 3
- Citizenship for ESO year 3
- Journalism as elective subject for ESO year 4
- A trip to London (ESO year 2)
- An exchange with a Dutch school (ESO year 3)

Those parts of the project that were observed more closely by the student-teacher will be discussed in the following sections.

5.1.1 MATHS THROUGH ENGLISH - A CLIL EXPERIENCE

To access the Maths through English group students have to sit two exams (Maths and English) once they finish the primary education. Those who get the better marks in these exams can take part in this "semi-immersion" project. The group is

completely open, so those who want to quit it can do it after the first year or they can also be expelled if they do not work as hard as they are supposed to. They receive lots of assignments and the level is very demanding; that is why many decide to leave the project and attend the ordinary classes in Catalan. The other way round, new students willing to work hard are welcome in ESO years 2 and 3.

The subject is mainly based on cooperative learning, self-produced materials and tandem-teaching.

- Cooperative learning

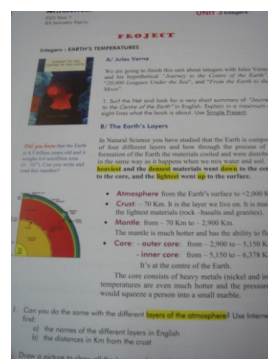
“Cooperative learning is a successful teaching strategy in which small teams, each with students of different levels of ability, use a variety of learning activities to improve their understanding of a subject. Each member of a team is responsible not only for learning what is taught but also for helping teammates learn, thus creating an atmosphere of achievement. Students work through the assignment until all group members successfully understand and complete it³.”

This learning technique exceeds the group learning techniques that have traditionally been used at school because in cooperative learning groupings the group does not succeed until everyone succeeds (picture: students at work during a Maths class). Every single member is given a task and if this specific task is not completed then the goal cannot be achieved. The final product is not the most important part but the steps to achieve it. At the very beginning it must be difficult to make students work cooperatively but once they are used to do it, tasks are easily explained and instructions are understood at the first attempt.



- Self-produced materials

The textbooks used in this subject have been done by the teachers taking part in this project. They fulfil mathematical and linguistic requirements, even though the stress is on the content. (Picture: Maths book for ESO year 1) They contain lots of different tasks which try to approach the subject from as many points of view as possible. Real examples, games, drama techniques, jigsaw readings,



³ From: <http://edtech.kennesaw.edu/intech/cooperativelarning.html>

etc. make up a really complete compendium. After spending hundreds of hours to design two units, the student-teacher does not dare to imagine how long it took to make such complete and fantastic materials. Teachers taking part in this kind of projects must be really convinced of what they are doing because it costs them a lot of energy and effort.

The book is task based and tasks are very assorted in order to include the multiple intelligences that can be found in any class. "The theory of multiple intelligences was developed in 1983 by Dr. Howard Gardner, professor of education at Harvard



University. It suggests that the traditional notion of intelligence, based on I.Q. testing, is far too limited. Instead, Dr. Gardner proposes eight different intelligences to account for a broader range of human potential in children and adults: linguistic, logical-mathematical, spatial, kinaesthetic, musical, interpersonal, intrapersonal and naturalist intelligences⁴ (Picture from:

<http://psicodocentes.blogspot.com/2009/12/test-tipo-inteligencia.html>). School has traditionally focused on the linguistic and logical-mathematical intelligences ignoring the rest of them. A change is needed. Teachers have to design their lessons using a wide variety of ways so that every student is given the opportunity to learn in his own way; that is to say to facilitate effective learning. The use of pictures, music, self-reflection, movement, social interaction, etc. can be a good starting point.

- Tandem-teaching

As it has already been said, the lessons are developed with two teachers in the classroom: the content and the language experts, Maths and English teachers respectively. The teachers interact throughout the hour in order to make explanations clearer. Whenever the Maths teacher gets stuck, the English teacher helps her cope with any linguistic doubt. Students observe a constant model where teachers make mistakes, learn from each other, correct his/her colleague... That is exactly what they have to do when learning cooperatively, so there is no better way of making them understand how it works than doing it in front of them.

5.1.2 PHYSICAL EDUCATION IN ENGLISH

This is the first year of this specific part of the CLIL project. One of the P.E. teachers and the PELE'S coordinator are working closely with each other in order to think of possible ways of introducing English to this subject. One of the small parts the student-teachers took part in was designing cards for

⁴ From: http://www.thomasarmstrong.com/multiple_intelligences.htm

Physical Training – Muscular Endurance Circuit

Crossed abdominal sit-ups


Description: This is an exercise that strengthens the hip flexors and abdominal muscles.

Steps (One person of the team reads the instructions):

1. Lie down on your shins with your feet flat on the floor.
2. Place your hands behind your head and lock them together by clasping your fingers.
3. Raise your upper body until you reach your starting knee with your left elbow.
4. Lower your upper body back down to touch the ground.
5. Repeat it now doing it with the opposite knee up.

You must not:

- stretch your legs.
- lift/drop your neck.


 A black and white photograph showing a person lying on their back on a mat, performing a sit-up. Their hands are clasped behind their head, and their knees are bent and raised towards their chest, illustrating the 'crossed abdominal sit-up' exercise.

5.1.3 CITIZENSHIP

Actually there are some topics in this subject such as sexism, xenophobia, etc. which can be really interesting. This kind of content can always lead to discussion among students. Thus, the teacher has to grasp every opportunity where interaction may appear and create nice communicative activities for this purpose.

For those students who finish Maths in English at ESO year 3 but want to keep practicing their English and also for all those who want to join them, there are two elective subjects whose working language is English. Students are supposed to write a plot (see storyboard in the picture) and film it. This year's sitcom is about an exchange between Americans and Catalans. Apart from filming, there are other jobs to be done: editing, preparing a nice introduction with play-doh, looking for sounds in the internet, etc.



5.1.5 THE EXCHANGE

During the previous years, the possibility of taking part in an exchange was just given to those who were participating in the Maths through English project. Nevertheless, this year the school decided to open the exchange to all those students who were interested in it. There were not as many applications as expected so one of the groups was of just about 20 people. Although it was not the first time they organised an exchange in the school, it seemed as if everything needed to be rethought and rescheduled. The student-teachers never expected that organising an exchange, which had already been done the previous year, would take so long. They attended thousands of meetings where every single detail was discussed. There were so many things to think about: the “students’ matchings”, last minute cancellations, tasks to prepare it beforehand and while the Catalan students are abroad, tasks to do while the Dutch students are in Barcelona, visit programs, meetings with parents, rules, budget and a long etcetera which can convert a really enriching experience into a nightmare for the organisers. The in-service teachers collaborated to an extent preparing some activities to keep the students busy in the Netherlands; and preparing activities where they had to compare Catalan and Dutch culture and where their knowledge on Catalonia was tested (see powerpoint slide).



After taking in consideration the results with both groups next year the school will just organise one single exchange program as they used to do before. The group of students who do not take part in the Maths through English project were not as participative as expected and taking into account the enormous effort that organising two exchanges represents, the school will go back to the previous model. Nonetheless, they will introduce some changes because it will be open to anyone who wants to participate whether they belong to the project or not. Students willing to participate, though, will have to fulfil social skills because the lack of those was this year's main problem.

5.1.6 DIFUSSION OF THE PROJECT

During their stay at school, the in-service teachers had the chance to meet a Japanese University English teacher who was travelling around the world researching on how English is taught. Mr Sasajima visited the Maths through English and Art in English classes and the first one impressed him a lot. He was also very interested in student teaching so he handed out a questionnaire that would help him with his research, which is aimed at identifying the nature of language teacher cognition (see excerpt from Mr. Sasajima's questionnaire in annex 9.1).

5.2 UNIT DESIGN & IMPLEMENTATION

In this section the student-teacher tries to explain the steps she and her teammates followed in order to create their units FOOD FOR YOU and DUTCH CONNECTION. In February they thought each one of them would make a separate unit, but finally the three of them have been working in two units, which have been the result of their close collaboration.

Although there is always room for improvement, they consider that both units include an approach towards innovation. To work in a group of three has allowed them to learn many things from each other, and they consider the design of the units as one of the most enriching experiences throughout the Master's.

In this section the student teacher will try to summarise the process they have gone through. Nevertheless, it will be impossible to explain every step in detail.

5.2.1 FOOD FOR YOU



At the beginning the three student-teachers were suggested to design a unit on food which would serve as extra materials for ESO year 1 students. They were supposed to get ideas from one of the units in the textbook and complement it with interesting activities.

The very first step was to brainstorm content ideas and tasks to develop them. They did not have to take into account any grammar points. The main goal was to teach any content in English. Some days afterwards, they were given the opportunity to change the initial topic but as they already had the idea in their minds, they decided to keep the content topic. Nevertheless, they did not want their unit to end up in the typical and boring unit about food every ESL student has been through. They were looking for a different approach.

After the first brainstorming, the student-teachers distributed among themselves the content items so that everyone would be in charge of two lessons. For instance, one of them was in charge of the mathematical part (calculating diets) and the session about food and religion.

They handed in the very first draft, whose main purpose was to include the tasks they wanted to use in every session and make sure they did not repeat them. Apart from that, they wanted to make it dynamic, useful, interesting...

Please have a look at one of the tasks from the first draft.

1. Warm-up activity (15 min)

Students watch the Super Size Me trailer:

<http://www.youtube.com/watch?v=1lLkyb6SU5U&feature=fvw>.

With English subtitles or without?

What do they think are the effects of just eating Mc Donald's products during 30 days?

What physical and psychological effects does it have?

Effects: depression, lethargy, headaches, addiction, heart palpitations, weight gain.

Their university tutor, Oriol, who was in charge of guiding them throughout the unit design process gave them tips on layout – which obviously was missing–, scaffolding, how to introduce tandem-teaching and how to make the tasks much more communicative.

