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THE FLIPPED CLASSROOM MODEL FOR INCLUSIVE LEARNING: STUDENTS WITH SPECIAL NEEDS

LA CLASE INVERTIDA PARA EL APRENDIZAJE INCLUSIVO: ALUMNADO CON NECESIDADES ESPECIALES

TUTORA: FÁTIMA ZAHRA NADIF
NIE: X7616971S
DIRECTOR: ALBERTO ANDÚJAR VACA
ESPECIALIDAD: MÁSTER EN PROFESORADO EN EDUCACIÓN
SECUNDARIA OBLIGATORIA: LENGUA EXTRANJERA

ABSTRACT

English is constantly spreading and having a huge impact worldwide. It is the language of global communication, business and media, which increases its significance as part of the Spanish teaching curriculum. Therefore, bilingual educational programmes are being implemented and both educators and students are being required to have a good command of English. Hence, a traditional teaching methodology is not considered to be the most adequate model to achieve this educational goal. Bearing in mind the different needs that could be found in a classroom, flexibility and adaptability are necessary for a successful attention to diversity. Therefore, a new teaching model called Flipped Classroom provides teachers and learners with this flexibility and adaptability, given that it gives the students the chance to learn at their own pace. There are many studies regarding this model based on experiments to students, but there are only a few directed to students with special needs. Thus, the purpose of this research is to examine how this new model affects this type of students, specifically students with hearing impairments, by conducting an experiment to 2 groups and analysing their perceptions. Two videos including oral explanation, Spanish Sign Language interpretation and subtitles have been recorded to obtain inclusive material for students with special needs. Besides, this research integrates qualitative and quantitative data collection: a questionnaire and individual and group interviews, which lead us to positive results which will be discussed. However, this study still has some limitations and challenges that need to be addressed in future researches.

KEY WORDS: Flipped Classroom, special needs, hearing impairment, English as a Foreign Language, language teaching, computer assisted language learning.

RESUMEN

El inglés está constantemente expandiendo y teniendo un gran impacto alrededor del mundo. El inglés es el lenguaje de la comunicación global, los negocios y los medios de comunicación, lo cual aumenta la repercusión del idioma en el currículo del sistema educativo español. Por lo tanto, los programas educativos de bilingüismo están siendo implementados y se exige tanto al profesorado como al alumnado un buen conocimiento del inglés. Por consiguiente, una metodología de enseñanza tradicional no es considerada la herramienta más adecuada para lograr este objetivo educativo. Teniendo en cuenta las

distintas necesidades que se pueden encontrar en un aula, la flexibilidad y adaptabilidad son necesarias para una exitosa atención a la diversidad. Así pues, un nuevo modelo educativo llamado "la clase invertida" proporciona al profesorado y al alumnado ambas características, puesto que se da la oportunidad de un aprendizaje a un ritmo propio. Hay numerosos estudios con respecto a este modelo basado en experimentos realizados en aulas, pero hay pocos dirigidos a alumnado con necesidades especiales. Por lo tanto, este estudio tiene como objetivo investigar cómo este nuevo modelo afecta a este tipo de alumnado, específicamente alumnado con discapacidad auditiva, llevando a cabo un experimento con dos grupos y analizando sus percepciones. Se han diseñado dos vídeos incluyendo una explicación oral, interpretación en Lengua de Signos Española y subtítulos para la elaboración de material inclusivo para alumnado con necesidades especiales. Además, esta investigación recoge tanto métodos cuantitativos como cualitativos: un cuestionario y una entrevista individual y grupal, los cuales nos llevan a unos resultados positivos que serán comentados más adelante. Sin embargo, este estudio tiene algunas limitaciones y desafíos que necesitan ser abordados en futuras investigaciones.

PALABRAS CLAVE: Clase invertida, necesidades especiales, discapacidad auditiva, inglés como lengua extranjera, enseñanza de idiomas, enseñanza de idiomas asistida por ordenador.

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CONTENTS

1. INTRODUCTION

The new instructional strategy denominated the Flipped Classroom is gradually transforming the teaching-learning process worldwide. It emerged as an alternative to absent students at a small high school in Colorado (USA), but it quickly expanded to the rest of the country, continent and world. This new model lets the students—instead of the teacher— take the centre stage in the classroom. Hence, the time spent at school is not devoted to only listening to the teacher anymore, but to interacting with him or her and with the rest of the students and to fostering and putting into practice what has been learnt. Moreover, the different abilities and needs are taken more into consideration thanks to an individualized attention and mentoring, which are valuable characteristics of this revolutionary model.

The Flipped Classroom is a new pedagogical method that implies accessing content outside the classroom, usually watching either designed or selected videos by the teachers and engaging in activities inside the classroom. This model aims to increase active learning, along with collaboration and cooperation in the classroom, given that it frees class time for real instruction. In addition, language learning, as the complex process it is, is constantly integrating the use of technology, which urges more advanced and interactive teaching methodologies, rather than merely lecturing. In fact, the inclusion of technology usually motivates the students and contributes to the improvement of their learning process, given that it is increasingly shaping their lives. Therefore, this research aims to implement the Flipped Classroom model in the teaching of English as a Foreign Language (EFL) context, having as a main focus students with special needs, hearing impairments in this case. Thus, the objective of this investigation is to examine how students with hearing impairments respond to this new model and whether it contributes to their EFL learning, engages them and motivates them.

Firstly, I will state the general and specific objectives of this study. Thereafter, I will discuss more in depth the origins of the Flipped Classroom and its implementation by its pioneers, Aaron Sams and Jonathan Bergmann. Afterwards, a literature review will be presented in order to have a view of the existing studies and implementations of this model at different academic levels and in different curricular subjects. Subsequently, the study will be described in detail: how it is designed, what are the materials and sources used and the participants' characteristics. Later, the methodology, which involves collecting, analysing and integrating quantitative and qualitative data, will be explained.

Thereafter, the results of this research will be discussed, addressing both the benefits and drawbacks of this model remarked by both groups. Finally, the implications and conclusions will be stated and discussed to examine the outcomes and the limitations and challenges of this research.

2. OBJECTIVES

The general objective of this research is to analyse the perceptions of students with hearing impairments on the Flipped Classroom model by conducting an experiment in two 8th grade groups.

The specific objectives of the present research are:

a) To design an exclusive and inclusive material for students with hearing impairments.
b) To find out whether the Flipped Classroom model contributes positively to students with hearing impairments.
c) To implement the Flipped Classroom model in the teaching of English as a Foreign Language (EFL).

3. STATEMENT OF THE QUESTION

As mentioned previously, there are many researches addressing the implementation of the Flipped Classroom model in different educational contexts, which will be introduced throughout this section. However, there are few studies tackling cases of students with special needs. Hence, this present study aims to have a wider view on the Flipped Classroom practice by analysing the perceptions of students who have special needs.

People have different personalities and different learning and/or teaching styles. Therefore, an instructor's teaching style may be incompatible with a student's learning style, which may cause a low level of learning and a lack of interest in a subject. This was first stated by Borg and Shapiro (1966) and it was reinforced by Lage, Platt and Teglia (2000) later, who were the first professors to talk about using new learning technologies "to move lectures which traditionally take place inside the classroom to outside the classroom and learning activities which occur outside the classroom to inside the classroom with the guidance of the instructor" (Uzunboylu & Karagozlu, 2015: 143).

Unfortunately, teachers cannot adjust their teaching style and personality to all their students, nor can the students choose teachers according to their teaching methodologies. However, it is advisable to apply different styles in order to reach a higher number of students, engage them and increase their performance. As it is important to know what types of learners a teacher has in the classroom, Grasha and Reichmann developed The Grasha-Riechmann Student Learning Styles Scale (GRSLSS) in 1974 to measure affective and cognitive behaviours of the students (Rollins, 2015). This scale comprises six different learning styles: avoidant—the student is not interested in learning nor in attending classes and does not participate—, collaborative— the student shares his or her ideas with his or her classmates and the teacher and likes discussions and working in groups—, competitive—the student likes competing and performing better than others and leading and dominating discussions—, dependent—the student who relies on his peers and teacher and learn only what is needed, they do not show much intellectual curiosity— independent—the student relies on himself or herself but he or she also shares ideas and opinions with the rest, although he or she prefers working individually— and participant— the student takes responsibility for his or her own learning (Rollins, 2015). In fact, the essence of the flipped learning is that a student can choose which method suits better his or her needs. For example, students who do not like watching the videos uploaded by their teachers, can follow the textbook if they prefer so.

To adjust to learners' different styles and provide them with new learning opportunities, Lage *et al.* (2000) suggest using the inverted classroom (or flipped classroom) method: "for example, the use of the World Wide Web and multimedia computers (and/or VCRs) enables students to view lectures either in computer labs or at home, whereas homework assignments can be done in class, in groups. The general principle is to provide a menu of options for the students to use in learning".

Lage *et al.* (2000) discuss their use of the inverted classroom in an economics course at Miami University. The teachers describe the different resources they made use of to conduct this method and the different formats they offered to their students covering a specific topic, for example, microeconomics. They both recorded their lectures and designed PowerPoint Presentations so that their students could choose which option they preferred or even watch both. The teachers started the lesson with a mini lecture through which all their students' questions were discussed and resolved. Afterwards, they conducted economic experiments that helped them have a wider understanding of the

topic, as Lage *et al.* assure: "these economic experiments provided students with an opportunity to see the economic principles in action" (2000: 33).

After conducting the experiments, the teacher gave the students review questions worksheets which were worked in small groups and then presented to the entire class. Lage *et al.* (2000) point out that sometimes those worksheets were collected and assessed. As the students became more responsible for their learning, Lage and the other teachers provided them with supplementary resources such as old exams, optional quizzes, extra assignments as well as Internet chat rooms where the students could interact with their teachers and ask them the questions that may arise (Lage *et at.*, 2000).

Professor Lage and professor Platt conducted a survey to analyse their students' perceptions of the inverted classroom. Most of them were amazed by this method and reacted favourably. They indicated that they learnt better through this method and liked working in groups during class time: "the average score for the statements "I prefer this classroom format to a traditional lectures", "I believe that I learnt more economics with this classroom format" […] was 3.9 on a scale ranging from 1 to 5" (Lage *et al.*, 2000: 35). These positive assessments indicate that this method was effective, and that students' motivation and participation increased in the classroom.

A different research was conducted to compare the Flipped Classroom model to a traditional model, analysing the effectiveness of the former on the motivation and learning achievement of the students. Experimental pre and post examinations were carried out, in which 82 students participated. The results of this research show that the Flipped Classroom model was more effective than the traditional model. Besides, the former had greater benefits on struggling students (Bhagat *et al.*, 2016).

