

13th International Balkan Education and Science Congress

6-8 September 2018

Trakya University – Edirne

<http://bes2018.org>

PROCEEDINGS

ISBN: 978-975-374-228-3

Editors

Assoc. Prof. Dr. Yılmaz ÇAKICI
Assist. Prof. Dr. Yıldırım TUĞLU



Assist. Prof. Dr. Seda DONAT BACIOĞLU, Trakya University

Assist. Prof. Dr. Selma DENEME, Trakya University

Assist. Prof. Dr. Selmin ÇUHADAR, Trakya University

Assist. Prof. Dr. Serbülent PAKSUZ, Trakya University

Assist. Prof. Dr. Suat YAPALAK, Trakya University

Assist. Prof. Dr. Şahin DÜNDAR, Trakya University

Assist. Prof. Dr. Tamara Turza-Bogdan, Zagreb University

Assist. Prof. Dr. Tuncay ÖZTÜRK, Trakya University

Assist. Prof. Dr. Veysi AKIN, Trakya University

Assist. Prof. Dr. Vladimir Legac, Zagreb University

Assist. Prof. Dr. Yar Ali METE, Trakya University

Assist. Prof. Dr. Yıldırım BAYAZIT, Trakya University

Assist. Prof. Dr. Yıldırım TUĞLU, Trakya University

Assist. Prof. Dr. Yücel Atıla ŞEHİRLİ, Trakya University

Assist. Prof. Dr. Zerrin BALKAÇ, Trakya University

Lec. Dr. Coşkun DOĞAN, Trakya University

Senior Lec. Darinka Kiš-Novak, PhD, Zagreb University, Croatia

Dr. Ali BATTAL, Trakya University

Dr. Aynur GICI VATANSEVER, Trakya University

Dr. Emine Pınar PAKSUZ, Trakya University

Dr. Erdem DEMİRÖZ, Trakya University

Dr. Figen GİRGİN, Trakya University

Dr. Işıl Gamze YILDIZ, Trakya University

Dr. İhsan METİNNAM, Trakya University

Dr. Mehpere SAKA, Trakya University

Dr. Melike BULUT ALBABA, Trakya University

Dr. Sinem DÜNDAR, Trakya University

Dr. Sümeyye KONUK, Trakya University

Dr. Tuğba SOLAK, Trakya University

Dr. Tuğba TÜRK, Trakya University



- Prof. Dr. Tacettin PINARBAŞI, Atatürk University, Turkey
Prof. Dr. Tanya BORISOVA, Trakia University, Bulgaria
Prof. Dr. Tolga ARICAK, Hasan Kalyoncu University, Turkey
Prof. Vesna MAKASEVSKA PhD, Ss. Cyril and Methodius University
Prof. Dr. Yücel KABAPINAR, Marmara University, Turkey
Assoc. Prof. Dr. Ani ZLATEVA, Trakia University, Bulgaria
Assoc. Prof. Dr. Aylin BEYOĞLU, Trakya University, Turkey
Assoc. Prof. Dr. Binali Tunç, Mersin University, Turkey
Assoc. Prof. Dr. Durmuş EKİZ, Karadeniz Teknik University, Turkey
Assoc. Prof. Dr. Ebru Oğuz, Mimar Sinan University, Turkey
Assoc. Prof. Dr. Elena LAVRENTSOVA, Trakia University, Bulgaria
Assoc. Prof. Dr. Eylem BAYIR, Trakya University, Turkey
Assoc. Prof. Dr. Gencho VALCHEV, Trakia University, Bulgaria
Assoc. Prof. Dr. Güven Özdem, Giresun University, Turkey
Assoc. Prof. Dr. Handan KÖKSAL, Trakya University, Turkey
Assoc. Prof. Dr. İbrahim COŞKUN, Trakya University, Turkey
Assoc. Prof. Dr. Levent DENİZ, Marmara University, Turkey
Assoc. Prof. Dr. Lina YORDANOVA, Trakia University, Bulgaria
Assoc. Prof. Dr. Maria TENEVA, Trakia University, Bulgaria
Assoc. Prof. Dr. Mehmet Barış HORZUM, Sakarya University, Turkey
Assoc. Prof. Dr. Mukadder SEYHAN YÜCEL, Trakya University, Turkey
Assoc. Prof. Dr. Mübin KIYICI, Sakarya University, Turkey
Assoc. Prof. Dr. Nesrin GÜNAY, Trakya University, Turkey
Assoc. Prof. Dr. Nilgün TOSUN, Trakya University, Turkey
Assoc. Prof. Siniša Opić, PhD, Zagreb University, Croatia
Assoc. Prof. Dr. Taner ALTUN, Karadeniz Teknik University, Turkey
Assoc. Prof. Dr. Valentina SHARLANOVA, Trakia University, Bulgaria
Assoc. Prof. Dr. Veselina IVANOVA, Trakia University, Bulgaria
Assoc. Prof. Dr. Zülfiye Gül ERCAN, Trakya University, Turkey
Assist. Prof. Dr. Aslıhan OSMANOĞLU, Trakya University
Assist. Prof. Dr. Ayfer UZ, Trakya University, Turkey
Assist. Prof. Dr. Belgin UZUNOĞLU YEGÜL, Trakya University
Assist. Prof. Dr. Birol YİĞİT, Trakya University, Turkey
Assist. Prof. Dr. Demirali Yaşar ERGİN, Trakya University
Assist. Prof. Dr. Deniz Mertkan GEZGİN, Trakya University
Assist. Prof. Dr. Dilber TEZEL, Trakya University, Turkey



