Teachers' Views about 2007 Chemistry Curriculum and Problems Encountering During the Implementation: The Case of Erzurum

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Abstract

The purpose of this study was to determine chemistry teachers' views about chemistry curriculum and problems encountered in the implementation. Participants of this qualitative case study were consisted of 23 chemistry teachers, working in high schools in Erzurum city center through semi-structured interviews with 19 teachers face to face while a focus group interview with 4 teachers. The interview data were subjected to a content analysis and the findings were presented in tables in a descriptive manner. The findings showed that teachers' knowledge or perceptions about the chemistry curriculum is rather weak, teachers are not aware of changes and reforms made in the chemistry curriculum. Additionally, a number of problems encountered during the implementation of the curriculum were that chemistry curriculum is not suitable to the students' levels, lack of the time or number of the courses, lack of teachers' guide books, inconsistency between the curriculum aim and the nationwide examination system, lack of in-service training for teachers about the curriculum, lack of parents and managers' knowledge about or attitude toward chemistry curriculum. Moreover, majority of the teachers have suggested that teachers should be involved in the curriculum development process and the chemistry curriculum must be appropriate to the students' level and must be parallel with the national university entrance examination system.

Keywords: Chemistry curriculum, teachers' view, problems encountering during the implementation, teachers' suggestions.

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Extended Summary

Purpose

The aim of this study was to analyze chemistry teachers' views about renewed chemistry curriculum and determine problems encountering during the implementation. In addition, teachers' suggestions were identified related to the determined problems and chemistry curriculum development process.

Method

Qualitative case study method was guided this research study. The participants of this study were 23 chemistry teachers working in different kinds of high schools in Erzurum city center. The data were collected through semi-structured interviews with 19 teachers face to face while a focus group interview with 4 teachers. The interviews were recorded and then transcript by the researchers. The interview data were subjected to content analysis and the findings were presented in tables in a descriptive manner. The reliability of the data analysis was achieved by independent review by the authors.

Results

Findings have been categorized under two titles; Teachers' views about the chemistry curriculum and the problems encountered by the teachers during the implementation of the curriculum and their suggestions to overcome these problems. Based on the first topic, it is determined that most of the teachers were not aware of changes and reforms made in the chemistry curriculum. When Table 1 is examined it is seen that MGG1b, MGG1c, MGG1d and MGG1f codes were mostly emphasized by the chemistry teachers. Teachers have indicated that in the MGG1b code (f=8) "*Chemistry subjects and concepts are associated with everyday life*"; in the MGG1c code (f=4) "*In and out of classroom activities are encouraged in the chemistry curriculum*"; in the MGG1d code (f=7) "*Chemistry curriculum requires students to be more active in learning-teaching process*" and in the MGG1f code (f=6) "*Renew curriculum aims to develop a chemistry culture and stresses scientific studies*". Also, when Table 1 is examined, teachers' negative views, about chemistry curriculum, are seen in the MGG2a, MGG2b, MGG2c and MGG2d codes. In these codes, teachers mostly mentioned that as it is in the MGG2a code (f=4) "*Establishes relationship between the other chemistry subjects and units*"; in the MGG2b code (f=5) "*Establishes relationship with the other disciplines such as physics, biology etc*.", in the MGG2c code (f=17) "*The new curriculum is not provide necessary flexibility for the teachers*" and in the MGG2d code (f=3) "*There is not too much reforms and changes made in curriculum, only some topic were added and removed from the curriculum*". The new chemistry curriculum is mainly based on constructivist approaches and its principles (MEB, 207). But teachers views are examined it could be seen that non-of the teachers were fully aware of the constructivist approach and its principle. As a result, it could be said that most of the teachers do not perceive the reforms and changes done in chemistry curriculum. This inadequate perception negatively affects the implementation of the curriculum.

Based on the second title, there are several problems are determined in the implementation of the curriculum in the views of teachers. When Tables 2-5 are examined, teachers mostly mentioned that in the MSÖ1c code (f=15)"*The time is not sufficient*", in the MSÖ2a code (f=17) "*The topics of the curriculum are overcrowded*"; in the MSÖ3a and MSÖ3b codes (f=8, f=5) "*Number of the student are*

crowed/partial crowed in the classes or class size is not appropriate to teach chemistry/partial appropriate"; in the MSÖ4b and MSÖ4c codes (f=10, f=3) "*Physical conditions are not sufficient or partial sufficient*"; in the MSÖ5a code (f=4) "*Lack of guide-books for the chemistry curriculum*"; in the MSÖ5b code (f=8) "*National university entrance examination system is conflicting with the aim of the curriculum*"; in the MSÖ5d (f=11) "*The chemistry curriculum is not appropriate to the students' level of the knowledge*" and in the MSÖ5g code "*The chemistry curriculum is not suitable for the different types of schools.*"; in the MSÖ6b (f=17) "*In-service courses are insufficient about the chemistry curriculum*"; in the MSÖ7a code (f=18) "*Parents do not know their responsibilities so its negatively affect the implementation of the curriculum*" and in the MSÖ8a code (f=10) "*Lack of managers' knowledge related to the curriculum*".

In additional, teachers have suggested their solutions to these problems encountered during the curriculum implementation and for the chemistry curriculum development process. When table 6 is examined, teachers mostly suggested that in the MSÖ9a code (f=20) "*Teachers should be included in the chemistry curriculum development process*"; in the MSÖ9b code (f=6) "*Chemistry curriculum must be suitable to the students' level of knowledge*" and in the MSÖ9c code (f=5) "*Chemistry curriculum must be coherent with the national university entrance examination system*".

Discussion and Conclusion

This study informs us about the teachers' level of knowledge and their perceptions of the chemistry curriculum together with the problems they face during the implementation and their suggestions to overcome these problems. According to the findings, teachers' level of the knowledge or perception is insufficient or rather poor related to the intended reforms that made in chemistry curriculum. The majority of the teachers are not perceived the constructivist principles in the curriculum. As they did not perceive the intended curriculum they have several difficulties during the implementation of the curriculum. Additionally, teachers are complaining about the curriculum development process as they felt they did not included in the process. Teachers are responsible from the implementation of the curriculum. For this reason, the success of the curriculum is mainly depended on the teachers' perception or knowledge on it.

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