
RESEARCH

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INSTAGRAM AS A MUSICAL LEARNING TOOL IN SECONDARY EDUCATION AND HIGH SCHOOL

*Instagram como herramienta de aprendizaje musical en educación
secundaria y bachillerato*

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ABSTRACT

The use of renovating methodologies that include attractive elements for ESO and high-school students is related in many cases to the use of ICT resources, whose applications in the secondary and high-school classroom are carried out through platforms created for educational purposes with a use restricted to the academic field. However, these applications are not among the most used by young people in our country of their own free will. In this sense, in this article a didactic intervention has been implemented in two groups of the 4th year of ESO and the first year of high school in a public institute in the metropolitan area of Valencia City, in the subjects of music and musical analysis respectively, which uses the social network Instagram as a learning tool for the musical content that is being taught in the textbook in a traditional way. The application of Instagram in order to create memes of the contents that are being taught in music subjects at these academic levels improve the learning results of students in a very positive way. Also, these types of activities are very motivating for students as compared to conventional methodologies.

KEYWORDS: Instagram - music education - secondary education - baccalaureate classroom - new methodologies - ICT - memes.

RESUMEN

El uso de metodologías renovadoras que incluyan elementos atractivos para el alumnado de la ESO y Bachillerato está relacionado en muchos casos por la utilización de recursos TIC, cuyas aplicaciones en el aula de secundaria y de bachillerato se realizan mediante plataformas creadas con fines didácticos con un uso restringido al ámbito académico. No obstante, estas aplicaciones no figuran entre las

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que más utilizan los jóvenes de nuestro país por voluntad propia. En este sentido, en el presente artículo se ha implementado una intervención didáctica en dos grupos de 4º curso de ESO y primer curso de bachillerato de un instituto público de la zona metropolitana de la ciudad de Valencia, en las asignaturas de música y de análisis musical respectivamente, que se sirve de la red social Instagram como herramienta de aprendizaje de los contenidos musicales que se están impartiendo en el libro de texto de forma tradicional. La aplicación de Instagram con el fin de crear memes de los contenidos que se están impartiendo en las asignaturas de música en estos niveles académicos mejoran los resultados de aprendizaje del alumnado de forma muy positiva. Asimismo, este tipo de actividades resultan muy motivadoras para el alumnado frente a las metodologías convencionales.

PALABRAS CLAVE: Instagram - educación musical - educación secundaria - bachillerato - nuevas metodologías - TIC - memes.

INSTAGRAM COMO FERRAMENTA DE APRENDIZADO MUSICAL NO ENSINO FUNDAMENTAL E MÉDIO

RESUMO

O uso de metodologias inovadoras que incluem elementos atrativos para os alunos do ensino médio está relacionado em muitos casos à utilização de recursos TIC, cujas aplicações na sala de aula do ensino médio se realizam mediante plataformas criadas com fins didáticos com um uso restringido ao ambiente acadêmico. Não obstante, estas aplicações não estão listadas entre as que mais são utilizadas pelos jovens do nosso país por vontade própria. Nesse sentido, no presente artigo tem sido implementado uma intervenção didática em dois grupos de 4º ano do ensino fundamental e primeiro ano do ensino médio de um instituto público da zona metropolitana da cidade de Valência, nas matérias de música e de análise musical respectivamente, onde é usada a rede social Instagram como ferramenta de aprendizado dos conteúdos musicais que estão sendo ensinados no livro de texto de forma tradicional. A aplicação de Instagram é feita com a finalidade de criar memes dos conteúdos que se estão sendo ensinados nas matérias de música nestes níveis acadêmicos o que melhora os resultados de aprendizado dos alunos de forma muito positiva. Igualmente, este tipo de atividades resultam muito motivadoras para os alunos em comparação às metodologias convencionais.

PALAVRAS CHAVE: Instagram - educação musical - ensino fundamental - ensino medio - novas metodologias- TIC - memes.