- Assist. Prof. Dr. Dilek GİRİT, Trakya University, Turkey
Assist. Prof. Dr. Draženko Tomić, Zagreb University
Assist. Prof. Dr. Ebru SELÇİOĞLU DEMİRSÖZ, Trakya University
Assist. Prof. Dr. Elif Bengi ÜNSAL ÖZBERK, Trakya University
Assist. Prof. Dr. Emel SİLAHSIZOĞLU, Trakya University
Assist. Prof. Dr. Emran OĞUZHAN DİNÇER, Trakya University
Assist. Prof. Dr. Emre GÜVENDİR, Trakya University
Assist. Prof. Dr. Eren Halil ÖZBERK, Trakya University
Assist. Prof. Dr. Ezgi AKŞİN YAVUZ, Trakya University
Assist. Prof. Dr. Fatih GÜNAY, Trakya University
Assist. Prof. Dr. Fatma AKGÜN, Trakya University
Assist. Prof. Dr. Funda GÜNDOĞDU ALAYLI, Trakya University
Assist. Prof. Dr. Gökhan ILGAZ, Trakya University
Assist. Prof. Dr. Hakan GÜLDAL, Trakya University
Assist. Prof. Dr. Hasan ÖZYILDIRIM, Trakya University
Assist. Prof. Dr. Hüsnü CEYLAN, Trakya University
Assist. Prof. Dr. Hüsnüye DURMAZ, Trakya University
Assist. Prof. Dr. İbrahim DİNÇELİ, Trakya University
Assist. Prof. Dr. Kenan ÖZDİL, Trakya University
Assist. Prof. Dr. Levent VURAL, Trakya University
Assist. Prof. Dr. Lidija Cvikić, Zagreb University
Assist. Prof. Dr. Lütfiye AKYOL, Trakya University
Assist. Prof. Dr. Marko Badrić, Zagreb University
Assist. Prof. Dr. Marko Čaleta, Zagreb University
Assist. Prof. Dr. Mehmet YAVUZ, Trakya University
Assist. Prof. Dr. Mehtap KODAMAN, Trakya University
Assist. Prof. Dr. Meltem ACAR GÜVENDİR, Trakya University
Assist. Prof. Dr. Muharrem ÖZDEN, Trakya University
Assist. Prof. Dr. Murat ÇELTEK, Trakya University
Assist. Prof. Dr. Musa ULUDAĞ, Trakya University
Assist. Prof. Dr. Nuran EKİCİ, Trakya University
Assist. Prof. Dr. Nurcan ÖZKAN, Trakya University
Assist. Prof. Dr. Oya ONAT KOCABIYIK, Trakya University
Assist. Prof. Dr. Özlem TUZCU, Trakya University
Assist. Prof. Dr. Predrag Oreški, Zagreb University
Assist. Prof. Dr. Sabri Can SANNAV, Trakya University