As this essay aims to inclusive learning through the flipped or inverted classroom method, Altemueller and Lindquist's (2017) literature is taken into consideration, given that it addresses inclusive education. As the authors claim, limited investigation was carried out concerning students with learning difficulties applying the flipped learning method (Altemueller & Lindquist, 2017). However, as this model is reaching a higher number of students and it is contributing to the increasing of their motivation and participation, it is expected that it can be beneficial for students with special needs. Altemueller and Lindquist (2017: 342) declare that studies comparing both the traditional

and the flipped learning methods indicate that the latter matches better students' needs, especially those who present learning difficulties and/or are lower achievers.

Altemueller and Lindquist (2017) emphasize the importance of differentiating instruction nowadays. As mentioned above, each student has his or her own learning style, in addition to students with special needs, which makes the learning process more difficult if the teaching process is based exclusively on the traditional model. Thus, flipping the classroom can be helpful to differentiate instruction and to facilitate learning for all the students, given that interaction between the teacher and the learner increases under this model. Like Sams and Bergmann (2012), Altemueller and Linquist (2017) also announce the relevance of the flipped mastery learning which gives students the chance to learn at their own pace, without being forced to work on the same topics at the same time, but without missing the essential objectives of the course either. A fact is that fast learners can easily move forward, but slow learners need more time to assimilate information and acquire knowledge.

Furthermore, collaborative and cooperative learning is beneficial for students with special needs. For example, autist students' social and communicative skills usually need to be worked on, which can be carried out through team-oriented and collaborative activities. Altemueller and Linquist (2017) claim that a research conducted in Norway studied two applications of the flipped classroom model: the first encouraged cooperative learning while the second did not. The results in the first application were similar to those of a traditional method research and students had the same scores, while in the second application the students scored notably higher.

In addition, immediate feedback to students is another relevant characteristic of the flipped classroom model. The reduced barrier and constant interaction between the teacher and his or her students during class time allow an immediate clarification of the misconceptions that may take place, as Altemueller and Lindquist (2017: 348) affirm: "instead of waiting to mark homework that has been done incorrectly, mistakes can be corrected immediately. Teachers can move from student to student, watching, listening and noting who needs help, and can work with students who need assistance."

The flipped learning method had a positive and encouraging international response. As Altemueller and Lindquist (2017) point out (as cited in Johnson et al., 2015), "the New

Media Consortium (NMC) Horizon Report[1] 2015 K-12 Edition examined emerging trends and technologies that will potentially drive educational change in schools worldwide" (Altemueller & Lindquist, 2017: 348). One example is the USC Hybrid High School in Los Angeles that adopted this method by implementing the online instruction and providing its teachers with funds to use the software they wanted and needed to use, which is also accessed by the students, as the report indicates (Johnson *et al.*, 2015: 16). The USC serves low-income, underrepresented and racial/ethnic minorities students. In fact, more than 70% of the students are Hispanic and more than 24% are African Americans (Blended Learning Universe, 2017). Despite the low-income and underrepresentation drawbacks, the students developed their academic abilities with the help of this inclusive teaching methodology.

According to Jen Curtis, a K12 assistant editor, blended or flipped learning give more opportunities for academic success to those low-income students, given that the use of technology improves educational equity among them. A remarkable example is The New Jersey's Morris School[2] which presents a high percentage of cultural and social diversity. The school embraced the blended learning in 2015, headed by Erica Hartman, the Supervisor of Technology Integration, who introduced this methodology to this educational centre. Additionally, one its priorities is that every student can access technology at home, a reason why free Wi-Fi and Chromebooks have been provided to students in need (Curtis, 2017).

Teddie Salas, a 4th grade teacher at The New Jersey's Morris School, emphasizes that thanks to the blended program, direct instruction and feedback are successfully meeting the individual needs of the students. Moreover, the barrier between the teacher and the student becomes invisible, which fosters this relationship and contributes to a higher performance and better outcomes of the student (Curtis, 2017).

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[1] "The NMC Horizon Project is a global ongoing research initiative that explores the trends, challenges, and technology developments likely to have an impact on teaching, learning, and creative inquiry [...] Anyone with a stake in making teaching and learning more engaging, inclusive, and relevant can improve their knowledge and enhance their leadership via NMC Horizon Project resources. Each publication is published with an open license to promote sharing, remixing, and adapting" (NMC.org, n.d.).

The Horizon Report K12 indicates that a two-year research on the outcomes of blended learning was conducted at 12 schools attended by low-income students. It states that despite the technical problems faced at the beginning of the implementation, this method had notable benefits on the teaching-learning process in these schools: "the environments allowed teachers to personalize learning and made it easier to facilitate small group instruction for students who needed additional support. What's more, teachers reported that their students were endowed with a sense of accountability and ownership over their learning process, and this self-directed culture was crucial to reaping the benefits of online learning" (Johnson *et al.* 2015: 16).

A research implemented the Flipped Classroom model in primary education in an EFL context in Murcia (Spain) to examine whether this model contributes to the students' motivation. 25 students from 10th grade, along their parents, were invited to participate in this study. The main instruments used were a questionnaire to obtain their perceptions and direct observation to examine how they reacted after watching the videos, when doing the activities in groups and when playing games. Results show that this model, indeed, increases the students' motivation to learn, as stated by the students, their parents and their teachers as observers (Marín & Porlán, 2016).

On the other hand, the researchers Chen Hsieh, Vivian Wu and W. Marek (2017) conducted a research on how the Flipped Learning affects English as a Foreign Language (EFL) learning in the Central University of Taiwan. Throughout their experiment, they used both the flipped learning and Wen-Chi Vivian Wu's Output-driven/Input-enabled model[3] to teach the English idioms effectively, engage and motivate the students communicate in English both inside and outside the classroom , "using multiple sources of data collection, including pre- and post-tests on idioms, two questionnaires ("Perception of Flipped Learning Experience" and "Technology Acceptance Model"), the

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[3] "Wen (2008) proposed the "Output-driven/Input-enabled" model, stating that the need for output drives learners to pursue input, and input enables learners to produce output. According to Wen's model, teachers are responsible for (1) designing authentic output tasks that meet and improve the learner's proficiency level, (2) providing appropriate task-based inputs to enhance learner intake, (3) providing appropriate output assistance to improve learner ability, and (4) offering targeted feedback rather than general suggestions (Wen, 2013). Wen's instructional model is well embodied in flipped learning" (Chen Hsieh, Vivian Wu & W. Marek, 2017: 2).

teachers' in-class observations, and semi-structured focus-group interviews" (Chen Hsieh *et al.*, 2017: 2).

The researchers used the mobile messaging application LINE to deliver content to the students. For some activities, the students had to form groups on this application, which were supervised by English native speakers who observed their interaction and gave them feedback. Usually, class time was devoted to collaborative activities and active learning. The results indicate that most students were satisfied with the Flipped Learning methodology which motivated and enhanced them to learn English idioms and to develop their communicative skills and engaged them in the learning tasks. However, part of the students indicated that they prefer the lecture-based classroom, given that the flipped classroom demanded more work, regardless of the outcomes (Chen Hsieh *et al.*, 2017).

Another research was carried out by Jeanette Villanueva in a school in Hawaï (USA) in an inclusive 6th grade math class. The objective of this research is to evaluate the result of the flipped learning on the motivation of students with special needs. Villanueva declares that addressing the different levels in a classroom is a big challenge, especially when a methodology such as the teacher-based is applied. Therefore, flipping her classroom had fruitful results on her students. They were more motivated to learn and engaged in the tasks assigned. Villanueva could work with students individually or in small groups and she was able to address the different needs found in her class. However, as this was Villanueva's first time implementing this model, she overlooked making an inquiry at the beginning to the students to determine whether they had access to the Internet at home or not. Therefore, as numerous students did not have access, the first 10-15 minutes of class were devoted to watching the videos (Villanueva, 2016).

An investigation using the Flipped Classroom model in an EFL context was conducted to 57 students and their 2 teachers in a secondary school in Hong Kong. Statistics regarding the improvement of the students' learning process showed that 50% of the participants agreed and 50% did not. The results were positive in general, but the teachers thought that this model may be useful only when teaching English grammar. Furthermore, the teachers were concerned about the extra work they would have to do in a Flipped Classroom model (Yang, 2017).

Another study on Flipped Classroom in an EFL context was conducted to 40 students in a South Korean university to determine whether this model enhances the

students' English learning. Data were obtained from the students' fulfilments in three main tasks, questionnaires and the professor's direct observation. After gathering the results from this group of students, they were later compared to another group of students using the communicative language method. The results indicate that the group using the Flipped Classroom model obtained higher scores, were more engaged in the process and enjoyed more the activities (Lee & Wallace, 2018).

There is a recent study conducted to 12 deaf undergraduate female students applying the Flipped Classroom model in a Saudi university. The implementation consisted of instructional videos including sign language, collaborative tasks and activities. The participants' perceptions were obtained through questionnaires and personal reports and journals in which they could express their personal experiences and their opinions about the experiment. The results indicate that this model had positive outcomes: it was effective in their learning and increased their interaction and collaboration. The students highlighted group work and active learning which helped many of them develop their knowledge and skills (Al-Ibrahim, 2019).

4. THEORETICAL FRAMEWORK

The Flipped Classroom is a new pedagogical student-centred method that is gradually leaving behind the traditional teacher-centred classroom. The students are introduced to the content before class—through videos and interactive lessons suggested or created by the teacher— so that they can have a previous knowledge before starting the lesson. Thus, the classroom time is used to strengthen the understanding of the content through doubts resolving and discussions collaboratively conducted by the teacher and the students.

This method emerged twelve years ago (2007)—it was originally called pre-broadcasting— at a small Colorado high school where two science teachers, Aaron Sams and Jonathan Bergmann, came up with the idea when they were looking for an alternative to reteach the students who missed the classes:

> Struggling to find the time to reteach lessons for absent students, they plunked down $50, bought software that allowed them to record and annotate lessons, and posted them online. Absent students appreciated the opportunity to see what they missed. But, surprisingly, so did students who hadn't missed class. They, too, used the online material, mostly to review and reinforce classroom

lessons. And, soon, Bergmann and Sams realized they had the opportunity to radically rethink how they used class time (Tucker, 2012: 8).

To make their absent students not miss out on learning, these teachers recorded their live lessons and uploaded them online so that those students could watch them at home. These videos were watched not only by the absent students, but by the others too since they helped them to reinforce their learning. Then, Bergmann and Sams decided to prerecord all their lessons and upload them to their website, invite the students to watch them, as a homework, and use the class time to resolve their doubts and help them strengthen the knowledge acquired. Thus, after watching the videos, the students had to note their questions and take them to class in order to generate a complete understanding of the content. The teachers could solve all the individual questions and meet the individual needs and, therefore, they facilitated their students learning process. In addition, as Bergmann and Sams created their own videos, they gave themselves enough time to arrange their ideas and pay attention to the details that they could unintentionally overlook during the lesson. The purpose is not only explaining the content using the ICTs but knowing how to use them and when.

