ISBN: 978-605-2132-22-7



Proceedings ICES 2018

1st International Congress on New Horizons in Education and Social Sciences

April 9-11, 2018 Istanbul-TURKEY

Organized by

IBAD - International Scientific Research Association&Journal www.ibadcongresses.org ibadconferences@gmail.com



PROCEEDINGS OF ICES 2018 – 1st INTERNATIONAL CONGRESS ON NEW HORIZONS IN EDUCATION AND SOCIAL SCIENCES

April 9-11, 2018- Istanbul, TURKEY

(The Proceeding records fully refereed papers presented at the congress)

Edited by Dr. Hayrullah KAHYA Yildiz Technical University, TURKEY



Published by ASOS Publishing

Address: Çaydaçıra Mah. Hacı Ömer Bilginoğlu Cad. No: 67/2-4 ELAZIG - TURKEY May 15, 2018, Elazig, TURKEY

ISBN: 978-605-2132-22-7

CITATION: 1ST **INTERNATIONAL CONGRESS ON NEW HORIZONS IN EDUCATION AND SOCIAL SCIENCES** (ICES-2018), April 9-11, 2018- Istanbul, TURKEY

© 2018 All Rights Reserved

Disclaimer:

ASOS makes every effort to ensure the accuracy of all the information (the "Content") contained in this publication. However, ASOS makes no representations or warranties whatsoever as to the accuracy, completeness, or suitability for any purpose of the Content. Any opinions and views expressed in this publication are the opinions and views of the authors, and are not the views of or endorsed by ASOS. The publisher cannot be held responsible for the validity or use of the information therein contained. The accuracy of the Content should not be relied upon and should be independently verified with primary sources of information. ASOS shall not be liable for any losses, actions, claims, proceedings, demands, costs, expenses, damages, and other liabilities whatsoever or howsoever caused arising directly or indirectly in connection with, in relation to or arising out of the use of the Content.

This work is subject to copyright. All rights are reserved, whether the whole or part of the material is concerned. Nothing from this publication may be translated, reproduced, stored in a computerized system or published in any form or in any manner, including, but not limited to electronic, mechanical, reprographic or photographic, without prior written permission from the publisher <u>www.ibadcongresses.org</u> contact at <u>icescongresses@gmail.com</u>. The individual contributions in this publication and any liabilities arising from them remain the responsibility of the authors. The publisher is not responsible for possible damages, which could be a result of content derived from this publication.

Bildirilerdeki görüşlerin hukuki sorumluluğu yazarlarına aittir.

ICES-2018 INTERNATIONAL ORGANIZING COMMITTEE

CHAIR

Dr. Hayrullah KAHYA, President of IBAD, Yildiz Technical University, TURKEY

Prof. Dr. Anastasia KOTSOPOULOU, Athens Metropolitan College, GREECE

Prof. Dr. Basaran GENCDOGAN, Manas University, KYRGYZSTAN

Prof. Dr. Meltem ONAY, Celal Bayar University, TURKEY

Prof. Dr. Mohammed DAWABSHEH, The Arab American University, PALASTINE

Prof. Dr. Neset TOKU, Yildiz Technical University, TURKEY

Prof. Dr. Serhan Alkan ISPIRLI, Ataturk University, TURKEY

Assoc. Prof. Dr. Adriatik DERJAJ, University of Tirana, ALBANIA

Assoc. Prof. Dr. Fariz AHMADOV, Azerbaijan State University of Economics, AZERBAIJAN

Assist. Prof. Dr. Mohamed AKHIRUDDIN IBRAHIM, Universiti Sains Islam Malaysia (USIM) / Islamic Science University of Malaysia, MALAYSIA

Mr. Ali ABDOLLAHI, North Tehran Branch, Islamic Azad University, IRAN

Mr. Bashar ALALI, International Islamic University Malaysia, MALAYSIA

Mr. Meraj AHMAD, Jawaharlal Nehru University, INDIA

Mr. Ravshan KHUDAYBERGANOV, Abu Raihan Biruni Institute of Oriental Studies of the Academy of Science of the Republic of Uzbekistan, UZBEKISTAN