- Assoc. Prof. Dr. Hristo SALDZHIEV, Trakia University, Bulgaria
Assoc. Prof. Dr. İbrahim COŞKUN, Trakya University, Turkey
Assoc. Prof. Dr. İsmail KILIÇ, Trakya University, Turkey
Assoc. Prof. Dr. Mukadder SEYHAN YÜCEL, Trakya University, Turkey
Assoc. Prof. Dr. Nesrin GÜNAY, Trakya University, Turkey
Assoc. Prof. Dr. Nilgün TOSUN, Trakya University, Turkey
Assoc. Prof. Dr. Nuran EKİCİ, Trakya University, Turkey
Assoc. Prof. Dr. Vanya PETROVA, Trakia University, Bulgaria
Assoc. Prof. Dr. Zülfiye Gül ERCAN, Trakya University, Turkey

SCIENTIFIC BOARD

- Prof.Dr. Abdullah KUZU, Anadolu University, Turkey
Prof. Adnan KAHIL PhD, Ss. Cyril and Methodius University, Macedonia
Prof. Aida ISLAM PhD, Ss. Cyril and Methodius University, Macedonia
Prof.Dr. Antonina KOLEVA, Trakia University, Bulgaria
Prof. Bujar SAITI PhD, Ss. Cyril and Methodius University, Macedonia
Prof. Emilj SULEJMANI PhD, Ss. Cyril and Methodius University, Macedonia
Prof. Dr. Emine AHMETOĞLU, Trakya University
Prof. Elizabeta BANDILOVSKA PhD, Ss. Cyril and Methodius University, Macedonia
Prof.Dr. Filiz KABAPINAR, Marmara University, Turkey
Prof. Florina SHEHY PhD, Ss. Cyril and Methodius University, Macedonia
Prof.Dr. Gültekin ÇAKMAKÇI, Hacettepe University, Turkey
Prof.Dr. Hatice Ferhan ODABAŞI, Anadolu University, Turkey
Prof.Dr. Hikmet ASUTAY, Trakya University, Turkey
Prof. Dr. Kürşad Yılmaz, Duplupınar University
Prof. Ivan PRSKALO, PhD, Zagreb University, Croatia
Prof. Lulzim ADEMI PhD, Ss. Cyril and Methodius University, Macedonia
Prof. Maya RAUNIK KIRKOV PhD, Ss. Cyril and Methodius University, Macedonia
Prof. Mito SPASEVSKI PhD, Ss. Cyril and Methodius University, Macedonia
Prof.Dr. Nurettin ŞİMŞEK, Ankara University, Turkey
Prof. Dr. Muhlise COŞKUN ÖGEYİK, Trakya University
Prof.Dr. Mustafa SÖZBİLİR, Atatürk University, Turkey
Prof. Dr. Petar PETROV, Trakia University, Bulgaria
Prof. Rozalina POPOVA KOSKAROVA PhD, Ss. Cyril and Methodius University, Macedonia
Prof.Dr. Serhat İREZ, Marmara University, Turkey
Prof.Dr. Sevinç SAKARYA MADEN, Trakya University, Turkey

CONGRESS SECRETARY

- Res. Assist. Dr. Ali BATTAL, Trakya University
Res. Assist. Dr. Erdem DEMİRÖZ, Trakya University
Res. Assist. Erhan VATANSEVER, Trakya University
Res. Assist. Gül KURUM, Trakya University
Res. Assist. İlyas SÖNMEZ, Trakya University
Res. Assist. Tuğba TÜRK, Trakya University
Yıldıray ERCAN, Trakya University