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1. INTRODUCTION

The widespread use of new technologies has revolutionized many aspects of everyday life. According to data from the International Telecommunication Union (ITU) company “in 2005 there were 1,024 million people using the Internet in the world, while in 2016 the figure rises to 3,488 million cyber inhabitants” (Alonso, 2017, p. 41). In this context, the mediatization of information nowadays entails a totally different and reconfigured spectrum (Campos, 2008). One of the devices that have most contributed to making this possible is the mobile phones or smartphones, through which you can access the internet and “can be used as a pocket computer” (González *et al.*, 2015, p.132).

The statistical data of the Ditrendia Mobile Report in Spain and in the world (2018) are highly revealing of the massive use of the mobile device today. Thus, for example, in Spain 97% of Spaniards use their mobile phones as the first device for Internet access, while 49% of young people between the ages of 18 and 24 spend more than 4 hours a day with this device. It is worth mentioning that the activities most carried out from the mobile phone are those that concern this didactic implementation: instant messaging and social networks (74%). Likewise, Apps occupy more than 80% of the time we dedicate to mobile use, with free social media applications being the most widely used, followed by instant messaging (Ditrendia, digital marketing trends, 2018).

A very relevant factor to take into account is the intense use that adolescents and young people make of social networks in general (Sherman, Payton, Hernández, Greenfield and Dapretto, 2016). For example, 38% of Instagram users are between 13 and 24 years old, while 33% are between 25 and 34 years old (Statista, 2019). A study carried out in Valladolid affirms that 89.3% of 2,412 adolescents in school aged 13-18 years use the internet to access social networks (González *et al.*, 2015).

Social interaction, storage, self-expression, evasion, and gossiping are some of the main reasons why students in this age range make such high use of these Apps (Kamel, Boulos, Giustini and Wheeler, 2016, p. 7). In many cases, young people are not aware of the possible risks associated with excessive use of Apps (González *et al.*, 2015). Thus, for example, disorders such as anxiety or depression in the adolescent period can be caused by a bad habit in the use of this type of social networks (Oberst, Wegmann, Stodt, Brand and Chamarro, 2017). Furthermore, problems such as cyberbullying, grooming, sexting or sextortion are relatively common among adolescents. Likewise, there is the “digital identity”, defined as “the image that adolescents transmit on social networks. It is a combination of what they are and what they would like to become” (Gabarda, Orellana and Pérez, 2017, p. 252). Alonso (2017) asserts that “because of the situation of particular vulnerability in which adolescents are, they may face absolutely harmful consequences for proper psychological, emotional and social development” (p. 94).

There are also social networks created and designed strictly to fulfill a pedagogical function such as Leoteca, Interuniversidades, Cibercorresponsales, Internet en el aula, Clipit, Brainly, Docsity, Edmodo, Eduskopia, Comunidad Todoole, Otra Educación and RedAlumnos, Schoology (Education 3.0, 2018). Another example of a social network applied to teaching would be the Aula-Twitter project, carried out by teachers belonging to the "Let's Make Music" working group; designed and carried out for 3rd and 4th ESO students. This project takes advantage of the communicative potential of the "Twitter" App (Kwak, Lee, Park and Moon, 2010) to work on theoretical content for the music subject.

The use of ICT in classrooms can be an attractive alternative for students as compared to more traditional methodologies (Gabarda, Orellana and Pérez, 2017). However, the implementation in the classroom of social networks involves an extra effort for the teacher. It should be said that the social phenomenon related to interaction on the Internet through social networks or blogs is called Web 2.0. It is a term coined in 2003 to make the difference in internet use between before and after on social networks and similar spaces (Gabarda, Orellana and Pérez, 2017).

The fact that this type of tool is so practical when applying it in a class comes from its own original idea; and it is that possibly the success of current social networks lies in the participation of users as protagonists of the action (Moreno, 2018). Social networks have the power to capture and keep the attention of their users; in fact, they are continuously in the process of development and updating with the aim of not appearing monotonous. This fact is of utmost importance, since through didactic innovation social networks can become tools that encourage individual and collective participation of students, while promoting collaborative work in the learning process (Educaweb, 2018).

