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USING AUDIOBLOG AS A TRAINING ELEMENT AND A GENERATOR OF LEARNING IN THE CLASSROOM

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ABSTRACT

This study was conducted at the Faculty of Education in Burgos in the 2013-2014 school year and it analyzes the perception of university students on motivation and social relationships in the classroom generated by using audioblog as a training and learning element. In the study, 172 students in 4 subjects of two degrees (Elementary and Children) and the two teachers who teach the subjects are engaged. Two groups, group A (using audioblog) and group B (not using audioblog) are generated. The research methodology has been mixed, using both a quantitative (descriptive and inferential) analysis and a qualitative (interviews) analysis. A pretest-posttest is used, checking how the students' motivation and social climate in the classroom vary after having taken the subjects. It shows how the students having used audioblog as a training element show improved social climate in the classroom as compared to those who did not use it. The age in group A and prior experience in the use of new technologies (NT) in group B are the variables that differ between groups in relation to learning generated in the subject. Moreover, teachers have a difference of opinion regarding the training use NT can have in the classroom.

KEY WORDS: audioblog - new technologies – motivation - social relationship - teaching perception – workgroup – methodology

UTILIZACIÓN DEL AUDIOBLOG COMO INSTRUMENTO FORMATIVO Y GENERADOR DE APRENDIZAJE EN EL AULA

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RESUMEN

El presente estudio, realizado en la Facultad de Educación de Burgos en el curso escolar 2013-2014, analiza la percepción del alumnado universitario sobre la motivación y la relación social en el aula que genera el uso del audioblog como elemento formativo y de aprendizaje. Participan 172 alumnos de 4 asignaturas de dos titulaciones (Primaria e Infantil), así como los dos docentes que imparten dichas asignaturas. Se generan dos grupos, grupo A (uso del audioblog) y grupo B (no uso del audioblog). La metodología de la investigación ha sido mixta, empleándose tanto un análisis cuantitativo (descriptivo e inferencial) como cualitativo (entrevistas). Se emplea un pretest-postest, comprobando en qué medida varía la motivación del alumnado y el clima social del aula tras haber cursado las asignaturas. Se observa cómo los estudiantes que han utilizado el audioblog como elemento formativo presentan una mejora en el clima social de clase tanto en relación al pretest como respecto al grupo que no lo ha utilizado. La edad en el grupo A y la asiduidad en el uso de las nuevas tecnologías (NNTT) en el grupo B son las variables que presentan diferencias entre grupos en relación al aprendizaje generado en la materia. Por otra parte, los docentes reflejan disparidad de opiniones respecto al uso formativo que pueden tener las NNTT en el aula.

PALABRAS CLAVE: audioblog - nuevas tecnologías – motivación - relación social - percepción docente – trabajo en grupo – metodología

1. INTRODUCTION

Using NT in today's society is a fact that pervades everyday activities and it has become a routine taking place unconsciously (Davis, 2011). Considering the educational field, the possibilities are endless and a lot of free tools and resources applicable in a variety of contexts and situations are available accessibly and free (Martinez, 2013). This use can be carried out at all educational stages from children, through a more intuitive and familiarization use up to university, where the student must demonstrate its autonomous and applicable use in social reality (Patrut, Patrut & Cmeciu, 2013). Defining the term NT is not easy, but in relation to education it must be focused as the use of tools promoting communication processes among the people using them interactively, thus allowing user learning and motivation to inquire and be motivated towards the issues raised (Brodahl, Hadjerrouit, & Hansen, 2011). However, Sáez-López (2012) points out that their main use in the classroom cannot be related only to mastering and managing them but also to the way they can be used to achieve the objectives of each subject.

