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Procedia - Social and Behavioral Sciences 237 (2017) 1138 – 1142

Procedia
Social and Behavioral Sciences

7th International Conference on Intercultural Education “Education, Health and ICT for a Transcultural World”, EDUHEM 2016, 15-17 June 2016, Almeria, Spain

Body percussion: social competence between equals using the method BAPNE in Secondary Education (Design Research)

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Abstract

This study will aim to establish interest in socio-emotional aspects affecting adolescent students in secondary education, and increase our knowledge of whether social competence in students of 2nd year of secondary can be improved through rhythm and body percussion with the BAPNE method.

In order to do this we will carry out a 12-week study, using quantitative methodology of a basic quasi-experimental design with a control group and an experimental group. Measurements will be done before (pre-test) and after (post-test) the treatment, in two groups of second year students of secondary education, aged between 13 and 15, from schools in the city of Alicante, Spain (San Juan Playa Secondary School and Cabo de la Huerta Secondary School).

The evaluation tool will be a sociometric questionnaire of peer nominations elaborated by Group GREI and called SOCIOMET.

We hope to achieve results which will allow us to demonstrate that, after body percussion activities through BAPNE method, many students in the experimental group strengthen and improve the network of friendly relations between them.

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Peer-review under responsibility of the organizing committee of EDUHEM 2016.

Keywords: social competence between equals; secondary school students; sociometry; body percussion; BAPNE

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1. Introduction

With this study, we aim to carry out research into the socio-emotional aspects of social relations established between pupils of the first cycle of state secondary schools belonging to the state secondary education system of Alicante Province, in the Community of Valencia.

1.1. History and current situation

In recent years many books, studies and articles have been published, and also a variety of seminars and conferences held, which address the incorporation in education and the development of new approaches, methodologies and ways of looking at the traditional teaching and learning process in compulsory secondary education. These changes are principally based on a change in the presentation and treatment of curriculum contents, as well as a change in the role of students and teachers. Thus, the majority of teachers today believe that education requires important changes and that the first step to achieve these is to measure and document the problems faced by educators (Chrobak, 2000).

The incorporation of competences in Spanish schools, The Education Act (Royal Decree 1513/2006 and Royal Decree 1631/2006), allows for a greater focus on those aspects of learning considered essential, with an integrative approach and one which is orientated towards the application of acquired knowledge. Thence, their basic nature. The competences are those which, on finishing compulsory secondary education, a teenager should have developed in order to achieve personal realisation, be an active citizen, join the adult world satisfactorily and be capable of continued learning throughout life.

These competences are evaluated by teachers at the end of each stage of compulsory secondary education. Eight basic competences have been identified: 1.Competence in linguistic communication; 2.Mathematical competence; 3.Competence in knowledge of and interaction with the physical world; 4.Competence in processing information and digital competence digital; 5.Competence in social skills and citizenship; 6.Cultural and artistic competence; 7.Competence in learning to learn; 8.Competence in autonomy and personal initiative

Social and citizenship competence is perhaps considered the most transversal of the curriculum. This competence develops skills such as being able to communicate in a constructive way in different contexts, showing tolerance, expressing and understanding different points of view and feeling empathy towards others. It also reinforces attitudes such as commitment, collaboration, self-confidence, integrity, as well as the overcoming of prejudices

Music and its different manifestations can make a definite contribution to the development of social competences in individuals in the school context. Authors such as Giráldez (2007) have already pointed out that different musical activities in the classroom, such as group singing, dance or playing musical instruments, are a clear and important contribution to developing the competence in social skills and citizenship. These activities can also contribute to pupils' learning to listen, and be listened to, wait their turn to perform, respect opinions, integrate classmates in the group etc.

However, after searching on different science data bases such as Web of Science, Eric, Rilm, Scopus, Dialnet; JSTOR, etc, it is clear that few studies have been carried out which establish a direct positive relationship between socio-emotional aspects and rhythm and dance, and even fewer looking at the work of the BAPNE methodology.