Within this sphere of action, it is necessary to be aware of the reality that surrounds the students in order to design proposals that guarantee the learning of young people (Blanco, 2017). In this sense, several studies have been carried out using the social network Instagram for pedagogical purposes. Research has been carried out with students of different levels, university students and adults, and in different specialties: architecture, veterinary medicine and poetry (Jurado, Woelfert, Giovagnola, Faisal and Peralta, 2018; Blanco and López, 2017; Moreno, 2018). In all three pieces of research, the validity of Instagram as a tool to build learning through collaborative and group work is emphasized: "We conclude that the experience was positive for everyone and that, by knowing the tool better, we can contribute to anchoring and building disciplinary knowledge through the use of a social network like Instagram" (Jurado, *et al.*, 2018, p. 66). For their part, Blanco and López (2017) conclude that "social networks can become virtual learning spaces with multiple possibilities for learning purely theoretical content, as well as social and civic content" (p. 9).

Currently the most used image format on Instagram is the so-called "meme". Various authors agree in pointing out the first use of the word meme in 1976 in the

book 'The Selfish Gene' by biologist Richard Dawkins (Blackmore, 2001; Bueno, 2017; Gerken, 2018). Dawkins defines meme as an image, video, or snippet of normally humorous origin, which is quickly copied and disseminated by internet users, often with slight variations (Blackmore, 2000).

Gerken (2018) reflects on the characteristics necessary for a meme to be considered as such. According to the British journalist, a single image cannot be a meme. It has to be copied and broadcast with variations of the original image. Gerken concludes that the first recorded meme was a cartoon published in 1921 by "Yesterday's Print", a website that still shares historical content to highlight the similarities of the past and the present.

It is a mandatory condition that the meme should have a viral characteristic, that is, of propagation. Social networks are currently plagued with this type of images, since internet users empathize more with expressions or manifestations with which they can partially identify (Granovetter, 1983).

2. OBJECTIVES

In secondary and high schools, there is no generalized roadmap for the use of new electronic devices. As it appears in Decree 234/1997, as of September 2, DOGV no. 3073, the internal regulations of each center are the ones that set the guidelines for action. Using the mobile as a class material can provide many advantages over other materials; for example, the teacher makes sure that the student will take it with him, it is also a tool that everyone uses with ease and practically all students have one, so that it is not necessary to demand additional expenses from families.

The proposed objectives are the following:

- Take advantage of social networks due to their characteristics as a tool for use in class and carry out tasks as a group to promote cooperative work.
- Be able to replace conventional teaching models with methodologies that include more attractive elements for students in general and obtain equal or superior learning results.
- Find out if the social network Instagram can be considered a useful tool within the music class or other subjects at secondary education levels.

3. METHODOLOGY

This experience has been carried out with 95 students of the music subject from two groups of 4th ESO, with a total of 60 students, and a group of 35 1st-year high-school students from a public institute in the metropolitan area of Valencia. We have used ICT so that students can use the social network Instagram for educational purposes. Specifically, the students had to create their own memes. The teachers designed a consent circular addressed to the parents of the center so that they would give their consent for the students to create their own social network on Instagram.

The original idea of using the social network Instagram has arisen from the combination of providing students with a motivating and autonomous way of working by using unconventional elements and taking advantage of resources in a practical way; although its purpose was not originally pedagogical.

One of the keys for students to learn in a meaningful way is motivation. Thus, for example, Naranjo (2009) asserts that in educational environments it is essential to create expectations about students so that students are able to execute the assigned task. Likewise, the freedom of choice, creation or distribution of the task contributes significantly to fostering the feeling of autonomy and to making the students feel more capable of self-regulation (Alonso, 2005). In this sense, the students did not have any problem concerning management or social network or application to create memes, so it was not necessary to spend time explaining how it works. The doubts that have arisen on a daily basis have been of a methodological or content nature.