Closely related to the communicative context, this piece of research has used audioblog, it being understood as an interactive tool facilitating the way to share information autonomously generated by the user (Hsu, Wang, Comac, 2008). In an

audioblog, there are different audio files regularly published by one or more students. Its richness lies in the feedback existing among students. Tan and Tan (2010) indicate that the audioblog is one step forward from the traditional blog, because it allows students to upload their own productions orally, which goes beyond inserting a link, a video, an image of a web or doing retweet. Also, it avoids the problem of filtering (which should always be done) the information taken from the internet because the file is autonomously generated solely by the student, thus giving a personal touch to their production (Wang, Ke Wu, & Hsu, 2012). Similarly, oral presentation is potentiated, which is a critical skill to the future teacher. It is interesting to observe how students analyze information and then develop a synthesized speech to be recorded on audio, and afterwards feedback with classmates is obtained.

However, as stated by Meneses and Llorente (2010), it is essential to give a training character to this tool, because its use may otherwise lead to not so positive effects as merely uploaded files that do not relate to the topic addressed in the classroom and are not associated with effective feedback by the classmates and the teacher. The use of virtual platforms allowing interaction among all participants, such as blogs, must be governed by a set of principles for action that specify: assiduity in interventions, their quality, links with what has been worked in the classroom and contributions to what has been commented by classmates (Gerich, 2013). This will favor their full training use and prevent them from being used far from the educational purposes. As Salmeron, Rodriguez and Gutierrez (2011) set forth, when implementing a virtual tool of this type, a teacher must be aware of the evaluating element involved, so the teacher should record the information provided by the tool as well as its functionality to acquire the content and skills in the subject.

In relation to the oral presentation of papers by students, Ryan (2013) states that they have increased substantially since the implementation of Bologna, which does not indicate that their quality is also higher. In this sense, it would be necessary to reflectively evaluate what is meant by teachers when they demand oral presentations about group work and what competencies are to be achieved because ... Is it truly traininglike that each group member learns their part of the presentation and do not know the part of their other classmates? Is the presentation of papers not overused without spending enough time to preparing them? Are there not other ways for students to share their experiences with their classmates other than by presenting a slide show? And perhaps most importantly, how is the student more motivated toward the topic addressed? This piece of research arises from these questions, checking to what extent the use of these tools (in this case, the audioblog) can cause a higher level of learning and social relationship in the classroom.

Therefore, it is essential that teachers reflect on the relationship between the evaluating procedures raised in the subject and learning to be achieved through them, adapting them to the instruments used (Nortes & Nortes-Czech, 2012). In the words of White (2007), if we as teachers intend students to achieve autonomy and

high knowledge about the contents of the subjects taught, there must be an adjustment between the wishes of the teacher and the student. This is what will make a logical and consensual use different from an imposed and unidirectional one (Vera, 2010). Experiences like that of Leemen (2013) indicate that one of the main factors favoring the involvement of students in the courses is to generate a positive atmosphere among members of the classroom. To do this, the implementation of NT-related training instruments can become a suitable means to discover different ways of learning. What must be clear is the necessary feedback among participants in the audioblog, analyzing the type of files that are posted, the information raised in them, the contributions of classmates and the linkage between that piece of information and another one in the agenda or the web that can be analyzed in depth.

In this piece of research, motivation variables and social climate in the classroom will be analyzed by way of both pretest-posttest and a contrast between groups from a training tool (audioblog), something upon which the current literature does not impinge.

2. OBJECTIVES

1. Compare the perception of students about their motivation towards the tasks and the social relationship generated in the classroom between the groups that have used the audioblog as a training element and those who have not.

2. Analyze the degree of influence of the variables of age, previous experience in the use of NT and number of times they have worked as a group throughout their career at the learning level obtained by the student when they have got through the subjects.

