Three Perspectives & a Project: a real group work

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Abstract—"Three Perspectives & A Project: a real group work is the name of a project created by three students of the Master's Degree in Teaching in the 1st and 2nd Cycles of Basic Education of the Setúbal College of Education which had as its main goal the sharing of ideas, feelings, thoughts and work methods as teachers in training. Our idea focused on the potential of Information and Communication Technologies (ICT) and how we could mobilize it to improve our educational practice. The sharing of ideas has been a constant, allowing for great interaction, trust and unity among us. Initially, it was intended that the project be extended to other people. However, along the way, the project objectives changed due to various factors, leading to the project being placed on hold. Nonetheless, nothing was in vain, as the central achievement was, in fact, the discovery of the true value of group work.

Keywords—online sharing; the potential of ICT; group work

I. INTRODUCTION

Within the module entitled ICT in the Context of Education, the lecturer proposed a theoretical project that would allow us to explore ideas from the research on the contributions of ICT for the learning process of our future students. This project would be carried out in small groups (three elements each), using a *Moodle* forum created for this purpose, where the students were to share and discuss the ideas of the texts that would serve as a basis for that theoretical work. Shortly after this challenge was set, we embarked on our first experience in pedagogical practice. During this period, we managed a class in the 1st year of the 1st Cycle of Basic Education (CEB), being responsible for teaching the curriculum and organizing the classes. Consequently, there was a phase of great insecurities, fears and, above all, an overwhelming desire to share these with someone who was capable of understanding all of it. Since we had a forum for sharing ideas at our disposal, it came naturally to us to join our analysis of the literature with our need to share all of these insecurities of ours. So, from the moment we started using the *Moodle* platform for the exchange of ideas, for our venting, and as a means to share our experiences relating to how we felt about the internship, we chose to give continuity to these exchanges through our group project on the subject of "Students, ICT and learning".

II. THE CONTEXT

The context in which this module took place was somewhat particular, so it seems useful to characterize it. Our Master's class was made up of six students, allowing for a close relationship with professors and, consequently, greater ease in interacting with both the peers and the professor in the classroom. For the first weeks of lectures, all the students attended most of the lectures, but then, gradually, the attendance started to decrease, and some of them were only attended by the members of this workgroup, bringing us even closer together and allowing us to progressively revise out initial goal for the project.

Even though we all attended the same degree and two of us belonged to the same class, until the start of the school year we had not built any relevant working relationship; we were merely colleagues in the same course. However, the specific context of the Master's class described above contributed to the development of a very special group dynamic, whereby we concluded that we complemented each other. The project for this module gave us the opportunity of having an online space which allowed us to remotely share our anxieties. The main issue lies in the fact that we felt we were truly working together as a group, something which had never happened before with other people and in other contexts. Through this, we started to realize that, in group work, there isn't a need for each individual to lead the work or make all the decisions. On the contrary, for us, even today, group work flows in a natural and genuine way, given that each one of us contributes equitably with suggestions and opinions about the work. As such, as doubts or situations that we wanted to share emerged, we would post everything online and use *Tumblr* to publish and share our written material and the activities we undertook in the internship. Every week there was something new and every week we shared our experiences with each other, up until mid-May. Afterwards, our incessant sharing stopped for a while, having remained in an inactive state.

III. THE PROJECT STAGES

The development of the project for the module began with reading of some literature on the theme "Students, ICT and learning" and discussing it in the classroom. Thus, the work that was initially requested for the module constituted a mere outline of what would be the end result of all our efforts.

At the group's first meeting, we began to realize that the theoretical work was second in importance to ourselves, who, as students, were going through a unique phase in our lives. We started to realize that the texts we read, the things we discussed in class and the things we were to deal with in our group project reflected us as students. Our working topic was "Students, ICT and learning", and we wanted a project that would motivate us. For this, we knew from the start that it would have to be a project that challenged us, was innovative, and "belonged to us" in the sense of being compatible with our

reality. We were students who used ICT as an academic aid and as social and emotional support.

We became the focus of our study, given that our subject characterized us. It also being a period in which we embarked on our internship with a class from the 1st CEB, we had our first contact with what we were to do with all that we had learned, since we were gaining experience and learning what it meant to be responsible for a class. We wanted to succeed in our intervention, for there lay our future. In this context, the idea arose of adhering to the potential of ICT, creating a space where we could freely share what we felt, because we wanted this project to go beyond the typical academic project and have continuity, not least because we faced the same problems, and what we were sharing in person and online brought us self-assurance and generated ideas for the use of activities with our students.