The activity is based on a constructivist methodology, in which new knowledge is built on past experiences and the key elements of the production of meaningful learning are the active participation of students and their socialization (Cooperstein and Kocevar- Weidinger, 2004). In turn, this methodology is combined with the "Flipped Classroom" model. To the basic aspects of this activity, such as cooperative work, freedom of creation, the use of tools related to students and the integrative nature provided by the "Flipped Classroom" model, we must add self-evaluation. In order to promote this aspect, a survey designed for students to respond together at the end of each session was designed.

3.1. Data collection instruments

Daily survey

At the end of each class work session, the students participated in a short survey with questions regarding group work, which are listed below:

- Set objectives: main and specific.
- Respect the opinions of others.
- Efficient work: distribution of tasks.
- Do not get stuck on something, skip past it and get back on it or not.
- Tacit commitment between the members of the group.
- Schedule / plan working time.

This survey was intended to measure the degree of satisfaction of the group with respect to the productivity of the work performed. The answer to each section should be on a group basis, that is, if they were not all satisfied with any section, this fact was recorded, only pointing to a total positive result if no one objected.

These points were read together before starting the activity, so that the students had a guide and an idea of what was going to be required of them. During the

development of the activity, they were read at the end of each collaborative work session and all those attending the class answered each section, point by point.

Session diary

The session diary is the periodic collection of information on the course of classes. This element is most useful when it comes to chronologically remembering the distribution of sessions, and some relevant events. It is a key element in the collection of information when it depends in part on the teacher's observation.

Instagram

The account that the students have created and filled out on Instagram is the summary of the content they have worked on, in addition to being the main element of evaluation. The upload of images has always been done under the supervision of the teacher, sometimes causing the elimination of an image that was already posted on the network for various reasons, such as misspellings, lack of information in the description or absence of hashtags.

Satisfaction survey

The last element is the composite satisfaction survey to obtain opinion responses about the design of the activity and its development in the classroom. It serves in part to assess activity, but also to analyze possible changes for future applications. That the students like the activity and feel motivated when carrying it out is very relevant when it comes to achieving quality learning.

3.2. Activity design

The activity consists in creating a thematic account on the social network Instagram. It is done cooperatively, so that the end result is the sum of all contributions. The account must have the following elements: name and cover photo, a profile description and the images with their respective descriptions in the caption, including "hashtags". The images will be "memes" and each one will have to deal with a different content, fulfilling the characteristics of this type of images. The account will be complete when it has all these elements and there are at least 10 images created. The timing of the activity has been 5 sessions in each course. Keep in mind that in the 4th year of ESO and the first year of high school we have three weekly music sessions.

Group work is used for students to practice its basic guidelines and to promote socialization, which also encourages motivation. Efficiency is achieved through planning and cooperation of all members. Working in a group "implies the need to assume the responsibility of actively contributing to the elaboration of a group task and learning to resolve the differences that arise during its development" (Navarro *et al.* 2013, p. 2).

Regarding data collection during the development of the activity, the observation method is used with its respective session diary (Sierra, 1997). It is important that the teacher, even if he does not participate in the students' debates, observes their behavior; the way of expressing themselves and how their criteria evolve. In this sense, Vygotsky (1978) notes that well-observed student behavior defines their way of thinking and is a reflection of their knowledge. It should be borne in mind that in constructivist-type methodologies it is important that the subject should be capable, through reflection, of expressing ideas that are subjective (Karagiorgi & Symeou, 2005). For this reason, the teacher attaches greater importance to open answers without waiting for a standard response.

Before carrying out the first session in which the activity begins, the whole group is explained what is going to be done, describing the elements that make up the task and its general operation. In addition, the instructions that will serve as reference during its application are given.