Although Sams and Bergmann were the pioneers in this emerging movement, it was already discussed by two other professors from the University of Miami by the beginning of the century, but it did not succeed due to the lack of technological resources at that time, as Bergmann says in a *T.H.E. Journal* interview: "I can say prior to us, in 2000, a couple of professors from the University of Miami wrote an article on what they called the inverted classroom. It didn't take off, because I think it wasn't the right time. YouTube wasn't around yet" (Noonoo, 2012).

Bearing in mind that the backbone of this innovative methodology is technology, Sams and Bergmann had to make sure that all their students could have access to the online videos at home. For those students who had a computer at home but did not have access to the internet, the teachers gave them the videos on flash drives to watch those videos on their computers. For those students who did not have even a computer, the teachers recorded the videos on DVDs for them, so that they could watch them on television. However, designing videos is not the only way to apply this methodology, but other resources such as face-to-face content can also be used, given that the objective is that the students learn regardless of the procedure, as long as it is enriching.

As Sams and Bergmann state in their book *Flip your Classroom* (2012), there is not only one way of flipping a classroom, every educator does it differently. In fact, Sams and Bergmann themselves flip their classrooms distinctly. There is not any recipe that guarantees desirable results. However, as mentioned above, what this method requires is leaving what is traditionally done in class for home and what is traditionally given as homework for class. Hence, the class is usually started with a discussion about the video or content that the students had to check at home. To make all their students—or the majority of them—participate in the discussions, Sams and Bergmann had been training them to watch the videos carefully, pausing and rewinding them whenever they needed, writing down all the key points and questions that might come to their minds. As a result, the teachers use these questions to assess the effectiveness of their videos and correct any possible mistakes they could have made. Once the questions are discussed and answered, the students are given an assignment to carry out in class, with the teacher acting as facilitator and monitor, not as a mere information deliverer. As Sams and Bergmann point out in their book (2012), this method leads to a more effective teaching-learning process. Teachers' role is not limited to merely performing anymore, they interact with and help their students:

> Teaching under a traditional model is draining. I feel like I have to "perform," which requires energy, enthusiasm, and a "you are on-stage" effort at all times […] I was able to go in and watch my students work. I don't mean that I sat back and drank coffee—I stayed busy interacting one-on-one; working with kids who were struggling; addressing questions that students had that I never had time for before; really getting to know my kids. It is just that the burden of learning had traded hands […]. Jennifer Douglas, Westside High School, Macon, Georgia (Bergmann & Sams, 2012: 17).

Furthermore, this method encourages digital learning, given the powerful computing devices that Millennial students carry in their pockets. Technology is becoming increasingly influential in the world today. It is a language that children and students, in general, are familiarised with. Therefore, teachers are required to speak their language as well, so that they can transmit to them the content demanded by the curriculum. However, technology should never drive pedagogy, but the other way around. If students are trained to use technology correctly, they will know how to differentiate between entertainment and homework, and they will learn how to manage their time. By flipping the classroom,

students are given the chance to access the class content whenever and wherever they want or need.

As a result, the students who benefited the most from this model and its flexibility are those who struggled when they were taught in the traditional model, including students with special needs. The authors declare that the students who got the most of their attention before switching to the flipped model were the brightest ones who actively participated whilst the rest of the students acted passively and, therefore, did not had the chance to engage in classroom discussions.

Additionally, one of the most important features of this method is pausing: students can pause their teachers, which is pedagogically revolutionary. Not all the students learn the same way nor at the same pace, as the authors point out in their book: "our quick learners understand immediately and get bored waiting, while our struggling students take more time to process" (Sams & Bergmann, 2012: 24). Thus, when students are given the chance to manage their own learning process, it becomes more effective because they have the control over it. Every student can watch the videos as many times as necessary until they fully understand what is being communicated, especially those students with special needs, who usually need more time to learn. If they do not understand the content or they have questions, they can ask the teacher individually during classroom discussions, which makes the teaching process personalized.

By making the students check the content at home, the teachers do not work less, on the contrary, interaction between them increases when flipping the classroom. Besides, teachers leverage technology to be closer to their students and make communication easier, given that a traditional methodology is not the most adequate when teaching children born in a digital era. Sams and Bergmann reaffirm the importance of merging both face-to-face and online instruction, which results in the flipped learning. As it was previously mentioned, speaking the students' language catches their attention and motivates them to learn. Instead of fighting technological devices, they should be used for educational purposes.

The pioneers of this methodology also emphasize the importance of building relationships with students. A teacher's role is not based only on teaching content, but on encouraging, inspiring, listening to and motivating his or her students. These crucial characteristics are reinforced when applying a flipped learning, seeing that it strengthens

those relationships. Besides, interaction increases not only between the teacher and students, but among students too. They work collaboratively and cooperatively and help and learn from each other:

> Because the role of the teacher has changed to more of a tutor than a deliverer of content, we have the privilege of observing as students interact with each other. As we roam around the class, we notice the students developing their own collaborative groups. Students are helping each other learn instead of relying on the teacher as the sole disseminator of knowledge. It is truly magical to observe. We are often in awe of how well our students work together and learn from each other (Sams & Bergmann, 2012: 27).

The flipped classroom aims to develop a culture of learning, given that it stimulates the students to acquire knowledge and a better understanding of the curriculum through considerable practice. Therefore, they respond by participating actively since they notice the importance that their teachers give to their process of learning.

As it was announced above, this method gives the students the opportunity to manage their own learning, at their own pace—having the teacher as a guide and coach, of course—, which reinforces attention to diversity and diversified abilities among students. In their book, Sams and Bergmann emphasize the cruciality of this method as a powerful tool that serves to reach all students: "Flipping the class showed us just how needy many of our students were and how powerful the flipped classroom is in reaching students all along this broad range of abilities" (2012: 28).

The authors also highlight the increasing relationship between them and parents. Due to this method, their concern changed from how their children behave in class to how they learn. Besides, both teachers and parents collaborate to help them become better learners. In fact, as Sams and Bergmann claim, some parents also watch the videos with their children and, therefore, they learn too, which can lead to discussions among them at home. The teachers' videos may be educating not only their students, but parents' community too, which facilitates and fosters learning of the main targets.

However, there may be some students who do not watch the videos at home due to their lack of interest and, therefore, miss important input. The solution that Sams and Bergmann offer is allowing them to watch those videos during class time and do the assignments at home, making them go back to the traditional model. Once they realize

that they need the teacher's help when doing their homework, they start watching the videos at home like the rest of their classmates (Sams & Bergmann, 2012).

Apart from proposing a "traditional" flipped classroom, Sams and Bergmann also proposed a flipped-mastery classroom[4] which takes a step further. Instead of working at the same topic, the students work on different objectives depending on their level. This method was abandoned years ago, given that it meant teachers repeating themselves, writing different assessments and assessing a variety of objectives at the same time, which was notably time-consuming. Nowadays, however, technology is making it easier for both teachers and students. By recording their videos—or taking appropriate videos from the internet—, they do not need to waste valuable class time in repeating content. The students can re-watch the videos as many times as they need at home until they comprehend the input. Class time, as in the "traditional" flipped classroom, is used for additional instruction for those students who most need it, without ignoring the rest of the students, of course. This model does its best to address and respond to diversity among students, they are not obliged to achieve the same learning objectives at same time nor at the same pace. Understanding and learning are more significant than simply moving on to the next topic regardless of the students' status (Sams & Bergmann, 2012: 53).

To reach effectiveness in the flipped-mastery model, firstly, teachers need to master their content, otherwise, it would be difficult to supervise numerous objectives at the same time. It is essential for the teacher to be able to interconnect the content of his or her course, in order to provide comprehensible input to the students. Secondly, teachers must acknowledge when they do not have the answer to their students' questions and should be willing to look for the answer with them: "the teacher should take these opportunities to demonstrate what it means to be a learner" (Sams & Bergmann, 2012: 55). Thirdly, teachers should have the ability to meet each of his or her students' needs during class time, being this the main objective of this method. Finally, and most importantly, the teacher must give the control of learning process to the students, as mentioned previously.

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[4] "It was first introduced in the 1920s, but it got little attention until the 1960s, when it was popularized by Benjamin Bloom. He likened our present educational institutions to a race where only the fastest learners were rewarded. He argued that almost all students can master any content, given enough time and support. When mastery learning was implemented well, studies showed that nearly 80% of all students could learn all of the important content compared to 20% taught with the traditional model" (Sams & Bergmann 2012: 51).

The difference between the "traditional" flipped classroom model and the flipped-mastery classroom model is that while in the former all the students work on the same topic and the same objective at the same time, in the latest they work on different topics and, therefore, different objectives, but at the same time as well. This makes the process much more difficult for the teacher to supervise if he or she does not master the content. Although mastery is essential in both models, in the latest is much more needed given the constant shifting from one topic to another.

Teachers can implement either of these two models, but there is a common mistake that should be avoided, as Sams and Bergmann declare in their book (2012), which is starting with the regular flipped classroom model and, then, transitioning into the flipped mastery model. The authors claim that moving from one model to another in the middle of the school year usually confuses the students and, therefore, should be avoided. However, as Sams and Bergmann claim, students adapt quickly if they are trained in the model from the beginning. For example, they are taught to watch the videos, as they taught to use a textbook or read. Watching an instructional video is different from watching an entertainment video. Distractions, such as social networks, must be eliminated when watching them, in order to not miss important point. Sams and Bergmann suggest watching videos together in class during the first days, in order to train their students:

> We make liberal use of the Pause button. We pause the video for the students and highlight key points. At one point we give control of the Pause and Rewind features to one student. Invariably, the student in control of the Pause and Rewind buttons processes the information at a different pace than most of the class. All students want to control the video which, of course, is the point (Sams & Bergmann, 2012: 80).

The teacher helps his or her students see the control that they have over the videos and, consequently, over their learning process by playing the videos at class and giving them the chance to pause and rewind them to take notes, summarize the main ideas and ask interesting questions. Thus, they start following the same procedure at home. Sams and Bergmann assure that they started having more interactions with the students and richer discussions thanks to this model. The students who were not used to participate before started interacting, given that teachers started talking *with* them, not *to* them (Sams & Bergmann, 2012).

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5. STUDY

In order to examine the effects that a Flipped Classroom model would have on students with special needs, which is the purpose of this paper, a research was conducted in two 8th Grade groups (2º ESO). This intervention took place in two different secondary schools: IES Azcona, which integrates students with hearing impairments in all its groups, and IES Cruz de Caravaca, where my master's internships took place. Furthermore, 2 class time hours were spent with each group.