3. Contrast the views of teachers on the use of NT as an optimal tool to promote motivation in students.

3. METHODOLOGY

3.1. Participants

This study engaged 162 students (63.7% female and 36.3% male) with a mean age of 21.53 years (SD = 2.41). All students who have filled out the questionnaire are part of 4 subjects taught at the 2013-2014 school course at the Faculty of Education in Burgos. They belong to 2 degrees: Elementary (group A, 75 students) and Children (group B, 87 students). Group A used audioblog as a training element in the two elementary subjects, while group B did not. The two subjects in group A are taught by one teacher and the two in group B by another. After performing the Shapiro-Wilk test, it is shown that the sample responds to parameters of normality ($p = .131$).

course subject	GRADE	COURSE	USE AUDIOBLOG	Nº OF STUDENTS
Physical Education and Teaching	Primaria	2º	*YES (GROUP A)*	40
Educational Game	Primary	4º	*YES (GROUP A)*	35
Psychomotor Development I	Infant	2º	*NO (GROUP B)*	41
Psychomotor Development II	Infant	4º	*NO (GROUP B)*	46

Table 1. Participants in the study (subject, grade, use of audioblog and number of participants in each subject.

3.2. Tools

3.2.1. Quantitative

As a data-collecting tool, we used the validated evaluating questionnaire in initial training (Castejón, Santos and Palacios, 2013). To this end, in order to obtain assurance on the perception of students about their motivation in the subject and relationship climate reached in the classroom, the student specifically completed the Scale of Evaluating Systems in Teacher's Initial Training. This scale has a total of 21 questions that learners answer according to the statement on a Likert scale ranging from 1 (nothing) to 5 (much). The questionnaire has Cronbach Alpha reliability of 0.831, higher than the lower limit that, according Corbetta (2007), is accepted as reliable. A reliability level of 95% is applied. In addition, this scale is built from the specialized literature at the university level, it has been validated by an expert group and there is a relationship between its items and the objectives of this piece of research.

For the final questionnaire, a factorial analysis of principal components was made, where appropriate values are obtained for the KMO rate of 0.831 as in the Bartlett test of sphericity ($p > .00$) was performed. The rates obtained in the covariance matrix showed satisfactory adjustments for the RMSEA rate = 0.071, as in GFI = 0.81. Thus, two factors making up the questionnaire are obtained:

1. Motivation for learning (11 items): in this factor, matters relating to the engagement of students in their tasks and their being monitored throughout the process are addressed.

2. Social relationship among class members (10 items): issues related to work climate generated in class and role management in group work are integrated.

3.2.2. Qualitative

Qualitative information was taken from research through a semi-structured interview with the two participant teachers. The aim was to explore the thoughts and feelings of those interviewed in order to obtain an internal perspective of the experience (Patton, 2002). Based on this idea, a script was worked out by taking as reference both the prior knowledge of researchers and similar research papers. As the nature of the interview was semi-structured, researchers could add new questions based on the answers of respondents to turn the interview into a conversation (Patton, 2002). This open format allows you to explore new areas to produce richer data (Smith & Osborn, 2003). According to the variables of the study, four main questions were asked to each teacher after getting through the subjects; 1) To what extent is it beneficial to include NT in the classroom? 2) What is the purpose of their inclusion as an element of learning? 3) Is it transcendent that teachers thoroughly master them? 4) What methodological and evaluative guidelines must be taken into account to implement them?

All the information on these answers has been grouped into three categories: 1- "methodological and evaluative role in their implementation," 2- "Need for the teacher to have comprehensive knowledge," 3- "Their usefulness for learning".

3.3. Design and procedure

The four subjects in the sample have a six-month basis. The study is retrospective, because the students have filled out the questionnaire once they have got through the courses and know their grades. The methodological approach that teachers have given to the subjects in each group is as follows:

Group A using audioblog: This tool is used as a learning tool in the subject. Students, divided into groups and based on the topics addressed in the subject, make their own audio files in which they reflect, go into depth or expand certain contents. These audios will be uploaded to the blog created in the subject in order to be heard by all class members. From here, structured discussions allowing access to other links, videos or images from the Web will be generated. Audio produced by students with podcast on the same topic present on the web and to be inserted in the blog are compared.