In the first session, an exposition is made on the negative uses of social networks in adolescents. In certain secondary education centers, the mobile is an element of distraction, it is even used as a tool for inappropriate behaviors with the teacher or classmates at the institute. For this reason, it is considered essential to explain to students how to make correct use of mobile phones and social networks, as well as the consequences of a malpractice of these tools. In this same session they also proceed to create the Instagram account with the username and password.

In the following session the thematic contents that the account must include at the end of the activity are assigned. The students have to watch some explanatory videos on the subject and summarize them. Students should distribute the display of the various materials; however, the teacher supervises that it is done equitably. All the contents of the topic must be included in a distributed way in the summaries. Once all the students have carried out the task appropriately and the necessary theoretical information is available, a schedule is created where the most relevant events will appear: dates, events and transcendent characters. The usefulness of the schedule is twofold: on the one hand it constitutes a consultation tool that the students will be able to have at any time. On the other hand, it will serve to corroborate that all the contents have been included in the different images when the Instagram account has ended.

In the following sessions students proceed to create images (memes) with their respective descriptions and hashtags. This section of the activity is done in class, since it is important to carry it out cooperatively to take advantage of the benefits of this work format. All three groups complied with the time limits without any problem.

In the last session, with the account completed and reviewed, a visualization of videos directly related to the subject and the commentary of them by the students is carried out, responding to closed and open questions.

3.3. Evaluation instruments

- Direct observation by the teacher: the teacher's observation, regarding the evaluation of the activity, is only an intervention element in the event that there is a student who performs a volume of work much lower than the rest.
- Periodic self-evaluation is an instrument for measuring short-term evolution in the basic aspects of cooperative work. If student satisfaction has been increasing, it is related to a positive meaning in this sense.
- Satisfaction survey of participating students that is carried out online: the sincere opinion of the students about the activity in general is very relevant, to redesign it and check if the effort involved in preparing and applying this activity is beneficial for the operation of the class.
- Evaluation test written in the last session: This instrument is used above all to measure the level of utility of the activity of carrying out the Instagram account.

4. RESULTS

4.1. Daily survey

The daily survey consisted of six questions that the students answered at the end of each session. The condition for a point to be marked as achieved was that all attending members affirmed that it had been met. If not everyone was sure that it had been achieved, it was indicated as not achieved. The response should be unanimous. To clarify the meaning of each point, preventing the literality of the sentences from not being understood by everyone, the necessary clarifications were made as many times as necessary.

A year apart, high-school students worked more efficiently when it came to group work. However, in all three groups they showed that with the appropriate guidelines they increased the efficiency of work. There were more teacher interventions to advise the two groups of 4th ESO, but the progression in a short time was evident in all groups.

In the two 4th ESO courses, a more significant evolution could be seen, since the first session they held was chaotic in terms of group work. They honestly self-assessed by denying the achievement of the six points. Teacher observation makes it possible to clarify in which of the following sessions assistance was required, both to contribute to the acquisition of these values and to ensure that the activity followed the planned schedule. Meanwhile, the first grade high-school students showed a faster and more effective adaptation.

4.2. Results of the application of new methodologies

The chosen topic of work has been the musical, following the schedule of the teacher's course. This is a current topic that can be quite prolific in terms of creating

memes. Here are some examples of the final result of the 1st grade high school Instagram account:



Image 1: Instagram profile cover.
Source: self made, 2019.

In image 1 we have the description of the account, where it indicates the name, the header image and what the content of the profile is. In this case, and following the schedule of the teacher's course, the musical has been chosen, which is a current topic and can be quite prolific in terms of creating memes.