Our exchanges began on the *Moodle* forums, bringing together our readings and our critical analysis, for example:

We cannot hide behind our insecurities and anxiety with the mere excuse of "I do not know". I have a very direct approach: **if you do not know it, you learn it.** There is no problem with not knowing. The problem lies in not seeking strategies and alternatives that lead us to grow as professionals, without letting ourselves be held back by our limitations and letting our methods stagnate, i.e., *knowing how to reinvent oneself -* as you told us.

At Setúbal's Escola Superior de Educação (ESE), there were other Master's classes for whom this stage of first training experience was concurrent with ours, so we had the idea of consolidating our exchanges on a platform that could later be opened up to our colleagues' participation. Thus, the first step was to decide which platform we would use to make our publications. Since we already knew the blog and *Facebook*, we weighed the pros and cons of both and concluded that *Facebook* would be the best option, providing a more linear overview of the various contributions.

Nevertheless, we thought that each of us should have a symbol or something used to identify each of us as different individuals, instead of just a typical signature. As such, we decided that each of us should have something in common and that identified us. *Wordle*[1] was the technological tool we elected, as it is an online application that allows you to generate a word cloud from a text and format it. We wrote our first text in the word processor, which, in just five/six lines, presented our personality and, in a very succinct way, a description of each of us. We called our first publication "Bio" (biography) and identified it with our *Wordle*. We agreed that each of us would have her own colour and her own unique *Wordle*, seeing as we are three distinct individuals. However, the overall appearance would be similar, because we were

working together and we wanted there to be a common thread in our work, rather than having the appearance of three parts meaninglessly mashed together. The aforementioned tool allows us to highlight the most frequently used words in the texts we input (affecting the font size), change the colour and the font, limit the number of words and their arrangement, and also alter the background colour. Its simplicity, coupled with its versatility, makes it an excellent resource that can be mobilized in the context of the classroom in a plurality of approaches to different subjects.

Figure 1 – The Bio created by each one of the students

The use of *Facebook*, however, caused unexpected difficulties in both the publication of texts and in the preservation of our identity. We realized that publishing our texts was not simple and, despite having generated our graphic image, the profile we created was singular, common to the three of us, and we could not use our Bio. As such, we decided to opt for an alternative technological platform in order to facilitate these aspects: to be able to share our ideas, feelings, thoughts and working practices. After some exploration, we opted for *Tumblr*[2]. This platform enables its users to create and manage their own blog free of charge, offering them a set of tools that allows them to customize their pages and format their messages. According to our examination, you can publish texts, photos and graphics, quotes, links, dialogues, audio and video, and receive and write comments to the posts, which was very useful for our reflection when sharing our written material.

Among *Tumblr*'s customization options, we highlight the possibility of assigning a title and a description to the blog, creating an avatar and the defining a theme for the page. In terms of text formatting, the options consist of writing in bold and/or in italics, defining a subtitle, pasting a link, adding strike through to text, writing in list form, and defining paragraph breaks. When it comes to the management of the blog, we find it to be quite simple. Management tools can be found on the right-hand side of the home page, allowing us to view our publications as other users would see them, access our followers' blogs and access page customization tools. Further down, you have a search tool and a list of recommended popular blogs, as well as a radar which suggests pages of users who are currently online. In addition to these capabilities, *Tumblr* allows for the exploration of other technological resources through publications made by its users.

[1] *Wordle*, © 2014 was developed by Jonathan Feinberg and is available at http://www.wordle.net/.

2 *Tumblr* is a platform for providing blogs, available at https://www.tumblr.com/ .

Figure 2 – Landscape of *Tumblr* page

It is our belief that *Tumblr* and *Wordle* were very useful resources to the development of our project and our investigation, since they allowed us to exchange ideas on various topics, maintain our singularity in our publications, and explore, from a technological perspective, materials that were formerly only made available to us in more traditionalist formats.