Group B did not use audioblog: students also work in groups but they do not use the audioblog as a means of disseminating their work or as an element to share information. Work is done through group presentations based on the use of slides. The agenda is usually provided by the teacher and, from there, students create their work. There is no regulated and training feedback between the teacher and the student, neither is there any one among classmates.

When the course was over, students answered the questionnaire individually in the classroom in a single one-hour-lasting session. At all times, anonymity was guaranteed for the answers of students to be as sincere as possible, confidentiality in data processing was guaranteed too.

3.4 Analysis used

The research methodology has been mixed, using both a quantitative (descriptive and inferential) analysis and a qualitative (interviews) analysis. Pretest-posttest is used, checking the extent to which students' motivation and social relationships in the classroom vary after having taken the subjects. This complementarity in data processing will provide a more comprehensive view of results, as well as greater understanding of them.

3.4.1. Quantitative

A descriptive treatment (means and SD) and an inferential (ANOVA) one are carried out for each of the two groups. Data processing in the pretest-post is done through analysis factors, seeing if there are significant differences in factors between groups before and after getting through the subject. The ANOVA shows whether there are group differences for the three independent variables used.

3.4.2 Qualitative

The qualitative analysis was performed through structured collection of information by interviewing the teachers participating in the piece of research. The extracted data were analyzed by analysis of the topic of the content (Libarkin and Kurdziel, 2002) and constant comparison of data (Denzin and Lincoln, 1994). The content analysis focused on searching for patterns in the text, the matching extracts being encoded with the crossed patterns (Saldaña, 2009). The issues raised in the first independent analysis were critically reviewed by all researchers through a reflective dialogue. Reliability was supported through continuous feedback and participatory analysis by researchers who reviewed and refined the emerging categories, so that the results could be considered reliable, credible and transferable (Lincoln and Guba, 1985). The objective was to use the information obtained to achieve more understanding by transferring the results. The categories arising from the data are shown explicitly through the section on results and with the support of several examples of texts (Cohn, 1991).

To recap, organize and get saturation of data from the categories generated in the questions posed to both teachers, the computer program WEFT QDA has been used. The acronym used for the teacher who used the audioblog is DAB (audioblog teacher) and for the teacher who did not used the audioblog is DNB (no blog teacher).

4. RESULTS

4.1 Quantitative analysis: Descriptive

	PRE-TEST				POST-TEST		
	N	**stocking**	**DT**	**Var.**	**stocking**	**DT**	**Var.**
				use Audioblog group (a)			
F.1. Motivation	75	3,52	.239	.057	4,01	.183	.033
F.2. social relationship	75	3,31	.318	.101	4,22[aa*]	.193	.037
				Not use Audioblog group (b)			
F.1. Motivation	87	3,61	.228	.051	3,72	.296	.087
F.2. social relationship	87	3,56	.341	.116	3,24[ba*]	.188	.035

Table 2. Comparison of averages by factors for each of the groups in pretest-posttest (level of significance in the differences: * p <.05)
Note: Superscripts show the groups in which there are significant differences at the .05 level

It shows how in the pretest there are no significant differences in any of the factors between groups, higher averages being even reached in the group that did not use the audioblog (teachers teach these students for the first time). When the course is over, the averages of the two factors increase in group A, while in group B they decrease in the factor of social relations. It is in this factor where there are significant differences in group A between pretest-posttest and between the two groups at the end of the course.

4.2. Inferential analysis: ANOVA

Bonferroni AND POST HOC Based on factorial analysis and in relation to the items related to the student's learning, the scale variable called "learning generated in the subject" has been created. To do so, a one-way ANOVA for independent groups was performed in order to check whether there are statistically significant differences in generated learning, based on the independent variables of age, previous experience in group work and diligence in the use of NT. Also a post hoc indicating in which groups those differences are is performed. Age variable is categorized into: 1- "20 to 22" 2 "23 to 25" and 3 "more than 25". The previous experience in group work: 1- "more than three times" 2 "between one and three times," 3- "never". Diligence in the use of NT: 1- "daily", 2 "more than three times a week" and 3 "sporadically" (Table 3).

