



Online video lessons on the platform “Ucha.se” (<http://ucha.se/>) – innovative approach for high quality education in Chemistry

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Abstract

New methods should be used in contemporary education for increasing young people's interest and motivation in learning the science. Chemistry video-lessons in the educational platform Ucha.se are successful attempt in this area.

In this article we discuss the technology for creating a Chemistry video-lesson. Advantages and disadvantages of this educational form are considered. Teacher's role and place video-lessons are discussed. The development of the platform provokes serious thinking about its future having in mind that video-lessons are consistent with the syllabus for obligatory education. The huge usage of the videos is examined (150 lessons are watched over 450 000 times for 1.5 year) and this proves the big benefit and usefulness from this form of education – quickly, easy and interesting; motivates the students by provoking their interest towards chemistry.

1. Introduction

To educate today's youth in exact sciences and especially in Chemistry area is a difficult task which challenges the whole teacher's potential – scientific, creative, pedagogical, technological. In days of technological development some of the old methods and educational manners seem to have lost their significance and topicality. Textbooks, notebooks and any other approved handbooks don't provide serious help as they are often of poor quality and the language of writing is alien and incomprehensible for the young people. Attracting and holding the attention of today's student for more than 5-10 minutes appear to be special difficulty for the Chemistry teacher. The educator faces an invariable question – how to make my lesson interesting, attractive, entertaining and at the same time apprehensible and helpful for my students? Quite complex issue... A way out of this tangle is the Chemistry lessons in the educational platform Ucha.se

2. What the Chemistry video-lessons look like in Ucha.se ?

The creators of the videos have the ambition to interpret understandably basic Chemistry knowledge which lies in the obligatory syllabus from 7 to 10 grade. The videos are short – 10-15 min and the bigger ones are split into 2-3 lessons. It turns out (as we all know from our practice) that this is the optimal interval for the young people to remain concentrated. The videos are not only understandable but also they are presented with jokes, interesting stories or situations close to the students' life. The lessons are richly illustrated with drawings (Fig.1, Fig.2), graphics (Fig.3), photos, animations and other elements (Fig.4) which make the comprehension of the difficult science easier. The platform users especially appreciate the video exercises where they can apply skills in solving different tasks. In the different grade sections there are lots of tests by which students can check their level of