ICT for Inclusion.
A Student Voice Research Project in Spain

TIC para la inclusión. Proyecto investigativo sobre la voz del estudiante en España

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Abstract

This article is the result of a research project developed over 4 years (2011-15) in 13 schools in the region of Cantabria (Spain). In this research, students from different levels of education designed and implemented school improvement processes within a model of the student voice (SV) inspired by the pedagogy of participation and inclusion. This paper describes some of these experiences mediated by technology (photographs, 2.0 devices and video) in order to analyse what opportunities these devices offer as a means for contributing to a more participative and democratic school, where the student voice is a tool for change.

Keywords

Media education; student participation; inclusive education; democratization of education; educational innovations

Resumen

Este artículo es el resultado de un proyecto investigativo desarrollado durante 4 años (2011-15) en 13 escuelas de la región de Cantabria (España). En esta investigación, estudiantes de diferentes niveles de educación diseñaron e implementaron procesos de mejoramiento escolar dentro de un modelo de Voz del Estudiante (VdE) inspirado en la pedagogía de la participación y la inclusión. Este artículo describe algunas de esas experiencias mediadas por la tecnología (fotografías, dispositivos 2.0 y vídeo) con el fin de analizar qué oportunidades ofrecen estos dispositivos como medio para contribuir a una escuela más democrática y participativa, donde la voz de los estudiantes es una herramienta para el cambio.

Palabras clave

Educación sobre medios de comunicación; participación estudiantil; educación integradora; democratización de la educación; innovación educacional

Introduction

This article is part of a broader research project[1] financed by the Ministry of Science and Innovation, which was carried out in 13 schools in the region of Cantabria (Spain) over a four year period (2011-2015). The theoretical arguments underlying this research have been extensively described in previous papers (Susinos Rada & Haya Salmón, 2014; Susinos Rada, Haya Salmón & Ceballos López, 2015) and are supported by the student voice movement, SV. Under the leadership of authors committed to a democratic and participative school model (Bragg, 2007; Fielding, 2011; Rudduck & Flutter, 2007), this movement has grown considerably in recent years, especially in Anglo-Saxon countries, although it is hardly known in Spain.

For some authors, dilemmas about agency, participation and inclusion of individuals in social life have been summarized in the concept of "voice" which has become a powerful metaphor for identifying, describing and denouncing the power relations and representations, which are established in social institutions and communities (Arnot, 2006). In this regard, asking who has or does not have a voice is a fundamental tool for revealing inequalities or injustices that are maintained over time and which limit or prevent certain individuals and/or groups participating in making decisions on aspects relevant to their own lives.

The main objective of the initiatives developed under the student voice movement with which our project is identified is to increase the opportunities for student participation, without exception, in all aspects of school life. Thus, the experiences described here aim to promote transformations with the objective of creating more inclusive and democratic schools, placing the students as agents with an authorised voice on educational and school improvement processes (Ainscow, Dyson, Goldrick & West, 2012; Cook-Sather, 2006; Susinos Rada, 2009). On the other hand, the theories of change linked to "local development" (Boisier, 2005; Parrilla Latas, 2010) encourage us to imagine and practice inclusive projects based on actions related to the local context of the school and its closest community, built on "the effectiveness of the emerging school knowledge base and bringing to the surface the idea of the school as a unit of change" (Hopkins, Stringfield, Harris, Stoll & Mackay, 2014, p. 260).

Accordingly, improvement depends on the ability to understand the problem in its different dimensions and to articulate strategies that allow beneficial changes to the institution (Stoll & Fink, 1999). In our projects, these changes arise from the aims of increasing spaces for student participation and proposing new models of relationships between teachers and students based on more collegial perspectives. These attempts at change are ultimately linked to the aim of identifying and combatting any signs of discrimination and exclusion in school life and society in general (Armstrong, Armstrong & Spandagou, 2011).

The SV movement questions whether all children and young people have the same opportunities to express their voice, be listened to and act. It is precisely this question which enables us to regard technological devices as tools for increasing and improving the participation of all, expanding languages, channels and formats for expression and action.