GENERATED LEARNING COURSE	*F*	*gl*	*p*
Use Audiblog group (a)			
age	102.21	1	**.011***
Previous experience working in groups	96.51	2	.331
Assiduity in use of ICT	69.54	1	.187
Not use Audioblog group (b)			
age	104.13	1	.252
Previous experience working in groups	97.91	2	.352
Assiduity in use of ICT	75.84	1	**.041****

Table 3. Summary of ANOVA (Bonferroni) for each of the independent variables analyzed in the posttest (age, previous experience in group work and diligence in using NT)

* P <.05 "20-22 years" (average 4.71) and "over 25 years" (average 3.93)

* P <.05 from "sporadically" (average 3.37) to "daily" (average 4.18)

In the group that used the audioblog, there are significant differences in the variable of age, younger students being the ones who believe that their training use allows more learning of the contents addressed (F (75) = 102.21, p = 011). In the group that did not use the audioblog, the differences are in the variable of assiduity in the use of NT outside the classroom. Those who use them sporadically are the ones that most value learning attained in group B (F (87) = 75.84, p = .041). The variable of previous experience in group work in other subjects does not significantly influence any of the two groups generated in the study.

4.3. Qualitative analysis

From all the information taken from the answers in the interviews with participating teachers, and in order o know their perception on the use of NT as a motivational element for students towards the contents, three main categories were generated: 1- Their usefulness in learning, 2- Need for teachers to have comprehensive knowledge, 3- methodological and evaluative role in their implementation

Their usefulness in learning: It is observed how the two teachers do not give the same importance to the use of these learning tools, showing different perceptions on their implementation as a regulatory axis of the subjects.

"The audioblog tool is neither good nor bad in itself [...]. What is really interesting is to know what its functional and educational use can be in class. " "However, we must be aware of the benefits of implementing a virtual tool like this, as it provides learning with a bigger dimension" (DAB).

"I do not worry too much about the use of NT in class [...]". "I think students use them enough outside the classroom so we should not insist more on it," [...] "Besides, we are in college, they should already have acquired these digital competencies, I teach the content, they should decide how they want to present them or share them with others" (DNB).

Need for teachers to have comprehensive knowledge: The degree of relevance teachers gives to their competence and control of NT becomes crucial and decisive for their own decision when using them.

"I do not think that having a higher or lower mastery of NT should be a condition not to use them in the classroom" [...] (DAB). "It is almost certain that some students will be more knowledgeable than us about the use, but our role has to be how to regulate learning from these tools."

"If I'm honest, I find it hard to work with something that I have not mastered, in the end one always uses what he knows [...]". "However, I insist that this is not within our competence and, in the end, if the student wants to use these tools, it is something of grown-up people" (DNB).

Methodological and evaluative role in their implementation: It is shown how the use of NT is subject to the methodological and evaluative approach used by the teacher in the subject.

"It is essential that we use these tools for training purposes [...]". "In this case, I intend to use the audioblog to enhance communication in the classroom, the fact that students share experiences" [...] "The audioblog is only a means, another year I will use another instrument [...]" (DAB).

"You have to use tools related to the grade we can give the student [...]". "The guys here have used Power Point because they presented their papers in class. This gives me enough information to know how they have done things" (DNB).

5. DISCUSSION

It is shown how, despite the fact that in the pretest there were no significant differences between the two groups regarding the two-factor analysis, after getting through the courses, the group using the audioblog significantly increased their social relationship among members of the class. Also, in this factor differences were found between the two groups. Therefore, in the group using the audioblog, a more positive classroom climate and greater motivation to the course content was

obtained, the independent variable of age being the one in which significant differences are found in relation to generated learning. However, in the group in which audioblog was not used as an educational tool, the differences in learning were found in the variable of diligence in the use of NT outside the classroom. Moreover, teachers have a different perception on the use of NT as a training tool, and they disagree about the methodological and the role played by teachers in their implementation.

