

Analysis of Thinking Skills Targeted for Development by Activities in Life Science Textbooks

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Özet

In this research, the aim was to complete a broad description related to activities included in life science textbooks. Within the scope of this description, the aim was to investigate the distributions in terms of thinking skills targeted for development with activities, the aim, learning experience for the student, form of work, and sources required for the activity included in life science textbooks. The research adopted the document investigation method from among qualitative research models. The study group for the research included a total of 497 activities included in 3 life science books which were published in the year 2018 and had open access in the electronic environment through the educational information network (EBA) platform. The research findings show textbooks targeted development of 16 different thinking skills. More than half of the activities focused on the thinking skills of explanation, recall, and differentiation. Activities with the aim of preparing for learning appeared to have the highest rate. The form of study was basically analysis, with the activity rate in the form of group study below 2%. When activities in life science textbooks are investigated in terms of the learning experience for students, 9.5% of activities directed towards thinking about real-life situations, while 2.6% directed toward solving real-life problems. Finally, nearly all activities included in the textbooks examined could be completed with preliminary learning of the student and information found in the textbook. The number of activities in life science textbooks developing higher-order thinking skills, deepening learning, with group work for students and directing towards primary and secondary information sources should be increased. More weight should be given to activities structured on the basis of real-life situations in textbooks.

Anahtar Kelimeler

Life Science Course, Textbook, Activity, Thinking skills

Abstract

In this research, the aim was to complete a broad description related to activities included in life science textbooks. Within the scope of this description, the aim was to investigate the distributions in terms of thinking skills targeted for development with activities, the aim, learning experience for the student, form of work, and sources required for the activity included in life science textbooks. The research adopted the document investigation method from among qualitative research models. The study group for the research included a total of 497 activities included in 3 life science books which were published in the year 2018 and had open access in the electronic environment through the educational information network (EBA) platform. The research findings show textbooks targeted development of 16 different thinking skills. More than half of the activities focused on the thinking skills of explanation, recall, and differentiation. Activities with the aim of preparing for learning appeared to have the highest rate. The form of study was basically analysis, with the activity rate in the form of group study below 2%. When activities in life science textbooks are investigated in terms of the learning experience for students, 9.5% of activities directed towards thinking about real-life situations, while 2.6% directed toward solving real-life problems. Finally, nearly all activities included in the textbooks examined could be completed with preliminary learning of the student and information found in the textbook. The number of activities in life science textbooks developing higher-order thinking skills, deepening learning, with group work for students and directing towards primary and secondary information sources should be increased. More weight should be given to activities structured on the basis of real-life situations in textbooks.

Keywords

Life Science Course, Textbook, Activity, Thinking skills

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