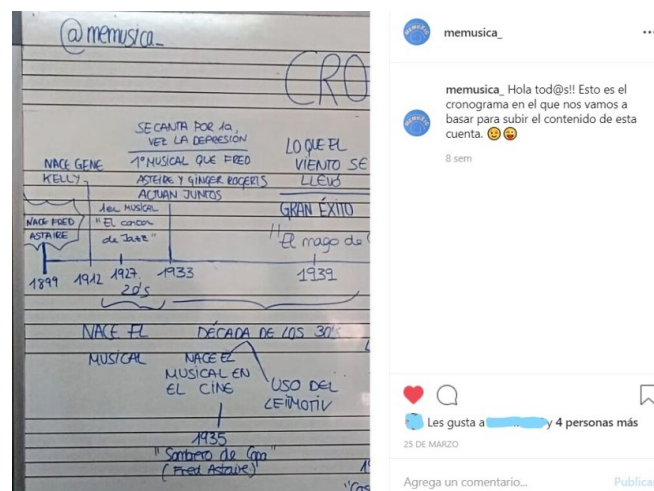


Image 2: image of a fragment of the schedule on Instagram.
Source: self made, 2019.

In image 2 is a part of the schedule the students made to outline the information and have a reference of the contents they should have at the end of the process.



Image 3: the students pay tribute to Bob Fosse, a leading figure in the film musical genre.
Source: self made, 2019.

In Image 3 we can see a meme, represented with the image of “Tom and Jerry” in which the cat would surprise the mouse by showing unexpected strength. In the description of the photo is the meaning of the image, related to the actor, dancer and film director Bob Fosse and his influence on the cinema of the 1960s and 1970s.

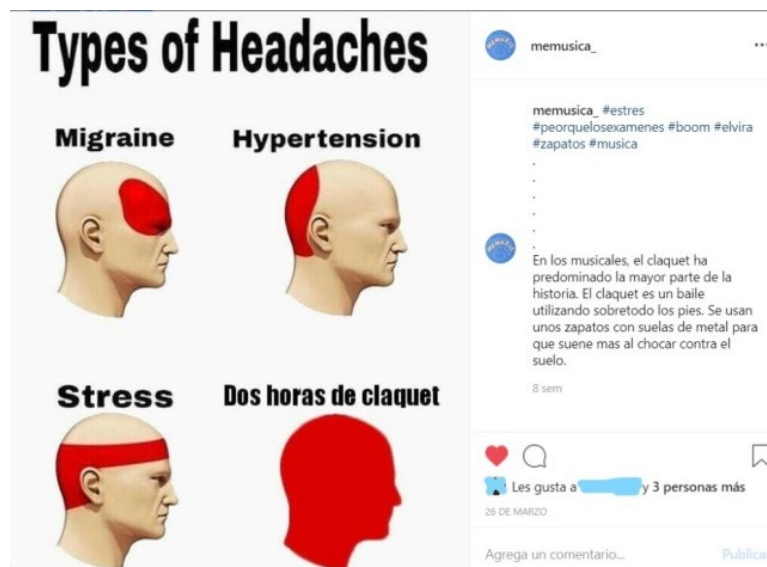


Image 4: the students visualize with irony the tensions produced by the practice of the “claquet”.
Source: self made, 2019.

In image 4 we find a humorous reference to the importance of the “claquet” in musicals. The meme is used to show things that can be annoying, not strictly in the physical sense.



Image 5: students refer to racism.
Source: self made, 2019.

The meme in Image 5 is widely used. Its meaning is simple: it shows a preference. In the Instagram photo, the students wanted to mention the racism that existed in the 20th century when they did not even hire a colored actor in a script in which the protagonist was a black man. The protagonist was a white man characterized with features of a black.

4.3. Instagram and its usefulness in the music and music analysis classroom

To evaluate the activity and numerically rate the students, the created Instagram account was the one that was mainly considered. At the beginning of the activity a series of instructions were given, among which were the contents that the profile should have in its final form: a cover photo, name, account description and a minimum number of images in total, with their respective descriptions and “hashtags”, in addition to including among the images the schedule in which the contents of the topic appeared. Issues like spelling would also be considered.