It is striking to note how in the pretest mean values of each factor are even lower in group A than in group B, which shows the homogeneity of opinions among groups. As Gan and Hattie (2014) point out, in this type of study, the fact that students do not start with some preconceptions potentiates the effect on the results of the intervention plan that is implemented. In the case of this piece of research, the two participant teachers have taught these students for the first time, so their perceptions of the two factors of analysis are based on the experiences learned in other subjects. However, when the subjects were over, the valuations made by the student vary substantially, the group using the audioblog showing an increase in both factors.

It can therefore be assumed that the use of this educational tool is associated with motivation and positive climate of social relationship in the classroom. In this sense, Durán (2010) indicates that experiences related to the interactive use of instruments like the blog foster social cohesion among students, mainly due to the fact that

students have to work simultaneously on diverse contents. Furthermore, feedback on the information is constant and it is not restrained only to class schedules, students' reflection in their participation and planning and organization in the proposed material to their classmates being facilitated (Alvarado, 2014). However, Meyer (2011) indicates that all the positive aspects of these tools can become disadvantageous if a logical, structured and consistent monitoring is not planned in its implementation. Similarly, Román, Cardemil and Carrasco (2011) warns against using these tools for the sole purpose of working with the NT (without a methodological and didactic argument), since it can result in routine use by students that does not generate any reflection and only follows the "inertia" generated in the subjects in which these tools are used.

Increased motivation reached in this case seems to be due to the novelty of having students generate their own audios and upload them to the platform, contrasting the uploads by other classmates and analyzing the contents thereof. In an experiment carried out in the development of a radio program in the classroom, Stark, Sachau & Albertson (2012) indicate that the motivating effect on students in this type of proposal lies in the fact of presenting their productions to their classmates, checking how their work, besides being known in the classroom, results in interactions with other members of the educational community.

It is noteworthy in this study to observe how in the posttest of group B the values of social relationship among learners are reduced. This indicates that students realize that the methodological dynamics developed in class does not promote socialization, using an individually oriented evaluation approach. However, oral group presentations have been used in this group through presentations with slides, which does not seem to have contributed to this factor. In this sense, García-Ruiz González-Fernández and Contreras (2014) show how the fact of demanding students to work in groups (they being understood as people who come together to perform a task) without methodologies encouraging role interaction, the registration of tasks and the responsibility among its members can cause imbalances in the level of work that entail a work climate that is not positive. Therefore, it is essential that each student knows what their functions are within the group and what the functions of the other classmates are, generating regular self-evaluation processes within the group as well as peer assessment (Birjandi & Hadidi, 2012). Therefore, group work must be given more transcendence than the mere fact of having a bunch of students come togetherto perform a task and / or activity, they must be focused on projects addressing more global and, if possible, interdisciplinary content (Mansilla, 2005). These statements are directly related to the results obtained in this study, as the group that used the open and participative methodology through audioblog obtained a perception of the relational climate generated in the classroom significantly higher than group B.

Among the independent variables used in the study for each of the groups, it is observed that age is where significant differences are found with regard to learning generated in the course. Younger students are the ones who understand that this learning tool has been useful to generate more real learning transferable to various areas. Aguado, Arranz, Rubio and Marin (2011) point out that currently, at university level, especially in blended or online training, two situations occur: a) use of a methodology and evaluation based on the NT b) disparity in the characteristics of students (age, type of training, personal and / or family situation ...). In this sense, the older pupils, usually with previous degrees, are more ignorant about the use of virtual tools, which hinders their initial assimilation and affects their perception of the development of the subject (Park & Kim, 2014). This fact contrasts with the younger students, who are more knowledgeable of the use of platforms, social networks, blogs ... have more adapting ability to understand and manage these tools and instruments, partly because they have already worked in compulsory education (Canessa & Pisani, 2013).

