

Elaboración de canciones, estrategia de apoyo para la educación superior

Elaboration of Songs, Support Strategy for Higher Education

Desenvolvimento de músicas, estratégia de apoio ao ensino superior

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Resumen

La música es un detonante que puede cambiar nuestro estado de ánimo. Según la melodía o la letra de la canción, puede influenciar en nuestro actuar y sentir. La elaboración de canciones como estrategia educativa a nivel superior favorece el aprendizaje significativo en los estudiantes de licenciatura: el alumno pone en práctica acciones mentales que facilitan la adquisición de nuevos conocimientos debido a que la música estimula diversas áreas del cerebro tanto en zonas dedicadas al procesamiento del sonido como del lenguaje. Teniendo en cuenta lo anterior, se eligieron dos grupos de 40 alumnos de las asignaturas de Ingeniería

Eléctrica y Electromecánica de Procesos, pertenecientes la Unidad Profesional Interdisciplinaria de Biotecnología (UPIBI) del Instituto Politécnico Nacional. Al inicio del semestre se les aplicó una evaluación diagnóstica para conocer entre otras cosas el nivel de conocimiento de la unidad de aprendizaje a cursar y el estilo de aprendizaje más representativo de cada alumno. Dados los resultados del examen diagnóstico, se propuso un método de trabajo de tipo deductivo cuya intención fuera favorecer el aprendizaje mediante el trabajo en equipo. Pasada la primera evaluación ordinaria del semestre, se les pidió elegir una canción considerando el ritmo y la letra para realizar ajustes a esta última a partir de frases, palabras o conceptos vistos en clase que les hayan representado algún problema durante su interpretación.

Una vez elaboradas las canciones, se les pidió evidenciar el trabajo realizado para ser presentado en la clase. Los resultados revelan que más de 50 % de los alumnos que participaron coinciden que pueden utilizar la música como estrategia facilitadora del proceso de enseñanza-aprendizaje, tanto dentro como fuera del aula, dado que las canciones pueden estimular la imaginación, la visión y la memoria. Por consiguiente, el empleo de canciones dentro del aula puede considerarse un recurso apropiado para el aprendizaje duradero, pues, a partir de la combinación entre ritmos, estrofas y repeticiones, permite a los alumnos asimilar de mejor manera nueva información. Los resultados encontrados evidencian la necesidad de crear estrategias y explotar nuevas técnicas y métodos de enseñanza, con la idea de fortalecer y reforzar el proceso educativo y que sirva como un incentivo para mejorar la educación y la calidad de vida.

Palabras clave: aprendizaje, canciones, educación, estimulación, estrategia.

Abstract

Music is a trigger that can change our mood, depending on the melody or the lyrics of the song being heard, it can influence our acting and feeling. The elaboration of songs as an educational strategy at a higher level, favors significant learning in the undergraduate students, based on the fact that the student puts into practice mental actions that facilitate learning because the music stimulates different areas of the brain in both dedicated areas to the processing of sound and language. Two groups of 40 students were chosen in the subjects of Electrical Engineering and Process Electromechanics at the engineering level in UPIBI. At the beginning of the semester, a diagnostic evaluation was applied to know, among other things, the level of knowledge of the learning unit to be studied and the most representative learning style in each student. Given the results of the diagnostic test, a work method of deductive type was proposed using a collaborative work strategy whose intention is to favor learning from teamwork among students. After the first ordinary evaluation of the semester, they are asked to choose a song considering the rhythm and the letter to make adjustments to the letter considering phrases, words or concepts seen in class in which they have presented a problem in its interpretation or meaning.