ADVISORY COMMITTEE

- Prof.Dr. Abdullah KUZU, Anadolu University, Turkey
Prof. Dr. Ali Balcı, Ankara University
Prof.Dr. Buket AKKOYUNLU, Çankaya University, Turkey
Prof. Damir BORAS, PhD, Zagreb University, Croatia
Prof. Emilj SULEJMANI PhD, Ss. Cyril and Methodius University, Macedonia
Prof.Dr. Emine AHMETOĞLU, Trakya University, Turkey
Prof.Dr. Hafize KESER, Ankara University, Turkey
Prof.Dr. Hatice Ferhan ODABAŞI, Anadolu University, Turkey
Prof.Dr. Hikmet ASUTAY, Trakya University, Turkey
Prof. Ivan PRSKALO, PhD, Zagreb University, Croatia
Prof. Dr. İnayet Aydın, Ankara University
Prof. Dr. İsmail Güven, Ankara University
Prof. Dr. Kasım Karakütük, Ankara University
Prof. Maya RAUNIK KIRKOV PhD, Ss. Cyril and Methodius University, Macedonia
Prof.Dr. Muhlise COŞKUN ÖGEYİK, Trakya University, Turkey
Prof. Dr. Ömer Adıgüzel, Ankara University
Prof.Dr. Servet BAYRAM, Yeditepe University, Turkey
Prof.Dr. Sevinç SAKARYA MADEN, Trakya University, Turkey
Prof. Dr. Yasemin Karaman Kepenekçi, Ankara University
Prof.Dr. Yeşim FAZLIOĞLU, Trakya University, Turkey
Assoc. Prof. Dr. Aylin BEYOĞLU, Trakya University, Turkey
Assoc. Prof. Dr. Eylem BAYIR, Trakya Üniversitesi, Turkey
Assoc. Prof. Dr. Handan KÖKSAL, Trakya University, Turkey
Assoc. Prof. Dr. Hasan ÖZGÜR, Trakya University, Turkey



HONORARY BOARD

- Prof.Dr. Erhan TABAKOĞLU, Rector of Trakya University
Prof. Damir BORAS, PhD, Rector of Zagreb University
Prof.Dr. Ivan TODOROV, Rector of Stara Zagora Trakia University
Prof. Nikola JANKULOVSKI PhD, Rector of Ss. Cyril and Methodius University
Prof.Dr. Ridvan CANIM, Dean of Trakya Universitesi Faculty of Education
Prof.Dr. Emil SULEJMANI, Dean of Ss. Cyril and Methodius University Faculty of Pedagogy
Prof. Ivan PRSKALO, PhD, Dean of Zagreb University Faculty of Education
Prof.Dr. Petar Dinev PETROV, Dean of Stara Zagora Trakia University Faculty of Education

ORGANIZING COMMITTEE

- Assoc. Prof. Dr. Yılmaz ÇAKICI, Trakya University, Turkey
Dr. Yıldırım TUĞLU, Trakya University, Turkey
Prof. Biljana KAMCEVSKA PhD, Ss. Cyril and Methodius University, Macedonia
Prof. Metodi GLAVCE PhD, Ss. Cyril and Methodius University, Macedonia
Prof. Slagana JAKIMOVİK PhD, Ss. Cyril and Methodius University, Macedonia
Assoc. Prof. Dr. Cem ÇUHADAR, Trakya University, Turkey
Assoc. Prof. Dr. İbrahim COŞKUN, Trakya University, Turkey
Assoc. Prof. Siniša Opić, PhD, Zagreb University
Assoc. Prof. Dr. Tuncer BÜLBÜL, Trakya University, Turkey
Assist. Prof. Dr. Anna ARNAUDOVA, Trakia University, Bulgaria
Dr. Gökhan ILGAZ, Trakya University, Turkey
Dr. Hakan GÜLDAL, Trakya University, Turkey
Assist. Prof. Lidija Cvikić, PhD, Zagreb University
Assist. Prof. Marko Badrić, PhD, Zagreb University
Dr. Muharrem ÖZDEN, Trakya University
Assist Prof. Dr. Petar VALKOV, Trakia University, Bulgaria
Dr. Şahin DÜNDAR, Trakya University, Turkey
Assist Prof. Dr. Zlatka ZHELYAZKOVA, Trakia University, Bulgaria
Lec. Alper ASLAN, Trakya University, Turkey
Lec. Sezgin KONDAL, Trakya University, Turkey
Lec. Tonguç BAŞARAN, Trakya University, Turkey

