Dance unit with Physical Literacy

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Abstract

The concept of literacy includes components of knowledge, thinking, communication and application, while the concept of physical literacy includes physical, affective and cognitive competencies that are linked to the development of the whole person in physical, emotional and cognitive domains of a human. Therefore, the purpose of this study was to determine the levels of responses to the multiple choice test questions by using Bloom’s Taxonomy in a seventh grade physical education dance class which was taught with physical literacy perspective. The research was designed as an action research. For this purpose, exam papers including multiple choice items and students’ reflections were used as data collection tools. Results indicated although students would be able to correctly answer the questions mostly in “knowledge” and “analysis” level, they were struggled to answer the questions in “synthesis” level.

Keywords: Dance, physical literacy, action research.

1. Introduction

In this study, my aim was to determine students’ level of learning on cognitive domain at the end of the dance unit taught by physical literacy by means of a test prepared according to the Bloom’s taxonomy.

I have been working as a research assistant for two years at a university. Prior to that, I had worked as a physical education teacher for seven years. During my teaching career, I realized that I put more emphasis on psychomotor outcomes rather than cognitive outcomes in my yearly physical education teaching plans. Having said that, in units regarding cognitive domain evaluations, I evaluated students’ abilities with regards to their lower cognitive levels such as knowledge, comprehension and application; however, I did not evaluate their abilities with regards to their upper cognitive levels such as analysis, syntheses and evaluation. While teaching psychomotor skills, could not I evaluate these units by supporting it with upper cognitive levels? I have been conducting studies on physical literacy since I have started working as a research assistant at the university after taking “Physical Literacy” course during my doctorate education. I thought I could overcome this problem in physical education classes by Physical Literacy. Because, one of the recommended strategies in upper cognitive learning is the concept of literacy (MEB, 2007). Literacy involves the concepts of knowledge, comprehension, contemplation, communication and application. The concept of literacy, by a broader definition, is about students’ capacity to implement their information to daily
problems, interpret various problems and make deductions from what they learn to solve these problems (MEB, 2007). I could measure these upper level cognitive skills by a test prepared by classification of Bloom’s taxonomy.

A friend of mine who was an experienced physical education teacher and he was experiencing similar problems as mine wanted to cooperate with me. She has been working at her present school for a year and teaching to 7th grade students. I learned from the physical education teacher prior to our study that she was involved with folk dance intensively for years. She organized shows at school on special occasions but did not do anything related to dance during her physical education classes. I was also active in Latin dance for a long time. I organized Latin dance activities in my classes when I was a physical education teacher. Therefore, we decided on dance as our subject since it was also in accordance with official elementary school physical education curriculum. We used physical education class hours (80 minutes) for our study. In the 4 weeks period, we put more emphasis on dance skills during the first half the class and focused on physical literacy during the second half of the class. This study was designed as an action research since we aimed to understand the nature of education or action and develop it in a real class setting. Since I was active both at teaching and also collecting data regarding the teaching, I carried out the study as “active participant observer” (Mills, 2003). I have made earlier studies regarding action research and made presentation regarding action research at a symposium (Alagül & Gürsel, 2011). At the end of the four week period, I gave students the Salsa test prepared based on expert opinion according to Bloom’s Taxonomy. Bloom’s Taxonomy (1956) classifies the cognitive level by analysis. The first three levels of the classification (knowledge, comprehension, and application) are defined as lower cognitive level and the last three levels (analysis, synthesis and evaluation) are defined as upper cognitive level. Since it is hard to observe students’ upper level thinking abilities directly, generally we try to measure their level of obtaining these abilities by their answers to our questions. According to the quantitative results of the salsa test which was conducted to assess cognitive domain of the students, their knowledge and analysis levels were high and application and synthesis levels were low.

2. What is in the Literature?

The new Turkish physical education Curriculum which has been prepared as per constructivist approach, asserts that student should discover the information rather than receiving it (MEB, 2007). Students are expected to quit memorizing and accomplish the objective by discovering their upper level cognitive abilities such as analytical thinking, problem solving, analysis and synthesis. In this program, there is a lot more upper level cognitive learning outcome. In order for students to develop and utilize their upper level thinking abilities, teachers should conduct studies in the practical parts of the classes on psychomotor and cognitive domain and also use cognitive tests (Hummel and Huit, 1994).

There are tests to be used in physical education area. Suzan F. Ayers (2001) has developed a test to measure critical knowledge in physical education. This test includes sub-tests such as physical education’s motor learning, exercise physiology, social psychology, biomechanics, aesthetic experiments, motor development and historical processes. To measure cognitive processes in physical education, “Survey on Cognitive Processes in Physical Education” has been developed (Solmon & Lee, 1997). In the meantime, a test measuring students’ health-related fitness content knowledge has been developed in Turkey (Hümük & Ince, 2008).