They changed the tasks and the approach in general; they added a lot of hints so that students would be able to communicate what they thought, they made it more visual and that is how it looked like in the end (see picture). The main idea remained but it was improved with pictures, scaffolding (wordle, language box, sentence starters) and a much better layout.



3.1 Super Size Me Trailer.



<http://www.youtube.com/watch?v=I1Lkyb6SU5U>

- According to the video, what are the effects of just eating Mc Donald's products during 30 days? Put a circle around those which were mentioned in the video.



- What does the doctor tell him?
"You are gonna You've got to"



What do you think are the physical and psychological effects of just eating Mc Donald's products during 30 days?

-
-
-

Language box:

- If you eat *too much* meat ... (uncountable nouns)
- If you eat *too many* sweets ... (countable nouns)
- If you do not eat *any* vegetables ...
- When you ..., then you ...
- If your diet only consists of ..., then ...

• Implementing the unit

According to the student-teacher, implementing the unit was actually the easy part. Most of it worked out smoothly because of two main reasons: the group of students and the previous reflection on the unit itself.

The group of ESO year 1 students they implemented the unit with is really open-minded and always willing to learn new things. At the beginning students expected that the topic –food– would be tackled in the traditional way; but later on they felt motivated because they noticed the change of perspective: they were learning new things (see annex 9.6 on student-teacher's notes). This group is really used to work cooperatively so, for instance, they did not need to explain them how an experts' corner worked because they are used to this kind of activities; neither did they have to put a lot of pressure on them so that they would discuss in English because they normally do it six hours a week... Once the implementation was over, the student-teacher wonders how it would it work with another group which is not that trained in cooperative learning techniques. For further professional development, she would like to take good note of the differences and how to adapt the lessons to make them feasible for everyone.

On the other hand, there was an important point they did not take into account: group composition. As this class is always organised in groups, they did not even think about changing them while implementing the unit. Probably they should have checked if the groupings were the correct ones so that students would

learn as much as possible. As the student-teachers already knew the students, they had the feeling that they could have improved the groupings combining weaker students with hard-working ones.

5.2.2 DUTCH CONNECTION



The design of this unit was a bit different because the student-teachers were asked to prepare some lessons to introduce the exchange for both ESO year 3 groups. The idea was to introduce them to the things they would experience during the exchange and also prepare the visits the Dutch students would do in Barcelona. The most difficult part was that just twenty students out of sixty were taking part in the exchange, so the in-service teachers were really worried on the rest of students' reactions. They were expecting to hear comments from students reluctant to learn content from a country they would not be visiting. Therefore they introduced the lessons as an approach to a different culture which would be very useful for their cross-curricular project where they had to plan a trip to a European city. Some of them were not really happy with the explanation, but of course they had to follow the instructions because it was part of the subject and they would be given a mark on it.

Apart from this small problem, they had to face another one: the students taking part in the exchange were already working on it in a wiki and they also had to fill in a dossier once in Breda, so they had to be careful and try not to repeat topics.

The first brainstorming included the following ideas:


- The Netherlands: food, language, geography, customs...
- Visiting Amsterdam
- Anne Frank's diary
- The city of Breda
- Barcelona's different periods: middle Ages, Art Nouveau, Olympic Games...

Once more they divided the topics among themselves and prepared the first lessons: those referring to the Netherlands. After drafting and redrafting, the final product looked as follows:

5. CULTURE IS...




5.1 What's culture?
In pairs, discuss the features you would consider **culture**. Which are the **signs** that can identify different cultures?



5.2 Dutch culture
Make a list of the things related to **Dutch culture** that we have been discussing in class.

- Look at the **wordle** and find the words that belong to Dutch culture.
- Use the *Language Tip* box to construct your sentences.



A **Wordle** is a word cloud, a list of mixed words.

Create your own here:
<http://www.wordle.net/>

Language tip: Giving opinions

- In my opinion
- I think that...
- I honestly think that....
- From my point of view.....
- I believe that you are right because....
- I think you are wrong because....
- I agree with you, because.....
- I disagree with you because...

The final version included the following features:

- { It was high-cognitive demanding.
- { It was a communicative task.
- { We had taken the layout into account.
- { It was visual.
- { It included scaffolding.

- Main problems during implementation

The main problems aroused from the fact that the student-teachers had not taken into consideration the assessment, so they had to invent it in situ. Finally their mentor gave them the idea of using Easypro, a program to get record of the marks, where they wrote down as many items as possible: performance, homework, tests, compositions... This way marks are fairer for those who are not that good at exams but that work hard throughout the year. Authentic assessment includes projects, portfolios, compositions, oral presentations...

“Schools must help students become proficient at performing the tasks they will encounter when they graduate. (...) The school must then ask students to perform meaningful tasks that replicate real world challenges to see if students are capable of doing so⁵.”

Another big problem they faced was the same as with the other unit: they did not think about groups' composition. This case, though, was more problematic because they just made groups taking into account the way students were sitting; they did not pay any attention to put weaker and hard-working students together. Probably things would have worked better and that is definitely a thing to be improved if this unit is ever implemented again.

5.3 REFLECTION ON USEFUL TECHNIQUES AND METHODS FOR PROFESSIONAL DEVELOPMENT

The in-service teacher was really impressed when she realised how powerful cooperative learning techniques can be. When anyone tries to explain how they work it is very difficult to imagine their capacity to promote interaction and effective learning. The student-teacher remembers that when she was at school they always had to do group works and there used to be many differences in the amount of effort every member dedicated to the final product. However, cooperative learning methods make it possible that every single member of the group has an active role in finishing the task.

⁵From: <http://jonathan.mueller.faculty.nactrl.edu/toolbox/whatisit.htm>

The Jigsaw reading technique promotes cooperative learning and oral interaction as well as it is appropriate for kinaesthetic learners. The student-teacher was quite sure that it would work well with ESO year 1 (see picture below: students reading one of the texts). On the other hand, she was indeed really impressed when she saw the ESO year 3 students trying to memorise their text while standing in front of the wall. She never expected them to make such an effort.



Apart from the Jigsaw reading technique, she found that the tasks that included video clips also tended to work out. Maybe that is because nowadays' students belong to the "digital era", but what is more important is that the effects of playing a video were immediate. Even the disruptive students stayed quite when there was something moving at the screen. Therefore, any activity which includes a video -whatever content (Anne Frank, Kindle2, Human Rights, the Netherlands, the food pyramid...) - and which is accompanied by a nice communicative task is almost synonym of success. Of course there are always other factors which cannot be taken into account and which may make it impossible to finish the task. Throughout the Practicum she was made aware of the importance of scaffolding.

"Scaffolding refers to the steps taken to reduce the degrees of freedom in carrying out some task so that the child can concentrate on the difficult skill s/he is in the process of acquiring."

(Bruner, 1978, as cited in Mercer, 1995, p. 73)

Teachers must pay attention to the way they scaffold their students' learning process. If students do not see models or hints it is very difficult that they are able to produce any good outcomes.

Last but not least, the student-teacher has been able to participate in group-teaching lessons during the whole Practicum. Nevertheless, she thinks that the three in-service teachers should have taken the most of group-teaching during their units' implementation. Although they could have taken this opportunity in a deeper way, they took advantage of being three in the classroom as follows: they could monitor students' work more easily and there were teachers enough in case students needed help. As it has been previously said, group or tandem teaching is definitely a good solution in a CLIL context.

To sum up, teachers must grasp every opportunity to learn new methodologies, tasks or techniques. The student-teacher has learned lots of innovative approaches during a 2-month internship: the power of image, what CLIL consists of, benefits of cooperative learning, etc. Therefore she is willing to start working in order to keep learning. Students should not be the only ones who learn in a classroom; innovation and learning should be inseparable companions of any teacher throughout his or her professional career.

6. SMALL-SCALE EMPIRICAL STUDY

6.1 INTRODUCTION TO THE STUDY & SPECIFIC CONTEXT

This research on gender bias in classroom interaction and how to avoid it using cooperative learning techniques is mainly based in two short video recordings and background literature on the topic.

The first recording (from now on R1) takes place in a CLIL Citizenship lesson with a small group of ESO year 3 students. Six students (three girls and three boys) were moved to a classroom where they had to discuss about a piece of news that described the violation of a human right. Three trainee teachers organised an improvised small group discussion where every student had to explain his/her piece of news to the rest. In spite of the lack of planning the goal of this oral task was clear: to make pupils talk as much as possible and to generate discussion among them. Once the class was over, the three student-teachers remarked that they had the impression that the boys (especially two of them) had interacted much more than the girls and that they have had this impression throughout the Practicum.

After realising that gender bias had actually taken place during Practicum I, the student-teacher decided to put some cooperative learning techniques into practice while implementing the teaching sequences during Practicum II. The second recording (from now on R2) shows a small group discussion where student-teachers do not interact at all. R2 takes place in an English lesson where a Jigsaw method of cooperative learning is put into practice. Students are assigned expert roles in which they teach unique information to their teammates (see the four different texts in annex 9.2). After reading and trying to memorise their text, students put it in common with the rest of the group. R2 is actually the part where every expert goes back to his/her group in order to explain his/her text to the rest.

6.2 RESEARCH ON THE FIRST RECORDING

6.2.1 FOCUS OF OBSERVATION QUESTIONS

This first research aims to answer the following questions:

- **Is it true that boys participate more actively than girls in class?**
- **If so, why does it happen?**

The importance of this assumption is vital in a democratic society as ours which tends to gender equality in all senses and contexts because it might mean that there are hidden and probably unconscious behaviours which lead to this bias. These unconscious patterns must be foreseen in order to avoid them.

English teachers want that their students communicate and participate in their classes; and both boys and girls should have the same rates of participation. Teachers need some

strategies in order to encourage girls to take part in classroom interaction.