On the one hand, the group corresponding to IES Azcona is formed by 14 students, 5 of them having hearing impairments: 2 students suffer from hypoacusis (hearing loss), 1 student suffer from Attention Deficit Hyperactivity Disorder (ADHD) and Borderline Intellectual Functioning and 2 students have a Semantic-Pragmatic Disorder, besides the hearing impairment. Moreover, all of them receive Spanish Sign Language (SSL) lessons, which is their medium of communication with their teachers. However, not all of them master the SSL.

On the other hand, the group corresponding to IES Cruz de Caravaca is formed by 25 students, 1 of them has Asperger's Syndrome. None of these students suffers from hearing impairment, but the research was carried out with them to have a wider view of the Flipped Classroom model for students both with and without special needs.

As previously mentioned, the purpose of this research is to know how students with special needs, specifically students with hearing impairments, would respond to a Flipped Classroom model. Thus, after asking for permission to intervene with the groups mentioned above and obtaining all the relevant information regarding their needs, I recorded some videos which I sent to the students to watch at home.

Bearing in mind that students with hearing impairment are the main focus of this research, it is necessary to make the videos attainable for all of them. Therefore, the videos will be characterized by three main components: an oral explanation of the content, SSL interpretation and subtitles in Spanish. Thus, those students who cannot hear, can watch the SSL interpretation and those students who cannot understand the interpretation, can read the subtitles. As the aim of the research is to integrate all types of students in the Flipped Classroom model, these three components are considered of crucial importance.

The content that explained in the videos is First and Second Conditionals, which the students will have to be working on by the time I am intending to conduct this research. Therefore, a prepared explanation (appendix 1) was needed for the recording of the videos. In addition, a SSL interpreter was also needed, given that I cannot do it myself. Moreover, the Digital Content Production Center of the University of Almería was used to record, edit and subtitle the videos.

Both videos contain an oral explanation, a SSL interpretation and subtitles. Both videos are short, the duration is 4:13 minutes and 4:41 minutes and they include pictures and animation as well, as usually recommended. Both videos can be watched on YouTube by entering the following links:
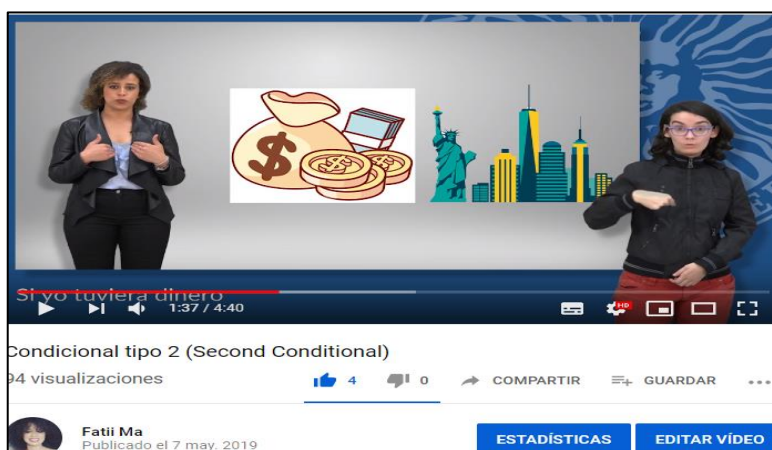
Figure 1. First Conditional video:

https://www.youtube.com/watch?v=CexykxSmFRw

Figure 2. Second Conditional video:

https://www.youtube.com/watch?v=dptepEWNv1g

Before recording these videos, an outline had been written with a full explanation of the First and Second conditionals with their functions, structures and uses, along with a series of examples and their corresponding complementary pictures to reach a complete understanding. As mentioned previously, these videos were recorded in the Digital Content Production Center of the University of Almería, where they have been designed, edited and subtitled.

Regarding the tools and technologies used during the experiment, the participants needed to use their computers, tablets or mobile phones at home in order to watch the videos sent to them in advance. Likewise, the professor's computer and the interactive whiteboard were needed for the pre-examination of the students in the classroom and the main activities carried out, in addition to the computer laboratory and the students' mobile phones used to play Kahoot game. Moreover, 39 photocopies of two adapted activities were made as well.

Students tracking: pre-examinations

In order to see if the students watched the videos and understood the content, two pre-examinations were prepared to be carried out during the first 10 minutes of class.

Activities and quizzes were designed in paper and in Kahoot platform in order to perceive whether the students watched the videos at home and whether they understood them or not. Down below, the pre examinations carried out with both groups will be explained:

- IES Azcona's group (13 students): for the first day, the pre-examination was based on a review activity (appendix 2) of the First Conditional. Five sentences were written on the blackboard with 3 options from which the students, in pairs or threes, had to choose the correct answer. For the second day, a quiz on the Second Conditional was played on Kahoot. This activity required reserving the computer laboratory in advance, given that it was meant to be played on the computers. This examination was done in pairs and groups, the students could choose either option.

    As we can observe in the following graph, 6 groups participated in the game, each with a different group/pair name since players are usually allowed to choose it. This is a representation of the final scores showing the different positions of the different teams:

Figure 3. Second Conditional Question Summary. Total Score.

Figure 3. Second Conditional Question Summary. Total Score.
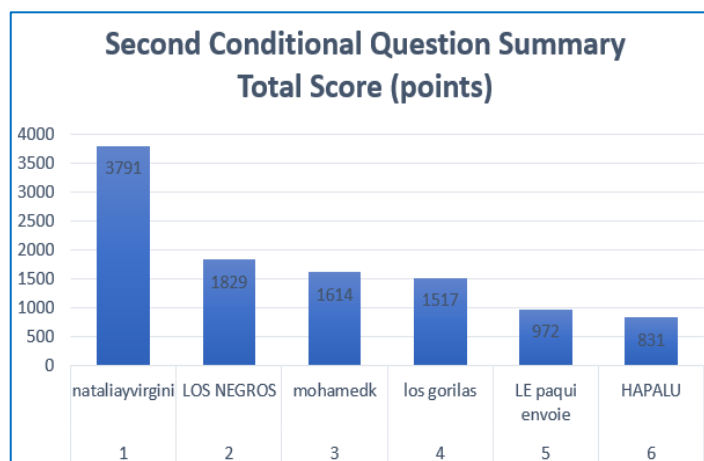
The quiz was formed by 8 questions regarding the Second Conditional, in which 1 answer had to be chosen as quick as possible since Kahoot counts both speed and accuracy. The group who won, as the graph indicates, obtained 3791 points by having 4 correct answers (appendix 3). The rest of the participants had 3 or less correct answers. Thus, this implies that the content was not completely understood. For this reason, several students had questions regarding the structure and the vocabulary.

- IES Cruz de Caravaca's group (26 students): both the First and the Second Conditionals were flipped with this group too. The pre-examination for the latter lesson was a Kahoot too, formed by 15 questions and 7 teams. The results of this group are shown in the following table:

Figure 4. Total Score (points).
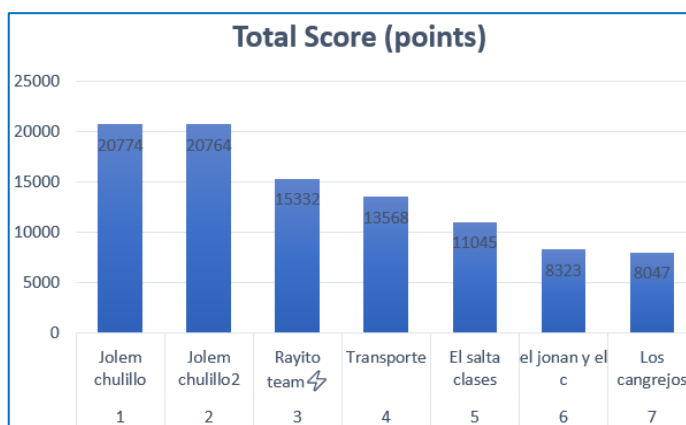
The group who obtained the first position scored 20774 points, answering all the questions correctly. So did the second team, but they obtained 10 less points
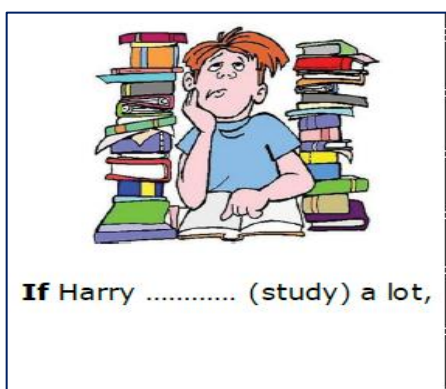
because they were less quick. The rest of the players had from 8 to 12 correct answers out of 15 (appendix 4).

These results indicate that not all the students understood how to use the conditionals or not all of them watched the videos at home. Therefore, after doing the pre-examination activities, the corresponding conditional was explained again, and the grammatical structure was written on the blackboard as a help for the main activities carried out afterwards. All the doubts and questions of the students were resolved before moving to the next step. A common mistake made by the students was the incorrect use of the verbs (Present Simple, in the case of the First Conditional, and Past Simple, in the case of the Second Conditional). Therefore, this indicates an already existing gap in some students' previous knowledge.

Main activities

For this part, 2 activities were obtained from the internet and were adapted to the students' level. The first activity is a card game (appendix 5), a matching and speaking activity, which consists in matching 15 "if" cards with 15 "results" cards to form First Conditional sentences and it is played in groups of 4-5. The next two images give an example of the game:

Figure 5. "If" cards. (Teach This 1).   **Figure 6**. "Results" cards. (Teach This 1).
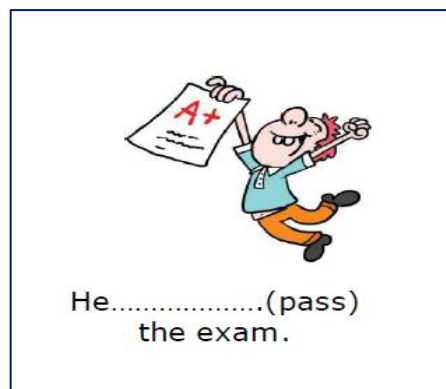
The original cards, obtained from Teach This1 (2017), did not include the sentences. They were added given the low level of the participants, therefore, they only had to complete the sentences with the correct form of the verbs in brackets. Afterwards, they had to rely on the images, as a visual aid, for the pairing of the "if" cards with the "results" cards.

The second activity was also obtained from Teach This2 (2017). It is played in pairs or in threes and it consists in completing given sentences with the Second Conditional form by guessing information each one's corresponding classmate (Appendix 6). At the end, they swop their worksheets with their classmates and together find out whether the information guessed is correct or not.