Once the songs are elaborated, they are asked to show the work done to be presented in the class, the results presented in this work, reveal that more than 50% of the students who participated in the elaboration of the songs agree that they can use music as a facilitating strategy of the teaching-learning process both inside and outside the classroom, since songs can stimulate imagination, vision, memory, therefore, the use of songs within the classroom can be considered an appropriate resource for lasting learning then from the combination of rhythms, stanzas and repetitions that allows students to better assimilate new knowledge. The results obtained in the present work, support the proposal to use music in particular songs, as a strategy that facilitates the teaching-learning process in the classroom in higher-level students, according to the activities developed and the results obtained within the UPIBI, it can be considered that music plays an important role in education and implementing it as a strategy would stimulate effective learning in students. The results obtained are due to the need to create strategies and exploit new techniques and teaching methods, with the idea of

strengthening and reinforcing the educational process and to serve as an incentive to improve education and quality of life.

Keywords: education, songs, learning, stimulation, strategy.

Resumo

A música é um gatilho que pode mudar nosso humor. De acordo com a melodia ou a letra da música, isso pode influenciar nossa atuação e sentimento. A elaboração de canções como estratégia educacional em nível superior favorece a aprendizagem significativa em estudantes de graduação: o estudante coloca em prática ações mentais que facilitam a aquisição de novos conhecimentos, pois a música estimula diferentes áreas do cérebro tanto em áreas dedicadas ao processamento de som como da linguagem. Levando em conta o exposto, foram escolhidos dois grupos de 40 alunos de Engenharia Elétrica e de Processos Eletromecânicos, pertencentes à Unidade Profissional Interprofissional de Biotecnologia (UPIBI) do Instituto Politécnico Nacional. No início do semestre, foi aplicada uma avaliação diagnóstica para conhecer, entre outras coisas, o nível de conhecimento da unidade de aprendizagem a ser estudada e o estilo de aprendizagem mais representativo de cada aluno. Dados os resultados do teste diagnóstico, foi proposto um método de trabalho do tipo dedutivo, cuja intenção era favorecer a aprendizagem por meio do trabalho em equipe. Após a primeira avaliação ordinária do semestre, foi solicitado que escolhessem uma música considerando o ritmo e a letra para fazer ajustes a partir de frases, palavras ou conceitos vistos em aula que representassem um problema durante a interpretação.

Uma vez que as músicas foram elaboradas, eles foram convidados a mostrar o trabalho feito para ser apresentado na aula. Os resultados revelam que mais de 50% dos alunos que participaram concordam que podem usar a música como estratégia facilitadora do processo de ensino-aprendizagem, tanto dentro como fora da sala de aula, já que as músicas podem estimular a imaginação, a visão e a memória. . Portanto, o uso de músicas dentro da sala de aula pode ser considerado um recurso apropriado para a aprendizagem duradoura, pois, a partir da combinação de ritmos, estrofes e repetições, permite aos alunos melhor assimilar novas informações. Os resultados encontrados evidenciam a necessidade de criar estratégias

e explorar novas técnicas e métodos de ensino, com a ideia de fortalecer e reforçar o processo educacional e servir de incentivo para melhorar a educação e a qualidade de vida.

Palavras-chave: aprendizagem, músicas, educação, estimulação, estratégia.

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Introduction

Higher education institutions currently need to offer a quality education, which seeks to achieve and meet teaching goals, which are distinguished by their ambition and complexity and to be aimed at training students with critical thinking, creative and capable of developing complex cognitive skills. Because it is a terminal level of studies, a phase where formal education ends, one of the distinctive features of this education is to look for deep learning outcomes. For example, as mentioned by Hativa (2000), regardless of the type of discipline or specialty, universities must train high-level thinking in their students and turn them into autonomous learners.

For the majority of students of higher education, their experience consists of studying poorly organized curricula, of scattered subjects with undefined goals, classes that emphasize passive learning and forms of evaluation that demand only memorizing the material and a very low level of understanding of the concepts. While they may retain a large amount of information or get to know the formulas for certain operations, they do not know where or when to apply them, or they are unable to integrate and make sense of what they have reviewed.