TABLE OF CONTENTS

Düz Anlatım Yöntemi İle Gösterip Yaptırma Yönteminin Ortaokul 8. Sınıf Öğrencilerinin Kübizmi Öğrenmeleri Üzerindeki Etkisi.....	1
Karar Ağacı Algoritmalarının Eğitsel Veriler Üzerindeki Performanslarının İncelenmesi.....	6
Tarih Öğretiminde Yerel Tarih Kullanımı.....	11
Uygulamalı Bir Eğitim Olarak Ahiliğin Eğitim Tarihinde Yeri ve Önemi.....	17
Interactive Learning About Plants And Achievement in Learning Natural Science of The Students of Faculty of Teacher Education of The University of Zagreb.....	27
Carpe Diem! Primary School Students (Grades 1-4) From The County of Međimurje.....	32
Primary School Students' Communication Using Whatsapp Application.....	38
Child And Some Philosophical Moments in The Work Of Štefanija Štefa Jurkić (1895. - 1971.).....	55
Relations Between Traditional And Contemporary Teaching.....	60
Meetings with The Bulgarian Teacher (Conclusions And Summaries of Teacher Trainings).....	69
Integration of Native Language with Other Subjects in The Primary Education System of The Republic of Macedonia.....	83
Turkish Words in the Bosnian-Herzegovinian Magazine Kršćanska Obitelj (1900-1902).....	90
The Romani in the Macedonian Educational System.....	97
Özel Eğitim Öğretmenlerinin 2005, 2015 ve 2017 Programlarındaki Ses/Harf Gruplarına İlişkin Görüşleri.....	106
✓ Teaching Mathematics by Solving Problems.....	114
Batı Trakya ve Bulgaristan Türklerince Söylenilen Türkülerde Geçen Yer Adları.....	119
Meslek Lisesi Öğrencilerinin Etik Davranışlarına İlişkin Öğretmen Görüşleri.....	132
Batı Trakya ve Bulgaristan Türklerince Söylenen Türkülerde Renk Unsuru.....	138
The Importance of the educational mission of Saint Clement of Ohrid viewed through the prism of his complex words (compound words).....	153
Kosova'da öğrenim gören öğrenciler arasında nomofobi yaygınlığı.....	160
Kaşgarlı Mahmud'un Dil Öğretimine Katkıları.....	167
Öğretmenler Dil/Konuşma Güçlüğü Olan Öğrencilerle Çalışmaya Hazır Mı?.....	174
Annelerin Çocuklarında Görülen Kekemelik Hakkındaki Görüşleri.....	180