Mrs. Aleksandra BUJALSKA, University of Wroclaw, POLAND

Mrs. Firangiz GULIZADA, Marara University, AZERBAIJAN

Mrs. Regad HALIMA, University of Abedlhamid ibn Badis, ALGERIA

Secretarial

Mr. A. Emre EROGLU, Staff of IBAD, TURKEY

INTERNATIONAL SCIENTIFIC ADVISORY BOARD

Prof. Dr. Basaran GENCDOGAN, Manas University, KYRGYZSTAN Prof. Dr. Meltem ONAY, Celal Bayar University, TURKEY Prof. Dr. Mohammed DAWABSHEH, The Arab American University, PALASTINE Prof. Dr. Neset TOKU, Yildiz Technical University, TURKEY Assoc.Prof. Dr. Ozcan BAYRAK, Firat University, TURKEY Assoc.Prof. Dr. Ozgur SARI, TODAIE, TURKEY Assoc.Prof. Dr.Safak KAYPAK, Mustafa Kemal University, TURKEY Assoc.Prof. Dr. Yahia M. ALSMADI, The University of Jordan, JORDAN Assist. Prof. Dr.Elena TILOVSKA-KECHEDJI, University "St. Kliment Ohridski" -Bitola, MACEDONIA Assist. Prof. Dr.Riyad SIHAB, Afyon Kocatepe University, TURKEY Assist. Prof. Dr.Sakeena ABD ELGANI ISMAIL, Bahri Unversity, SUDAN Dr. Habeebullah ZAKARIYAH, International Islamic University Malaysia, MALAYSIA Dr. Hayrullah KAHYA, Yildiz Technical University, TURKEY Dr. Nurhodja AKBULAEV, Azerbaijan State University of Economics, UNEC, AZERBAIJAN Dr. Oqtay QULIYEV, Azerbaijan State University of Economics, UNEC, AZERBAIJAN Dr. Sevilay ARSLAN, Cyprus International University, CYPRUS Dr. Siti HAMIDAH RUSTIANA, Universitas Muhammadiyah Jakarta, INDONESIA

PREFACE

Dear Colleagues,

On behalf of the Local Organizing Committee I am pleased to welcome our distinguished delegates and guests to the ICES-2018 – 1st International Congress on New Horizons in Education and Social Sciences held during April 9-11, 2018 in Istanbul, TURKEY.

ICES-2018 is organized and sponsored by International Scientific Research Association&Journal (IBAD). The congress provides the ideal opportunity to bring together professors, researchers and postgraduate students of different disciplines, discuss new issues, and discover the most recent development and trends in education and social sciences. The main goal of this event is to provide international scientific forum for exchange of new ideas in a number of fields that interact in-depth through discussions with their colleagues from around the world. Both inward research; core areas of education, social sciences and humanities, and outward research; multi-disciplinary, inter-disciplinary, and applications will be covered during these events.

The congress program is extremely rich, featuring high-impact presentations. The program has been structured to favor interactions among attendees coming from many diverse horizons, scientifically, geographically, from academia. This multicultural experience gives us the opportunity to meet new partners and learn from each other in an international and friendly atmosphere. ICES-2018 more than just a place to present papers; it is a place to meet and welcome new people and colleagues. It is a place to interact and discuss new ideas and new innovations.

In short, it is a place to build not only a community of scholars but a community of friends. This proceeding records the fully refereed papers presented at the congress. The main congress themes and sessions are on new horizons in Education and Social Sciences. The congress has solicited and gathered academic research submissions related to all aspects of the main conference themes.

I would like to thank the organization staff, program chairs, and the members of the program committee for their work. Additionally, I invite you to discover and enjoy the magnificent city of Istanbul. Do not miss the opportunity to walk around and visit its impressive architecture, historical buildings of this lovely city. Thank you very much for participating in ICES-2018 and for contributing to this inspiring international forum. I hope you enjoy your time with us!