The results of these two activities were satisfactory, given that the students learnt how to use both conditionals. They could not do the activities correctly at the beginning, but as I was their guide, I could visit all the groups and solve all their questions and doubts. Both activities were enjoyed by the students, given that they are dynamic and collective, which students usually like since they are given the chance to talk to each other and ask each other as well.

6. METHODOLOGY

The methodology implemented in this research involves collecting, analysing and integrating quantitative—a questionnaire— and qualitative—individual and group interviews— research, which indicates that it is a mixed methods research (Onwuegbuzie & Teddlie).

6.1. Quantitative method

On the one hand, the questionnaire designed is based on Hsieh, Wu & Marek's conducted survey (appendix 7) in their research called "Using the flipped classroom to enhance EFL learning" (2017). This aims to analyse the perceptions of the students regarding the Flipped Classroom model, whether they:

1. consider this model better for their learning process,
2. have enjoyed more learning through this model,
3. think it is more efficient and effective,
4. feel more motivated with this model,
5. have participated and got involved in the lessons,
6. think the time and the effort spent in the Flipped Classroom is worthwhile,
7. became more active learners,
8. learnt more and better,
9. prefer this method to a lecture-based method,
10. think this method guided them toward a better understanding of the course topics,

11. had fun learning through the Flipped Classroom,

12. devoted themselves more to the activities in the Flipped Classroom,

13. spent more time and effort than usual on their learning activities,

14. generally, are happy and satisfied with this Flipped Classroom experience.

The form of the questions is based on Likert Scale which provides five response options: I strongly disagree (1), I disagree (2), Neutral (3), I agree (4), I strongly agree (5). In addition, as stated before, the participants involved in this research are 8th Grade students. The total number is 39, 5 of them suffer from hearing impairment and 1 of them has Asperger's Syndrome. Furthermore, the questionnaire was conducted in person, immediately after finishing the Flipped Classroom. The students had 15 minutes to evaluate these 14 questions. After the completion and collection of the questionnaires (appendix 8), they were copied to an Excel document for their subsequent analysis on SPSS.

6.2. Qualitative method

In addition to the questionnaire, an individual and group interviews (appendix 9) were conducted with the same students. The students with the hearing impairment and the student with Asperger's Syndrome were interviewed individually while the rest was interviewed in groups of 5 students. The purpose of this interview is to have a closer and clearer view of the students who participated in this research. It includes 10 questions about their perceptions regarding the Flipped Classroom model, the videos and the use of the SSL and subtitles:

1. what do they think about this model,

2. if they consider it useful,

3. if they had any problem when finding and accessing the videos,

4. what do they think about the content of the videos,

5. if they had any problem to understand the content,

6. what do they think about the use of the SSL and subtitles,

7. if they think they would learn better through this method or the traditional method,

8. to give advantages,

9. and disadvantages regarding this method,

10. and recommendations to improve the videos for any future research.

With reference to the time spent in these discussions, the individual interviews took around 5 minutes each and the group interviews took around 10 minutes each. The answers of the students were noted down on a diary and, afterwards, copied to a Word document (appendix 10).

As this research is based on the preferences and perceptions of the participants, the questionnaires and the interviews are crucially decisive. As said previously, the questionnaire is based on a survey already conducted by Hsieh, Wu and Marek, as expressed in their research "Using the flipped classroom to enhance EFL learning" (2017). Therefore, the purpose of both researches is similar, given that it aims to examine to what extent the use of the Flipped Classroom model enhances the learning of English as a Foreign Language. However, the characteristics of the participants differ, given that this study focuses mainly on students with special needs, although students without any special need also participated.

7. RESULTS

As we can observe in figure 7, the 39 participants have answered 14 questions following Likert Scale. As mentioned above, this scale provides five response options: I strongly disagree, I disagree, Neutral, I agree, I strongly agree. Each response is assigned a number, from 1 to 5, respectively.

Figure 7. Descriptive Statistics: all students.

Descriptive Statistics: all students			
Items	N.	Mean	SD
1. I consider this model better for my learning process	39	4,18	1,09
2. I have enjoyed learning through this model	39	3,97	,95
3. I think it is more efficient and more effective	39	4,15	,77
4. I feel more motivated with this model	39	4,05	,94
5. I have participated and got involved in the Flipped Classroom	39	3,95	1,09
6. I have become a more active learner	39	3,92	1,10

7. I think the time and the effort spent in the Flipped Classroom is worthwhile	39	4,31	1,05
8. I have learnt more and better	39	4,31	,80
9. I prefer this model to a lecture-based method	39	4,15	,98
10. I think this model guided me toward a better understanding of the content	39	4,05	,91
11. I have had fun learning through this model	39	4,10	1,11
12. I devoted myself more to the activities in the Flipped Classroom	39	3,92	,90
13. I spent more time and effort than usual on the learning activities	39	4,08	1,01
14. Generally, I am happy and satisfied with this Flipped Classroom experience	39	4,41	1,04

Descriptive statistics reveal that the participants consider the Flipped Classroom model better for their learning process, given that it received a mean of 4.18 out of 5. They also felt more motivated and they think that this model guided them to a better understanding of the content, scoring 4.05 in both items. In addition, items 3 and 9 scored 4.15, indicating that the participants prefer this model to a lecture-based model and they think it is more effective and more efficient for their learning process. Furthermore, the participants believe that the time and effort spent in the Flipped Classroom is worthwhile given that they learnt more and better, scoring 4.31 in both items. Besides, most students totally agreed with being happy and satisfied with the Flipped Classroom model, obtaining 4.41 points out of 5.

With an exclusive regard to the participants with special needs, 5 of them with hearing impairment and 1 with Asperger's Syndrome, the following results on figure 8 were obtained:

**Figure 8**. Descriptive Statistics: students with special needs.

Descriptive Statistics: students with special needs			
Items	N	Mean	SD
1. This model is better for my learning process	6	4,83	,40
2. I have enjoyed learning through this model	6	4,50	,83
3. I think it is more efficient and more effective	6	4,33	,81
4. I feel more motivated with this model	6	4,33	,81
5. I have participated and got involved in the Flipped Classroom	6	4,33	1,08
6. I have become a more active learner	6	4,50	,83
7. I think the time and the effort spent in the Flipped Classroom is worthwhile	6	4,50	,83
8. I have learnt more and better	6	4,50	,83
9. I prefer this model to a lecture-based method	6	4,33	,81
10. I think this model guided me toward a better understanding of the content	6	4,33	1,03
11. I have enjoyed learning through this model	6	4,33	,81
12. I devoted myself more to the activities in the Flipped Classroom	6	4,33	,81
13. I spent more time and effort than usual on the learning activities	6	4,33	1,03
14. Generally, I am happy and satisfied with this Flipped Classroom experience	6	4,50	,83

As we can observe, the results given by the students with special needs are higher than the general results, which means that their perceptions of the Flipped Classroom model are more positive. Most respondents highly agreed that this model is better for the students' learning process, scoring 4.83 out of 5. Thinking that this model is more efficient and more effective, feeling more motivated in this model, participating and getting more involved in the classroom, preferring this model to a lecture-based model,

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understanding better the content, enjoying learning and devoting more time to the activities have received a 4.33 out of 5. Moreover, becoming more active learners, thinking that the time and effort spent in the Flipped Classroom is worthwhile, learning more and better and being happy and satisfied with this experience received a 4.50 out of 5.

This indicates that the participants with special needs agree or strongly agree with the 14 statements on the questionnaire regarding the implementation of the Flipped Classroom model. Furthermore, figure 9 shows the percentages of each response among respondents with special needs:

Figure 9. Participants with special needs.
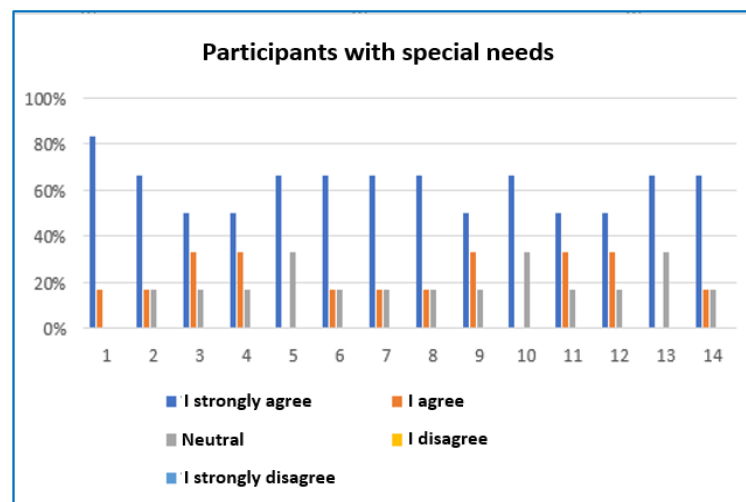
The vertical axis of the graph represents the percentage of the participants and the horizontal axis enumerates the 14 statements of the questionnaire. As we can see, the response that goes in the first place is "I strongly agree". The second place goes to "I agree" and the third place goes to "neutral". The other 2 responses, "I strongly disagree" and "I disagree" were not chosen by any participant with special needs, which points out that the perceptions of these students of this teaching model are highly positive.

Individual interviews: students with special needs

The individual interviews were conducted to the 6 participants with special needs. All of them found this model appealing and consider it useful for their learning process, responding to the first and second questions: 1) What do you think about this methodology? 2) Do you think it is useful? Below are some answers:

"I like it and I consider it very useful."

"I like this model. I have learnt a lot and I would like to continue watching your videos."

"It is useful because I have learnt better this way."

With regards to the questions: 3) Have you had any problem when finding the videos?, 4) What do you think about the content of the videos?, and 5) Have you had any difficulty to understand the content of the videos? Although the videos have been uploaded to YouTube and, afterwards, to a Blog on WordPress.com[5] created by me, given that it was required by the teacher of IES Azcona's group, most students could not find them easily. Moreover, they considered the content somewhat difficult to understand, only 2 of 5 said they did not have any problem to understand them and that, thanks to the translations and subtitles, they could fully understand the content.

Regarding the use of the Spanish Sign Language and subtitles, both the students with and without hearing impairment consider it necessary and helpful for those students who cannot hear, responding to the sixth question: 6) What do you think about the use of SSL and the subtitles? One of the students with hearing impairment said:

"I think it is a very good idea, especially for deaf students. This way, they would not have any excuse to not watch the videos at home."

Another student with a hearing impairment as well said:

"I like the idea of subtitling the videos, given that I am not good at SSL because I cannot understand it very well."

Consequently, the use of only the SSL would not have been inclusive, given that not every student with hearing impairment can understand or interpret sign language. Therefore, the use of subtitles should be emphasized for the reason that it makes a wider ground for inclusive education.