6.2.2 LITERATURE BACKGROUND ON GENDER AND CLASSROOM INTERACTION

➡ Delimiting concepts: gender and interaction

Before starting the research both gender and interaction concepts need to be delimited. Graddol and Swann (1989) refer to the difference between 'gender' and 'sex' as follows: the first one is a social distinction between masculine and feminine whereas the term sex relates to the biological distinction. "People are not born with" a particular gender "but rather learn the behaviours and attitudes appropriate to their sex" (Graddol and Swann, 1989, p. 8). Therefore, men and women are given a different treatment. Nonetheless, these differences seem to be so natural that they usually remain invisible.

On the other hand, according to the Cambridge Advanced Learner's Dictionary⁶, 'interaction' means: "when two or more people or things communicate with or react to each other". The Online Etymology Dictionary⁷ divides the word in two: 'inter+action'. 'Inter' comes from Latin and means "among, between" and 'action' comes from the Latin word actio: "to do". "In any role, the teacher influences students, as well as being influenced in return." (Ilatov, Shamai, Hertz-Lazarovitz and Mayer Young, 1998, p. 6)

➡ The importance of talking in the learning process and in establishing relationships

Research over the past decades has proved that talk among pupils and between teachers and pupils contributes to active learning (Swann, 1992). Talking is considered a very important part in the learning process: it "is not merely a way of conveying existing ideas to others; it is also a way by which we explore ideas, clarify them, and make them our own" (Graddol and Swann, 1989, p. 71). Tsui (1995) also emphasises the importance of pupils' involvement in classroom learning and points out participation in classroom interaction as an important part of involvement. She also adds that "participation is very important in language learning." (Tsui, 1995, p. 81) Therefore, if talk is so important in the learning process, girls and boys should be given the same opportunities to hold the floor. Nevertheless, this disadvantage has to be handled cautiously because there are many other ways of learning: "you can also learn a lot by listening, and maybe by making fewer, but well-thought-out and well-timed contributions" (Graddol and Swann, 1989, p. 75).

As for the social implications of language, it is commonly agreed that conversation contributes to the establishment and maintenance of relationships between people. Consequently, "if women and men carry out different kinds of activities in

⁶ <http://dictionary.cambridge.org/>

⁷ <http://www.etymonline.com/>

conversation this will affect not only the local management of talk but also how women and men are able to relate to one another” (Graddol and Swann, 1989, p. 69). Therefore, teachers must be aware of the language implication in social inequalities.

➡ Gender stereotypes regarding amount of talk

According to Graddol and Swann (1989), women are often stereotyped as the ‘overtalkative’ sex. Nonetheless, many studies have been carried out which prove that it is men who talk more, in a variety of contexts. Spender (1978, as cited in Swann, 1992) points out that the impressions of the amount spoken by males and females are distorted: “a talkative female is one who talks about as often as a man. When females are seen to talk about half as much as males, they are judged as dominating talk.” (Graddol and Swann, 1989, p. 73)

➡ Claims on gender bias in classroom interaction

Swann (1992) states that there is inequality in the sense that girls tend to talk less than boys. According to her, it is “important to consider how girls and boys interact, but also how teachers interact with girls and with boys” (Swann, 1992, p. 48).

Research into gender differences in education developed after 1975. This year was declared the Women’s Year by the United Nations and the Decade for Women was launched. As Swann (1992) and Graddol and Swann (1989) summarise in their corresponding books several studies have found a range of ways that contribute to gender bias in the classroom:

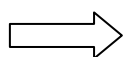
- The more outspoken students tend to be boys, although there are quiet students of both sexes.
- Boys tend to be generally more assertive than girls. They give more unsolicited responses than girls. A clear example is a US study (Sadker and Sadker, 1985, as cited in Swann, 1992) of whole-class talk which found that boys were eight times more likely than girls to call out. According to this study, boys speak on average three times as much as girls.
- Boys also receive more feedback from teachers, which serves to prolong the amount of teacher-pupil talk.
- Girls tend to remain supportive and passive in mixed-sex discussions.
- Teachers often make distinctions between girls and boys for disciplinary reasons or to motivate pupils to do things: they give boys more disapproval and also more praise and encouragement.
- Teachers give more attention to boys than to girls: they speak more with boys than with girls, they ask boys more questions and spend more time reinforcing or rewording questions for boys than for girls. Nevertheless, they perceive that they spend more time with girls even though they have spent an equal time with students of both sexes.

- Teachers tend not to perceive disparities between the numbers of contributions from girls and boys. During the above mentioned study a video of classroom talk in which boys made three times as many contributions as girls was shown to US teachers, but they believed that it was the girls who had talked more.
- Teachers accept certain behaviour (such as calling out) from boys but not from girls. They may also reward the same behaviour in boys that they discourage in girls.
- Teachers prefer teaching boys.
- Even a conscious aim to divide the teacher's attention equally between girls and boys may be difficult to achieve. In some projects, teachers have finally devoted an equal amount of time to girls and boys, but only with considerable effort.

Ve (1990) extends the length of the list of gender inequalities which are to be found in classrooms:

- According to classroom patterns "when a teacher has started talking with a girl, very often a boy interrupts and takes over the interaction" (Ve, 1990, p. 16).
- Research data from kindergartens and schools indicates the boys' predominance in classroom interaction, both between teachers and pupils and between pupils.
- According to research data, "teachers come to know each boy as an individual and boys receive an education which is better fitted to their individual needs, while girls very often are treated as members of a group" (Ve, 1990, p. 16).
- Teachers consider girls as less stimulating students.

Nevertheless, we have to bear in mind that in classrooms there are always talkative boys and girls and quiet boys and girls and that there are factors other than gender that affect students' classroom interaction.



Teacher's and students' influence in turn allocation

Several studies have made an attempt to discover how girls and boys obtain speaking turns. Swann (1992) asserts that teachers have specific patterns of gaze: they more often look towards boys when formulating a question, thereby encouraging them to respond. Non-verbal behaviour seems to be one of the main mechanisms to allocate speaking turns in the classroom. Moreover, "the teacher also looked towards the boys more overall during the lesson – during exposition as well as when asking questions. When the teacher began a question looking towards the boys, her gaze tended to stay with them." (Swann, 1992, p. 62) Thus, the selection procedure that favours boys is subtle and probably unconscious.

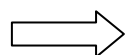
On the other hand, students can also influence their selection by, for instance, getting their hands up first, although it is the teacher who formally selects pupils to speak. Another strategy boys may use is contriving to have more interesting things to say, thus prompting the teacher to question them

further. Apart from that, boys tend to be more disruptive than girls and are the focus of teacher's attempts to maintain control.

"Boys' greater participation in classroom talk comes about because of an interaction between the teacher's behaviour and that of the pupils. We found teachers were able to encourage boys through the use of subtle cues such as eye gaze but also that talkative boys seemed to be able to operate successfully within very different teaching styles. When butting in was allowed, talkative boys butted in; when the teacher required pupils to raise their hands, boys managed to get their hands up fractionally earlier than girls, thus securing more speaking turns. We suspect that girls were also accomplices here. They could also 'read' the teacher's style and thus avoid participating in discussion."

(Graddol and Swann, 1989, p. 72)

That is to say that both female and male students and teachers as well take part in ensuring male dominance.



Research that disapproves the claims on gender bias in classroom interaction

"Generalisations about girls' and boys' behaviour may sometimes obscure important contrasts between contexts and between different sets of people."

(Swann, 1992, p.66)

Ilato, Shamai, Hertz-Lazarovitz and Mayer Young (1998) researched on teacher-student interactions in two Israeli grade 7 classes⁸ in order to prove whether the education stereotypes which portray males as dominant and females as subordinate were true. One of the research question was 'Do males get more attention from teachers than do females (as literature suggests)?'

According to the study, class composition is an important factor that influences teacher-student interaction. There were differences in the teachers' behaviours because they provided more help to the weaker group. Thus, the academic level of the students was another important factor.

"The style of communication pertained to teacher's ability to control classroom interactions and to reach all students, regardless of gender. It is interesting to note that the teachers did not show any bias against females. Thus, the findings here do not support those of other studies which have indicated that males get more attention from teachers."

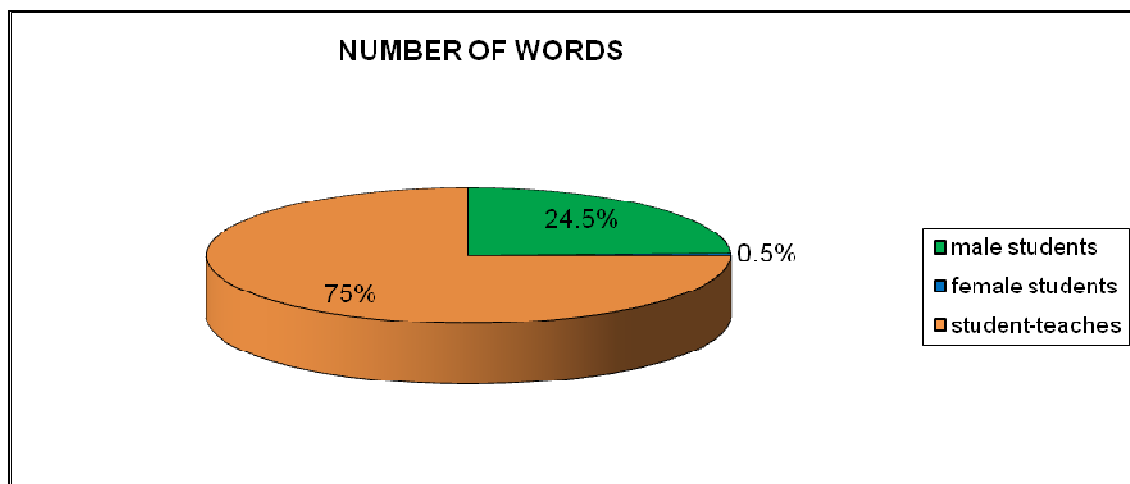
(Ilato, Shamai, Hertz-Lazarovitz and Mayer Young, 1998, p. 6)

⁸ Grade 7 corresponds to the first year in high school.