With my warmest regards and respect,

Dr. Hayrullah KAHYA Chair of ICES-2018 On behalf of Organizing Committee April 9-11, 2018 Istanbul-TURKEY

TABLE OF CONTENTS

IDENTITY OF THE BALKANS CREATED THROUGH PERSPECTIVES OF THE OTHERS (INTERSUBJECTIVITY: IDENTITIES BETWEEN SELF AND OTHERS) / Pages: 1-7

Slavica Srbinovska

EUROPEAN UNION ERASMUS + PROJECT: RECOGNITION AND VALIDATION OF PRIOR LEARNING/ Pages: 8-13

Ozlem Unluhisarcikli, Dilek Erzurumlu, Sinem Atakul

PRELIMINARY RESULTS PART 1: INVESTIGATING OF EARTHQUAKE OCCURRENCES WITH DIFFERENT DISTRIBUTION MODELS IN THE MARMARA SEA AND SURROUNDING, TURKEY / Pages: 14-23

Tugba Turker, Yusuf Bayrak

FINAL RESULTS PART 2: CREATING OF PREDICTION MODEL MAPS OF EARTHQUAKE OCCURRENCES WITH GEOGRAPHIC INFORMATION SYSTEMS (GIS) IN THE MARMARA SEA AND SURROUNDING, TURKEY

/ Pages: 24-32

Tugba Turker, Yusuf Bayrak

PAREMIOLOGICAL UNITS OF METONIMIC NATURE IN ENGLISH, RUSSIAN AND TATAR LANGUAGES / Pages: 33-37

Indira Tukhvatullina, Elvina Kapustina

THE EFFECT OF CONTEXT-BASED LEARNING ON THE ATTITUDE TOWARDS THE DAILY LIFE CHEMISTRY / Pages: 38-44

Canan Kocak Altundag, Fatma Alkan

THE METAPHORICAL PERCEPTIONS OF HIGH SCHOOL STUDENTS TOWARDS CHEMISTRY / Pages: 45-52

Canan Kocak Altundag, Aysem Seda Onen Yucel

THE PLACE AND SIGNIFICANCE OF OTTOMAN JUDICIAL RECORDS IN THE NOVELS OF LUAN STAROVA AS REPRESENTATIVE OF MACEDONINAN LITERATURE / Pages: 53-58

Seyhan Murtezan İbrahimi

THE RELATIONS BETWEEN SOCIETY AND PERSON IN HUSEYN JAVID'S CREATION / Pages: 59-65

Sevinj Gojayeva

EFFECTS OF THE RISE OF BRITAIN IN INTERNATIONAL TRADE: A GLOBAL POWER AFTER INDUSTRIAL REVOLUTION / Pages: 66-71

Gozde Yirmibesoğlu, Fatma Cande Yasar Dincer

CHILDREN'S LITERATURE SUPPORTING EMERGENT LITERACY SKILLS FOR THE YOUNG CHILD / Pages: 72-75

Filiz Shine

EDUCATION AND INNOVATION A COMPARISON OF CYPRIOT AND KYRGYZ TURKISH FOLK TALES IN TERMS OF VIOLENCE ELEMENTS/ Pages: 76-82

Mustafa Yeniasir, Burak Gokbulut

HISTORICAL GRAMMAR BOOK AUTHORS: BERGAMALI KADRI, AHMET CEVDET PASHA AND ABDURRAHMAN FEVZI EFENDI / Pages: 83-87

Esra Karabacak

THE EFFECT OF HANDS-ON CHEMISTRY EXPERIMENTS ON SELF-DIRECTED LEARNING READINESS / Pages: 88-94

Fatma Alkan, Canan Kocak Altundag

THE EFFECT OF INQUIRY BASED CHEMISTRY LABORATORY ON CRITICAL THINKING / Pages: 95-103

Fatma Alkan

EDUCATIONAL LEXICOGRAPHY AND ONOMASTICS / Pages: 104-110

Reyhan Habibli

CHALLENGES OF A CONTENT-BASED SYLLABUS IN A FRESHMAN ENGLISH CONTEXT IN TURKEY / Pages: 111-116

Deniz Ezgi Avci Vile

THE IMPORTANCE OF CODING AND IMPACTS TO A COUNTRY DEVELOPMENT IN COMPUTER TECHNOLOGY TEACHING / Pages: 117-123

Yelda Firat

AUTHOR INDEX*

(*In Alphabetical Order According to the Author's First Name)

-**A**-

Aysem Seda Onen Yucel, Prof. Dr., Hacettepe University, Turkey

-**B**-

Burak Gokbulut, Assist.Prof. Dr., Near East University, Northern Cyprus (TRNC)

