From the Editor

Dear JCER reader,

We are excited and happy to publish the last issue of 2017 (Volume 5, Issue 10). We will be with our readers in the same excitement in each of our future issues. In the present issue, there are eleven research articles. Two of these studies are in English as whole texts.

The 1st article is written by Fatih ULUKAYA , Nail YILDIRIM and Vildan ÖZEKE. The title of **Educational Administrators' Technological Leadership Efficacy and Perceptions towards Implementation Levels of Teaching and Learning Activities**. The aim of this study is to identify the educational administrators' technological leadership efficacy (TLE) and perceptions towards implementation levels of teaching and learning activities (ITLA), and then to present the contribution of the TLE as a predictor of the ITLA. According to the results of this study, educational administrators' TLE level was "adequate" for only Digital age learning culture, for the other factors and the total of the TLE levels were "intermediate" level. A simple linear regression was calculated to predict administrators' perceptions towards implementation levels of teaching and learning activities based on their technological leadership efficacy, and TLE explains only 29% of the variation in ITLA.

The 2nd article is titled **Looking for a Black Cat: EFL Teachers' Perception of Democracy** and written by Pınar UYANIKER. Stuck between the ideologies of Europe and Middle-East, Turkey is experiencing euphoria of practicing democracy which has been subject to hot debates. Society is inevitably being shaped by these discussions. As a reflection of society, how is democracy being reflected in language classrooms? To answer the question from teachers' perspective, this qualitative research was conducted. The aim of this research is to understand Turkish EFL teachers' perceptions and practices regarding democracy. The results of this study suggest that "equity" is one of the most highlighted aspects of democracy in their perception. However, participants seem to adopt "authoritative" teacher roles although they reported fostering student involvement in decision making. Lack of authority is seen as a burden to a democratic class. Experienced and novice teachers have different conceptions and practices of democracy. Experienced teacher is inclined to veil "authority" whereas novice teacher holds a militant view of democracy.

The title of the 3rd article is **Issues in the Use of Information and Communication Technologies and Unethical Behaviors: An Overview**. Selçuk ILGAZ and Akif ÇELEN are the authors. The aim of this study is to compare of the effect of Jigsaw and Student Teams Achievement Divisions methods based on cooperative learning to sixth grade students' academic achievement in social studies course. In this study, pretest-posttest control ungrouped experimental model was used. Research, at 2014-2015 academic years to 6th grade students in Malatya province, has been made with the implementation the Jigsaw to Experimental I and Student Teams Achievement Divisions to Experimental II during 15 lessons. According to research results, there was no significant difference between groups that implemented Jigsaw and Students Teams Achievement Divisions methods.

The title of the 4th article is **Determination of the Relationship Between Information Technology, Student Emotions and Science Literacy** written by Volkan Hasan KAYA. In this study, it is aimed to determine the relationship between student characteristics related to information technology, the emotions of students and science literacy. Descriptive research model was used. The sample of the study consists of 5895 15-year old students in Turkey. As a research instrument, the researchers used the results of cognitive tests utilized by PISA in 2015 to assess students' science literacy skills. It was found that the students with higher emotional intelligence have higher science literacy. The results show that the emotions of the students, the information technology that students have at home and the increase the number of this technology positively affect higher science literacy.

The title of the 5th article is **Design based Investigation on Construction of Mathematical Modelling Problems: Example of Financial Content** written by Melike TURAL SÖNMEZ. The purpose of this study is to examine the construction of mathematical modelling problems process in the content of financial literacy. It is also aimed to create design proposals for construction of mathematical modelling problems. A design based research method was used in this study. The participants were three seventh grade students, six finance experts and nine mathematics education experts. Data collection tools were transcription of video and tapes group discussions, presentations and worksheets during mathematical modelling activities, and participant experts' feedback form about mathematical modelling problems. There were three stages in this study. First stage was application of preliminary study. This stage gave information about convenience of problems to grade level, students' timing for solution of problems, clarity of problems and students' background about content. In second stage, finance experts commented on convenience of mathematical modelling problems to financial literacy standards. In third stage, mathematics education experts commented on convenience of problems to students' grade level, mathematical modelling principles and seventh grade mathematics lesson objectives.

The title of the 6th article is **Computational Analysis of Igbo Numerals in a Number-to-text Conversion System**. Olufemi Deborah NINAN, Abimbola Rhoda IYANDA, Isaac Olufemi ELESEMOYO, Esther Olamide OBASA are the authors. System for converting Arabic numerals to their textual equivalence is an important tool in Natural Language processing (NLP) especially in high-level speech processing and machine translation. Such system is scarcely available for most African languages including the Igbo language. This translation system is essential as Igbo language is one of the three major Nigerian languages feared to be among the endangered African languages. The system was designed using sequence as well as activity diagram and implemented using the python programming language and PyQt. The qualitative evaluation was done by administering questionnaires to selected native Igbo speakers and experts to provide preferred representation of some random numbers. The responses were compared with the output of the system. The result of the qualitative evaluation showed that the system was able to generate correct and accurate representations for Arabic numbers between 1-1000 in Igbo language being the scope of this study. The resulting system can serve as an effective teaching and learning tool of the Igbo language.