This is exactly the reason why information and communication technologies (ICT) provide, in the current socio-educational climate, great

Article description | Descripción del artículo

This reflection article, based on the project *Schools Moving towards the Educative Inclusion: Working with the Local Community, the Student's Voice, and the Educative Support to Promote the Change,* the authors analyze the use and affordances of the technologies used in a research project intended to strengthen the student's voice in the school.

opportunities for encouraging student participation and building more inclusive educational contexts:

> ICT is both a medium and a powerful tool in supporting inclusive practice. It provides wide-ranging support for communication, assisting many learners to engage with learning, including those who are hard to reach, and helps to break down some of the barriers that lead to under-achievement and educational exclusion (BECTA, 2007, p. 1).

In this regard, the objective of this article is to show how technology can provide relevant opportunities for developing inclusive student voice experiences committed to deliberative democracy. Specifically, we will try to answer two research questions: How ICTs favour student voice experiences in the framework of a deliberative democracy? To what extent do ICTs help students to exercise citizenship by making decisions about their daily school life? Thus, we will discuss what those opportunities were for inclusive student voice based on an analysis of practices deployed in four paradigmatic cases developed in infant, primary and secondary schools in this research project. We refer in this paper to the use of three types of ICT —photography, web 2.0 tools and video. All of these are well known, accessible technologies for all schools in Spain and commonly used by teachers.

In recent years, an immense effort has been made in Spain to incorporate technology into the classroom. The objective of the so called School 2.0 Programme, developed between 2009 and 2012, inspired by the "1 to 1 model", was to provide a computer for each student. This programme aimed to develop policies for improving technological resources in schools and training teachers in the management of technologies. Consequently, today we can identify an increase in the use of platforms with digital contents, the introduction of tablets, the massive incorporation of Interactive Whiteboards in classrooms or the development of educational websites by the administration (Area Moreira, Alonso Cano, Correa Gorospe, del Moral Pérez, de Pablos Pons, Paredes Labra, Peirats Chacón, Sanabria Mesa, San Martín Alonso & Valverde Berrocoso, 2014). Some studies suggest that the impact of these policies was less than anticipated and reveal that in Spain they did not lead to a transformation in educational practices to the extent that was expected (Alonso Cano, Casablancas Villar, Domingo Peñafiel, Guitert Catasús, Moltó Egea, Sánchez i Valero & Sancho Gil, 2010; Area & Sanabria, 2014; Buckingham, 2003; Condie, Munro & BECTA, 2007). Nevertheless, the opportunities offered by technological devices are multiple and in our research they have enabled us to mobilize the participation of all students, without exception, on various aspects of school life.

The use of technologies in this research as facilitators of democracy and inclusion in the classroom has not only been possible due to the inherent characteristics of each device resulting from decisions made in its design (for example, when web 2.0 tools are said to promote classroom collaboration), but also because the potential of these instruments depends on the decisions that the educators and young people involved make when they are introduced in educational processes (for example, a blog can be used only as a repository of materials and/or educational content or as a workspace for shared editing when carrying out research in the classroom in order to promote improvements in the school).

The use of technologies to foster student voice places educators in a communication model in which what matters most is the educational process and the learning derived from this, with less significance given to the

final results (Kaplún, 1998). This promotes ways of participating where the teacher no longer acts as the sole creator and emitter of the messages that circulate in the classroom, abandoning rigid and unidirectional communication systems. The proposed methodologies are aimed at promoting and encouraging students' reflection and expression on the problems of their immediate social reality, inviting them to interact with each other, given that dialogue will allow the agency of this group to be improved.

Methodology, phases and research sample

From a methodological point of view, this research is based on a qualitative-collaborative model (Cochran-Smith, Shakman, Jong, Terrell, Barnatt & McQuillan, 2009) and is clearly influenced by ethnographic methodology. In each one of the schools included in this study, we have gathered extensive data in order to try to understand the dynamics of existing participation and how these areas can be expanded for the improvement of schools. Some tools used for collecting data were classroom observation, field notes, photographs, field diaries or interviews.

This research was developed at all levels of compulsory education in Spain: Infant, Primary and Secondary, as well as in so called "Alternative Programmes" (Programas de Cualificación Profesional Inicial, PCPI[2]). This has enabled us to develop student voice initiatives in a total of 13 schools located in rural and urban areas throughout the Region of Cantabria. The project consisted of a total of five phases.[3] Firstly, the schools were selected and informed of the objective of the research. Following this, a mixed research team was formed comprising the teachers, the school counsellor and the university researchers and a joint assessment was made of the needs for classroom and/or school improvement with regard to student participation. At this crucial point when shared meanings are formed it is vital that the professionals involved avoid adopting expert roles and attitudes which could minimise their views of their daily reality (second phase). In the third phase, students were consulted about what, in their opinion, the areas for school improvement were through the following open ended question: "What would you like to improve in your school?" This was a decisive phase in which the team had to decide on a method of consultation which would guarantee that different voices would be listened to and included in the dialogue. Student responses were collected using different consultation strategies such as questionnaires, assemblies, debates, posters, interviews, etc. After that, we carried out a hand coding through an inductive-deductive process in order to open a dialogue and make decisions together. At this point, it is important to avoid symbolic or artificial consultation processes where student participation is used or manipulated to support the adult interests.