IV. THEORETICAL FRAMEWORK

In defining the theoretical framework, we will seek to briefly broach two aspects: the role of ICT in learning and their possible contributions to the enrichment of group work. Education is one of the influential and transformational areas of society which has undergone the most changes. When the teaching-learning process is focused on the student, we rely on an essentially constructivist perspective, in which the student builds his/her knowledge, calling upon prior knowledge, while the teacher acts as a facilitator for the learning environment (Piaget, 1973). This concept of learning evolved into social constructivism, where learning is directed towards social participation, viewing individuals as active social agents and participants in the various associations or community hubs they integrate (Rodrigues Moreira Grácio, 2013, p. 122). To work towards this interaction and in order to promote learning and the acquisition of skills, tasks are proposed which involve teamwork, in pairs or in larger groups, akin to the group work we often carried out as students. We understand group work as a collaboration between participants with common goals and, eventually, a common end product. According to Romanó (2003) apud Shan Schneider (2012), it is through collaboration that it is possible to "reinforce the idea that every student is a teacher, diminishing feelings of isolation and fear of criticism, increasing confidence, self-esteem and integration within the group" (p. 2103). Agreeing with this idea, Melo-Pfeifer (2010) adds that there is an emergence of a "collective intelligence and shared responsibility in the management and production of actions and knowledge" (p. 217). Therefore, with the awareness that ICT are inserted into the educational process in order to emphasize it, Patrício & Gonçalves (2010) claim that Web 2.0 technologies increase the potential of the task of educating through pedagogical strategies that involve the use of social software that students use in their daily lives for leisure, with tools that enable more flexible learning contexts (whether individual or cooperative).

The aim of this work with social software is to teach the students (from the moment they start learning) to work, think, cooperate, share and build their knowledge in cyberspace – ciberconstructivism (Patrício & Gonçalves, 2010). "Therefore, there is an pressing need to integrate new proposals for the use of technological resources into pedagogical practices, making the school a place of research, teaching and collaboration" (Souza & Schneider, 2012, p. 2104). Social networks and online platforms, as technological tools, possess a strongly influential social character and allow us to communicate and relate in an informal and attractive context that is a catalyst for reactions (Patrício & Gonçalves, 2010, p. 593). In this sense, the technological resources enable us to transform the teaching-learning process into a process with more adaptable and flexible practices, seeing as nothing in the field of education is either predictable or constant.

The methodology applied to project work is guided by these principles. Castro & Ricardo (1993) state that project methodology "is a method that requires the participation of every member of the group, according to their capabilities, with the aim of producing work as a group, decided, planned and organized by common agreement" (p. 9). Projects should arise from the students' interests and needs and follow a sequence of stages in which the students are the main actors and where the teacher manages consensus, serves as a guide and structures problems. The students, through negotiation and consensus, make decisions regarding *what* and *how* to learn, assuming responsibility for the execution and assessment of the planned activities, as active participants in all the stages of project development. Learning occurs by virtue of the intentional discovery carried out by the actors themselves and consists of the acquisition of knowledge, attitudes and values which are fundamental to life in a democratic society. Vasconcelos et al. (2012) state that the last phase of project work is the socialization of knowledge, making the lessons learned useful to others. This partaking can take place within the classroom or include kindergarten classes, other classes from the same school or even the surrounding community, and can take on the shape of an exhibition, a conversation, a film or any other format that the group considers pertinent.

V. METHODOLOGY

The facts about which we reflect in this document originate in a classroom and take the form of a small community that extends beyond it with the aid of technology. Understanding the reasons why these students discover the advantages of their working in group can be framed, we find, from the point of view of a reflection on their practices both as students and as young teachers. At heart, it is a retrospective reflection on their actions in order to analyse them (Alarcão, 1996) and, if necessary, readjust them. We place ourselves in a perspective of reflection in action and about action, striving to understand ourselves better in our professional performance, but also looking to improve it (Oliveira & Serrazina, 2002).

A. Participants

The key participants in this investigation are the three Master's students, but we also believe that the module's lecturer had a role in the investigation because the students all adopted a reflective perspective regarding her practice. In fact, the students sought to adapt the lecturer's proposals, in accordance with the pressing need for the sharing of reflections regarding their professional performance. The lecturer sought to respond to these needs, adapting her proposals to what seemed to be a motivating factor in the work: entwine her proposals for the educational use of ICT with the needs that her students expressed.

B. Data collection

Data collection was performed throughout the entirety of the process. It began in the classroom, during the joint-work sessions. In these sessions, the professor took note of the comments made by the students, the difficulties they expressed or the successes they achieved. The presentation of the theoretical project took place in the classroom, having only been attended by the three authors of the work and the professor. The occasion was rife with the sharing of success stories the raising of questions, and it allowed for the understanding of some of the reasons that led the students to choose an online venue to share their reflections. It was also there that the students expressed with great enthusiasm that they had understood the true meaning of group work, to which they had committed themselves and during which they had in fact learned, in this small community. The documents collected by the students and published on their *Tumblr* blog acquired the form of a research journal, where they shared all of their reflections.