Teaching mathematics by solving problems

Sonja CHALAMANI^{24a}, Marzanna SEWERYN-KUZMANOVSKA^{25b}

Abstract

The learning by solving problems itself represents a way which exerts a favorable impact upon the development of self-reliant and autonomous learning, whose aim is to activate the interest and the creative thinking process of the students. The modern-day teaching of mathematics requires a successful, creative and rational work with the students. In this paper is considered the influence problem teaching in mathematics, beginning from the earliest age, more precisely from the first grade elementary school, while taking into account the way of formulating the problems, initially by using images, and afterwards in the shape of textual task when the students have mastered the reading of texts. Taking into consideration what we know so far, scientifically examined and practically verified we can say that problem teaching represents turn in conceptualizing and realization of certain processes in teaching and it changes its presentation, it meets the new demands and numerous tasks in teaching and person's demands. It does not come to one or another teaching method or a teaching procedure. As a complete teaching system it includes more teaching methods procedures and means of teaching and it provides completely changed role of the teacher and the students. Different authors differently define problem teaching but essentially they all agree: it is a method that encourages the students to take the responsibility for their own learning by solving problems (which very often can be solved in many ways) and to make reflection of their own experience in learning. The main aim of this kind of teaching is solving problems. Problems appear when students come to certain obstacle in satisfying their wishes or in relating their goals. Teaching begins by setting the problem, it continues by setting hypotheses and it finishes by applying the acquired knowledge in new situations. Significance of this kind of teaching arises from its essence. Problem teaching should be conducted in present schools at high level: from acquiring knowledge to development of creative abilities of the students which means that the teaching process should be a process of thinking activity of students. Essentially the role of the teacher should be changed. They should not be only the ones that give the knowledge but also they should be associates and organizers of that kind of teaching by which students will independently solve problems and in that way they will develop abstract learning and the total mental capacity. Therefore, this teaching is also called problem development teaching by some authors. The main characteristics of learning by solving problems which we consider in this paper are: critical thinking (students analyze problem and they try to find solution by independent choice of appropriate strategies), group work (students work in small teams), authentic tasks (students work on real life problems) and direction by the teachers (they give support, they provide learning material and they direct the students in defining conducting and evaluating of their work). The problem teaching of mathematical matter introduces the students into an autonomous research work.

Keywords: problem, problem task

1. INTRODUCTION

One of the innovations which should enable the development of creative personalities within the education process is the problem teaching in mathematics. "This teaching challenges the

^a University "St. Kliment Ohridski", Faculty of Technical Science, Bitola-R. Macedonia, scalamani@yahoo.com

^b University "St. Kliment Ohridski", Pedagogical Faculty, Bitola-R. Macedonia, marzanna.kuzmanovska@yahoo.com



students to “learn how to learn” and to seek solutions to the problems of the real world, which are used to encourage the curiosity and to inspire the studying of the mathematical matter”(Stojanovič, 2005:73).

Different authors define the problem teaching in different way, but in essence they all agree that it is method that encourages student to take responsibility for their own learning by solving problems and to give reflection of their personal experience during the learning. “Learning by solving problems is a kind of learning which requires from the student formulating of the problem task, solving the problem task by independent thinking activity, to find out what is missing for solving the problem task, to look for information and to reveal the solution” (Brković, 2011:234).

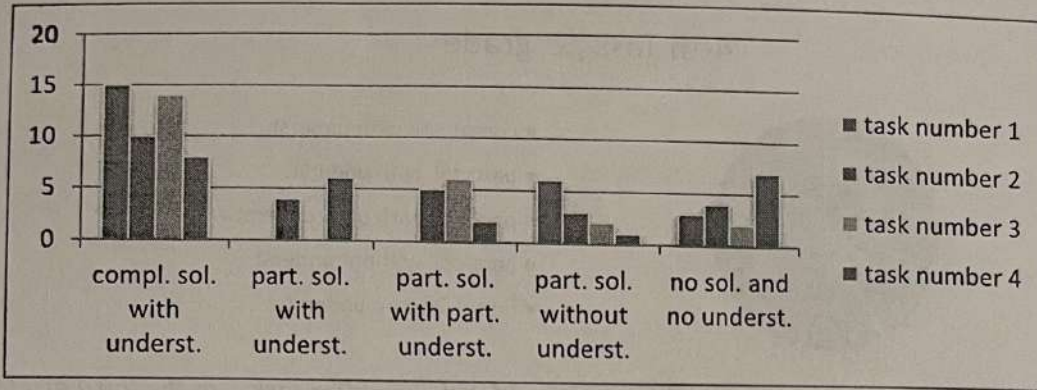
1.1. The teacher and the students in the problem teaching in mathematics

Teacher is a very important part in the teaching process. He should be led by the old wisdom that “The student is not a pot to be filled but a torch to be kindled”. Instead of the prevailing teaching role, the teacher organizes and guides. He acts as “signpost” which opens possibilities for the students to check up the adequacy of their current knowledge. “Problem teaching by solving problems acquires great activity on the part of the students. This kind of teaching is much more difficult since they have to solve the tasks on their own by minimum help of the teacher”(Seweryn-Kuzmanovska, Chalamani, 2017:680). For successful realization of the problem teaching students should above all be capable of performing mental activities.

