The Method of Automatic Analysis of Information Understanding

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Due to political and economic reasons, children all over the world face many problems while obtaining education: shortage of teaching materials, lack of “neighbourhood” schools, gender inequality. Distance learning is aimed at solving these problems. However, it seems to be challenging for an online teacher to simultaneously assess the learners’ level of knowledge. At present there is no method for automatic assessment and analysis of the range of tasks without a definite answer (like open cloze or essays). We cannot but mention that these tasks ensure the greatest degree of accuracy in the individual knowledge evaluation. For an objective assessment of students’ knowledge, the method proposed was to automatically compare the student’s and teacher’s structured notes and highlight the main differences between them. A web application was developed to make it possible to take notes easily in a variety of different contexts. A comparative analysis of the proposed method was carried out using various assessment approaches: from standard ones (face-to-face communication with the teacher) to a series of online evaluation tools. Several experiments among the students of Grades 8-10 doing the course “World History” were held. According to the Wilcoxon signed-rank test the results showed the greatest similarity with interview-based assessment. It should be mentioned that it is less time consuming which makes it more effective. In a broad perspective, the created method and application can be used to organize the process of distance learning for children who do not have access to the standard education system.

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