6.2.3 ANALYSIS OF THE TRANSCRIPT

➡ Amount of talking

Catching a first glimpse of the transcript (see annex 9.4), both student-teachers and boys seem to monopolise the talk. Below you will find a graph which shows the boys', girls' and student-teachers' rates of participation:



	Total number of words	Participation %
Myriam	208	54%
Laura	76	20%
Montse	4	1%
Manel	86	22%
Josep	9	2%
Joan	2	0.5%
Carla	2	0.5%

As it is not straightforward to say when one person's turn ends and the next person's turn begins due to overlapping, in order to make this graph and calculate the corresponding percentages, the researcher has counted down the number of words⁹ every participant said during the video excerpt. As shown in the previous graph: 75% of words are produced by student-teachers, 24.5% by male students and 0.5% by female students. Though teachers monopolise the discussion, the feature to be stressed is that female participation is almost inexistent.

Myriam is the student-teacher leading the discussion. Thus, she participates more actively because she encourages discussion by asking questions (see turns 20, 22-23, 64-65, 69-71 and 76). Nevertheless, she, together with the other student-teachers, seems to talk exclusively with Manel, whose words account for 22% of the total.

This small extract of classroom talk could be seen as another piece of evidence supporting gender bias in classroom interaction. What mechanisms or attitudes can be observed among both pupils and trainee teachers?

⁹ Just those words which were audible.

→ verbal behaviour

Boys self-select themselves: they do not wait to be specifically nominated to do so; they take the initiative to answer the question which the student-teacher has thrown at the whole group. Lines 20, 22-23, 31-33, 69-71 and 75-76 correspond to questions thrown at the whole group; all of them are answered by boys – whether in Spanish or English. Please find an example below:

069 Myriam Do do you think we we can do something ((looking at Manel))
070 for them? (0.3) If you can do ay do you
071 think we can help them?
072 Manel *Que si queremos ayudarlos*
073 Josep *Que si debemos ayudarles?* ((looking at Myriam))

Myriam, one of the in-service teachers, specifically nominates one of the boys just in one turn (see lines 62-66 below):

062 Myriam Yeah but just just [imagine you you go there] ((looking at Manel))
063 Manel [()]
064 Myriam what what would you do Manel to help these
065 [people?]
066 Manel [()]

Unfortunately Manel's answer corresponding to line 66 is inaudible in the video recording.

→ Non-verbal behaviour

“The extracts of talk suggest that one cannot consider certain aspects of talk (...) in isolation from everything else that goes on when children interact. Nor, ideally, should one consider talk in isolation from the non-verbal component of a communication, though in practice it is difficult to take full account of non-verbal behaviour.” (Swann, 1992, p. 90)

The non-verbal behaviour of the vignette transcript has been fully analysed. Nonetheless, there might be lots of non-verbal behaviours which have not been captured by the video camera. There are lots of evidences in the transcript that show that Myriam's gaze looks towards the group of boys, especially towards Manel during most of the conversation. See examples to be found in lines 35 and 69-71 below:

035 Myriam Yes! ((pointing at Manel))
069 Myriam Do do you think we we can do something ((looking at Manel))
070 for them? (0.3) If you can do ay do you
071 think we can help them?

The question Myriam is asking is answered by two boys, Manel and Josep: probably because she was looking at them when she asked the question (see turns 72-74 below).

- 072 Manel *Que si queremos ayudarlos*
 073 Josep *Que si debemos ayudarles?* ((looking at Myriam))
 074 Myriam Exactly.

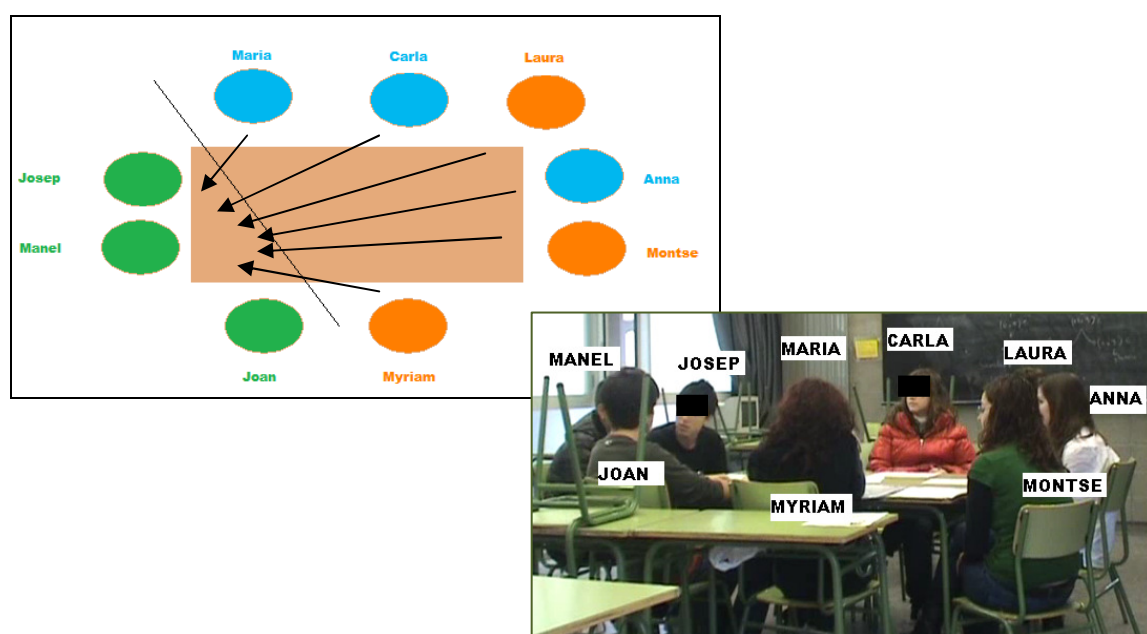
Laura, one of the other trainee teachers, as well looks at the boys when she makes a contribution (see lines 30-34 below). Thus, the question she seems to throw at the whole group is actually thrown at the boys' corner; and as we can observe in line 34, it is Joan who answers it.

- 030 Laura [Well, there's another]
 031 Haiti is just a half of an island. And what ((looking at Manel and Joan))
 032 is on the other part of the island?
 033 Which country is it?
 034 Joan *República Dominicana*

Non-verbal behaviour is definitely the main mechanism to allocate speaking turns in this small group discussion.

➡ Influence of the classroom layout

The layout of the classroom also influenced in the low (almost in-existent) rate of participation of the girls. Boys and girls were sitting at the two sides of the table, facing each other. You could even draw an imaginary diagonal in the middle of the table to separate the female and male groups (see picture below).



As Manel is the first one to allocate a turn, the gazes from student-teachers as well as from both girls and boys focus on him. As the discussion continues, the boys' corner monopolises the attention of the in-service teachers (see picture of gaze directions in the previous page and snapshot from the video).

There is only one contribution made by a girl and it occurs out of the main conversation:

080	Carla	[()]	((talking to Laura))
081	Myriam	[Yeah, we're sending]	
082	Laura	[()]	((talking to Carla))
083		sending, sending Money	
084	Carla	sending money	((looking at Myriam))

Carla starts a side-conversation with Laura because she has something to say about what is being discussed. Nevertheless, it is Laura who has to say it aloud beforehand; then Carla repeats what Laura has previously said. On the other hand, this proves that even if girls are not taking part directly in the group discussion, they are actually playing a role in it: they are listening and paying attention, so they are part of the peripheral conversation.

6.2.4 CONCLUSIONS ON R1

Substantial research has documented that boys receive the majority of teacher attention. This small research could also be considered a piece of evidence of gender bias. Nevertheless, "there's a danger of recording isolated events and attaching too much significance to them (...) There's still the risk that observers 'see what they want to see'." (Swann, 1992, p.67) Thus, it is very dangerous to link this 2'49" recording to the gender inequalities to be found in the classroom. On the other hand, the non-verbal behaviour of this vignette shows a clear tendency to focus the attention on the boys' group. After having analysed the transcript, the following conclusions have been reached:

- There were 3 student-teachers in the classroom, so they could have exploited this great opportunity to interact with each other and serve as model for the pupils. Thus, both boys and girls would have probably participated more.
- The task was completely improvised and unplanned; and class discussion needs to be organised in such a way that girls can take an active part, without being 'crowded out' by boys. (Swann, 1992) Tsui (1995) points out that group work is more difficult to manage than lockstep teaching because it must be well planned, structured and interesting; otherwise students would not feel engaged.
- The classroom layout did not favour girls' integration in the discussion. Students sat down wherever they pleased and student-teachers should have mixed them in order to

increase interaction because “boys and girls need to interact with each other.” (Swann, 1992, p.207)

- Girls did not feel included in the group discussion, so they opted not to participate. Though, they took part in the peripheral conversation because they were following what was being said.
- The trainee teachers did not make use of direct nominations; they just used non-verbal behaviour in order to make students participate. If they had nominated the girls, they would have probably taken part in the group discussion.
- While teaching, the in-service teachers did realise that boys’ participations had enormously outnumbered girls’ ones, but they did not realise that they had paid more attention to boys. Therefore, gender bias occurs unconsciously.

Swann (1992) points out several strategies for intervening directly in the patterns of talk in the classroom, paying careful attention to one’s own talk as a teacher and to both quantity and quality of pupils’ talk:

- Try to divide one’s time equally between girls and boys (e.g.: asking the same number of questions).
- Encourage pupils to respond more confidently (e.g.: giving them more time).
- Teach girls to be ‘assertive’.
- Encourage collaboration between girls and boys in group work.