The title of the 7th article is **Investigation of Science Teachers' Learning Styles with Various Variables** written by Orhan KARAMUSTAFAOĞLU, Miyase TUTAR and Gökhan SONTAY. It was aimed to determine learning styles according to Felder Silverman learning styles and to examine various variables in this research. The study was carried out through a descriptive design involving a survey model with a sample of 322 science student teachers studying at Amasya Faculty of Education on during 2016-2017 academic years. The "Learning Style Inventory" developed by Felder & Soloman (1994) and adapted to the Turkish language was used as a data collection tool.

As a result of the research, it was determined that science teacher candidates had visual and sequential learning styles by doing, feeling, and doing. The highest score from the learning styles that the teacher candidates possessed was the visual learning style. In addition, learning styles differed according to gender, grade level and father education status in the survey.

The title of the 8ᵗʰ article is **The Analysis of the Effect of the Use of the Fishbone Technique in "The Unit of Systems in Our Body" On the Academic Success of Students** written by Üzeyir BEREKECİ and Mustafa YAZICI. The aim of this study is to research the effect of teaching of the unit of systems in our body with the fishbone technıque on the academic success of the students. This study has been carried out together with forty four students that study at the 6th grade of a secondary school in Kahramanmaraş in 2015-2016 school years. Pretest-posttest hasn't been equalized as a control group in the study but quasi-experimental model has been used. While the lessons in the control group were taught according to the existing curriculum, the lessons in the experimental group were taught with the fishbone technıque. The study was completed in 7 weeks-28course hours. As a result, it has been observed that the use of the fishbone technıque in the 6th grade unit of systems in our body provided a significant increase on the academic success of the students, but a significant difference between the fishbone technıque and the existing curriculum has not been observed in respect of academic success.

The title of the 9ᵗʰ article is **Development of a Digital Citizenship Scale for Youth: A Validity and Reliability Study**. Zafer KUŞ, Erhan GÜNEŞ, Uğur BAŞARMAK, Hamza YAKAR are the authors. The main objective of this study is to develop a valid and reliable scale for identifying digital citizenship perceptions of young people in the most common age groups. The study was conducted as a survey study. The study group of this study is composed of 438 people in Turkey who are among 16-24 age group with the highest rate of internet use in Turkey. An exploratory factor analysis was performed to determine the validity of the scale and the item discrimination powers were calculated. The total variance of the scale was determined that the scale had 8-factor structure and was found to be 49,70%. The internal consistency level was also calculated to determine the reliability of the scale. As a result, it can be said that this scale is a valid and reliable scale that can be used to determine the digital citizenship perceptions of young people.

The title of the 10ᵗʰ article is **The Effect of Active Learning Approach Jigsaw II Technique on Student Attitudes Relating to Science 4ᵗʰ Grade Science Course** written by Zeki APAYDIN and Mehmet Ali KANDEMİR. In this research, the effect of the fourth grade science course subject teaching in accordance with Jigsaw II technique on the attitudes of students in aspect of science course in line with the active learning approach was examined. The research was carried out for a period of 9 weeks with the participation of total 60 students contained in experimental and control groups in 2016-2017 academic years. While the education and training process was organized according to the Jigsaw II technique among the active learning techniques to the experimental group, training and teaching process was organized according to the traditional approach to the control group. As a result of this research, it is concluded that the education and training process performed in compliance with Jigsaw II technique in line with the active learning approach has more positively affected the student attitudes compared to education and training process performed according to traditional approach in 4th grade science course ($p < .05$).

The title of the 11ᵗʰ article is **Examining Biology Teachers' Perspectives about School Laboratory Facilities According to Different Variables** written by Sadrettin AKYIL and Rıfat EFE. In this study, biology teachers' views on laboratory competencies were examined. The study was carried out with the participation of 86 biology teachers working in the high school in

Diyarbakır city center. The data was collected through "Laboratory Qualification Scale" and interviews with the teachers. The analysis of the date revealed that the laboratory method was important for biology teachers but their opinions about the laboratory competencies were low. The study also found that the participant" biology teachers" opinions about the laboratory competencies were not affected by the variables of higher education institutions and their teaching experiences. Male biology teachers 'competences were higher than the female biology teachers' competences and biology teachers 'working in science high school had higher competences of laboratory than biology teachers working in other school types.

In this issue, Prof. Dr. S.Sadi SEFEROĞLU and Prof.Dr. Gülay EKİCİ, members of our journal's editors, was our guest editor of JCER journal. I thank them a lot. Many thanks to the Authors who have shared their studies with us as well as to the referees who have made contributions with their valuable ideas.

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

Yours Sincerely,

Assoc.Prof. Dr. Tamer KUTLUCA
Editor-in-Chief

Prof.Dr. Gülay EKİCİ   &   Prof.Dr. S.Sadi SEFEROĞLU
Guest Editor   Guest Editor