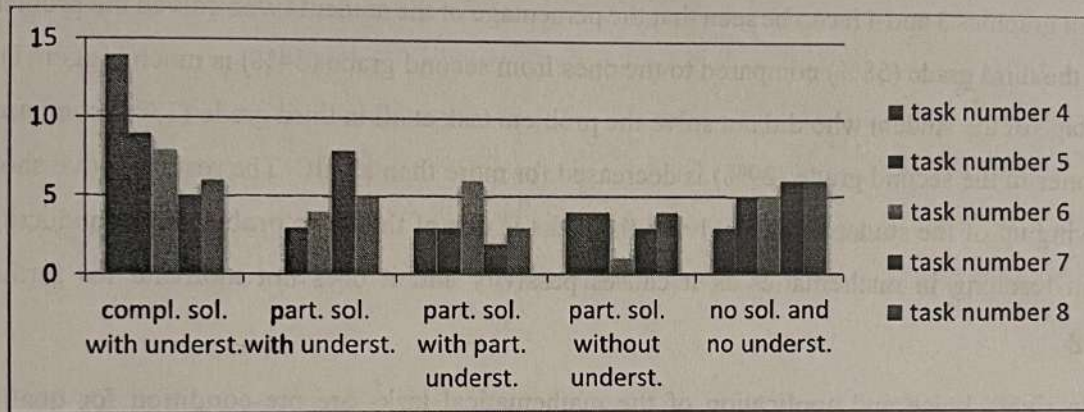
2. METHODOLOGY

In order to determine the effects of application of the problem tasks in teaching mathematics it was conducted research in nine-year-primary-education school “Todor Angelevski” Bitola, R. Macedonia, in second and third grade. The classes were chosen randomly and in each of them there were 24 students. The objective of this research was to determine the influence of the problem tasks on the students regarding their understanding and solving.

After intensive work of the teachers with the students, in the terms of solving problem tasks previously conceptualized and chosen by us (authors) and worked under our mentorship in the period from September 2017 to March 2018, the research was completed with research test which was conducted in the last week of March 2018. In the research test were used the following problem tasks:



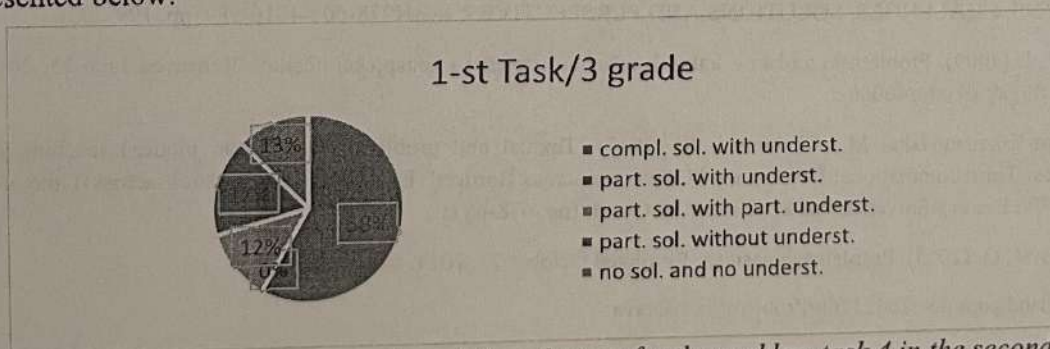
Graphic1. The results acquired by the research tests in the second grade