However, in group B, which used the slide show (PowerPoint, Prezi or similar) to present group work in class, the differences have been found in the variable of using NT outside the classroom. Students using them daily perceive less learning generated in the subject. This can be understood as the fact that students who are more digitally proficient and more used to using digital tools perceive more learning limitation when a subject does not address said tools (Valdebenito & Duran, 2013). By contrast, and as shown in this study, students who recognize the use of NT

sporadically feel more comfortable and their perception is more favorable when these tools are not implemented continuously in the subjects (Lee Tsai, Chai & Koh, 2014).

Although in the 4 subjects of the study work has been done in groups, no differences have been found in the variable of experience in group work in other subjects. This may show the disparity existing criteria among teachers in understanding how to regulate groups in the classroom and define patterns of internal organization among their members. However, other experiences in education (Giese, 2013) indicate that students who are more used to group work have higher levels of work regulation and more learning of the specific topics that have been dealt with.

Regarding the qualitative part of the study, the discrepancy between the views of teachers is evident, not only in relation to the use of specific tools but also the role to be played by both the teacher and the learner in their implementation. The teacher who has used the audioblog admits that the importance is not to be found in the tool itself but in the educational role to be granted to it. Instead, the teacher of group B establishes the absence of need to work with NT at the university since this is not within the competence of teachers. In this sense, García-Valcárcel, Hernandez and Recamán (2012) point out that although students currently have high management of NT, it does not imply that we should stop addressing them from an educational approach in the classroom. Regarding the experience of the teacher to apply them in class, the teacher of group A points out that the experience in his domain must not be a constraint, while the teacher of group B feels embarrassed for not been able to handle them smoothly to apply them in the classroom. Lau & Lee (2015) show that the current trend in universities heads for "virtualization", which results in the teacher having to modify more traditional work structures based solely on the reproduction of master classes. Regarding the third category generated, it is observed how the use of NT is related to the methodology and evaluation applied by teachers in their subject. The teacher of group A valued the implementation of audioblog for training purposes, while the teacher of group B prefers the use of those instruments with a more grading orientation. According Canabal and Castro (2012), this is one of the most important aspects around the concept of teaching, as the fact of evaluating must be focused on a single criterion of learning, regardless of whether it translates in a grade or not.

6. CONCLUSIONS

Regarding the first objective of this piece of research, it has been verified how the group participating in the audioblog had more motivation to the content and a better climate of social relationships in the classroom, this being the factor in which there was a higher increase both in relation to the pretest and the contrast among groups. In the group that did not use the audioblog, the mean values of each factor decreased slightly.

Regarding the second objective, in the group in which the audioblog was used, the variable of age has been the one in which differences in perceptions of generated

learning has been found, younger students being the ones with higher values. In group B, the differences were found in the variable of experience in the use of NT outside the classroom. In this case, the students making less daily use of NT show greater perception of learning. In the variable of experience in group work, no differences were found along the course.

Considering the third objective of this piece of research related to teacher's perception, it has been shown how the two teachers who have taught the subjects have different views on the usefulness of using virtual tools in the classroom. This diversity of views is directly related to the methodology and evaluation used in the subject.

We believe that this study may be very useful to those teachers whose educational practice is linked to the use of virtual tools and instruments for training purposes. Similarly, it is also of interest to all those teachers developing open and participatory methodologies in their lessons, student's perception being assessed as a fundamental criterion in the development of the subject.

This article has some limitations. First, only students of one faculty were engaged, so it would be interesting to compare the perceptions of students from other universities. On the other hand, students have different degrees. For future research, the opinion of first-and-four-year students with the same degree could be valued, checking the digital competence acquired by the students upon completing their studies in relation to when they started.

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