-**C**-

Canan Kocak Altundag, Assoc. Prof. Dr., Hacettepe University, Turkey

-D-

Deniz Ezgi Avci Vile, Ms., Istanbul Sehir University, Turkey Dilek Erzurumlu, Ms., Boğaziçi University, Turkey

-E-

Elvina Kapustina, Lec., Kazan Federal University, Russia Esra Karabacak, Prof. Dr., Near East University, Northern Cyprus (TRNC)

-F-

Fatma Alkan, Assoc. Prof. Dr., Hacettepe University, Turkey
Fatma Cande Yasar Dincer, Master Stu., Akdeniz University, Turkey
Filiz Shine, Ph.D, Uskudar University, Turkey

-G-

Gözde Yirmibesoğlu, Assoc. Prof. Dr., Akdeniz University, Turkey

-H-

-I-

Indira Tukhvatullina, Lec., Kazan Federal University, Russia

-J-

-K-

-L-

-**M**-

Mustafa Yeniasir, Assist.Prof. Dr., Near East University, Northern Cyprus (TRNC)

-N-

-0-

Ozlem Unluhisarcikli, Assoc. Prof. Dr., Bogazici University, Turkey

-P-

-Q-

-**R**-

Reyhan Habibli, Assoc.Prof.Dr., Baku State University, Azerbaijan

-S-

Sevinj Gojayeva, Assoc.Prof.Dr., Baku State University, Azerbaijan Seyhan Murtezan İbrahimi, Teach. Assist., International Balkan University, Macedonia Sinem Atakul, Ms., İstanbul Medeniyet University, Turkey Slavica Srbinovska, Prof., "Ss. Cyril and Methodius" University Skopje, Macedonia

-T-

Tugba Turker, Phd. Stu., Karadeniz Technical University, Turkey

-U-

-V-

-W-

-X-

-Y-

Yelda Firat, Assist. Prof. Dr., Canakkale Onsekiz Mart University, Turkey Yusuf Bayrak, Prof. Dr., Karadeniz Technical University, Turkey

-Z-

CITATION: Proceedings of ICES 2018 – 1st International Congress on New Horizons in Education and Social Sciences, April 9-11, 2018- Istanbul, Turkey

ISBN: 978-605-2132-22-7

DOI: 10.21733/ibad.423417

IDENTITY OF THE BALKANS CREATED THROUGH PERSPECTIVES OF THE OTHERS (INTERSUBJECTIVITY: IDENTITIES BETWEEN SELF AND OTHERS)

Slavica Srbinovska

Prof., "Ss. Cyril and Methodius" University Skopje, Macedonia, srbinovskas@gmail.com

Abstract

The cultures of the Mediterranean countries have a long and rich tradition; therefore, the practice of image studies of the aesthetic, ethnic, and specific cultural features and the multilateral reception of the individual bodies of literature are very important for the promotion of different anthropological entities of the Balkans within the global cultural systems. Through a balanced confrontation of the various discourse practices, I will look at the text as a hierarchical structure, specific cultural form of representation with an emphatic ideological and sociological import. In addition, it will stimulate the discussion of the potential subversives of the Other, its marginality and decent ring. By encompassing the fields of Balkans literatures, mythology, religion, philosophy, history, etc., I will analyze its significance within a wider and contemporary social and cultural context of Europe. Intercultural and intertexual Dialogue (M.Bakhtin/ concept of "dialogism") proposes to address the issue and representation of the Balkans identities within a wider body of the culture from the point of view that is created by the Western European discourse of culture. By means of the application of comparative and intertextual methods, I will point out that inter-cultural dialogue is one of the key elements of the "co-habitation". My researches would, in the long run, stimulate the questions and the problems of identity and alterities. The importance of the encouragement of the intercultural dialogue between civilizations, cultures, religions and various bodies of literatures that exists on the Balkan, as well as the cultural development of the Balkan and Mediterranean countries imposes the need for the establishing of cultural links between different cultural backgrounds. It is undoubted that my researches would promote a better understanding of the cultural differences that these various backgrounds embody. The understanding depends, not on the reconstruction of the past, but on recognition and critique of the past actually presence in the contemporary works of the culture. That is also a problem of the Other in the discourse of nowadays. The main goal of my research will be the decentering of the categories of identity or subject by including the category of "otherness". Also, I would like to draw attention to the manner in which the Balkans are represented in the different genres and areas of the Western European culture accepted as the central point of view. Through the application of relevant literary, theoretical, critical and cultural approaches (Mikhail Bakhtin's concept of "the speech of the Other"), this study hopes to raise the awareness of the Balkans and the ways in which the image of them is created/ represented through the perspectives of the European cultures. The objectives also include the promotion of the cultural