Along these lines, information technologies provide opportunities for promoting a genuinely deliberative and inclusive consultation process by offering young people languages, formats and tools of expression with which they are usually familiar, and which consequently facilitate more autonomous work and less dependence on adults. After this deliberative

2   These so called "second chance" programmes are for those students who have not achieved compulsory secondary education objectives (16-18 years old) with the aim of preparing them with basic professional qualifications.

3   A more extensive description of the phases of the project, as well as the role of the students in each one can be found in the article: Teresa Susinos Rada (2013). Desde el mismo lugar no vemos lo mismo. Investigar la participación de los estudiantes como un proceso multivocal. *Revista de Investigación en Educación*, *11* (3), 120-132.

process, the school improvement project proposed by students was designed and developed (fourth phase). It is important to note that the students actively participated in the choice, design and subsequent development of improvement projects, with the accompaniment and mediation of their teachers and the University team.

Finally, the research process was evaluated with students, the teachers and the school counsellor. Technologies were present during the last three phases (consultation, design and development of the project and process evaluation) and provided a range of possibilities ensuring genuinely inclusive student voice experiences.

The following table summarizes the most relevant characteristics of the sample selected for this article. As shown the sample represents students from different levels of education and diverse schools and the ICT that have been used for inclusive purposes in each school.

Table 1
Main characteristics of the sample

School	Context	Participants	ICT uses for inclusion purposes
School 1	- State funded school - Infant and Primary education - Urban - 330 students	**Class of year 4 Primary Education students (9-10 years old)** 20 students (9 boys and 11 girls) - Teacher - Hearing and speech teacher - 2 University of Cantabria researchers	- Photography as documentation - Video for evaluation purposes: *video booth*
School 2	- State funded school - Secondary education - Urban - 675 students	**PCPI Class (Alternative Programme)** 11 students (9 girls and 2 boys) - School counsellor - Teacher - 2 University of Cantabria researchers	- Participant photography
School 3	- State funded school - Infant and Primary education - Semi-rural - 450 students	**Class of year 6 Primary Education students (11- 12 years old)** 21 students (11 girls and 10 boys) - Teacher - School counsellor - 2 University of Cantabria researchers	- Technologies web 2.0: Blogger, Audacity, Scribd, Picasa, Google Forms and Slideshare
School 4	- State funded school - Infant and Primary education - Semi-rural - 350 students	**Class of year 6 Primary Education students (11-12 years old)** - 15 students (6 girls and 9 boys) - School counsellor - Teacher - 3 University of Cantabria researchers	- Video for creation of contents

Source: own formulation

As noted previously, all the schools are located in the Autonomous Community of Cantabria, a region situated in the north of Spain with approximately 600,000 inhabitants. Cantabria has good national indicators of student academic results and the schools in this region are developing education innovation initiatives under the leadership of the regional government. Furthermore, there are hardly any significant inequalities between schools located in rural and urban areas, particularly with regards to the provision of technological devices required for this project.

Aware that research in education is a moral task (Kvale, 2011; Simons, 2011), the researchers have dealt with ethical dilemmas by deploying a set of strategies and agreements throughout the entire work process.

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It follows that, all the research process decisions (when data is collected, how this is interpreted, how students are consulted, etc.) have been taken jointly with all the participants, hence the importance of the creation of mixed research teams in each school, consisting of university researchers and staff from each school, as we have already pointed out in previous work (Calvo Salvador, Haya Salmón & Susinos Rada, 2012). Moreover, we have worked to achieve real informed consent with regard to participation in the research. In addition to discussing issues of anonymity, the use of the data for educational, research or school improvement purposes and the consequences of participating in the research we made sure that the participating students from each one of the schools, as well as their families, were included in this process. It should also be noted that both the university and school professionals have complied with the protocols on ethics in educational and research processes established by the public administrations involved, namely Regional Ministry of Education and the University of Cantabria.