This very last point is widely discussed in literature: Danish researchers have come to the conclusion that girls’ interaction patterns in the classroom are more supporting and democratic and therefore, they work better in groups. That is why high school teachers in Denmark suggest that the classes should be organised in small groups to foster girls’ interaction in school. (Ve, 1990)

To sum up, there is a need for teachers to monitor what goes on in their own classrooms; quieter pupils must be given the chance to participate. (Swann, 1992) Evidence of boys’ dominance of classroom interaction has attracted concern from many teachers and researchers. Therefore, equal opportunities for classroom talk must be promoted because they may also have the wider aims of changing girls’ and boys’ behaviour and how they relate to one another not only inside school but also outside. Teachers should monitor girls’, boys’ and teacher-student interaction in classrooms in order to make sure that no gender bias is taking place. If they discover that they are unconsciously promoting it, they can try to implement the above mentioned strategies to tackle classroom talk, which would already be a step forward in itself. Improving teachers’ interactions with students will most likely be a slow process, but teachers can foster true collaboration and avoid boys to dominate by providing girls with extra opportunities. (Granger, 1999)

6.3 RESEARCH ON THE SECOND RECORDING

6.3.1 FOCUS OF OBSERVATION QUESTIONS

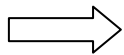
The second part of this research consists exactly in using a cooperative learning technique in order to observe whether girls feel more encouraged to interact in the absence of a teacher monitoring the task.

After having observed that teachers' unconscious behaviour and certain classroom layout can cause gender bias, this second part of the research aims to answer the following questions:

- **Do gender-mixed cooperative groups foster gender equality in classroom interaction?**

According to a good deal of research on cooperative learning, it has social as well as academic benefits for students, but this small scale empirical study would like to discover if it also counteracts the usual male-dominance in classroom interaction. This way cooperative learning could be attributed other benefits beyond those previously mentioned.

6.3.2 LITERATURE BACKGROUND ON COOPERATIVE LEARNING

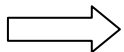


The guided construction of knowledge

Mercer (1995) points out the importance of communication, where one person helps another to develop their knowledge and understanding. He claims that knowledge is not only an individual mental possession but also a joint one that can be effectively shared, made available to others: "the essence of human knowledge and understanding is that it is shared." (Mercer, 1995, p.66)

"People misunderstand each other, teachers teach badly, students transform sensible ideas into nonsense. But the failures are as important for our understanding of the process as the successes, and they may also be better understood by looking carefully at the talk that generates them."

(Mercer, 1995, p.2)



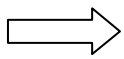
What is cooperative learning?

Following Mercer's (1995) reflections, we all have acquired skills through talking and working with people who were not our teachers. Apart from that, "one good test of whether or not you really understand something is having to explain it to someone else." (Mercer, 1995, p. 66) However, talk among learners has traditionally been discouraged because it was considered disruptive. Lately, though, collaborative learning education practice is regarded as a powerful and valuable tool.

“Cooperative learning is a pedagogical practice that involves students’ working together in small groups to accomplish shared goals. In cooperative learning, each group member is required not only to complete his or her goal but to ensure that others do likewise if the group is to achieve its goal.” (Gillies, 2007, p. 33)

Putting the children together around a table and allowing them to talk does not necessarily mean that they are collaborating; they need to be taught how to do it.

Hertz-Lazarowitz (1992) compares traditional classrooms, where the teacher is the centre of the activity and s/he controls all communication and possesses knowledge, with cooperative atmospheres in which the teacher is just a guider and students must develop their social and interactive skills to carry out the task. “They take on various social roles in the learning process: leaders, planners, investigators, and so on.” (Hertz-Lazarowitz, 1992, p. 75)



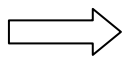
Benefits attributed to cooperative learning

“Pupils are more likely to engage in open, extended discussion and argument when they are talking with peers outside the visible control of their teacher, and this kind of talk enables them to take a more active and independent ‘ownership’ of knowledge.”
(Mercer, 1995, p. 94)

The learning process changes because the responsibility is moved to the learners’ side and that translates into an effective construction of knowledge. That is to say that they provide opportunities for practising and developing ways of reasoning with language that do not arise in teacher-led activities. (Mercer, 1995)

According to Gillies (2007) cooperative learning has been used successfully to promote reading and writing achievements, understanding in science classes, problem solving in mathematics; it has been shown to enhance student’s willingness to work with others with diverse learning needs and to enhance relations in groups with students coming from different cultural backgrounds, just to mention a few. The benefits attributed to cooperative learning are numerous; according to Slavin (1999, as cited in Gillies, 2007) it is one of the greatest educational innovations of recent times. Cohen (1994) adds that cooperative tasks are an excellent tool for the learning of language and the improvement of oral communication. Recitation and drill are not as effective as a group exercise where students talk with each other. “Children learn language by using it in a more natural, meaningful context” (Cohen, 1994, p.17)

When students work cooperatively, they learn to listen to what others have to say and how they say it, to share ideas and perspectives, to give and receive help and to work towards understanding and learning. (Gillies, 2007) Therefore, cooperative learning is a successful pedagogical practice that promotes socialisation among students and motivation to learn.



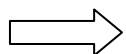
Teacher's role in cooperative learning

Research has proved that not all kinds of collaborative task encourage effective learning. Therefore teachers play a critical role in meeting some requirements in order to favour the benefits of cooperative learning. According to Mercer (1995) these conditions are as follows:

- Partners must necessarily talk to do the task; they need to dialogue together.
- Cooperation must be encouraged.
- Participants must fully understand the purpose of the task; teachers and learners have to agree "about what 'talk' in the classroom is for and how it should be conducted." (Mercer, 1995, p. 115)
- The task must encourage the free exchange of relevant ideas and the active participation of everyone

Students usually do not know what is expected from them and teachers often provide little information about it. That needs to be changed because teachers are expected to guide the construction of knowledge. (Mercer, 1995) Teachers must explicitly teach dialogue skills to enrich discussion and learning. (Gillies, 2007) Apart from that, teachers need to challenge students' thinking and scaffold their learning by modelling the kinds of talk, for instance. (Gillies, 2007) Last but not least, the textbook is not a comprehensive tool; teachers need to use other sources of information and design multisourced materials to challenge students' interest. (Gillies, 2007)

To sum up, learning needs to be challenging and students need to be provided with opportunities to interact with each other in order to ask questions and seek help. (Gillies, 2007)



A schoolwide cooperative learning experience

Among many cooperative learning experiences, Stevens and Slavin (1995, as cited in Gillies, 2007) report on one conducted during 2 years in two elementary schools. The school model included the following elements:

- including cooperative learning in classes
- no segregation of students with learning disabilities
- teachers observed and coached each other
- teachers planned and discussed together the curriculum
- principal and teachers collaborated on school planning and decision making
- parents took an active role in school planning and activities

In those schools that took part in the project, the results were higher academic achievements for all students, including those with learning disabilities and gifted as well as better peer relations (children listed significantly more friends than in the comparison schools).

➡ Three ways of talking and thinking

Mercer (1995) distinguishes three ways of talking and thinking in order to analyse some class transcripts where cooperative learning takes place. These three ways of talking and thinking are as follows:

- Disputational talk, where disagreement and individualised decision making prevails.
- Cumulative talk, where speakers build on what the other has said without any criticism.
- Exploratory talk, in which partners engage critically but constructively with each other's ideas. "Children ask each other questions, they appeal for everyone's views, they try to justify their views rationally and by recourse to evidence." (Mercer, 1995, p. 112)

This last kind of talk is the one that should be encouraged by teachers. Nevertheless, as Mercer (1995) states, in most of his recorded sessions exploratory talk occurred sporadically and occasionally. Therefore one of the teachers taking part in the project planned to include some awareness-raising activities on talk and cooperation. The teacher led some group and class discussions about topics related to conversations such as 'arguments' or 'taking turns'. She stressed "the need for all relevant views to be heard, for agreement to be sought if possible, and for groups rather than individuals to feel responsible for decisions reached and actions pursued." (Mercer, 1995, p. 110) The result was a dramatic increase of exploratory talk, enthusiasm and involvement. This achievement was possible through the sharing of knowledge between researchers, teachers and learners. (Mercer, 1995)

➡ Cooperative learning groupings

"The dilemma of how to construct groups so that there is a mix of students of different abilities is one that regularly confronts teachers.(...) There is evidence that low-ability students benefit from being included in mixed-ability groups because they are able to take advantage of the additional insights and often the extra tuition their more able peers provide. In contrast, high-ability students appear to perform equally well in either mixed- or same-ability groups. The group composition appears to have no effect on their ability to achieve."

(Gillies, 2007, p. 7)

Gillies (2007) refers to the five key components of successful cooperative groups:

- Positive interdependence, which occurs when no group member can succeed unless others do, and they must coordinate their efforts to ensure that everyone completes the assigned goal.

- Promotive interaction, where students encourage and facilitate each other's efforts while working together.
- Individual accountability stands for accepting personal responsibility as well as ensuring that others complete theirs.
- Interpersonal and small-group skills include actively listening to each other, stating ideas freely, providing constructive criticism, taking turns, etc. These skills need to be taught beforehand.
- Group processing helps maintain effective working relationships. It mainly consists in summarising group's ideas and information, encouraging members to participate in group discussion and checking to ensure that decisions made by the group are supported by every member.

➡ Gender and cooperative learning

“Research has shown that while boys often dominate mixed-sex pair and group activity, sometimes the ‘more able’ students (of either sex) seem to be those who tend to take control.” (Mercer, 1995, p. 97)

Therefore, when students are released from the constraints of teacher-led discourse, they also have to be released from other forms of dominance (amongst peers, for instance). Nonetheless, information available on the gender composition of groups is limited. Webb (1984, as cited in Gillies, 2007, p. 52) “found in gender-balanced groups that males and females were equally interactive and showed similar levels of achievement. In majority-male groups, however, females tended to be ignored while males showed higher achievement than females. In majority-female groups, females directed most of their interaction to males to the detriment of their own interactions and showed lower achievement than males”.