In its general education programs, Ministry of Education has put forward “obtaining information, utilizing information and productivity” as traits which citizens should have. Some of the strategies that international institutions carry out in their educational policies which are based on information production are: Lifelong learning, expanding the concept of literacy and redefining literacy, preventing failure, diversifying environment, content of education, flexibility and habit, embedded or combined programs, etc. (ERG, 2005).

In this study, among aforementioned strategies, literacy concept will be presented as physical literacy for dance course in physical education.

3. We begin the salsa Unit

Our critical question in this study was to evaluate students’ ability to answer lower and upper level cognitive questions upon preparing a course where psychomotor gain is supported with cognitive gain. Experimental school which had no sporting facility and its student belong to a middle socioeconomic class was located in Ankara. Classes were conducted in an auditorium which had a small stage. Students were at 7th grade and there were 25 of
them. Most of these students stated that they occasionally like to dance by themselves but never danced at physical education classes but they would like to dance. Furthermore, students stated that most of them never read any written material about dance, never watched a movie, never participated in a discussion about dance, and never read material about dance during sporting education classes before. In accordance with the physical education curriculum and results obtained from needs analysis, dance course was taught for 4 weeks. Each class was 80 minutes long. In the first 40 minutes, physical moves of salsa dance were practiced such as fundamental steps, moving figures, paired choreography. Other 40 minutes of the class was about physical literacy. Physical literacy involved abilities like reading, writing, speaking and listening practices, respectively.

At the end of all class, assistance was obtained from an expert who worked long years to develop the Salsa test as a physical education teacher and she is now an assistant professor at a university. The expert, who has also been conducting academic researches, taught classes and conducted tests on cognitive domain in accordance with Bloom’s taxonomy during her teaching career and during her research at university.

3.1. We begin to collect information regarding salsa unit

During the classes where physical literacy was practiced, reading, writing, speaking and listening abilities were emphasized. While determining measuring criteria on these abilities, we benefited from guidelines prepared for school Physical Education curriculum in England and also benefited from 7th Grade Turkish lesson Curriculum guidebook to prepare its content (Dfes, 2004; MEB, 2006).

In this context, in the first week, to develop students’ reading skills, a study were conducted on knowledge and comprehension level by asking students to match papers and point out similarities with various words and definitions about salsa from a reading passage. Students were asked to deduct meanings of words and word groups based on the context of the passage, determine the keywords, subject and main idea of the passage, reveal the link between the title of the passage and its context and find another title to the passage they read. (Dfes, 2004; MEB, 2006).

In the second week, to develop students’ writing skills, a study was conducted on application and synthesis level. In this study, students wrote a letter to their parents regarding importance of salsa and its benefits for them after reading a famous sportsman’s interview. Implementing the information they read in the letters to another field was about implementation level of taxonomy and since they came up with a new product to inform their parents about salsa, this study was also about synthesis level of taxonomy. In this letter, students were requested to use 100–120 words, express importance and cause-effect relation by using words like “because, therefore, as a result, hence (Dfes, 2004; MEB, 2006).

In the third week, another study was conducted regarding students’ effective debate, speaking and listening skills. Subject of the debate was “should dance be in physical education classes?” Class were split into two groups and one group defended the argument that “dancing activities should be in physical education classes” by complying to the subtopics we gave earlier and other group argued that “dancing activities are not necessary in physical education classes” and practiced towards assessment level. In order to evaluate students’ performance when they defended their own topics, a list of criteria were created such as explaining groups’ own argument, waiting and responding until after other group finish their arguments, using time effectively, using appropriate transitional words (although, on the contrary, even though, in contrast) for comparison purposes and using appropriate words to express cause and effect (in this respect, because of, by means of). Results of the evaluation revealed that both group fulfilled the criteria.

Clues given to the students: Group that defended the topic of “dancing activities should be in physical education classes” were given clues such as; dance helps us to learn about other cultures, classes would be more fun with dancing. Group that defended the topic of “dancing activities are not necessary in physical education classes” were given clues such as; current activities conducted during class is already enough, there is no need for implementation to learn about other cultures, activities that students have been doing until now were enough to communicate and become social. Defending these statements was each group’s own responsibility.

In the fourth week, students were asked to prepare a salsa journal. Preparation criteria of this journal were to include topics such as historical development of salsa, salsa artists in the World and in Turkey and salsa music. A study was conducted on taxonomy’s knowledge, comprehension, analysis and synthesis level by creating a journal which included reading, writing, speaking and listening abilities. When evaluating the journal, a rubric was prepared.
to assess the content of the project and students’ writing skills. The criterion regarding the content of the project was to include each topic in the journal. Journal had to include visual and written material. The criteria regarding writing skills were to arrange the text as per the content, use titles and make sure that there is correlation between the paragraphs (DFes, 2004; MEB, 2006). Although there was a speech that week, it was not considered.