Results

The following are the main results of the use of technologies in our research, exemplified by the work carried out in the four schools mentioned above. We will focus specifically on photography, web 2.0 tools and digital video as instruments for promoting school improvement and educational inclusion based on the philosophy of the SV movement.

Participant photography as a means for documentation and elicitation

Photography has been used extensively in our research. In the cases of the two schools referred to here (School 1 and School 2), photography becomes a tool for the student voice through Participant Photography. Students document diverse aspects of their social, school or personal life through the use of images which they have taken themselves. This enables them to express their own views through visual language thereby expanding the languages traditionally used in the school. In this way, photography becomes an additional means of expression besides oral or written language, etc. (Coronel Llamas & Rodríguez Pascual, 2013; Cremin, Mason & Busher, 2011).

The first of our experiences was developed in School 1 with students in Year 4 of Primary Education (9-10 years old), within a culturally diverse class and where some students required continuous adult support (mainly a speech therapist). Within the framework of the subject of Social Science, students proposed analysing aspects of their neighbourhood they wanted to improve and used photographs for the purpose of documenting their views. Two convergent strategies were established for this neighbourhood documentation process, one based on walking and the other on observation. For the first strategy, they went for a walk with their teacher and also with their parents over the weekend. During their walks, they took various photographs which were then used as discussion material in the classroom. The students then took a photo under the heading "*What can I see from my window?*" (Observation process). Both processes generated a large amount of visual material which was subsequently organised and debated by the students. Finally, all of it was summarized in short sentences which the students themselves chose with the objective of condensing their proposals and their learning. This analysis work was shared with their classmates through noticeboards and posters. Their evaluations were also communicated beyond the school inviting the President of the Neighbours'

Association to the classroom and handing over a written document to the Town Hall which was later mentioned in an interview with the town councillor responsible for neighbourhoods.
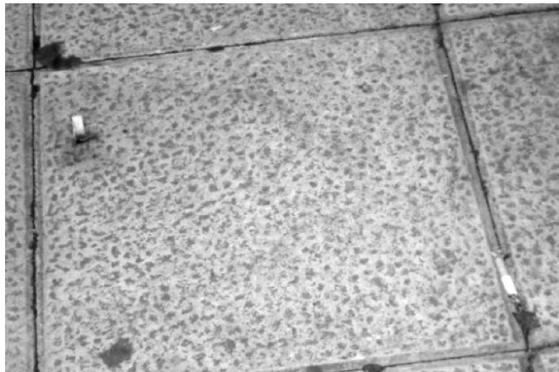
Below are some examples of photographs and short sentences used to denounce the poor conditions of the neighbourhood (the absence of green areas and playgrounds, pollution, lack of cleanliness, barriers that hinder mobility, etc.).

Table 2
Photo-documentation results. School 1

This should be clean.
Solution: street cleaners should come more often.

If you pollute the environment, you pollute yourself.

We want green areas to play in.

This drain should be level so that people don't trip over it.