VI.   RESULTS

The elements of the group were always very participative in the classroom sessions aimed at discussing the literature, showing noticeable joy with the discoveries made through their reading. These discoveries were often simple things which related to the use of technologies that were already part of our everyday lives, but applying an educational perspective to them, through which we reflected on their potential for future students. Moreover, we were able to project new learning scenarios for our own students, seeing as, by directing the various technologies towards the children and directly guiding their manipulation, we would be transforming ideas and constructing genuine teaching situations. Throughout these sessions, many questions were raised regarding how to organize activities employing the technologies or the problems that could arise from their use in the classroom.

With the start of the internship, the focus of the face-to-face conversations often drifted toward the activities they were employing with their students or those they were considering planning. Technological tools were often absent because none of the classrooms where the training took place were properly equipped to deal with them. Despite this, the students made do with the few existing resources available to them (an interactive whiteboard or a personal computer). In analyzing our online repository, we observe a constant need for the expression of the feelings, fears and anxieties we felt before we commenced the internship. Consequently, each one of us wrote texts which expressed what we were feeling, truly sharing what was at our core. The anxieties that we shared before our training began are perceptible in the texts we wrote at the time and which denote the characteristics that were formerly outlined:

> I want to start this new phase because I like to be faced with new challenges and, at the same time, to feel that I'm in a bind. I like to test my limits, learn from my failures and praise my own triumphs.

> Questions float around in my mind: am I going to be a good teacher?; Will I be liked?; Will I be prepared to lead a class and assume all the responsibilities that that entails?

> School and my training aren't everything to me, but they consume me for the importance that I ascribe to them. I'll endeavour to get along with people, work with everyone and set forth into the world of teaching - which, **at present**, both fascinates and frustrates me!

We denoted the distress inherent to the profession, fearlessly sharing the anxieties that we felt. Reading what we were all feeling and understanding that we were all in the same situation lead us to support each other. The fact that we could see ourselves in someone else's shoes was cause for great relief and was the motto for us to carry on with our work. This work was always performed spontaneously, it was never merely an obligation related to academic work, but a systematic learning process concerning what it truly means to work as a group. In the stage that followed, with the training already under way, the anxieties we shared were of another nature. It is evident that the learning process flows in two directions: on the one hand it is important to win over the students and work hard to get them to also accept the interns as teachers, but, on the other hand, finding ourselves at the stage of starting out in our profession means that we also find ourselves at a learning stage. Here are some excerpts from posts that illustrate this phase.

> [...] I employ great effort in mediating these students' learning. They are capable and like being a part of the class and, therefore, working in pairs and in groups is very important.

> But one thing is certain, I will try to give my best and I really hope that these children learn something from me because I have learned a lot from them.

> I was assigned a class of 19 precious children, each with their own unique spark. Neither outshines the others, but they all shine with a diversity of colours. Those colours, in turn, also possess various wavelengths [...]. However... each and every one of those reaches us.

After a great deal of writing and numerous publications, the pace of our exchanges gradually decreased, until we ceased to publish altogether. In class, we discussed what was

happening, having formed the idea that the workload was so great that there was only time to prepare that which was indispensable. This perspective seemed credible to us because, analysing our weekly schedule, there were three days in which we were teachers in training, and two in which we were full-time students, which left us with another two (the weekend) which were devoted primarily to preparing for the three days in which we were interning. It also seems important to reflect a little on our online work. *Tumblr* proved to be an easy-to-use platform, versatile in its formatting options, having corresponded to all of our ideas. The fact that we had an online space which we could all use, even if we did not meet face-to-face, was very useful, for we knew that "someone on the other end" was going to respond with similar anxieties and maybe even with success stories that would make our work as teachers in training easier.

In addition to the *Moodle* platform, to *Facebook* and to *Tumblr*, we believe that it makes sense to mention the use of e-mail (electronic mail). Through this digital mailing system, the work simultaneously grew and gained shape with comments of encouragement or even notifications of alterations made to the work itself by each of us. E-mail is such a common tool in our everyday lives (academic or otherwise) that its potential in the context of group work practically went unnoticed. It is a system that allows us to contact others and share files attached to messages – which is extremely helpful in the execution of any project with various participants. It would have been possible to use other online communication and file-sharing tools such as *Dropbox*, *Evernote* and others. However, as we already mentioned, we use e-mail so commonly and so comfortably that we did not find sense in seeking other digital tools to perform those same tasks. Another piece of technology that made contact among the group easier was, without a doubt, the mobile phone. This portable device is used vehemently, nowadays, by both by digital natives and their predecessors. Despite the work being reviewed and altered by each of us and subsequently shared via e-mail, we used SMS (short message service) to warn each other that we had e-mailed our modified version of a document.