At the end of 4 weeks, students were given the Salsa test which was prepared according to all levels of Bloom’s taxonomy. When this test was developed, it first included 24 questions. After the test applied to all students in this study, an item analysis was conducted. All answer sheets were sorted by highest score to lowest score. Answer sheets were split into two. For each question, a item-difficulty and item- discrimination index was calculated (Tekin, 1996). After the item analysis, the number of test questions was decreased to 14. Study was carried with 14 questions. Among these questions, 3 were on knowledge level, 3 were on comprehension level, 3 were on application level, 1 was on analysis level, 1 was on synthesis level and 3 were on evaluation level.

4. What have we found?

During the course, students practiced psychomotor activities regarding salsa dance and worked on fundamental steps, moves and paired dances during the first part of the classes. During the second part of the classes, students worked on physical literacy.

In this context, during the first week, students conducted matching practices of definitions and sentences in a reading passage. With regards to the reading skills, most of the class was successful since words and statements included information and concepts about salsa.

In the second week, during the writing study on application and synthesis level, students wrote a letter to their parents regarding importance of salsa and its benefits for them after reading a famous sportsman’s interview. Most of the students fulfill the word count criteria; however, they had difficulty building the cause-effect relation in the letter.

As it is seen, although there are words to express cause-effect relation, when one analyzes the meaning of the sentences, it easy to see the disconnection.

In the third week, a study was conducted regarding students’ speaking and listening skills through a debate. There were statements for students in each group to help them in their arguments. Students argued their cases according to these statements.

In that class, my notes from the debate:

The group that think there is no need for salsa activities in classes “state that dance is the most effective way to improve the sense of rhythm”; and the group that think there is no need for salsa asserts that “there are already enough activities in music classes to improve sense of rhythm”. Opposing group which defends that salsa should be in physical education lessons state that “they only hear rhythm at the music lessons but do not use their bodies there and further state that they can find moves for the songs that they learned with dance” to rebut opposing groups’ argument.

In the fourth week, students prepared a journal. Assessment of the journal was based on their skills to write the requested criteria. In this respect, supplying the students with criteria is in the contents of the journal such as salsa music, salsa pictures, Turkish salsa dancers, salsa equipments made the journal preparation. Students were very enthusiastic in the writing part as well. Although it was known that three pages were enough, students voluntarily prepared journals with more pages, additional shapes and colored pages.

At the end of the unit, salsa test regarding cognitive domain, which was prepared according to Bloom taxonomy, was given to the students. Among the correct answers student gave, 72% was on analyzing level and 62 % was on knowledge level. It can be said that the reason for high score in the knowledge level is the fact that knowledge level was practiced every week. One interesting result is that although synthesis level was practiced for many weeks, its score was low in the test results. Students state that they do not use synthesis level in their other classes as well but only answer the questions they are asked. The reason why analysis level questions were mostly answered in the test may correlate with the journal which was prepared during the last week. All groups had gotten high scores from speaking, reading, writing, listening and preparing each section of the journal.

With regards to my observations about the entire course;

Since it was students’ first time experience with dancing activities and they never conducted reading, speaking, writing and listening activities in their physical education classes (as per the meeting with physical education
teacher, I learned that Physical Literacy was not included in the lessons), students were a bit prejudicial in the beginning. However, I observed that their interest for the class grew as weeks pass by.

5. Physical Education Classes Should be Thought by Physical Literacy

What I learned from this study is the possibility of teaching a psychomotor lesson while incorporating cognitive processes into this class and evaluates it with cognitive processes at the end of the course. I observed that all the students had due information and ability regarding dance at the end of the course. Because students did not only implement what they learned about the subject but also supported their gains in cognitive levels. The proof could be:

“What I observed regarding the students who did not wish to participate in salsa practices actively was the fact that they were following up the dance competitions every week from TV. In the meantime, some of the students tried to find salsa music for school’s dance group.”

What I consider weakness about this study is that the cognitive test could have been reapplied after removing the questions which have lower item difficulty and item discrimination level at the end of the item analysis. I also should have definitely recorded the speaking activities on a tape.

At the end of the salsa unit

When I first came to the class, one of the female students got fainted at the second half of the class. The physical education teacher who saw me terrified said that this student always got fainted when there was a class she did not like, this happened to her couple times and it was normal.

In the third week of the study, her parents came to school and stated that they try to find salsa music all day and in the evening their daughter watched dance competitions at home. At the end of the study, she was one of the highest scoring students from Salsa test.

When I visited school one month after our study finished, I saw that the same student gave the physical education teacher a note to be forwarded to me which reads:

“I missed you very much my dear teacher. Please come back to our classes again and teach us new dances”

I observed that teaching physical literacy in classes make it easier for children to apply the physical skills they observed their upper level abilities has been a good feedback tool for arranging activities.

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