Contrary to this experience, it is possible to incorporate and work in the classroom various learning styles with the help of different pedagogical tools, for example, the use of songs. In this way, students, especially those who have certain problems in understanding specific concepts, can more easily assimilate knowledge, because, according to Howard's theory of multiple intelligences (2004), among which linguistic intelligence is included. the musical, it is possible to stimulate the development of intelligences in people. In the classroom, there is usually a great diversity of ways of learning: there are some students who

need visual stimuli, others who need tactile, kinetic or auditory stimuli. It is to this last type of students that learning through songs especially benefits them, since, as is to be expected, these people have a mainly auditory style and, therefore, learn better by listening to texts, through conversation in class and especially through songs.

Working with songs motivates and stimulates verbal, musical, interpersonal and intrapersonal skills and intelligence, since a song implies both lyrics (verbal), music (musical), sharing with others, learning and even singing (interpersonal)) and also reflection and introspection (intrapersonal) (Vaquero, 2012). Music is an everyday and common aspect in human life. It is present since ancient times and in all cultures, it is a form of artistic expression in which imagination, creation and innovation stand out. Undoubtedly, it can be considered as a tool that can be used to strengthen and improve the learning process of people.

Indeed, music, in addition to being an artistic expression, can be used as a pedagogical resource that favors intellectual, motor and language development, both in children and young people and adults, through the strengthening of cognitive processes such as memory, attention, perception and motivation (Díaz and Morales, 2014). One of the characteristics of music, and in particular of songs, as Gil (2001) comments, is its scarce use of spatio-temporal and personal references, which facilitates its memorization. Therefore, to achieve a more lasting learning, you can use teaching strategies from the use of songs that stimulate emotions, sensitivity and imagination, whose ultimate intention is the appropriation of knowledge, without neglecting the effects derivatives that possess the songs to get hooked and stay in the memory.

The songs as useful that favor learning in upper level students can also serve to work on many aspects and oral, grammatical, phonetic and structural, as well as cultural functions. Likewise, they can serve to work diverse skills in the students; all this in tandem with, as already mentioned, favoring more meaningful learning (Badih, 2010). And an equally important aspect is that it is possible to recognize the scope of the handling of songs, in the sense of language and society.

We must not forget that, in order to solve the various problems in higher education institutions, a profound change in the ways of teaching is required, with a view to helping and preparing students in a better way. Hence the concern of universities to improve their

teaching methods; institutions that, in addition, recognize the scarcity of works on how to do it, aggravated by the fact that in these spaces research is more valued than teaching (Cid, Pérez and Zabalza, 2009). In this sense, new educational trends require innovative teachers to look for strategies that facilitate the teaching-learning processes in students and not simply focus on transferring knowledge (Díaz, 2006). With the use of songs in the classroom repetition exercises can be put into practice without students perceiving them as such, therefore, you can work on various topics that require the student to learn names, dates, formulas or procedures that are considered important, as well as working in different contexts fostering communication and the essential expressive skills during professional training.

Methodology

In order to understand the impact and effect of songs on the learning of higher level students, the following hypothesis is proposed as a starting point: The development of songs induces a positive effect on the learning of students at a higher level.

From there, the proposed objectives and assumptions are the following:

- Learning styles condition the student's learning.
- The elaboration of songs fosters collaborative work in the students.
- The songs favor the learning of the higher level student.

Next, the way in which the elaboration of songs in the Interdisciplinary Professional Unit of Biotechnology (UPIBI) of the National Polytechnic Institute will be explained, for which two groups of 40 students of the Electrical Engineering and Electromechanical Processes subjects were chosen. , academic programs at the engineering level that are taught in the third and fourth levels of said institution.

In the first place, at the beginning of the semester, an evaluation was applied to them to know, among other things, the level of knowledge of the learning unit to be studied and the most representative learning style of each student. When studying the results of this diagnostic evaluation, a variability in the level of knowledge of the subject was observed among the total of the students: approximately 35% of the students showed knowledge of the subject, while the remaining 65% showed little knowledge of the subject. the subject to take.