The exam that was carried out to check the level of knowledge acquired did not average with the Instagram account, but it influenced to decide the final grade. The score is made on 2 points, since it is the weight that the teacher gives to the theoretical part in each trimester. The same conditions were raised in both courses. The final scores were:

- 1.5 out of 2 for the two groups of 4th ESO, because descriptions were missing in some images.
- 1.75 out of 2 for the group of first year high school, due to the lack of written expression, which despite not being a content of the music subject, is considered a cross-sectional element and necessary to find out the knowledge of a student.

The exam was not proposed as a constituent element of the group evaluation, but rather as a measuring instrument to check the level of contents that the students have

after completing the activity. This test is constructed by combining open and closed questions, even in some of the questions several well-argued answers are valid. The content worked on in the 4th ESO class was music in the advertisements, and in the exam 4 advertisements with different characteristics were reproduced for which the students had to fill out the following exam model.

1- Type of music (original or borrowed).

The concepts of original music and borrowed music are part of the content of the music theme in the ads, and it is basic knowledge that they must have at the end of the theme. This way, after seeing the advertisement they had to indicate if it was original or borrowed music.

Correct answers: 50; 83.3%

Incorrect answers: 10; 16.6%

2- To what extent do the functions of music appear in this advertisement?

Table 1. Music functions in the advertisement.

Music functions	1	2	3	4	5
Strengthen content					
Help memorize the message and product					
Highlight the most important					
Capture the listener's attention and arouse interest					

Source: self made, 2019.

Each advertisement is designed in a way, and music doesn't always play the same role. In this question students are not intended to have memorized the different functions, but rather to demonstrate that they have understood what the various functions consist in and are capable of mentally analyzing information through listening. This question is not subject to a closed answer; it is subjective within limits of adequacy and coherence.

3-Is music related to the product and/or consumers?

The relationship between music and the product, with the aim of getting the consumer to identify with or remember it, is quite frequent. It should be said that in

this question poor responses have been obtained by students, perhaps due to the formulation of the question itself.

4- Does music structure the advertisement? Why?

Again in this question, students show a limited ability to express their opinions through written expression, which causes the teacher to question whether they do not know how to express themselves in writing or if the matter is that they do not have an opinion sufficiently grounded to express it. This factor has penalized in both groups.

Do you think it is a good advertisement? Write your answer.

The positive part of this question is that very diverse answers have been obtained, which shows an implication, at least, sufficient in the task that is being carried out as well as basic knowledge of the subject. Following the recommendation of the practice tutor, it is specified in the statement of the questions and later orally that the students have to expand a little in their answers.

On the other hand, in first-year high school the content included the most relevant questions of the musical and its history. In the exam, four videos of representative scenes from different musicals were played, for which it was necessary to have basic knowledge of the musicals:

1-Indicate the following data for each musical:

- Stage in which it is framed.

To answer this question, it is necessary to know the exact or approximate year of its release, that is, it is theoretical knowledge of memorization that does not imply reflection. The wrong answers to this first question are anecdotal.

- Public to which it is mainly addressed.

In this question there are different answers, since the students have not dealt in the contents with any section that answers this question, rather it is a reflection that they must do based on the theme of each musical, the type of music and the song lyrics. Except for an ambiguous answer, the others are coherent although they differ slightly.

2- Describe in written form the characteristic elements, intentionality and your personal opinion about this musical.

This last question seeks to have students show their critical capacity, in addition to demonstrating that they are able to distinguish the really important elements that

define each musical. The students have shown to have general knowledge of the subject and specific knowledge of musicals in most cases.

4.4. Results of the satisfaction survey

There is a series of questions in the survey that are written in motivational terms. The answer option for the students is ordered numerically, with 1 being the minimum and 5 the maximum. It is noteworthy to point out that no student has responded below 3, which would be the neutral value, which indicates that the activity has been valued positively and in general they have felt motivated during its performance.

Table 2. this activity has sparked my interest in learning music/music analysis.