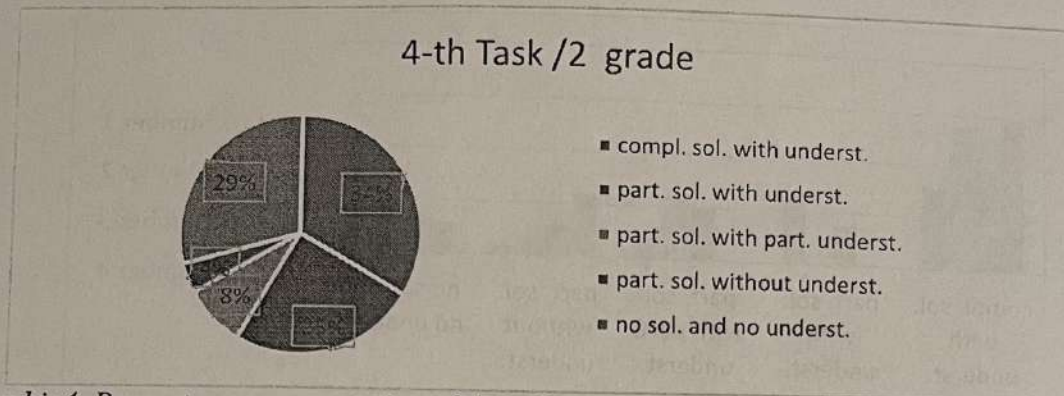
Graphic2. The results acquired by the research tests in third grade

3. DISCUSSION and CONCLUSION

From the above pillar diagram it can be seen that by increasing the difficulty of the problem task it is decreased the number of the students that understand and solved the tasks and it is increased the number of those ones who do not solve them, i.e. they very quickly give up from the tasks. Special emphasis is put on the result which we acquired from the forth task for second grade (task number 4), first one for third grade (task number 4) which can be seen in the graphics presented below.



Graphic3. Percentage representation of the solutions for the problem task 4 in the second grade



Graphic4. Percentage representation of the solutions for the problem task 1 in the third grade

From graphics 3 and 4 it can be seen that the percentage of the students who solved the problem task in the third grade (58%) compared to the ones from second grade (34%) is much bigger. The percentage of the student who did not solve the problem task at all in third grade (13%) compared to the ones in the second grade (29%) is decreased for more than a half. The results above show that giving up of the students from solving the tasks is one of the basic problems in conducting problem teaching in mathematics as it causes passivity and it does not motivate for further learning.

“The right choice and application of the mathematical tasks are pre-condition for quality teaching of mathematics and good results of the students”(Chalamani, Seweryn-Kuzmanovska,2018:202). Therefore for the tasks are given a greater part of the teaching time and it is justified the demand: “the teacher to teach all the students how to solve tasks. It is a continuous process which stars from first grade of the primary school”(Klasnić, 2009:146).

4. REFERENCES

- Brković, A. (2015). Razvojna psihologija. Retrieved Januari 09, 2015 from: http://www.svetlost.org/podaci/Razvojna_psihologija_Brkovic.pdf
- Chalamani, S., Seweryn-Kuzmanovska, M. (2017). Mathematics teachers' role in problem task-solving teaching. Conference proceedings from the International Scientific Conference THE EDUCATION AT THE CROSSROADS-CONDITIONS, CHALLENGES, SOLUTIONS AND PERSPECTIVES; ISBN978-608-4616-98- (pp. 199-202)
- Klasnić, I. (2009). Problemski zadaci – kako ih rešavaju uspješni i neuspješni učenici. Retrieved June 15, 2015 from: <http://hrcak.srce.hr/40006>
- Seweryn-Kuzmanovska, M., Chalamani, S. (2017). Textual and problem tasks in the modern teaching of mathematics. Third International Conference “Education across Borders” Education and Research across Time and Space (1100th Death Anniversary of St. Climent of Ohrid) (pp. 678-682)
- Stojanović, O. (2005). Problemska nastava. Retrieved October 22, 2014. from: <http://be.scribd.com/doc/16423766/Problemska-nastava>