Source: own formulation

The second experience took place in School 2 (an Alternative Programme (PCPI) with students aged 16 to 18 years old), in which each student was asked to take photographs individually which reflected "What I like and don't like about PCPI". Each student planned the photographs that they were going to take (5 with positive aspects and 5 with negative aspects) which meant that documentation arose from a reflective, individual process. Each person was given a disposable camera and was allowed to move freely around the school to take their photographs. All this graphic material was then used as a channel of information for organizing the assembly and school proposals made by the students. Below are some of the results of the photo-documentation process developed in School 2.
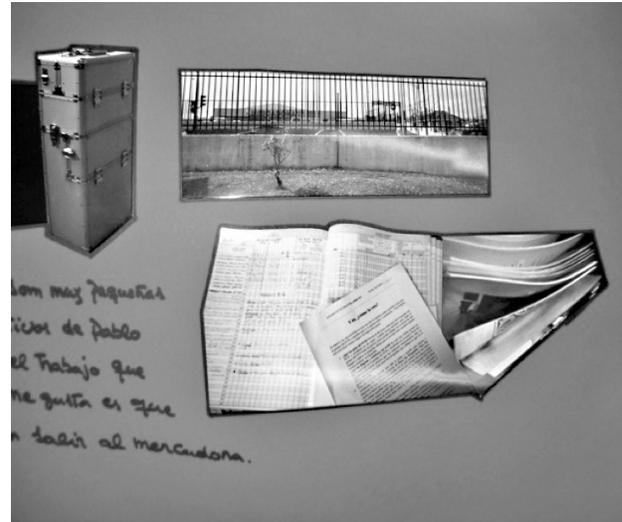
Table 3
Photo-documentation results. School 2
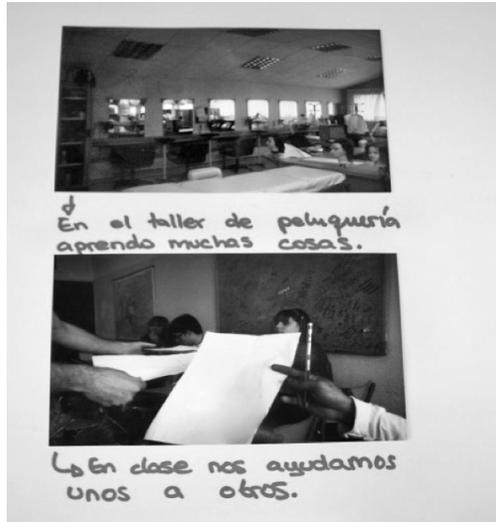
Positive aspects	Negative aspects
- I learn a lot in the hairdressing workshop. - We help each other a lot in class.	I don't like the lockers, they are very small and my suitcase doesn't fit. The positives by P. (teacher) raise the final mark very little for all the work we do. What I like the least is that we aren't allowed to leave the school at break time.

Source: own formulation

Some of the proposals of the students relate to the improvement of the area surrounding the school, which has a direct effect on the school and out-of-school life of the children (School 1). They also involve aspects of the curriculum and school organisation like methods of assessment, their degree of mobility both inside and outside the school as well as some material resources (School 2). At the same time, students also highlight aspects that favour their learning and school life such as mutual support or practical classes (School 2).

In both experiences, photo-documentation was an essential tool allowing students to openly express their views and paving the way for a genuinely inclusive consultation process. The use of photography as a first means of expression (rather than the spoken or written word) converts the activity into a game and an experience within the reach of everyone. In both groups there were students who experienced difficulties reading and writing therefore the use of visual methods constituted a shared, accessible language democratizing participation. Moreover, given that each student was responsible for taking their own photographs, it also guaranteed that everyone would be able to actively participate in the process.

Photographs are used in both cases as a means for eliciting meanings and thus are always followed by an opportunity for dialogue (interview, assembly, classroom exhibition) in which students are given the chance to explain the meaning of the photographs taken. Therefore, this photo-elicitation process favours a more collaborative approach to the analysis of visual data, something which was also used in the projects of both schools.

Web 2.0 Tools in a Primary School and new opportunities for collaborative working

To demonstrate how the use of diverse web 2.0 applications helped increase student participation, we shall use the example of School 3 and the experience developed by a group of third cycle Primary Education students (9-10 years old). These devices enabled the expansion of the student voice, not because of their inherent social character but rather as a result of the way in which they were used in this research, as explained in the introduction to this article.

Some of the potential advantages of these tools, supported by research carried out in this area (BECTA, 2004; Gandol Casado, Carrillo Álvarez & Prats Fernández, 2012; Marsh, 2007), refer to the greater motivation

and involvement of students in pedagogical activities, resulting from their affinity for technology. Similarly, these means enable ways of understanding, expression and more heterogeneous interaction and respond to a wide range of skills, interests and pace of learning. In this experience an educational blog managed by students was used enabling the creation of a research process for communicating their results (see: https://prezi.com/di6u2ugbve2x/investigando-para-mejorar/).

The web 2.0 tools used gave students the opportunity to carry out critical analysis processes on school reality with the objective of promoting strategies capable of mobilizing and transforming their immediate environment. More specifically, students used different web 2.0 devices to consult other students over how to improve aspects relating to their school reality: the physical spaces available at school (access and recreational areas) and living together at school. Using technology such as online surveys, recorded interviews edited in Audacity and photographs shared in Picasa students gathered information and analysed opinions expressed by their classmates. For example, this image shows the results of the consultation process specifically related to the improvement of physical aspects of the school.

