



## From the Editor

Dear JCER reader,

We are excited and happy to publish the first issue of 2018 (Volume 6, Issue 11). We will be with our readers in the same excitement in each of our future issues. In the present issue, there are six research articles. One of these studies is in English as whole texts.

The 1<sup>st</sup> article is written by Hakan Şevki AYVACI and Bahar CANDAŞ. The title of **Students' Undertandings on Light Reflection from Different Educational Level**. In this study, it is aimed to determine from different educational levels students' development at level of conceptual understanding related to light reflection with formative assessment probes. In this study, it is aimed to determine students' conceptual understanding levels on light reflection. The cross-sectional study was conducted with 18 pre-school, 25 fourth-grade, 20 seventh-grade and 15 high school second-year students from Trabzon. Data were collected with five formative assessment probes developed by Keeley about light reflection. Findings indicate that there is no significant difference between the conceptual development for each students' level. In science teaching when real life problems are being worked, way of solving mathematical problems is front-line instead of conceptual understanding and reasoning. It is suggested that course content about light reflection should be prepared as providing students' depth conceptual understanding because of students have no cognitive differences.

The 2<sup>nd</sup> article is titled **Internet Usage Habits and Internet Usage in Educational Studies of Vocational School Students** and written by Zehra Deniz YAKINCI, Perihan GÜRBÜZ and Gülsüm YETİŞ. The aim of this study was to determine vocational school students' internet usage habits and internet usage in educational studies. We performed survey method. A questionnaire prepared by researchers and Young Internet Addiction Test-Short Form (YIAT-SF) was used. They found internet addiction rate as 3.4% and the average internet usage was 5 hours daily. When students were asked to enumerate the internet sites they use, the result was: social media, news sites, movie and series sites, educational and informational content sites, play sites, e-mail, shopping sites, and sexual content sites in order of usage preference. Social media was preferred by 79.4% in the first place, educational content sites were preferred in the first place by 5.7%. The second most frequently used sites were movie and series sites (22.8%). Educational/informational content (20.2%) sites were the fifth preferred sites in the preference order.

The title of the 3<sup>rd</sup> article is **Investigating the Technological Pedagogical Content Knowledge of Primary Teachers**. Ali Oktay AZGIN and Burcu ŞENLER are the authors. The aim of this study is to investigate the technological pedagogical content knowledge of primary teachers in terms of some variables. Totally 117 primary teachers who work in a province participated in the study. Survey method was employed as a method and the data gathered by using Technological Pedagogical Content Knowledge Assessment Instrument. The findings were analyzed with the independent sample t-tests and the one-way ANOVA tests. The results showed that there is no significant difference on teachers' scores of the instrument in terms of class size, class type, and graduated department. On the other hand, there is a significant difference on teachers' technological pedagogical knowledge, technological pedagogical content knowledge, and pedagogical content knowledge in terms of their experience, as well as on teachers' technological knowledge in terms of their gender.

The title of the 4<sup>th</sup> article is **Environmental Attitude Levels of Gifted and Talented Students and Analysis of Metacognitive in Terms of Some Variables** written by Hakan SARAÇ and Murat ÖZARSLAN. In this study, it was aimed to examine the environmental attitudes of gifted and talented students and the relationship between their metacognitive and gender, grade level, Science and Art Education Centers (BILSEM) training program type and BILSEM attendance year variables. Cross-sectional screening was used in the study. In order to obtain data, Environmental Attitude Scale and Metacognitive Authority Inventory were used. The results of the study revealed that the attitudes of the gifted and talented male students were statistically higher than the female students' environmental attitudes and the male students' consciousness levels were higher than the female students'. In the study it was determined that the levels of metacognitive and attitudes of gifted and talented students did not differ statistically according to the grade level, BILSEM training program type and BILSEM attendance year variables. Moreover, no statistically significant association was found between the metacognitive of gifted and talented students and the levels of environmental attitudes.

The title of the 5<sup>th</sup> article is **Examining Secondary School Students' Competencies for Learning Science**. Hülya ASLAN EFE and Seval ÖZMEN are the authors. The research aims to find out how the competencies for learning science of secondary school students. The research was carried out by means of descriptive survey model. The research was carried out with 453 secondary school students. The data was collected in 2015-2016 spring semester. The study results showed that the girl students' competencies for learning science, scientific inquiry and communication skills significantly higher than boy students'. The results also showed that secondary school students whom parents are graduated university have higher competencies for learning science, scientific inquiry and communication skills.

The title of the 6<sup>th</sup> article is **Opinions of Classroom Teachers about the Use of Argumentation Method in Science Classroom in Primary School**. Zeki APAYDIN and Mehmet Ali KANDEMİR are the authors. The purpose of this study is to determine the opinions of classroom teachers in the elementary school about the use of the argumentation method appropriate to the Toulmin argumentation model in the science class. This study was carried out in 16 hours (8 days) with participation of 37 class teachers in Balıkesir province of Bandırma. This study is based on the case study of the qualitative research design. The data was the result of video recording of semi-structured interviews and semi-structured interviews with six classroom teachers. The obtained data was analyzed according to the content analysis which is one of the analysis methods. At the end of this training, their experiences are expressed as opinions. According to these views, the method of argumentation; the students will be interested and attentive, the students will have a positive attitude towards the classes, the students will be actively involved in the lessons and learn meaningfully, the ability to develop scientific thinking skills and to understand the nature of science can be used not only in science class but also in other courses.

We look forward to seeing you in the next issue of the Journal of Computer and Education Research.

Yours Sincerely,



Editor-in-Chief