BAPNE is a method for providing cognitive, socio-emotional, psychomotor, neuromotor and neurorehabilitating stimulation, based on the theory of multiple intelligencies. Therefore, by doing the exercises proposed by BAPNE during the study, the participants will work on aspects related to body-kinaesthetic intelligence through movement; musical intelligence through musical expression; logical-mathematical intelligence through sustained attention to rhythmic models, their order and logic; naturalistic intelligence through the flow of vital energy when carrying out the exercises and combining body, mind and feelings, according to the theories of Lowen (1988); and interpersonal and intrapersonal intelligence through cooperative learning and the affirmation of the self. With this study, we would like to demonstrate that aspect related to interpersonal and intrapersonal intelligence, through a sociometric study and the research tool SPOCIOMET, in order to look at the nature of interpersonal relations between secondary school pupils. Thus, the BAPNE method will develop the psychological dimension of this proposal, proving itself to be an effective method for our objectives.

“The body percussion exercises proposed by the BAPNE method aim to stimulate our physical, emotional and cognitive dimensions through play. This requires, in the first place, focussing attention on learning and coordinating

all the activities involved (singing, movement, percussion with the upper and lower limbs), for which we need good cognitive skills” (Jauset, Tripovic & Romero Naranjo, 2014, p. 1672). Vigotsky states that play is “*one of the ways a child participates in culture; it is their typical cultural activity, as work is for an adult. In other words, looked at from this perspective, play is a cultural activity”* (Baquero, 1996, p. 5). Thus, through group play and body percussion exercises combined with singing, we will further investigate the development of interpersonal and intrapersonal intelligences.

2. Objectives

We have two objectives:

1. To measure the degree of social rejection of each individual of a school group, in order to improve attitudes and social skills between class peers.
2. Increase awareness of the importance of a good social atmosphere in classrooms of compulsory secondary education, in order to contribute to the development of social skills between peers.

3. Methodology

3.1. Context and participants

The aim is to carry out the study in a state secondary school in the city of Alicante, more specifically in San Juan Playa Secondary School, on the coast. The centre is in a residential area of Alicante, Playa de San Juan, which has a population of 18.788 (census 2010). It is next to San Juan beach and is a place where many people from Alicante city, inland areas of the Community, and the rest of Spain, especially Madrid, have a second home. During the period of research, the centre will have eleven class groups in compulsory secondary education, as well as a diversification programme class, the Programme of Initial Professional Qualifications class groups and fifteen in baccalaureate between day and evening courses. There are more than 80 teaching staff.

The pupils are mainly Spanish speaking and 15% are immigrants, mostly from South American countries (the majority), Russia, Ukraine and China. The school is implementing the Progressive Incorporation of Valencian programme and different attention to diversity programmes: Curriculum Diversification Programme, PCPI (Initial Professional Qualification Programmes) and PAE (Educational Support Programme) in in response to the needs of pupils. For the fourth year consecutively, the school is also implementing the Curriculum Enrichment Programme with pupils in second and third year of secondary education.

A state secondary school of similar socio-economical and educational characteristics was sought as a good and reliable control for the treatment. This school is Cabo de la Huerta Secondary School, which is only 3.5 kms from San Juan Playa Secondary School and has pupils of the same profile

During the study, two samples will be collected (pre-test and post-test) from an experimental group Playa San Juan Secondary School) and a control group (Cabo de la Huerta Secondary School). The experimental group will be a second year group of secondary education with 31 participants, of which 14 are girls and 17 boys between the ages of 13 and 14, with the exception of 5 participants who are between 15 and 16 years old. The control group will be a second year group from the Cabo de la Huerta Secondary School, with 30 participants, 19 girls and 11 boys aged between 13 and 14.

All these students, both in the test and control group, have been studying music since primary school but their classes have not always focussed on rhythm through body percussion, and even less through the BAPNE method.

3.2. Instrument

The instrument of evaluation used will be a sociometric type questionnaire called SOCIOMET, validated in Spain and published by TEA editions. The statistical programme SPSS 20 will be used for the quantitative analysis.

The sociometric questionnaire SOCIOMET was elaborated by the GREI Group (Interuniversity Group for Research and Peer Social Rejection in Schools). It is based on a sociometric identification procedure using the method

of probability of García Bacete, and is aimed fundamentally at children and adolescents. The questionnaire is made up of four questions through which the participants nominate, with or without justification, classmates from the group according to the positive or negative criteria of the questions. The main criteria of the questionnaire is that of friendship, with its positive dimensions (questions 1 and 3) and its negative dimensions (questions 2 and 4), as well as direct or affective inclusion (questions 1 and 3) and the opposite or cognitive (questions 2 and 4). Nominations are limited to three, with no restriction on the gender of the nominee, and always chosen from members of the class group. Students are offered the possibility of justifying their nominations through the question “Why?”.