Figure 1
Results of consultation using tool 2.0. School 3

Evaluation of access points to the school (stairs, floor tiles, exterior door to the car park, etc.), from *very good* to *very bad* and *why*

| Acceso	Lugar	Por qué	MB	B	Estado R	M	MM
Escaleras	Entrada del gimnasio	El suelo resbala cuando está mojado y se caen algunas piedras				😐	
Escaleras	Acceso a patio	Se encharcan las baldosas y hay una baldosa salida que salpica, te puedes tropezar y los bordillos están rotos				☹️	
Baldosas	Pasillo a la pista	Resbala y te tropiezas			😐		
Escaleras	Infantil	Se encharcan y acaban con barro					☹️
Puerta de afuera del aparcamiento	Entrada al aparcamiento	Está muy bien porque tienen candado y timbre y está muy cerca del parking de arriba del colegio	🙂				

Source: own formulation

The results were systematized in reports written and disseminated by the students themselves in different posts in Blogger using diverse devices such as presentations (Slideshare), note taking and document creation (Scribd) and audio creation and editing (Audacity). This systematization raised awareness in the educational community with regard to the results of the inquiry process and favoured collaborative reflection and the collective creation of knowledge on issues related to their own interests, identities and concerns. This is an example of the image of one of the final reports hosted in one of the document creation tools.

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Figure 2
Final report. School 3

Conclusions on access to the centre

We conclude that our hypothesis was right. We have checked access points and they are broken. In the interviews we have seen that people didn't feel comfortable…
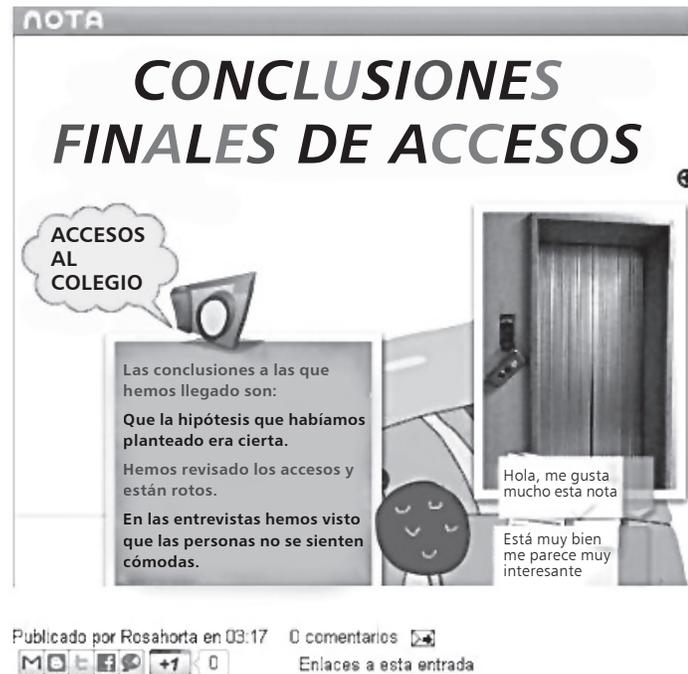
Source: own formulation

The changes in this school were implemented when students collaborated in research on physical aspects of the school and their influence on the school climate. In this way, the entire educational community was consulted (using interviews, questionnaires, photographs, etc.), the information collected was systematized and improvements were proposed such as the creation of play areas for the students who were not permitted to leave the school at break time and the creation of ramps or access points that overcome arquitectural barriers, etc. All this work enriched the curriculum because the activities involved working on content included in subjects such as Spanish language, Maths or Social Sciences.

The use of blogs and other web 2.0 devices led to a rethinking of communication models in the school towards a system in which students became the centre of communication processes, promoting this group not only as receivers but also as creators and transmitters of messages (Cloutier, 2010). On the other hand, the reports shared through tools such as Slideshare or Scribd allowed the work carried out by the group within the school to become visible and for its communication to other audiences (families and the closer community) with regard to the results of the research and improvement processes, paving the way for the creation of a community with its own identity capable of both participating and taking action.

Moreover, the use of these tools led to a rethinking of traditional school language. The appearance of these 2.0 devices facilitated the use of different semiotic systems, allowing students to use non-verbal forms of communication (such as sound or visual means) as a way of transmitting ideas. Thus some students with difficulties managing verbal language, traditionally considered to be the only legitimate means of communication in schools, were able to participate. In short, the use of a diverse language increased the opportunities for creating a more welcoming and inclusive school, responding to the communicative potential of all those involved.