According to Webb's study, children interact better and learn more in gender-balanced groups or in all-female groups. Boys tend to outperform girls even though they have similar abilities. However, when groups are gender-balanced there are no differences in interaction rates between girls and boys. (Gillies, 2007) Therefore, according to Webb (1992) the ratio of girls to boys may influence explanations. In one of her studies, she observed that girls were more likely to receive explanations in groups with equal numbers of girls and boys than in gender-unbalanced groups. Other studies (Gillies and Ashman, 1995 as cited in Gillies, 2007) have found that the effect of gender composition on cooperative interaction was minimal if the groups were well structured. The more experienced groups are the less gender composition interferes.

To sum up, although there is still few research on gender groupings, some features can be identified (Gillies, 2007):

- Students often prefer working in gender-balanced groups.
- Adolescents do not like to work in mixed-gender pairs.
- Students are more interactive and obtain higher learning outcomes in gender-balanced groups.

➡ Previous experiences fostering equality

Jackie Hughes, deputy head of a school in Birmingham, launched a project “to foster equal opportunities and reduce prejudice” (Graddol and Swann, 1989, p. 184). One of her goals was to facilitate respectful and creative interaction between pupils and staff. She realised that there were some inequalities in classroom talk. Boys were more willing to participate than girls and if they did not get a turn they became impatient and called out. On the other hand, girls put their hands up and waited to be nominated before speaking aloud. She found that teachers could intervene in small discussion groups, where the composition of groups could be chosen in order to avoid that the more talkative students dominated it. According to Swann (1992), quieter students tend to participate more in well selected small groups.

On the other hand, there is evidence that efforts to change classroom practice to redress imbalances and inequalities have turned out useless. After the AAUW¹⁰ report *How Schools Shortchange Girls* was published in 1992; action to provide equitable treatment for girls in US public schools was launched.

The report “noted widespread classroom gender bias, with teachers initiating more communication with boys than with girls; asking boys more complex, abstract, and open-ended questions; giving more detailed instructions to boys (...); and praising boys for the intellectual content and quality of their work, while praising girls for its neatness and form”

(Granger, 1999, p. 4)

A follow-up study in 1998 observed that clear progress had been achieved, although concerns remained: teacher-student interactions still reported problems with bias. Even when efforts to neutralise it were made, it was resistant. According to Granger (1999) education schools should integrate equity into pre-service training and ongoing training for practicing educators because gender bias in teachers’ interactions with students seems to be the most intractable problem.

6.3.3 ANALYSIS OF THE TRANSCRIPT

➡ Response to Mercer’s questions

Mercer (1995) proposes five questions to check whether the task fosters a cooperative construction of knowledge among teammates. The five questions are as follows (see complete transcript in annex 9.5):

1) Do the children disagree at all?

In R2 no explicit form of disagreement can be observed. Nevertheless, in turns 42 to 59 we can see through their body

¹⁰ American Association of University Women

language that some students find one of the contributions odd. They disagree with the girl who is talking by using their body language and asking her questions. The disagreement arises because her peers find it strange that Muslims do not maintain sexual relations. They already have some previous knowledge which does not correspond with what Rosa is telling them. Rosa's and her peers' contributions solve the problematic. Nevertheless, she has not fully understood the text because she has confused Ramadan's precepts with what Muslims are normally allowed to do throughout the year (see annex 9.2) so she is telling her peers information about this religion which is not true.

- 042 Rosa *no no no que sí* (0.2) haven't got [(.)] *relacions* ((making a movement of thinking))
 043 *sexuals*
 044 Francesc [()]
 045 Marta What? ((face of astonishment))
 046 Carles And well how they have got [(.)] children sons?
 047 Francesc [sons]
 048 Carles ↓ They haven't got sons? ((looking astonished))
 049 [and]
 050 Marta [They're] they're special form, ((making a repetition movement))
 051 Carles Don't contribute it it stop at ()
 052 Francesc Or then only do this for have sons ((looking for his peers' approval))
 053 Rosa () to sons
 054 Carles [Ah *vale*]
 055 Francesc [OK]
 056 Carles But it's only for sons for for the generation,
 057 Rosa ()
 058 Carles OK
 059 Francesc OK ((looking at the camera))

2) Do they ask questions to each other?

In several moments during R2 questioning among peers can be observed. In turn 21 to 31 Marta asks Carles about the Catalan translation of a word she does not know.

- 021 Marta And how how do you say that huh vegans? It's ((looking at Carles))
 022 *vegans?*
 023 Carles Yes ↓ *vegans*. ((looking at Marta))
 024 Marta In Catalan? ↓ How do you say it? ((looking at Carles))
 025 Carles *Vegetarians* ((looking at Marta))
 026 Marta Ah [it's the same?]
 027 Francesc [it's the same?]
 028 Carles Yes *són vegetarians* and raw vegans (.)

029 *vegetarians (.) que mengen,*
 030 Francesc *carn?*
 031 Carles *sí cruda (.) ↓ vegetarians sí*

3) Do they share knowledge which is relevant to the task?

In R2 there is no deviation from the task. They just talk about their texts on religious and ethical influence on food. There is no single turn in which they talk about something not related to the task.

4) Do they seem to have a common understanding of what the task is about?

Marta has already explained a part of her text when the transcript starts. Once she considers that she has finished what she was supposed to do she asks who is next (turn 10). This turn proves that they know what they have to do: they have to retell his/her text to his/her classmates.

010 Marta Well huh the second who is the second? ((searching for the following one))

5) How well does the discussion seem to embody the kind of ground rules for reasoning and problem solving that are important for educational success?

Students interact properly because they respect each other's turn, they ask questions whenever a comprehension problem arises, and they listen carefully to what their teammates are saying. They know what they have to do (explain his/her text to the others) and they do it with just few overlapping, so they respect each others' turn. Apart from that, relevant information is shared effectively.

➡ which way of talking and thinking is to be found?

As it has been previously explained, Mercer (1995) differentiates between disputational, cumulative and exploratory talk when students are working together. This small piece of transcript could be considered as exploratory talk because partners engage critically but constructively to what their peers are saying. They put questions to each other whenever there is something they do not understand (see turns 18 to 27 and 36 to 52) and offer their suggested ideas to their teammates. For instance, when Rosa tells her peers that Muslims are not allowed to have sexual relations and the rest of them are shocked and ask her how they breed, Francesc in turn 52 and Carles in turn 56 give their tentative suggestions as follows:

052 Francesc Or then only do this for have sons ((looking for his peers' approval))

056 Carles But it's only for sons for for the generation,

➡ Do interpersonal and small-group skills take place?

In order to check whether these skills occur during R2 an adapted version from a table to be found in Gillies (2007, p. 44) has been used.

skill	where does it take place in R2?
Listening	Students keep looking at the person who is holding the floor.
Accepting responsibility	035 Rosa huh I read the <i>musulmans</i> (.) huh the diet of Rosa knows she has to explain her text about Muslims.
Taking turns	010 Marta Well huh the second who is the second? Marta has finished explaining her text and asks who is next.
Understanding others	021 Marta And how how do you say that huh vegans? It's 022 vegans? Marta is not sure about the Catalan translation for "vegans".
Clarifying differences	056 Carles But it's only for sons for for the generation, Carles adds some information in order to clarify something which sounded a bit odd to them.

Having a look at the previous table it can be stated that during R2 some interpersonal and small-group skills took place. Thus, one of the key components of successful cooperative work (Gillies, 2007) can be identified. The rest of components have not been analysed because the transcript does not include the whole task.

➡ Assessing groupwork

A "thoughts about group work questionnaire" (Gillies, 2007, p. 169) has been used in order to value the cooperative work quality during R2. The responses have been rated from 1 (almost never happens) to 5 (almost always happens) including n/r (not requested) when it was not considered as essential to accomplish the task.

1. Group members give each other time to talk and make suggestions.	4	Almost no overlapping.
2. Group members treat each other nicely.	4	They do not show any disrespect.
3. The ideas of others are important.	n/r	No ideas sharing.
4. Group members often use the ideas of others.	2	Turn 56
5. Group members offer help for each other when it is needed.	2	Turn 41 (although it is inaudible, from the context it seems that Francesc offers Rosa his help).

6. Group members seek help from each other before asking the teacher.	4	Turns 21-20, 45, 46 and 48.
7. Group members feel free to talk and make suggestions.	4	Turn 30, 50-52 and 56
8. Decisions are made by the group.	n/r	No agreement needed to be reached.
9. Group members do the best they can.	4	They make an effort to talk as much English as possible according to their possibilities.

Out of 35 possible points this group work has been given 24. Students should improve their skills regarding the use of others' ideas (summarising, retelling, recapping...) and also the amount of help they offer to each other (for instance, when someone gets blocked).

➡ Boys and girls amount of talking

A first look at the transcript (see annex 9.5) shows a gender-balanced discussion. The words¹¹ have been counted down in order to establish the boys' to girls' rate of talking and the rate is almost 50%-50%:

	Total number of words	Participation %
Girls	140	49,5%
Boys	143	50,5%

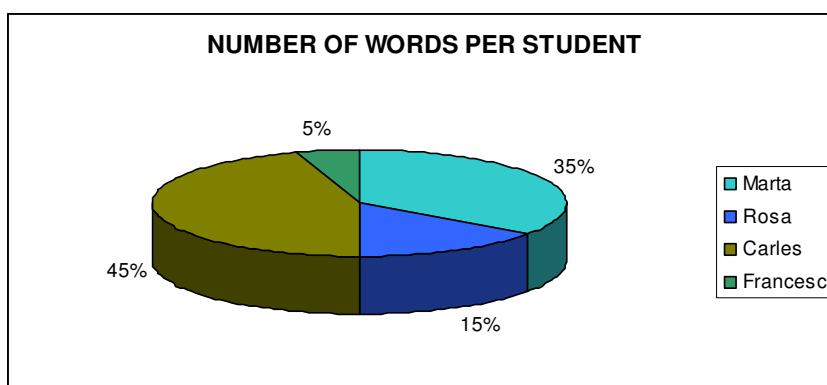
In order to establish the amount of talking the whole discussion should have been transcribed because R2 just includes the last part of Marta's turn, Carles' and Rosa's complete turn.