Category	N	Percentage %
1 No	0	0
2 Very little	0	0
3 a little	28	29.47
4 pretty	38	40.1
5 a lot	29	30.52

Source: self-made, 2019.

Table 3. I felt motivated while doing the activity of creating "memes" in music / musical analysis on Instagram.

Category	N	Percentage %
1 No	0	0
2 Very little	0	0
3 a little	twenty-one	22.10
4 pretty	33	34.73
5 a lot	41	43.15

Source: self-made, 2019.

When asked directly about motivation, a high percentage of students respond positively to this question. Values of 4 and 5 reach 77.88% of the responses, while only 22.10% have selected value 3.

Table 4. I prefer this methodology to conventional activities.

Category	N	Percentage
Yes	83	87.3
No	0	0
Indifferent	12	12.63

Source: self-made, 2019.

Table 5. Would you like to do the music meme / music analysis activity again?

Category	N	Percentage
Yes	77	81.05
No	0	0
Indifferent	18	18.94

Source: self-made, 2019.

81.05% consider that they would like to do this activity again; a fact that indicates that students have a positive view of this methodology after having completed the entire activity.

4.5. Sessions diary

The expectations that the teacher had scheduled at the beginning of the activity have been met, although, after carrying it out, it is recommended to vary the timing in the 4th year ESO groups so that they have at least one more session than high-school groups. This fact is due to the fact that their adaptation time and the difficulties they encounter in carrying out the activity are greater. However, the objectives have been met and the degree of achievement of them by teachers and students has been satisfactory.

5. CONCLUSIONS

For several decades, the importance of renewing teaching methodologies in educational centers through ICT has been pointed out, in turn favoring collaborative work among students (Ovejero, 1990). In many cases, teaching innovation involves the use of ICT that provide a very wide range of tools. Furthermore, ICT can become powerful instruments to promote learning, both from a quantitative and qualitative point of view (Carneiro, 2011). In the music and music analysis class, ICT have helped us in the search and selection of information on the content and images with which the memes have been designed. Students have used the internet to expand information on the musical genre, a topic they were studying in the textbook. Later, by creating memes they have tried to teach some themes of this genre, such as racism, the tension of artists and prominent figures of this style. All this has contributed to strengthen the knowledge that the students had about this musical style. In this sense, the good results obtained in the examinations of the three groups show the fulfillment of the research objectives.

The activity of creating memes using the social network Instagram has been highly productive and satisfactory, both in the two 4th ESO groups and in the first-year high-school groups. The positive results obtained confirm the validity of Instagram as a useful tool with didactic purposes. It is a social network on which the students feel familiar and, for this reason, the students are motivated to carry out the assigned task.

The creation of the Instagram account did not pose any problems at the level of handling and knowledge of the application. It is true that in the first-year high-school group the result was more complete at the content level. Each publication had a description that accompanied some images all with great sense. The 4th ESO groups also met the required minimums, but needed further advice. For all these reasons, it is suggested that the application of this same activity in courses still lower than the 4th ESO may demand a different approach, with more previously planned advice on its application.

The creation of the memes has resulted in a more than acceptable display of imagination and creativity in all three groups. The students themselves have chosen the images and edited them with the appropriate content. This fact has led to a more natural memorization of the content. Keep in mind that, with the slightest expression, the image of the meme can have a broad meaning. Thus, in a single image, students have been able to reflect large information while retaining meaning.

The daily surveys have reflected the good attitude of the three groups in all the sessions. Likewise, the responses obtained from the satisfaction survey indicate that the students' vision of the activity has been very good. In short, popular applications among young people and adolescents, in principle, not intended or designed to educate or be used in a classroom, can become applicable tools in class. The characteristics that these applications have and, above all, the students' attachment to, knowledge and handling of them collaborate to positively confuse the students; since they incorporate elements that they use for leisure and free time in the academic environment. In addition, this methodology contributes notions of how to work efficiently in a team, which is extremely useful in the different options that students will follow in their academic and professional future.

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