Given the results of the diagnostic test, a work method of deductive type was proposed with a strategy that favored learning from teamwork. Consequently, work teams of five students were formed.

Secondly, once the work teams of the group were formed, the course was started. For this, after the first ordinary evaluation of the semester, period in which theoretical concepts were worked on to understand and perform procedural and analytical exercises corresponding to the successive topics included in the syllabus, work teams were asked choose a song considering aspects such as rhythm, lyrics and duration; they were suggested to work with a familiar song that was related to all the members of the team.

Subsequently, once the song was chosen, each team was asked to make changes to the lyrics based on phrases or words related to the concepts worked on during the class, especially those that have been difficult to interpret. During the process of adaptation of the song, the students did complementary activities that helped them to understand and rethink these same concepts. To perform the activity of the song, they were asked to organize themselves as a team to establish a place and time to make the necessary adjustments, always respecting the opinions and suggestions among each member. It was necessary that this activity was done in extra class mode because the times within the school were limited.

Once the songs were done, they were presented and evaluated inside the classroom. By team, an opinion was generated about both the quality of the song and its value as a learning resource.

Results

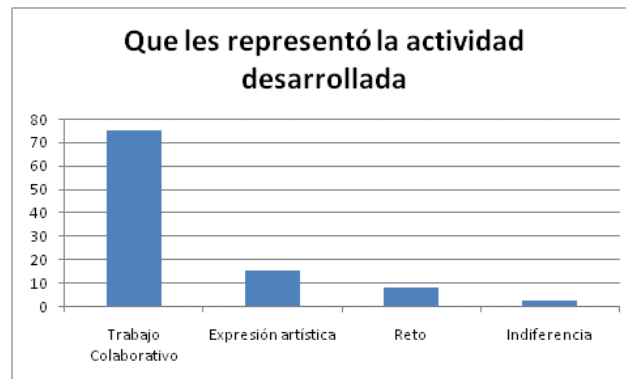
In addition to the previous steps, the students were asked to present the work done through a video in which the developed song will be visualized. They were asked to take care of and meet the following requirements: relevance to the topics seen in the course, creativity and participation of all team members.

Later, inside the classroom and at the end of the presentations of the activities developed, the participants were asked, through an open answer questionnaire, to answer the following questions:

1. What did the elaboration of the song mean?
2. What did you find difficult during the making of the song?
3. What is the relationship between the activity carried out and the course?
4. Would you carry out similar activities in other subjects?

The results to the questions posed were the following. Regarding question one and as shown in figure 1, 75% of the students said that the performance of the song fostered collaborative work among their peers; 15% of respondents were encouraged by their artistic side; 8% represented a challenge, and 2% was indifferent.

Figura 1. Resultado a la pregunta referente al significado en la elaboración de la canción



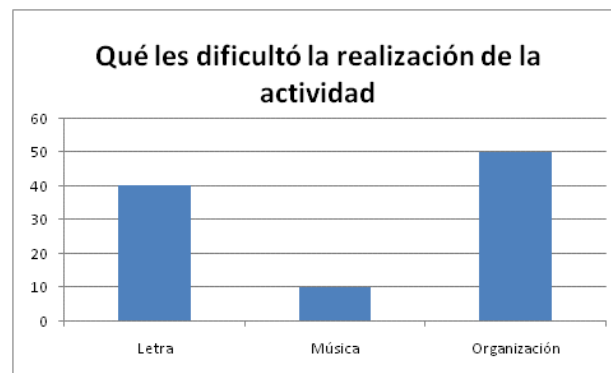
Fuente: Elaboración propia

As can be seen in the results shown in Figure 1, currently the activities that are carried out within the classrooms still have a rigid structure, that is, activities are proposed whose development by the student are mostly individual; It has also been seen that in the case of group activities, responsibility is delegated to some members of the team. These causes may have their origin in various situations, which, on the one hand, have to do with trust between the students and, on the other, lack of responsibility. It is against this type of scenario where the importation of changing the type of activity is based on one in which the integral participation of all the members is encouraged and in which each member is a participant throughout the process, such is the In the case of the song, students will feel more confident

and, consequently, they will be able to develop skills that will help them to better manage their self-confidence and to face stress situations in a better way.