All the same, this piece of recording shows that girls do participate more in group work tasks where everyone is assigned a role to accomplish. Everyone has a specific task, in this case they had to explain a text to their teammates and they did it. Of course their performance is more or less outstanding according to their level of English and their comprehension of the text, but they communicate and interact with their mates mainly in English, and that is the important point in this Jigsaw task.

Please find below participation rates of every student and corresponding graph in the following page:

	Total number of words	Participation %
Marta	99	35%
Carles	128	45 %
Francesc	15	5 %
Rosa	41	15%

¹¹ Just those words which were audible.



According to the graph, Marta and Carles monopolise the discussion. It is mainly due to the fact that R2 includes their turns to explain their texts about 'vegetarians' and 'vegans'. On the other hand, it includes also Rosa's turn to explain her text on 'halal food' although she is only responsible for 15% of interaction. A good reason for that could be that she has not understood quite well her text because some content mistakes can be observed during her explanation (see turns 38-40 and turns 42-43). Nevertheless, she makes an effort to talk in English and mistakes are part of any learning process. Another point would be how to repair mistakes made during cooperative learning due to lack of comprehension? If the teacher is not observing them and the other teammates do not repair the mistake, what can be done? That point should be taken into consideration for further study.

6.3.4 CONCLUSIONS ON R2

As it has been mentioned before any results arisen from a 3-minute transcription analysis must be handled carefully. It is dangerous to draw implications for educational practice on such a small piece of evidence. Apart from that, the recording took place outside the English classroom because inside it was too noisy for filming. Thus, this could also have affected the final outcome of the task because students were being 'controlled' away from the normal life of classrooms.

Nonetheless, this small empirical study seems to corroborate that gender-mixed cooperative groups foster gender equality in classroom interaction. Boys and girls participated in the discussion without being directly nominated. Therefore, cooperative learning seems to have social benefits for students regarding equal treatment amongst girls and boys. Girls benefit from working in groups.

On the other hand, teachers must be aware of the importance of teaching students how to operate in cooperative groups, which requires an enormous amount of forethought and planning. Results will come neither easily nor straightaway. Teachers must take into consideration the groups composition, the type of task, what is expected from students and his or her own role in monitoring both process and outcomes. Although the students from the recording are highly trained there were still some areas for

improvement (using others' ideas, summarising and reformulating what has been said, etc.). Teachers must model to their students first because otherwise they will not be able to challenge each others' opinions or acknowledge each others' points. Consequently, students must follow an ongoing learning process in order to take the most of cooperative work and obtain better learning outcomes. In small groups it is students themselves who have to manage talk and lead the direction of discussion. However, they need previous scaffolding to do it correctly. Teacher-centred lessons should not represent the standard rule to follow. Teachers sometimes follow unconscious patterns which can lead to gender or any other kind of bias. That is why eliminating the prominent role of teachers and engaging students in cooperative tasks seems to be the norm to follow in order to avoid any kind of discrimination.

To sum up, there is still little research on the effects of cooperative learning in avoiding gender bias. Thus, this aspect should be a point to develop in future research. Another point which needs to be studied more profoundly is how to repair mistakes which take place during cooperative learning. If there is just one teacher in the classroom s/he can not monitor every single team, so s/he cannot notice when comprehension mistakes are being made. How could this be handled? Finally, another point which should be developed in further study is the influence of group composition in cooperative learning with regard to gender. Is there any difference among gender-balanced mixed teams, gender-unbalanced mixed teams or same-gender teams? Does it have any influence in both process and outcome?

7. CONCLUSIONS

Taking into account the findings and observations made throughout the Master's dissertation, it has become clear that teachers need to reflect on their own teaching practices and determine what may need to be adjusted or changed to promote improvement in students' learning. That includes that whenever they think gender bias is taking place in their classroom, they must immediately try to repair it. Nonetheless, if they do not reflect on their practices and do not try to assess their lessons, it will be very difficult to notice this kind of behaviour. Although there is no definitive conclusion on the influence of gender in classroom interaction, universities should integrate equity into pre-service training. Apart from that, educators should also receive some training in how to avoid gender bias as it seems to be the most intractable problem in teacher-students' interactions.

Although cooperative learning is considered a great tool in order to construct qualitative learning, teachers should be aware that it is not the panacea and that research cannot stop. Students are part of society and society keeps changing every day. Therefore, research cannot stop looking for effective methods of teaching and learning. Nonetheless, taking into account the results 'schoolwide cooperative learning' has obtained where it has been put into practice, it should be considered as a method for future research.

Thanks to both Practicum and Master's lessons the researcher has discovered many innovative techniques which have raised her awareness of the potential value of innovation in education. CLIL seems to be an adequate response in order to improve second language learning. However, English teachers need other tools to make their students competent in the second language. Grammar-based lessons are obsolete but CLIL needs supportive resources and techniques to make it more effective. On the other hand, who knows what future will bring in education? Everything changes so rapidly that maybe in some years' time CLIL will be pushed into the background because other more innovative methodologies have shown to be more effective. What really matters, in the end, is that research and self-awareness in education never stops throughout any teachers' professional career.

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9. ANNEXES

9.1 MR. SASAJIMA'S RESEARCH QUESTIONNAIRE

33 Selected Questions about teacher cognition

Directions:

This questionnaire is aimed at identifying the nature of language teacher cognition (Borg, 2003, 2006). All 33 questions are selected from many questions relating to teacher cognition about the language teacher education systems and teaching professions. You might think that many questions are ambiguous and hard to answer, but please answer each question intuitively. If you wish, I would like to contact and ask you a lot more specific questions based on this questionnaire results.

Thank you.

SASAJIMA, S.

Would you please give me your name and email address?

Your name ()

Your contact email address ()

a) language learning knowledge and skills

1 Do you think it is difficult to teach a foreign language to your students?

1(strongly agree) 2 3 4 5 (strongly disagree)

2 Do you think it is important to speak a foreign language with an excellent accent?

1(strongly agree) 2 3 4 5 (strongly disagree)

(...)

e) recruitment and employment (qualifications, standards, etc.)

22 Do you think sufficient foreign language proficiency is the most necessary to become a qualified teacher?

1(strongly agree) 2 3 4 5 (strongly disagree)

23 Do you think that strong or positive personality, communication ability and leadership can be more important than the knowledge and skills of a foreign language?

1(strongly agree) 2 3 4 5 (strongly disagree)

24 Do you think you have sufficient study time for professional knowledge and skills?

1(strongly agree) 2 3 4 5 (strongly disagree)

9.2 EXPERT'S CORNER TEXTS FROM THE UNIT "FOOD FOR YOU"

(Authors: Laura Andradas, Myriam Garcia and Montse Gómez, 2010)

HALAL

Halal refers to any object or action which is allowed according to the **Sharia**, the **Islamic law**. Islam has laws regarding which foods can and cannot be eaten. The animals for human consumption must be **slaughtered** (≈to kill animals, usually for their meat) following the **Dhabiha**. **Muslims** must make sure that not only food but also medicines and cosmetics are halal.

NON-HALAL FOOD:

- Pork
- Animals that were dead before being slaughtered
- Animals which were not slaughtered according to the Dhabiha
- Blood
- Alcohol (whisky, rum, tequila...)
- Birds of prey (falcons, eagles) or carnivorous animals

The **Ramadan** is the ninth month of the **Islamic calendar**. It is the Islamic month of **fasting** (≈to eat no food or very little food for a period of time, often for religious reasons) in which **Muslims** do not eat, drink, have sexual relations or smoke from **dawn** until **sunset**.

Adapted from Wikipedia

KOSHER

Kosher foods are those produced according to the **Jewish religion**. **Kashrut** is the name of the Jewish food laws. Many of these laws come from the **Torah**, which are the **Judaism** religious texts. The animals for human consumption must be **slaughtered** (≈to kill animals, usually for their meat) following the **Schechita ritual**.

KOSHER FOOD:

- Jews can **eat sheep, veal (cow), goat and deer** and **ruminant animals** (≈they chew and swallow the food and then comes back to the mouth and is chewed again).
- Birds such as turkey, chicken or duck.
- Fish with scales.

NON-KOSHER FOOD:

- Pork
- **Shellfish (prawns/shrimps, crabs...)**
- Mixture of meat and milk
- Wine or grape juice produced without Jewish supervision
- When the utensils (spoon, fork...) have been used for non-Kosher food.

Adapted from Wikipedia and www.theus.org.uk

VEGANISM

Veganism is a diet and lifestyle that excludes the use of animals for food, clothing and animal testing in laboratories or any other purpose. The most common reasons for becoming a **vegan** are ethical or moral. Vegans are worried about **animal rights**, environment and human health.

NON-VEGAN FOOD (animal products):

- Meat
- Poultry (chicken, turkey, duck, eggs, etc.)
- Seafood (fish and shellfish)
- Milk and dairy products (cheese, yoghurt...)
- Animal-derived ingredients
- Honey : Some vegans consume honey and some do not consume honey because they consider it an animal product.

RAW VEGANISM excludes all food of animal origin and all food cooked above 48°C . A raw vegan diet includes raw vegetables and fruits, **nuts**, grain and legumes, **seeds**, plant oils, sea vegetables, herbs and fresh juices.