When asking the students which methodology they prefer: 7) Do you think your would learn better through this model or through a traditional modelo?, all of them answered that they would choose this one, except for 1 student who said that she would combine both methodologies. This is a remarkable answer, given that teachers should

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[5] To consult: https://wordpress.com/view/elblogdefatima91711832.wordpress.com

never use exclusively one model, but combine as many as possible by taking bits from each to reach a suitable and effective teaching methodology.

Responding to question 8, which is: what are the advantages you found to this model?, the students gave the following answers:

"Learning more and better."

"The videos are always available and they can be watched whenever and wherever."

"Watching the videos calmly at home and being able to replay and rewind them as many times as needed."

"The content is suitable for students with hearing disabilities and it is well explained."

All the students agreed on the fact that the videos can be watched as many times as necessary at home until understanding and internalizing the content explained.

With regards to question 9 which is: what are the disadvantages you found to this model?, the following answers were given:

"The content is a little bit hard to understand."

"It was a little bit hard to find the videos."

"The internet connection was slow and the videos stopped once and again."

Finally, with regards to the last question about the recommendations, these were given by the students:

"It would be better to give more examples in the videos and to use a simpler vocabulary."

"It would be helpful to keep the structure of the conditionals all the time on the screen."

"The explanation should be simpler and slower so that slow students can keep up with it."

To sum up, the students with special needs consider using the SSL and subtitles a good idea, given that it includes them educationally. They liked the Flipped Classroom

model thanks to its numerous advantages, such as having the chance to watch the videos anytime and anywhere, being able to watch them as many times as necessary, understanding better the content when watching the videos calmly at home. By contrast, they have also mentioned some disadvantages such as the use of complex vocabulary in the videos, the lack of enough examples or the limited access to Internet facilities.

Group interviews: the rest of the students

This part of the interview was conducted in 5 groups of 5 students and 2 groups of 4 students. In respect to the first and second questions, what do they think about this methodology and whether they think it is useful, all the groups said that they like this methodology and they also think it is useful, bearable and funnier. These are some questions:

"We like it. It is more bearable and much funnier than the other one."

"We think it is useful, especially the videos."

"It is useful and the introduction of technology in the classroom is a great idea."

"We like this model. We give it 10 out of 10."

In addition, none of these 33 students had any problem when finding and accessing the videos, responding to question 3 which was asking them if they had any problem when finding the videos. Moreover, the groups highlight the good quality, simplicity and easiness of the videos when they were asked questions 4 and 5, which are what they think about the content of the videos and whether they had any difficulty to understand the content explained.

Likewise, although none of these students have hearing impairments, they completely agree with the idea of using SSL and subtitles to make the videos educationally inclusive when they were asked question 6, which was their opinion about the use of these two tools. However, there is a group who said that the interpretation of SSL slowed the course of the videos, which can make students with no hearing impairment disconnect and lose interest.

Nevertheless, many students highlight the use of technology in the classroom, which is one of the pillars of this teaching model, and they say that it should be used more in order to motivate them to learn and participate. To answer question 8, which is

numerating advantages of the Flipped Classroom model, these were mentioned by the students:

"Learning more, more quickly and understanding better the content."

"It is dynamic, time-saving and the videos can be replayed and rewinded as many times as needed."

"Classes are less tiresome and the videos can be watched individually at home, which is much better than being taught with other 30 classmates."

"You do not get bored learning and the videos can be watched at home without being obliged to bear the noise caused in the classroom."

"You learn more, you pay more attention and the English language is learnt in a better and easier way."

Most students talked about the advantage of having the videos always available and accessible whenever they need reviewing the content. Another significant advantage is that this model increases their motivation to learn and to participate, given that it is dynamic and entertaining thanks to the different activities carried out in the classroom and thanks to the incorporation of technology.

Concerning question 9, addressing the disadvantages, some participants mentioned the unvailability of internet connection at home, which could be a significant obstacle. Besides, other students point out that when seeing the content at home, they are not given the chance to have their doubts resolved immediately:

"If you have any doubts after watching the videos, you cannot ask the teacher immediately and you have to wait until you see him or her."

"SSL slow the course of the video, which can bore us."

For the recommendation part, question 10, some students suggested including more examples in the videos and playing more games in the classroom. The students who complained about the slowness of the SSL interpretation, suggested removing it from the videos so that it does not make the student disconnect and lose interest. The rest did not have any recommendations and said the videos were understandable and enjoyable.

To conclude, the questionnaires and the individual and group interviews indicate that the Flipped Classroom model has better results in the motivation of the participants both without and with special needs to learn, reinforcing their knowledge of the First and Second Conditionals, engaging them more in the activities carried out in the classroom and giving them the chance to learn better and at their own pace.

8. IMPLICATIONS

The questionnaires and the individual and group interviews indicate that the Flipped Classroom model has positive effects on students, especially those with special needs and specifically with hearing impairments. They expressed their satisfaction with the videos and this teaching model. They participated actively in the activities proposed to them and showed a huge interest, although not from the beginning. In addition, the use of the Spanish Sign Language and subtitles was openly encouraged by all the participants.

The purpose of this research was to examine the perceptions of two 8th grade groups regarding the use of the Flipped Classroom model, being the main focus the students with hearing impairments. However, the study conducted aims at providing inclusive didactic material for all the participants: students who can hear have the oral exaplanation, students who cannot hear have the SSL interpretation and students who cannot understand the latter have the subtitles. In fact, as previously mentioned, this methodology ensures equal opportunities for all these students since it gives them the chance to learn at their own pace. It customizes the teaching process, given that teachers become guides and they are no longer mere lecturers.

The results of the present research and other studies imply that this teaching model needs to be included among the different teaching methodologies implemented, given its numerous advantages for both the students and the teachers. Although taking the first steps may be laborious especially for teachers, either recording or finding appropriate didactic videos, preparing different tasks, attending and monitoring all the students at the same, its long-term advantages may be rewarding and beneficial.

Information and Communications Technology (ICTs) are increasingly and quickly changing and getting into our lives worldwide. Educational systems are urgently accommodating this digital era and adapting to it. In fact, one of the key competences of the curriculum in the Spanish educational system, in this case, is digital competence, which demonstrates the significance of introducing technology in the classroom.

However, the purpose is not only introducing ICTs in the classroom, but making an adequate use of it in order to enhance and improve the students' learning. Teachers are expected to integrate ICTs, but not every one can handle them. Thus, there are many disadvantages facing the correct use of technology in the classroom: lack of professional training for teachers, lack of infraestructure in schools, reduced computer literacy, limited internet access, distractions during class time, use of electronic devices in the classroom when not necessary, besides not all teachers agree with using technology in the classroom. Therefore, these and more drawbacks can lead to "the risk of creating a generation of ill-prepared students for a digital future" (Hyndman, 2018).

Nevertheless, the implications of the Flipped Classroom model are significant: a)the students have become active learners and protagonists in their own learning, b)the students do not have extra work, given that the tasks are carried out in the classroom, having the teacher as a guide all the time, c)the use of technology is integrated in the classroom and it enhances and fosters the students' learning and motivates them, d)this model can be combined with other methods such as gamification, problem-based learning or cooperative learning, e)it enhances attention to diversity since it gives the chance to students to learn at their own pace and it gives the teachers the opportunity to dedicate more time to struggling students, and f) allows the teacher to monitor each student.

9. LIMITATIONS AND CHALLENGES

Despite the positive results that this research obtained, several drawbacks were faced from the beginning. Initially, the study was meant to be carried out in a School for the Deaf, where all the students have hearing disabilities. The purpose of the research was implementing this model to the maximum number possible of students with hearing disabilities. However, the request was finally rejected given the low socioeconomic level of the students since they cannot have access to any electronic gadget at home, as it was stated by the headmistress. Bearing in mind that the Flipped Classroom model requires using technology, it was not possible to implement this study in this school.

Therefore, this is the main challenge that can be faced when trying to put into practice this teaching model. Not having only the internet connection can be solved, but how not having any electronic gadget at home could be solved? If the students had to look for a solution to this inconvenient, the model would be an obstacle rather than a learning process promoter. In fact, two of the participants, as said before, mentioned this as a

disadvantage of the model. They had a computer or a mobile phone but they did not have internet connection or it was slow. The former had to go to a cafeteria in order to have Wi-Fi access and watch the videos, whilst the latter said he disconnected sometimes when the videos stopped due to the slowness of the internet.

Additionally, although the language used in the videos is Spanish, the examples are translated and the subtitles are written in Spanish too, many students at IES Azcona suggested using a simpler and easier language in the videos. Apparently, the problem faced here is their nonacquaintance with the content, given that it was new for them. However, it is true that more examples should be included in the videos in order to give the students a wider and clearer view of the structures explained. The number of the examples included in each video is 5, which is not enough if the content is complex and completely new to the students. Therefore, more examples should be included in future videos for future teaching experiences based on the Flipped Classroom model.

Furthermore, at the beginning I had a planning of the different steps to follow during my participation in both schools, but not everything went as originally planned. For the first lesson in IES Azcona, Kahoot was meant to be played for the pre-examination of the first video, hence the mobile phones of the students were required since the computer room was not available for that day. However, this was not possible because that specific group is not allowed to take mobile phones to the classroom—due to prior problems which led to the banning of mobile phones to that group. As a result, I had to think of an alternative which was that same activity on the blackboard. Thence, with regard to the use of mobile phones in classrooms, it is important to get informed in advance about how this issue is handled before planning any activity involving their use.

10. CONCLUSIONS

The Flipped Classroom model, which emerged as an alternative to absent students, has become one of the most successful teaching methodologies. It has numerous advantages such as providing the students with the content before class—usually videos recorded or recommended by the teacher—, which gives them the chance to have a previous knowledge before going to class, it allows them to learn at their own pace since they have always the content available which they can consult as many times as necessary. In addition, as class time is freed up for tasks, activities or projects, the students become active learners since they begin putting into practice what they learnt, having always the

teacher as a guide, coach and monitor. Therefore, the different abilities and needs are taken more into consideration thanks to an individualized attention and mentoring, which are valuable characteristics of this revolutionary model.

There are various studies on the implementation of the Flipped Classroom model in several educational contexts and with participants with different ages, but there are only a few directed to students with special needs. How can a student with hearing or visual impairment be given a video without any corresponding adjustments? The scarcity of studies providing inclusive material has led to the realization of the present research. After obtaining permission to implement the Flipped Classroom model in an 8th Grade diverse group formed by 14 students—5 of them have hearing impairments—, two videos have been recorded exclusively for them. In order to include both students without and students with special needs and promote inclusive learning, the videos included an oral explanation, the Spanish Sign Language interpretation and subtitles.