In question two, whose results are reflected in figure 2, the students showed with a percentage of 50% that the main difficulty of the activity was the initial organization of the team; 40% agreed that the adaptation of the lyrics represented difficulty, while 10% said that choosing the type of music was the biggest challenge.

Figura 2. Resultado a la pregunta referente a las dificultades en la realización de la canción



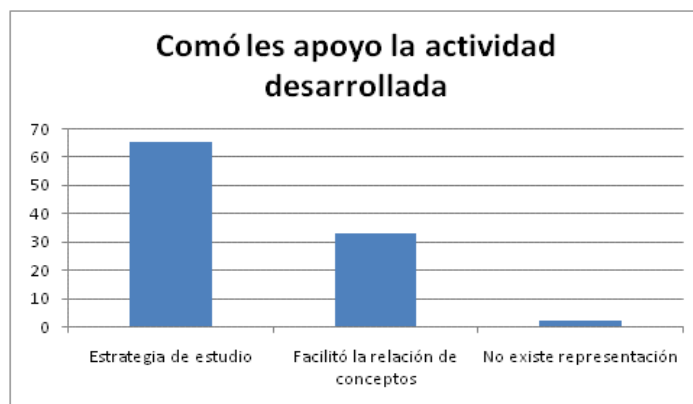
Fuente: Elaboración propia

From these results we can see that there is a resistance to collaborative work. The schedules of the students, the availability to work in off-class hours, the diverse activities in the weekends are some of the causes. Also, as seen in figure 2, the choice of music and the type of lyrics of the song was not a major problem, because, with the advance of technology, music can be shared through different media.

In addition, this result leads us to think, on the one hand, that we should look for activities that foster collaborative work, belonging to a group and raise self-esteem among students and, on the other hand, that students should be guided to manage better distribution of their academic activities in order to have times in which they allow them to perform other types of activities, be they academic or recreational.

Regarding question three, 65% of the students said that the song was useful as a study medium to make easy the memorization of concepts; 33% of the students said that the elaboration of the song helped them to relate the concepts in later subjects, while 2% did not find any relation between this activity and the rest of the course (see figure 3).

Figura 3. Resultado a la pregunta referente a la relación de la canción con la asignatura



Fuente: Elaboración propia

The answers graphed in figure 3 show that it is possible to use songs as a resource of support in the students' learning. According to what was expressed by the students, the vast majority said that the elaboration of the songs made it easier for them to remember concepts, relate contents and, in addition, by the repetition in combination with the music, it was easier for them to understand in some cases the topics that they were dealing with the course at the time.

However, as also shown in Figure 3, a minority said they did not find any relationship between the activity carried out and the content of the course. This is because some students did not participate in the making of the song; undoubtedly, a factor that determines the relationship of the development of the song with learning.

In question four, on the other hand, 85% of the students answered that they would be willing to carry out a similar activity in other subjects; 5% answered that they would not perform a song again, and 10% answered not being sure to perform a song again (see figure 4).

Figura 4. Resultado a la pregunta referente a volver a realizar nuevamente la actividad desarrollada



Fuente: Elaboración propia

Figure 4 shows that the vast majority of students would be willing to perform a similar activity. Also, following the results, this activity allowed the vast majority of students to work collaboratively, understand concepts and have a better relationship of the contents of the class.

On the other hand, a minority of students commented that they would not be willing to do a similar activity, for various reasons, among which are the lack of time, interest or simply because they do not like the collaborative work.