Digital video and new perspectives on research evaluation

Finally, we want to show how video has been used as a means for carrying out one of the school improvement activities and as a tool for the evaluation of improvements proposed in two different schools. Making a collective video was one of the school improvement activities devised by a class of Year 6

Primary Education students (12 years old) in School 4. Through a teamwork dynamic of group work students were asked to write and later record the things that they most liked about their school in addition to aspects they had already thought about in previous sessions. They made decisions on the music they were going to use, settings, contents, photographs, etc. so that the video script evolved progressively. The Interactive Digital Whiteboard was used during this process both as an aid and as support material for the deliberation processes carried out by students. Following the completion of the process of recording the video in the school, the university researchers put it together using the Windows Movie Maker programme. The video was shown and discussed in class. It was also shown in school at the graduation ceremony for these Year 6 students, an event which was attended by families. The following table includes some of the issues raised by the students, as well as a photograph of the process of making the video and a still of the final product.

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Table 4
Collective process of making the video (School 4)

Summary of the issues highlighted in the collective video

Although it was a difficult course, we had a great time.
From our time spent at the school we can highlight:

- The debates with colleagues.
- Classmates and friends.
- Arts and craft classes.
- The way the teachers teach.
- Playing with school friends.
- Posters in class help me to remember and carry out tasks better.

**Photo. Collective process of making the video**

Still of the video

Y tú... ¿qué echarás de menos?

Source: own formulation

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Our collaborative research agenda allowed us to understand the creation of this video as a tool for collective expression in which technology was used to develop the improvement project decided by students. Thus, we can see a link to so called collaborative films (Banks, 2010), a practice visible in various anthropological studies in which research subjects look for ways to express their views and pursue their interests, something which makes video a prime tool facilitating the agency of the participants.

In School 1, the improvement plan involved the whole school, from Infant school classes (beginning with 2 year olds) to Primary school students. Through a system of educational assemblies and class delegates, the whole school was involved in looking for alternatives for improving the space and time allocated for recreation. Within this context, video was used as a tool for evaluating the experience, which helped create a new channel for children to express their ideas within a secure environment, free from outside influences. Video gave a voice to young people through a video-booth. This meant that students in pairs or groups of three could express what for them the most positive aspects of the experience were, how they had felt and other things which they believed could be improved in front of a video camera without the presence of adults.

To sum up, with the use of video we also introduced new languages which contrast with traditional ones, thus recognising a wider diversity of interests and abilities and giving students a leading role in evaluation processes. With the help of audio-visual language the students have highlighted the most positive aspects of their journey through school, producing a discourse that both evaluates their school career and welcomes new students (School 4). This language has also allowed students to evaluate the experience in such a way that they have been able to identify the most relevant learning that they have achieved, like the improvement of their oral expression or the skills required for teamwork (School 1). The main results of the research, as well as the main theoretical principles which guided our work and the use of technology are summarized in the following figure.

Figure 3
Technologies and uses for SV
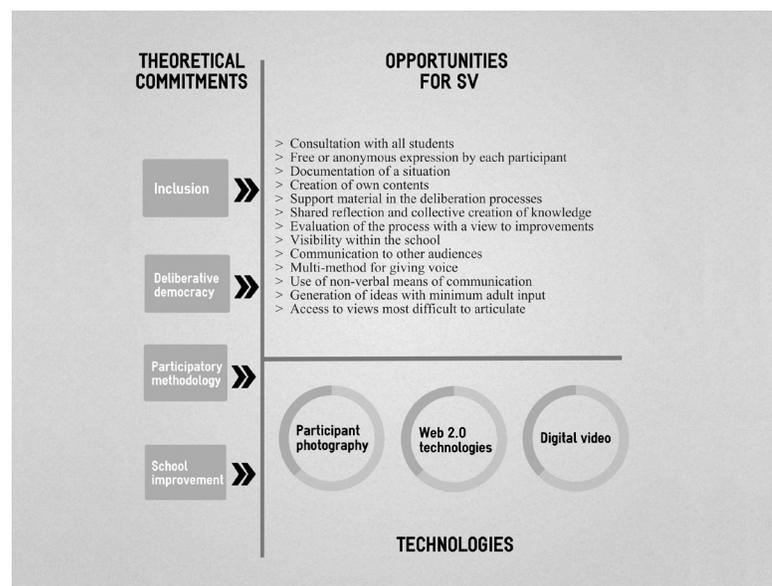
Source: own formulation

Discussion and conclusions

In this paper, we have discussed the use of technologies as tools for increasing student participation with a view to creating more inclusive schools. The devices used have opened up new spaces and opportunities for listening to the voice of all students, including those who experience more difficulties at school. As a result, children and young people have played an active role in the processes of critical documentation, design, development and evaluation of improvements not only in the classroom but also with regard to the whole school.

