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Investigation of Problem Solving Behaviors of Social Studies Teacher Candidates

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Abstract: One of the important goals of contemporary education is to educate people who are able to solve the problems they are confronted with by themselves, that is, the difficulties that people face in their life and society. In this context, only information is not enough to solve the problem. Problem solving abilities can effectively use advanced human knowledge and solve the problems they are facing more easily. The aim of this study is to determine what methods of social studies teacher candidates use to solve social problems and what is the problem-solving behavior in this process. The research was prepared using qualitative techniques. The data were obtained through focus group interview and analyzed by descriptive analysis. According to the results of the research, it is seen that 1st and 2nd grade students are in a superficial approach to problem solving. However, it is observed that the teacher candidates who continue to the 4th grade have a deeper approach and use more problem-solving methods. In addition, the results show that the problem solving strategies they use when solving social problems differ according to the class level and the use of the strategy belonging to experienced problem solvers as the class level increases. On the basis of the results obtained, suggestions such as the development of strategy teaching programs aimed at teaching students to solve problem-solving skills should be included in the lessons and to provide problem solving strategies for students.

Keywords: Social studies teacher candidates, Problem solving methods

Introduction

Problem solving is a process. This thinking process, which leads people to solve the problems they face, is used both in everyday life and in all branches of science. The main purpose of primary education; to prepare individuals for life and upper learning. Mental skills necessary for both goals to take place; effective reasoning, critical thinking and problem solving. In the development of these skills all the lessons in the elementary curriculum are effective, but when the above skills are mentioned, the math lesson takes up more space than all (Özsoy, 2014). When the relevant literature is examined, many researches have been done on the ability of students to solve non-routine problems, the use and teaching of problem solving strategies. Many researches have been done on the ability of students to solve non-routine problems, the use and teaching of problem-solving strategies. Çelebioğlu (2009) has found that there is a meaningful relationship between mathematics lecture notes and problem solving achievements, working on relationships with elementary school primary learners, drawing shapes, backtracking, systematic listing strategies and out-of-order partitioning problems. Taşpınar (2011), after teaching the problem solving strategies applied in the mathematics lesson to the 8th grade primary school students, has reached the result that the students can learn the strategies and use different solutions. The most successful strategy of the students has been the search strategy. Çelebioğlu and Yazgan (2009) found that there is a positive correlation between the levels of use and systematic listing strategies of 2, 3, 4, and 5th grade students. Arslan and Yazgan (2011) concluded that there is a meaningful relationship at the fifth grade level between the levels of use of correlation and problem simplification strategies but not in the 8th grade. Avcu (2012) observed that primary school mathematics teacher candidates investigated the successes in solving mathematical problems and the strategies they used and found that teacher candidates used the strategy drawing and predicting and controlling, and at least the pattern finding strategy.

Experts say that real-life problems presented at school can bridge the gap between information that students need to know to succeed and what they will learn at school. It is assumed that such problem-solving efforts will improve students' self-efficacy beliefs and that individuals with high self-efficacy beliefs will be more successful in solving problems (Alper, Yaman & Koray, 2005; Ulu Kalin, 2017; Hacat S., 2018). In addition, Kruger (1997) stated that self-sufficiency in the systematic and combatant work is effective for the individual to come from above the problems.

In our daily life, we encounter problems in many cases and we have to think about solving these problems. Problem solving involves, first and foremost, a series of efforts to remove the difficulties to reach a certain point. Problem solving itself is the way to develop effective learning and individual skills (Kaptan ve Korkmaz, 2002; Koçoğlu, 2013). Problem solving is learned from childhood, problem solving skills are being developed in school years (Miller ve Nunn, 2003; Koçoğlu, 2015). There are various definitions related to problem solving. It is also necessary to have the ability to solve problems in social studies education, which is the aim of educating a good citizen. For this reason, in this study; it is aimed to determine the social information methods that teacher candidates use to solve social problems and what is the problem solving behavior in this process. For this purpose, the following questions were also answered:

1. What problem-solving behaviors do you show when solving social problems?
2. What problem-solving strategies do you usually use?
3. Does the social science teacher show a difference according to the class level when using the problem solving behaviors and strategies?

Method

This section includes; the study group, the data collection tools, and analyzes of the data.

The Desire of your Research

This research is a qualitative research in case study (case study) design. A current case or event in the case studies is described in its own frame. The data and evidence obtained for the questions of the research are examined and evaluated in depth (Yıldırım and Şimşek, 2008). In this study, the strategies used in the learning environments of the students in the study group are tried to be portrayed in depth. Multiple data collection of data and evidence in case studies allows for clearer, clearer and concrete answers to the problem cues proposed in the research. From this point of view, this survey was collected by observation, focus group interview and structured interview. The obtained data were tried to be analyzed by descriptive analysis management.

Working Group

Data of this research is presented in Gaziantep University Nizip Education Faculty Social Studies Education Department 2017-2018 education in the fall semester social studies education 1-2-3-4. The 5 candidate teacher candidates selected for the class were carried out with a total of 20 people (10 girls - 10 boys).

Data Collection Tools

In the process of data collection, questions were created based on the themes such as body language as well as the cognitive, emotional processes that included the basic strategies that students used in listening as they were expressed in sub-problem cues. Three questions about the concept of problem solving with a structured interview were directed to the students and their opinions were taken on this subject. The students whose opinions were taken in written form were collected after the focus group interview.

Analysis of Data

In this study, collected data were analyzed using descriptive analysis technique from analysis techniques in qualitative research methods. The purpose of descriptive analysis is to introduce a format in which raw data can be read and used by readers. The data obtained in the descriptive analysis are summarized and interpreted

according to the previously determined theme. In this analysis, direct citation is frequently made to reflect the views of the individuals seen or observed (Yıldırım and Şimşek, 2008).

Findings and Comments

Findings and interpretations for the first subproblem;

What kind of problem-solving behaviors do you show when solving social problems? I ask the teacher candidates first to determine the source of the problem. Then I try to collect the data about the problems. I finally said I would solve the problem. It seems that the high-level decision-making skills of teacher candidates are high in solving social problems.

Findings and interpretations for the second subproblem;

What problem-solving strategies do you usually use? It is seen that the answers given by the students individually as a group differ from the answers given by the students during the interview. In the answers they gave to the group, they gave more answers such as solving the problem with the collaborative approach to the project.

Findings and interpretations for the third subproblem;

Does social studies teacher candidates differ from grade level when using problem solving behaviors and strategies? Teacher candidates 1st and 2nd grade students seem to have a superficial approach to problem solving. However, it is seen that prospective teachers in the fourth year have a deeper approach and use more problem solving methods. In addition, the results show that the problem-solving strategies they use when solving social problems differ according to the class level and the use of the strategy of experienced problem solvers increases as the class level increases.

Conclusions and Recommendations

Teacher candidates seem to have sufficient knowledge about the problem solving method. The rational proposals for solving social problems know that the problem will be resolved after the source of the problem is identified. Teachers reading in the first and second grades did not know the problem-solving steps according to the upper classes. Because of this, it has been seen that teaching methods and techniques, such as special teaching methods, are due to the fact that they have not read the courses yet.

Acknowledgements

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