Discussion

Currently, a situation that occurs in educational institutions in almost all educational levels, from the most basic to professional, is the demotivation that students present, that is, the little interest they show in the classroom. Faced with this problem, it is important that teachers are agents of change, who have tools to encourage student motivation. Similarly, that there is a disposition and commitment to the fulfillment of the teaching-learning process, that increase and induce in the students the desire to learn. In this line of thought, it is important to strengthen educational programs; should be developed considering the student's performance, which requires instructors, again, to implement within the classroom appropriate tools that encourage motivation, the development of skills from the different

styles, ways and forms in what the students learn Díaz and Hernández (2010) suggest to the teacher to find novel alternatives for the selection, organization and distribution of school knowledge, in order that students acquire meaningful learning.

The results presented in this work comply with the objectives set. They reveal that more than 50% of the students who participated in the elaboration of the songs agree that they can use music as a strategy that favors the teaching-learning process both inside and outside the classroom. In addition, when asked if they would consider returning to a similar activity at another time, 85% of the students answered that they would be willing. This leads us to think that music can be considered as a novel strategy at a higher level that can lead to the acquisition of knowledge. Reyes and Tinoco (2012) consider that music is important for basic education and affirm that the rounds and songs used as a methodological strategy in basic education institutions contribute to the development of children's learning. This coincides, in addition, with what was exposed by Quirola (2011), who determined the importance of children's songs in children's learning.

On the other hand, and according to the results obtained here, 75% of students said that this activity contributed to increase their self-esteem and, therefore, to work collaboratively, then, they argue, music is present at all times. They also perceived this strategy as quite innovative and increased their desire to learn. In this sense, it agrees with what was said by Mora, Toscano and Fuente (2012), who showed how a musical sound program increased the motivation of the students; Here we could observe such an increase especially in the videos that the students made, some of the points where they showed the greatest interest and motivation.

In his research, Wilfer (2009) concluded that the students who were working in class under Mozart's music showed greater motivation and enthusiasm when performing tasks. This is due to the fact that classical music causes relaxation effects in people, which agrees with Ordoñez, Sánchez, Sánchez, Romero and Bernal (2011), who affirmed in their research that the low amplitudes of classical music help the brain to relax and to make the synaptic interconnections are made in a better way and that the processed information is assimilated more easily.

Likewise, Bastidas (2011) comments that teachers do not use music in the classroom because they do not have adequate technology and because they do not know the potential of this resource. The author proposes, in view of this problem, to collect songs as an aid to didactics in the educational process.

Finally, the work presented in this paper supports the proposal to use the elaboration of songs as a strategy to facilitate the teaching-learning process in the classroom in upper level students. So the hypothesis, namely, that the development of songs induces a positive effect on the learning of students at a higher level, is proven. According to the papers presented by the students and the results obtained in the learning units within the UPIBI, it can be considered that music plays an important role in education, therefore, it is possible to implement it as a strategy that stimulates the effective learning in students. Because of the above, in future work it will be possible to consider activities that involve the different learning styles of students in scenarios in which it is no longer necessary to remain in the classroom, that is, work in different contexts and put into practice, in real scenarios, the skills that work and strengthen students during their stay in institutions of higher education, in order to train professionals with skills and competencies necessary for today's life.

The results presented above are due to the need to create and modify the strategies used today in the higher education classrooms, to exploit new techniques and teaching methods with the idea of strengthening and strengthening the educational process and to serve as an incentive for improve education and quality of life.

Conclusions

The elaboration of songs offers the student the possibility of putting into practice new experiences. From various stimuli, both physical and cognitive that reveal their artistic and creative side, facilitates communication and collaborative work, making learning easier. Thus, the use of songs within the classroom can be considered an appropriate resource for lasting learning, since, from the combination of rhythms, stanzas and repetitions, students assimilate new knowledge in a better way.

The strategy proposed here provides the opportunity for teachers to implement new teaching-learning strategies that seek to influence the student significant learning, encourages creativity, collaborative work, study and interest in the subject from the motivation and the challenge in the elaboration of songs.

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