VII. Final Considerations

The characteristics of the class, particularly the fact that it had few students, facilitated the interaction between us and the professor. On the other hand, the possibility of working on a theoretical project that included that which was a most significant aspects for us at that time – integration into professional practice – were factors which made us more involved in the work and gave it meaning. The project proposal was initially presented by the professor, but it was the students who developed it and adapted it to their needs, giving it new and more personal contours, as alluded to by the proponents of project work. There was also a transformation from the abstract to reality, since the day-to-day problems and the need for sharing that was felt gave meaning to the work and turned it into something interesting and useful. With this, these constant social interactions allowed for "a process of individual development in the social contexts related to belonging, in alignment with conception according to which individuals

experience an evolution alongside that of groups, influencing and modifying each other mutually (...)" (Santana, 2013, p. 53). In the short time span of the investigation, the online exchange of ideas, feelings, thoughts and work practices proved to be an asset for the personal and joint reflection on each of the group members' pedagogical practices, congruous with the collaborative work between us. Is was the sense of belonging and partnership that made us recognize the value of collaboration and of working among colleagues. Having been students for more than half of our lives, we had never been able to appreciate group work. We had never experienced its potential in full, since we and other students had different views on the level of effort to be employed during a project. Throughout our years as students, school work was completed more by stress, annoyance, chaos and sheer willpower than by enthusiasm, contributions and participation. The complicity we developed was one of the interesting aspects of this project, because we were able to advise each other from a less formal perspective, i.e., we weren't merely concerned with innovation in practice and the results that could be reached through it, we were also interested in each person's well-being and in the exchange of ideas that were adaptable to each one's uniqueness. The partnership has remained ever since, given that the development of the project has, to date, been marked by moments of pleasure and of professional and academic growth in our lives and, consequently, a personal commitment inherent in the presentation of our feelings through online exchanges. We finally discovered what group work is! We were able to appreciate it. At last, we renounced the need to lead our colleagues, we resigned as leaders and organizers of group projects. We started cooperating and having constructive discussions; we were able to make it so that each of us trusted the other two colleagues in order to produce work with quality and industriousness, and we got ourselves organized as a group, sharing perspectives and ideas.

Finally, we had an epiphany, upon the completion of several projects and pieces of coursework, when we figured out that we had achieved something that we had always sought in the paths we followed: we stopped being leaders, we initiated ourselves as partners. In the course of our project, all the suggestions had the purpose of improving our performance. The equal participation by each of us brought new ideas and added quality to the work, which contributed to increase our confidence and the complicity between us. The exchange of ideas and suggestions for improvement took place as the days went on, depending on the availability of each of us, and the willingness to contribute significantly to the work was notorious inasmuch as our enthusiasm grew as the development of the project moved along. When a project is carried out with enjoyment, it ceases to be an obligation, with a need to adhere to a given deadline, and it goes on to be seen as a challenge, where learning moments happen throughout its development and multiply with the assertive contributions of all the interested participants. The reading of the literature that led to the development of our project was very useful, insofar as we reflected on many issues related to Education and ICT and we perfected our power of argumentation. The capacity to reflect

and the capacity to build arguments are, thus, fundamental to the development of any project, assuming an even greater importance in the development of group work, where, in this case, three students met and shared their ideas and suggestions, having, therefore, the need to analyze the pros and cons of certain choices and, consequently, negotiate between themselves. As an example, we'll refer to *Facebook* vs. *Tumblr*. In that phase of the project, we did not reflect on the two possible choices for the online sharing of the issues mentioned earlier. As Internet users, we all had *Facebook* accounts, though we were unaware of some of its tools that could be of use to us in our project. In turn, *Tumblr* was completely unknown to us. For these reasons, it was necessary for us to explore the potential of each of the tools and, then, analyze them according to our needs and the objectives that had been set. It is in this sense that the development of this project became special. Our learning stemmed from practical experiences and the sharing of ideas and suggestions between all the elements of the group. All of us, without exception, set out to expand our knowledge and gain a greater awareness of the complex world that is Education, learning to share, to reflect and to argue in favour of improving ourselves as future professionals in that field, but also as people.

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