Despite the limitations and challenges faced from the outset, such as limited Internet access or lack of interest at the beginning, the students' perceptions resulted positive, especially those with hearing impairments. Most students prefer the Flipped Classroom model to a traditional model, given that they find it more dynamic. All the students emphasize and agree with the idea of having the content always available to consult it when necessary. Moreover, they consider that this model contributes better to their learning process of the English language and motivates them thanks to the inclusion of gamification. They also consider using the SSL and subtitles a valuable aid, especially for students with hearing impairments.

To conclude, the general objective has been answered throughout this investigation: the students' perceptions on the Flipped Classroom model were analysed through its implementation and the collection and examination of the questionnaires and interviews. Moreover, the three specific objectives were also answered: a) an exclusive and inclusive material for students with hearing impairments was designed, b) it has been found out that the Flipped Classroom model contributes positively to students with hearing impairments, and c) this model was implemented in an EFL context.

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12. APPENDIXES

Appendix 1: Explanation Transcript for the Videos

VÍDEO 1

Hello, friends! How are you?

Hoy vamos a hablar de la Condicional Tipo 1.

¿Sabéis qué es una oración condicional?

Las oraciones condicionales son aquellas en las que una persona expresa una acción que sólo puede cumplirse si se dan uno, o más requisitos. Es decir, que suele ser compuesta por una acción y un resultado. Vamos a ver un ejemplo:

> Si ves este video, entenderás esto.
> ¿Qué pasará si ves este vídeo? Entenderás esto.
> "Si ves este vídeo" es el requisito o la acción, y el resultado es "entenderás esto".

Vamos a verlo en inglés:

> If you watch this video, you will understand this.

Hay varios tipos de condicionales. El que vamos a ver hoy es el tipo 1:

CONDICIONAL TIPO 1:

o Función: se usa para hablar sobre posibilidades que pueden tener lugar en el presente o en el futuro. Como os he dicho antes, la oración suele ser compuesta por una acción y un resultado.

o Estructura: If + sujeto + verbo presente simple (la acción), sujeto + will/won't+ verbo infinitivo (el resultado).

o Ejemplos:
> If I study, I will pass the exam. (Si estudio, aprobaré el examen)
> If it rains, I won't go out. (Si llueve, no saldré)
> If I win the lottery, I will buy a big house. (Si gano la lotería, compraré una casa grande)
> If I don't feel well tomorrow, I won't go to work. (Si no me siento bien mañana, no iré al trabajo)

Estas oraciones deben separarse con una coma, a menos que el resultado vaya antes de la condición:

➢ I will pass the exam if I study. (Aprobaré el examen si estudio)

➢ I won't go out if it rains. (No saldré si llueve)

➢ I will buy a big house if I win the lottery. (compraré una casa grande si gano la lotería)

➢ I won't go to work if I don't feel well tomorrow. (no iré al trabajo si no me siento bien mañana)

Thanks for your attention!

See you soon!

VÍDEO 2

Hello, friends! How are you today?

En este vídeo vamos a hablar de la Condicional Tipo 2:

CONDICIONAL TIPO 2:

¿Qué funciones tiene? Tiene dos funciones principales:

o Función 1: se usa para hablar sobre situaciones imaginarias (que no son reales) y cuáles serían o podrían ser sus consecuencias. También suele ser compuesta por una acción y un resultado.

o Estructura: If + sujeto + verbo en pasado simple (acción), sujeto + would/ wouldn't + verbo infinitivo (resultado).

o Ejemplos:

➢ If I had money, I would travel to New York. (Si yo tuviera dinero, iría al cine)

➢ If I had homework, I wouldn't go to the party. (Si yo tuviera tarea, no iría a la fiesta)

➢ If I knew his number, I would phone him. (Si yo supiera su número, le llamaría por teléfono)

o Función 2: se usa para dar consejos sobre lo que una persona haría si estuviera en el lugar de otra persona. También suele ser compuesta por una acción y un resultado.

- o Estructura: If + sujeto + WERE+ cualquier otro sujeto (acción), sujeto + would/ wouldn't + verbo en infinitivo (resultado).
- o Ejemplos:
  - ➢ If I were you, I would go to the doctor (Si yo fuera tú, iría al médico)
  - ➢ If I were you, I wouldn't smoke. (Si yo fuera tú, no fumaría)

Al igual que en la primera condicional, las oraciones deben separarse con una coma en la segunda condicional también, a menos que el resultado vaya antes de la condición:

- ➢ I would go to New York if I had money. (iría al cine si tuviera dinero)
- ➢ I wouldn't go to the party if I had homework. (no iría a la fiesta si tuviera tarea)
- ➢ I would phone him if I knew his number. (le llamaría por teléfono si supiera su número)
- ➢ I would go to the doctor if I were you. (iría al médico si fuera tú)
- ➢ I wouldn't smoke if I were you. (no fumaría si fuera tú)

Thanks for your attention!

See you soon!

Appendix 2: Review Activity of the First Conditional

1. First Conditional. Choose the correct answer:

1). If I ……………hard, I…………………the exam.

a. study/will pass   b. studies/will pass   c. study/passes

2). If it………………, I……………………..to the park.

a. rain/will go   b. rains/won't go   c. rains/go

3). If she………………..on holiday this summer, she……………………Italy.

a. goes/will visit   b. go/ visits   c. goes/visit

4). If I…………………to Italy, I…………………..pizza.

a. goes/eats   b. go/will eat   c. go/eat

5). If you………………………your homework, you……………………tonight.

a. finish/will go out   b. finishes/ will go out   c. finish/ goes out

Appendix 3: Second Conditional Questions Summary

	A	B	C	D	E
1	**Second Conditional**				
2	**Final Scores**				
3	Rank	Players	Total Score (points)	Correct Answers	Incorrect Answers
4	1	nataliayvirgini	3791	4	4
5	2	LOS NEGROS	1829	2	6
6	3	mohamedk	1614	2	5
7	4	los gorilas	1517	2	6
8	5	LE paqui envoie	972	1	6
9	6	HAPALU	831	1	6
10					
11	**Switch tabs/pages to view other result breakdown**				
12					
13					

Overview | **Final Scores** | Question Summary | Question 1 | Question 2 | ... ⊕

Appendix 4: Total Score (Points)

	A	B	C	D	E
1	**Second Conditional**				
2	**Final Scores**				
3	Rank	Players	Total Score (points)	Correct Answers	Incorrect Answers
4	1	Jolem chulillo	20774	15	0
5	2	Jolem chulillo2	20764	15	0
6	3	Rayito team⚡	15332	12	3
7	4	Transporte	13568	12	3
8	5	El salta clases	11045	10	5
9	6	el jonan y el c	8323	8	7
10	7	Los cangrejos	8047	8	7
11					
12	**Switch tabs/pages to view other result breakdown**				

Overview | **Final Scores** | Question Summary | Question 1 | Question 2 | ... ⊕

45

Appendix 5: Card Game Activity

If he..............(not sleep) early,	If Harry .... (study) a lot,	If it...............(snow),
If it........... (get) windy,	If you............ (go) to the gym,	If you........... (eat) too much fast food,
If she............(go) to the supermarket,	If he........... (arrive) late at work,	If it........... (be) sunny,
If he...........(work) hard,	If Peter.............(mow) the lawn,	If my grandparents ....(visit) us,
If it ....(get) hot,	If it................(rain),	If Charles ....(drive) fast,

He....................(be) tired in the morning.

He....................(pass) the exam.

Tom....................(play) in the snow.

Mary ....(fly) her kite.

You....................(be) strong.

You....................(not have) a healthy life.

She.............(buy) fruits and vegetables.

His boss................(be angry) with him.

I ....(go) to the beach with my family.

He........................(have) success.

He........................(earn) money.

I........................(be) happy.

We........................(go) to the swimming pool.

I........................(stay) at home and watch TV with my parents.

He........................(crash).

Appendix 6: Second Conditional Guessing Worksheets

Student A

A. Complete the sentences below about your partner.

1. If you could meet a famous person, I think you'd like to meet ....

2. If you could learn another language, I think you'd learn ....

3. If you could have any car in the world, I think you'd have ....

4. If you could be any age for a week, I think you'd choose to be ....

5. If you could go to any country in the world, I think you'd go to ....

6. If you could have any pet, I think you'd have ....

7. If you were given unlimited money to buy one object, I think you'd buy ....

8. If you could eat anything you liked this evening, I think you'd eat ....

9. If you could have a special talent, I think you'd like to be able to ....

10. If you could have any job in the world, I think you'd like to be ....

B. Read the completed sentences to your partner. Were your guesses right or wrong?

C. Now, listen to your partner's sentences about you. Tell your partner if the sentences are right or wrong, and why.

✂ -

Student B

A. Complete the sentences below about your partner.

1. If you decided to learn something new, I think you'd learn ....

2. If you could only watch one film again in your life, I think you'd watch ....

3. If you could be an animal, I think you'd be ....

4. If you could live anywhere in the world, I think you'd live ....

5. If you could have a super power, I think you'd choose to be able to ....

6. If you won a trip around the world for two, I think you'd take ....

7. If you could go to a concert tonight, I think you'd go and see ....

8. If you could try a new sport, I think you'd try ....

9. If you had more money, I think you'd buy ....

10. If you could learn to play a musical instrument, I think you'd learn to play ....

B. Listen to your partner's sentences about you. Tell your partner if the sentences are right or wrong, and why.

C. Read the completed sentences to your partner. Were your guesses right or wrong?

Appendix 7: Survey "Using the Flipped Classroom to Enhance EFL Learning"

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	2	3	4	5

1	A flipped classroom is a better way of learning.	1 2 3 4 5
2	I enjoyed the flipped classroom teaching approach more.	1 2 3 4 5
3	I think the flipped classroom is a more effective and efficient way to learn.	1 2 3 4 5
4	I feel more motivated in a flipped classroom.	1 2 3 4 5
5	I participated and engaged myself more in learning in the flipped classroom.	1 2 3 4 5
6	I became a more active learner in the flipped classroom.	1 2 3 4 5
7	I thought the time and effort I spent in the flipped classroom was worthwhile.	1 2 3 4 5
8	I learned more and better in the flipped classroom.	1 2 3 4 5
9	I prefer the flipped classroom to a lecture-based classroom.	1 2 3 4 5
10	I think the flipped classroom learning guided me toward better understanding of the course topics.	1 2 3 4 5
11	I experienced pleasure in the flipped classroom.	1 2 3 4 5
12	I devoted myself more to the instructional/class activities in the flipped classroom.	1 2 3 4 5
13	I spent more time and effort than usual on my flipped classroom learning activities.	1 2 3 4 5
14	Generally, I am happy and satisfied with this flipped learning experience.	1 2 3 4 5

Appendix 8: Questionnaire

	Totalmente en desacuerdo (1)	En desacuerdo (2)	Neutro (3)	De acuerdo (4)	Totalmente de acuerdo (5)
1. El modelo de Flipped Classroom es mejor para el aprendizaje					
2. He disfrutado más aprendiendo mediante este modelo					
3. Creo que Flipped Classroom es más eficiente y eficaz para aprender					
4. Me siento más motivado/a en la Flipped Classroom					
5. He participado y me he involucrado más en la Flipped Classroom					
6. Me he convertido en un/a aprendiz/a más activo/a					
7. Creo que el tiempo y el esfuerzo dedicados a la Flipped Classroom merecen la pena					
8. He aprendido más y mejor con la Flipped Classroom					
9. Prefiero la Flipped Classroom a una clase tradicional					
10. Pienso que el modelo de Flipped Classroom me ha guiado hacia un mejor entendimiento de los contenidos escolares					
11. Me he divertido en la Flipped Classroom					
12. Me he comprometido más con las actividades realizadas en la Flipped Classroom					
13. He dedicado más tiempo y esfuerzo en las actividades de la Flipped Classroom					
14. Generalmente, estoy contento/a y satisfecho/a con esta experiencia basada en Flipped Classroom					

Appendix 9: Interview

<div align="center">Entrevista</div>

1. ¿Qué te ha parecido esta metodología?