Looking for the ideal of a democratic school that listens to all opinions and values diversity requires using different methods of communication such as writing, oral language and images. This will turn deliberative processes (involving dialogue, listening and taking collective decisions) into reality, beyond the usual systems of representation and delegation of opinions and votes that currently exist in our schools. Additionally, the importance of visual language involves three issues. Firstly, as it is known, images are present in our culture in a broad sense. Secondly, they can explain, represent or expose issues relating to reality which would otherwise not be accessible through other tools such as speaking or writing. Finally, it is recognized that images (still or moving) have their own agency, that is, they generate new meanings and produce a certain reality. However, it must be taken into account that images work with other forms of representation in this process of creating realities (Rose, 2012).

The use of Participant Photography has been considered to be a tool that promotes the voice and participation of students in a creative way and has been used in various levels of education in order for students to be able to play an active role in research or consultation processes developed (photovoice, self-portrait, photo elicitation). At the same time, it is recognised that photographs must not be interpreted merely as "windows to the world" of young people, as elements representing their experience and their physical space, but rather they are also windows of subjectivity, a way into the inner world of each participant who actively takes a photograph, people who should and can be recognised by means of this visual technology (Yates, 2010).

The joint elicitation processes which were implemented in the schools bring us closer to what Sofia Lico and Wendy Luttrell (2011) called collaborative seeing, that is, a process of joint creation of meanings which is dynamic, dialogical and relational (p. 681). Given that young people are not passive recipients of adult socialization, but rather active meaning makers, collaborative seeing prevents the photographs from being interpreted exclusively from an adult perspective and allows a distinction to be made between what is visible and what is visualised (in the words of Sarah Pink, 2009). Similarly, it enables us to access other meanings which are less obvious to us and other functions which are not explicit in the photographs which, however, might be important to the young people involved in the process such as negotiating their membership of the group, rejecting certain rules, presenting themselves to others, reaching a certain status in the group, etc.

On the other hand, the use of web 2.0 has also encouraged the development of democratic educational experiences in which young people exercise their rights and duties as citizens of the present, thus demonstrating the pedagogic possibilities of web 2.0 which have already been discussed and classified in studies such as the one by Matt Bower (2015). In other cases, the use of an educational blog has allowed the development

of a multimodal communication system through which students were able to give meaning to their educational experiences and actively participate in school life (O'Byrne & Murrell, 2014).

Finally, video is increasingly becoming more popular in social sciences as a tool for increasing the participation of young people in civil life and in education, especially for those who show a higher degree of disaffection towards social institutions (Haw, 2008). More recently, the use of video has started appearing in the field of educational ethnography as a tool enabling young people to express their vision of school (Montero-Sieburth, 2011).

With regard to the first research question, this study shows that technologies can help increase student participation and, when used in their interests, improve aspects of their school reality. In addition, ICT have helped prevent the tyranny of verbal codes and the exclusive use of spoken language, which characterises the adult world. Its use has provided alternative visual means of expression that are better adapted to the needs of children (especially for the most vulnerable young people or inarticulate children) and has allowed access to meanings which are closer to our emotions or less conceptually structured. This transformative ability of technologies does not depend on their inherent pedagogical potential or their social nature, but on the way they are used for the development of more equitable, welcoming and inclusive educational spaces. In short, as well as their capacity to access points of view which are difficult to articulate using the channels of communication traditionally used in schools, their innovative potential to promote participation emerges linked to the possibilities of using languages other than oral and written ones in a more participatory and creative way.

Concerning the second research question, in this research students are recognised as social actors, something that necessarily leads us to reconsider the limits of what is commonly accepted as a political act. The adult concept of citizenship and participation does not include, by definition, children and young people and, therefore, political acts in childhood are directed towards every day, liminal and dialogic action (Mitchell & Elwood, 2012) and it is in these areas where we can see they exercise their ability to project changes in the real world. Therefore, rather than responding to adult codes, child participation should be conceived as children's everyday life politics. The experiences summarized here are consistent with this view, which advocates the voice of students as action which can be seen as micro-political and which occurs with these common characteristics of closeness and consent of some disruption of normal adult hierarchies.

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