The sociometric measure of the study will be the degree of rejection. Thus, through the statistical programme SPSS 20, the numerical value measured in the pre-test and post-test of each individual participant in the SPSS, will correspond to the number of pupils rejected by the group before and after the treatment. That is to say, we will measure the NNR (number of negative nominations received by each pupil in the group), which is, in other words, the degree of rejection of each participant in the group.

3.3. Procedure. Research Plan: Data Collection and Treatment

The evidence will be collected by carrying out, according to the protocol of a pre-test and a post-test, given to both, the test and control group.

During the research period, we will try to be in constant contact with the Department for Educational Guidance of the test group school. We will also provide the school with all the necessary information as regards the measuring instruments for the experiment as well as the results obtained. This will be done with the hope that both the sociometric questionnaire and the results will be validated by the department.

The participants will be treated at all times in accordance with ethical standards and informed consent. For this reason, the parents of all the participants in the two secondary schools will be asked for permission by letter before carrying out the research.

Once permission has been given by all the participants, without exception, the study will begin by giving a pre-test to both groups. Subsequently, rhythmic work will be carried out through body percussion and the BAPNE method with the test group only. They will receive 50-minute sessions twice a week during 12 weeks. After this period of 12 weeks, a post-test will be given to the two groups.

Both the pre-test and post-test will be carried out in the corresponding classroom of each group, during tutorial time and with the collaboration of the tutor of each class. When filling in the questionnaires, the participants will have a complete list of the names and list number of all their classmates.

In addition, we will invigilate this process, so that participants do not make comments or talk about anything related to the questionnaire during its completion. They will be informed of the importance of the research for improving group relations and atmosphere. They will also be asked to be as sincere as possible and reassured that the results will be totally confidential, with the exception of the group tutor.

3.4. Procedure. Research Plan: Design and analysis of data

The methodology used will have a quantitative focus. We will employ a basic quasi-experimental design: two different groups, one experimental and the other a control group, with measurements before (pre-test) and after (post-test) the treatment.

The statistics programme SPSS 20 will be used to analyse the statistics. The analysis will be a mixed factorial design between-subjects (treatments) and within-subjects (measures repeated before and after) using for the analysis procedure the factorial analysis of variance ANOVA for repeated measurements.

There will be three study variables: the group type (experimental and control), the pre-test NNR score (negative nominations received) of each participant and, finally, the post-test NNR score of each participant after the treatment.

4. Conclusions

Our aim will be to validate research into socio-emotional aspects which have an effect on adolescent pupils in the first cycle of secondary school education. We would like to measure with precision the degree of socio-emotional

stimulation and how the activities used in the BAPNE method affect the participants. This will be done through a quantitative study of a basic quasi-experimental design with two different groups and measurements before (pre-test) and after (post-test) the treatment. We have chosen this design as it is one of those used most in educational research, and the most valid as it allows reasonable causal inferences (Alaminos & Castejón, 2006).

As teachers with years of experience in secondary school music teaching, we strongly suspect that there could be a change in the participants after the study, which leads us to a double hypothesis: 1. The sociometric rating of rejection will decrease after the post-test in the experimental group. 2. The sociometric rating of rejection will remain the same or increase after the post-test in the control group.

As regards the BAPNE exercises, the majority require work in pairs, in a circle, two concentric circles or two lines facing each other. This means that participants have to work collectively as a group, reinforcing classmates' actions in order to carry out the exercises proposed all together as a group. As a result, collaborative and inclusive work is encouraged and the cooperation necessary for the activities will lead to interpersonal development of the participants. At the same time, the collaborative role adopted by each participant, when carrying out the exercises, means that the development of intrapersonal intelligence is also reinforced. Each individual comes into contact with their own inner feelings and emotions of strength and weakness, contributing to the development of self image.

Furthermore, it is important to add that, through these activities, we avoid the hierarchical-industrial disposition of the classroom, which encourages even more interrelation between participants.

For all of these reasons, we are interested in measuring group social climate in a secondary school classroom and the influence this can have.

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