Adapted from Wikipedia and www.animalsuffering.com

VEGETARIANISM

Vegetarianism is a plant-based diet. A **vegetarian** does not eat **meat** or animal-derived products. Vegetarianism may be adopted for **ethical**, health, **environmental**, **religious** or cultural reasons. **Hinduism** and **Buddhism** teach vegetarianism as moral conduct.

VEGETARIAN FOOD:

- Fruit
- Vegetables
- Cereal grains (rice, corn...)
- Nuts (walnuts, hazelnuts, chestnuts...) and seeds (sesame seeds, sunflower seeds...)
- Dairy products and eggs:
 - o **Lacto-ovo vegetarianism** is a vegetarian diet that allows consumption of eggs and milk.
 - o **Lacto vegetarianism** allows milk consumption but not eggs.
 - o **Ovo vegetarianism** allows eggs consumption but does not allow milk.

Non-vegetarian food:

- meat
- **poultry** (chicken, turkey, duck, etc.)
- fish and shellfish
- animal-derived products

Adapted from Wikipedia

9.3 TRANSCRIPT CONVENTIONS

[indicates the point of overlap onset
] indicates the point of overlap termination
 (0.3) an interval between utterances (0.3 seconds in this case)
 (.) a very short untimed pause
 ? rising intonation, not necessarily a question
 , a comma indicates low-rising intonation, suggesting continuation
 . a full stop indicates falling (final) intonation
 ↓ onset of a falling intonation shift
 () a stretch of unclear or unintelligible speech
 (()) non-verbal actions
Italics indicate words in a language different from English

9.4 TRANSCRIPT OF R1

LINE	SPEAKER	TURN	NON-VERBAL ACTIONS
001	Manel	In Haiti=	
002	Myriam	hey!	
003	Manel	=have huh one company of (.) ↓ <i>cruceros</i>	
004	Montse	Cruises	
005	Manel	[Cruises]	
006	Myriam	[Cruises]	((nodding))
007	Manel	have a beach prive	
008	Myriam	a private beach	
009	Manel	a private beach	
010	Myriam	for just to the to the [ships to] to stop there	((making a movement with her hand))
011	Manel	[yeh, yeh]	
012	Manel	for travel people form all the world	
013		to bea... to private beach and the	
014		<i>al lao</i> [is the catastrophe] of ()	
015	Laura	[next to them]	
016	Montse	[next to them]	
017	Myriam	[yeah]	((making a movement with her hand))
018		because Haiti. /hei/ /herti/? It's /herti/?	((looking at Laura))
019		↓ /erti/ ↓ /herti/	((giggling))
020		well it sounds like paradise, no?	((making as if lying on the sun))
021	Manel	Yes	
022	Myriam	when you think of Haiti you see be	
023		beaches, no?	
024	Josep	Sí	

025	Manel	Because the but <i>al al lao</i> ()=	
026	Myriam	next to it	
027	Manel	=next to Haiti catastrophe and the all have	
028		the one paradise, mini paradise	
029	Myriam	↓mini paradise (.) [what the]	((nodding))
030	Laura	[Well, there's another]	
031		Haiti is just a half of an island. And what	((looking at Manel and Joan))
032		is on the other part of the island?	
033		Which country is it?	
034	Joan	<i>República Dominicana</i>	
035	Myriam	Yes!	((pointing at Manel))
036	Laura	It's <i>República Dominicana</i> . So it's Punta	
037		Cana and all these tourism resources for	
038		people who are paying maybe 2,000	
039		dollars and staying in a hotel just doing	
040		nothing, drinking caipirinhas and enjoying	
041		their time.	
042	Myriam	Yes, so in, in one side of the of the island	((looking at Manel))
043		you have these rich paradise or universe	
044		and in the other one there's people like	
045		(.) stealing [just] for food =	((pointing at a piece of paper))
046	Manel	[yeah]	
047	Myriam	=so [that's]	
048	Manel	[but] these people rich don't	((looking at Myriam))
049		help these other people	((looking at a piece of paper))
050	Myriam	Because well they go there if they don't	((looking at Manel))
051		see any of these things. Because they	
052		have like resorts huh <i>Esos hoteles són</i>	((making the shape of a circle))
053		tancats and the they don't move from	
054		there because they, they have	
055		discotheques and	
056	Laura	everything	
057	Myriam	everything is (.) in the hotel. So they don't	
058		go outside and see the real world (.)=	
059	Manel	but=	
060	Myriam	=of the island.	
061	Manel	=the notice of the <i>yo qué sé</i>	
062	Myriam	Yeah but just just [imagine you you go there]=	((looking at Manel))
063	Manel	[()]	
064	Myriam	=what what would you do Manel to help these	
065		[people?]	
066	Manel	[()]	

067	Josep		((making a strange noise))
068	Manel	()	
069	Myriam	Do do you think we we can do something	((looking at Manel))
070		for them? (0.3) If you can do ay do you	
071		think we can help them?	
072	Manel	<i>Que si queremos ayudarlos</i>	
073	Josep	<i>Que si debemos ayudarles?</i>	((looking at Myriam))
074	Myriam	Exactly.	
075	Laura	How?	
076	Myriam	[How?] <i>Com?</i> How can we help them?	((shrugging her shoulders))
077	Manel	[Spain?]	
078		<i>nosotros les tenemos que ayudar (.)</i>	
079		<i>[enviando cosas]</i>	
080	Carla	[()]	((talking to Laura))
081	Myriam	[Yeah we're sending,]	
082	Laura	[()]	((talking to Carla))
083		sending, sending money	
084	Carla	sending Money	((looking at Myriam))
085	Myriam	money to the,	((nodding))
086	Carla	()	
087	Myriam	[well]	
088	Laura	[NGOs]	
089	Myriam	Yeah	
090	Laura	to NGOs	
091	Myriam	yeah like Red Cross, <i>Cruz Roja</i> huh	
092		<i>Médicos</i>	
093	Laura	<i>sin fronteras</i>	
094	Myriam	<i>sin fronteras</i> and all these (.) [NGOs]	
095	Josep	[()]	
096		<i>las cosas esas voluntarias, no?</i>	
097	Myriam	Yeah	((nodding))
098	Laura	NGOs	
099	Josep	ONGs	
100	Laura	[Non-governmental] (.) organisations	
101	Myriam	[N NGOs]	
102	Carla		((giggling and looking at Josep))
103	Josep	↓ <i>Qué pasa</i> ()?	((looking at Carla))

Note: orangey colours correspond to student-teachers' turns, greenish colours correspond to boys' contributions and blue to girls'. Students' real names have been changed in order to keep them private.

9.5 TRANSCRIPT OF R2

LINE	SPEAKER	TURN	NON-VERBAL ACTIONS
001	Marta	Well, they (.) they do it because (.) huh for their	
002		themselves and somebody do it for their religion	
003		like Buddhism and (.) ↓ how do you say? ↓ I don't	
004		remember the name ↓ well doesn't matter and	
005		don't eat huh that they are vegetarians for their (.)	
006		them culture and they and somebody huh just eat	
007		huh well some some meat some animals some	
008		things huh because (.) the same. Their religions	
009		doesn't permit that. (0.1)	
010		Well huh the second who is the second?	((searching for the following one))
011	Carles	Ok, my huh huh I read the vegans the vegans	
012		persons and the vegans diet it's very excepted.	
013		They except it animals foods cloth of animals and	((counting with his hands))
014		the test of animals in the laboratories. huh	
015		They don't eat huh poultry ↓ chicken and these	((counting with his hands))
016		derivates of milk and (.) and this. And are another	
017		vegans that these are raw vegans than diet the huh	
018		same of vegans but (.) they they eat anything that	(("no" movement with his hands))
019		it's above of 48 graus cooked. It's they eat anything	
020		of above 48 grades.	
021	Marta	And how how do you say that huh vegans? It's	((looking at Carles))
022		vegans?	
023	Carles	Yes ↓ vegans.	((looking at Marta))
024	Marta	In Catalan? ↓ How do you say it?	((looking at Carles))
025	Carles	vegetarians	((looking at Marta))
026	Marta	Ah [it's the same?]	
027	Francesc	[it's the same?]	
028	Carles	Yes <i>són vegetarians</i> and raw vegans (.)	
029		<i>vegetarians (.) que mengen,</i>	
030	Francesc	<i>carn?</i>	
031	Carles	<i>sí cruda</i> (.) ↓ <i>vegetarians sí</i>	
032		did you know?	((looking at Marta))
033	Marta	no I didn't	
034	Carles	ah	
035	Rosa	huh I read the <i>musulmans</i> (.) huh the diet of	
036		musulmans huh they can't eat huh (0.3) meat? huh	
037		pork huh (0.2) <i>bueno</i> huh they eat huh	
038		vegetables (.) ↓ only vegetables. Huh they are the	
039		religion of Ramadan. (0.2) This religion huh don't	

040		smoking (.) and (.),	
041	Francesc	↓()	((talking to Rosa))
042	Rosa	no no no que sí (0.2) haven't got [(.)] <i>relacions</i>	((making a movement of thinking))
043		<i>sexuals</i>	
044	Francesc		[()]
045	Marta	What?	((face of astonishment))
046	Carles	And well how they have got [(.)] children sons?	
047	Francesc		[sons]
048	Carles	↓ They haven't got sons?	((looking astonished))
049		[and]	
050	Marta	[They're] they're special form,	((making a repetition movement))
051	Carles	Dont' contribute it it stop at ()	
052	Francesc	Or then only do this for have sons	((looking for his peers' approval))
053	Rosa	() to sons	
054	Carles	[Ah <i>vale</i>]	
055	Francesc	[OK]	
056	Carles	But it's only for sons for for the generation,	
057	Rosa	()	
058	Carles	OK	
059	Francesc	OK	((looking at the camera))

Note: greenish colours correspond to boys' contributions and blue to girls'. Students' real names have been changed in order to keep them private.

9.6 STUDENT-TEACHER'S NOTES ON UNIT IMPLEMENTATION