2. ¿Consideras que es útil?

3. ¿Has tenido algún problema a la hora de acceder a los vídeos?

4. ¿Qué te parece el contenido de los vídeos?

5. ¿Has tenido alguna dificultad a la hora de entender lo explicado en los vídeos?

6. ¿Qué te parece el uso de la LSE y los subtítulos?

7. ¿Crees que aprenderías mejor siguiendo este modelo o un modelo tradicional?

8. Ventajas que has percibido al usar esta metodología.

9. Desventajas que has percibido al usar esta metodología.

10. Recomendaciones en cuanto a cómo mejorar los vídeos para su posterior uso en clase.

Appendix 10: The Students' Answers to the Interview

1. Entrevista a grupo de 2º en IES Azcona

Alumnos con NEE:

<u>Alumno 1:</u>

1. "*Me parece bien, he aprendido mucho y quiero seguir viendo tus vídeos para aprender más.*"

2. "*Sí, la considero muy útil.*"

3. "*No los encontraba y tenía que buscarlos.*"

4. "*Me ha costado un poco entender el contenido, pero está bien.*"

5. "*Un poco.*"

6. "*Me parece muy buena idea y más para los alumnos sordos, así no tienen ninguna excusa para no ver los vídeos.*"

7. "*Aprendería mucho más con esta metodología.*"

8. "*Se aprende mucho y, como se puede ver el vídeo en casa, te puedes concentrar y repetirlo las veces que quieras.*"

9. "*Ninguna.*"

10. "*Mantener el esquema o la estructura de las condicionales en la pantalla.*"

<u>Alumno 2:</u>

1. "*Me parece bien, me ha gustado bastante.*"

2. "*Sí es útil.*"

3. "*No encontraba los vídeos.*"

4. "*Me parece bien pero un poco difícil.*"

5. "*El segundo vídeo es un poco difícil de entender (segunda condicional).*"

6. "*Me parece buena idea el uso de LSE y subtítulos, así se tienen en cuenta los alumnos sordos.*"

7. "*Aprendería mejor con esta metodología.*"

8. "*Se aprende mejor.*"

9. "*Contenido un poco difícil de entender.*"

10. "*Más ejemplos y lenguaje más simple.*"

Alumna 3:

1. "*Me parece bien, me ha gustado mucho.*"

2. "*Sí, es útil.*"

3. "*Me metía en Google y ponía el título y no me salía el vídeo.*"

4. "*El contenido me parece muy bien.*"

5. "*No he tenido ninguna dificultad para entender los vídeos. Me ha resultado útil la traducción de los ejemplos en los vídeos.*"

6. "*Me parece muy buena idea el uso de la LSE y los subtítulos, de esta manera los vídeos son aptos para los alumnos que no oyen.*"

7. "*Me gustan las dos metodologías.*"

8. "*Una ventaja es el hecho de poder ver los vídeos tranquilamente en casa y poder repetirlos.*"

9. "*Ninguna desventaja.*"

10. "*No tengo ninguna recomendación, simplemente están muy bien los vídeos.*"

Alumno 4:

1. "*Bien, me ha gustado.*"

2. "*Sí, es bastante útil.*"

3. "*Al principio no me salían los vídeos, he tenido que pedir los enlaces a un compañero.*"

4. "*Me parece bien y útil.*"

5. "*Algunas cosas me resultaban difíciles y no las entendía.*"

6. "*Me parece bien, pero yo no entendía mucho la LSE, pero los subtítulos me han venido muy bien.*"

7. *"Con esta aprendería mejor."*

8. *"Una ventaja es tener siempre los vídeos disponibles y poder verlos cuando sea y donde sea."*

9. *"Resulta un poco difícil encontrar los vídeos."*

10. *"Ninguna, están bien los vídeos."*

Alumno 5:

1. *"Está muy bien, me ha gustado."*

2. *"Sí porque aprendo mejor."*

3. *"No he tenido ningún problema."*

4. *"Me gusta mucho porque está muy bien explicado y todo bien ordenado."*

5. *"No, aunque no entendía algunas palabras en inglés, pero miraba los subtítulos y eso me ayudaba."*

6. *"Me parece buena idea para las personas sordas."*

7. *"Me gusta más esta metodología."*

8. *"Una ventaja es que se aprende más y mejor."*

9. *"Ninguna desventaja."*

10. *"Ninguna, me parecen muy bien los vídeos."*

Entrevista grupal a alumnado sin NEE:

Primer grupo de 4 alumnas:

1. *"Nos parece muy bien."*

2. *"Bastante útil y el uso de la tecnología es buena idea."*

3. *"No hemos tenido ningún problema a la hora de encontrar los vídeos."*

4. *"Nos parecen bien."*

5. *"Es fácil de entender."*

6. *"Nos parece buena idea para los alumnos que son sordos."*

7. "*Las dos metodologías, pero creemos que es importante el uso de la tecnología.*"

8. "*Las ventajas son: se aprende más, más rápido y se entienden mejor las cosas.*"

9. "*Ninguna desventaja.*"

10. "*Nos gustan mucho los vídeos, no tenemos ninguna recomendación, sólo que se hagan más juegos como el que has hecho con nosotros.*"

<u>Segundo grupo de 5 alumnos:</u>

1. "*Nos parece muy bien, le damos un 10.*"

2. "*Sí, es bastante útil.*"

3. "*No, ningún problema.*"

4. "*El contenido es bueno, útil y de calidad.*"

5. "*No, ningún problema.*" (Uno de ellos ha dicho que sí porque no se le da muy bien el inglés)

6. "*Muy buena idea para las personas sordas.*"

7. "*Obviamente esta, es indudable.*"

8. "*Se entiende y se aprende mejor.*"

9. "*Una desventaja podría ser no tener WiFi en casa.*"

10. "*Están muy bien los vídeos.*"

Entrevista a grupo de 2º en IES Cruz de Caravaca:

<u>Alumno con asperger</u>

(le molesta mucho el ruido en la clase, siempre pide permiso para ir al baño porque no aguanta el ruido en clase. No participa en las actividades grupales porque se lleva mal con sus compañeros de clase. Su respuesta: no me interesa la actividad):

1. "*Me parece bien.*"

2. "*Sí, me parece útil.*"

3. "*El vídeo está bien.*"

4. "*Está bien, es explicativo.*"

5. *"He tenido dificultad al principio, pero lo he rebobinado y me he enterado mejor."*

6. *"Me parece una buena idea para niños sordos, es inclusivo."*

7. *"Este modelo".*

8. *"Es apto para niños con discapacidad auditiva. El contenido está bien explicado."*

9. *"Sólo que el internet me iba lento y se me paraba el vídeo."*

10. *"Explicar de una manera más sencilla para que los alumnos que son lentos en aprender se enteren mejor."*

Entrevista grupal para alumnado sin NEE

<u>Primer grupo de 5:</u>

1. *"Nos parece bien, es más llevadera y más divertida."*

2. *"Sí es útil."*

3. *"No hemos tenido ningún problema."*

4. *"Es útil y está bien explicado."*

5. *"No."*

6. *"Es buena idea para niños sordos."*

7. 4 alumnos dicen que esta y 1 alumno dice que ambas.

8. *"Es dinámica, se pierde menos el tiempo y los vídeos se pueden repetir las veces que uno quiera."*

9. *"La desventaja es que si tenemos dudas en casa, no se las podemos preguntar en ese mismo momento al profesor."*

10. *"Más ejemplos en los vídeos."*

<u>Segundo grupo de 5 personas:</u>

1. *"Nos parece bien."*

2. *"Sí, sobre todo los vídeos."*

3. *"No, porque hemos filtrado por fecha de subida, tal y como nos has dicho el otro día."*

4. *"Está muy bien y tienen buena calidad."*

5. *"No, ya que tenemos también los subtítulos."*

6. *"Nos parece bien, aunque los vídeos se hacen más lentos con la interpretación de la LSE."*

7. *"Esta."*

8. *"Las clases son menos pesadas y los vídeos se pueden ver individualmente en casa, no como estar con 30 alumnos más."*

9. *"La LSE hace que el vídeo sea lento, lo cual puede hacer que desconectemos. Y esperarse con las dudas hasta ver al profesor."*

10. *"A la hora de explicar lo de la coma, se podría haber hecho justo después de explicar cada frase, y no al final."*

Tercer grupo de 5 alumnas:

1. *"Bien, nos gusta y mola mucho."*

2. *"Sí, es bastante útil."*

3. *"No hemos tenido ningún problema."*

4. *"Bien y útil para aprender."*

5. *"No, ninguna."*

6. *"Buena idea para los alumnos sordos."*

7. *"Esta."*

8. *"No te puedes aburrir aprendiendo y los vídeos se pueden ver en casa tranquilamente, sin tener que aguantar el ruido de la clase."*

9. *"Puede haber problemas de internet. También que las dudas que nos surgen en ese momento, no se puedan resolver inmediatamente."*

10. *"Está perfecto."*

Cuarto grupo de 5 alumnos:

1. *"Bien."*

2. *"Sí, es más útil que la otra."*

3. *"No."*

4. *"Está muy bien explicado y es corto."*

5. *"Se entiende bien."*

6. *"Está muy bien para alumnos sordos."*

7. *"Esta."*

8. *"Se aprende más, se presta más atención y se entiende mejor el inglés."*

9. *"Se puede hacer aburrido por la lentitud de la LSE."*

10. *"Están bien."*