achievements of the authors from this region who deal with the theory of subject, criticism, sociology, history, philosophy etc. Bearing in mind that inter-cultural and inter-literary projects represent an outstanding opportunity for the development of social and cultural exchange in multi-ethnic regions, I will focus on the field of contemporary literary output at the beginning of the 21st century from the aspect of the study of the image of the Balkans. The objective of my interest is essentially interdisciplinary, and the area it covers includes the ties between European national literature on the one hand, and Balkans literature and other spheres (mythology, religion, philosophy, art, etc.) on the other. In this respect, my research encompasses segments that focus on the European literary and cultural awareness; by combining the methods of the history of literature and contemporary critical theories, it also focuses on the mechanisms of their bringing together and intertwining with various cultural and scholarly paradigms.

Keywords: identity, Balkans, Others, culture.

1 THE PHILOSOPHY OF DIALOGUE AS PROCESS OF CREATING THE IDENTITY AND ALTERITIES

By comparing the concept of the Other, according to M. Bakhtin with the concept of Differance, according to J. Derrida, we are very close to the specific analyzing of the problem of identification and its alterities. These concepts, created upon the specific point of view of the Being, include its understanding through the movement, activity and origin situated in the primordial spatiality.

The concept of *Differance* is a middle voice; it precedes and sets up the opposition between passivity and activity. According to M. Bakhtin, polyphony imports the differentia specifica of the discourse in the novel. That plural identification of this genre advanced in a problematic of the active and passive (implicate) voices in the realities that create the specificity of *a dialogue between the individuals in an active position of representing the beings.*

The problem of including the letter "a" instead of "e" in the word "difference" change the meaning of the word "difference". It makes a new philosophical word key explained by J.Derrida: "With it's a, difference more properly refers to what in classical language would be called the origin or production of differences and the differences between differences, the play of differences. Its locus and operation will therefore be seen wherever speech appeals to difference."(Derrida, 2002, 555).

On the other side, according to M. Bakhtin, the establishing of the ontology of Being usually goes through the language as an instrument of mediation and as a system of signs of representation. Acceptance of the speech as a signification and referring instrument with which we can make identification includes the temporal and spatial position of the subject. It represents the senses from his point of view and by that way, he/ she usually imports the social and ideological aspects in his/her utterances (Bahtin, 1980, 20). Our theses are that it is a simple process of identification if we insist to accept only a clear concept that understands and constructs the image of the Being with some specific qualities that usually bordered its existence, and excluded the other qualities that are also parts of the existence about we are talking about. The acceptance of the DIFFERANCE solves the problem of integration of differences between complex elements and qualities of the Being. This problem is explained by Derrida on this way: "But the word 'difference'," he said," (with an e) could never refer to differing as temporal zing or to difference can refer to the whole complex of its meanings at once, for it is immediately and irreducibly multivalent, something which will be important for the discourse I'm trying to develop." (Ibid. 2002,557).

If the explanation of the Baktin's concepts of intersubjectivity and dialogism start with the polemic of presence and absence of meanings and with the idea of trace or chain, system in which every concept refers to the others and, they continue to point out to another concepts, than we think about the system of playing with the differences. Because of it, as Bakhtin points out, we can speak only about the possibility of conceptualizing, and not for the stabile and fixed concept of Being. (1991, 117). If we accept this kind of play of the differences, we could not speak about the summation of elements inscribed in our epoch, but about the juncture, about the functioning of the present Being on the trace of transformations and movements. Being is unacceptable as a close concept, but as an active and diverse existence, always in connection with its past and future elements (Manfred Frank, 1994, 303). That kind of understanding activates the utterances as the instruments of representation and constructing the images. However, they are never stabile and fixed. Differance is the movement through which the signification becomes possible but in a special way of making the correlations: each element that is said to be

present, appeared on the stage of presence, but always in a correlation with the other as a retained element from the past, and with its projection that belongs to the future. That is the problem of Bakhtin's concept of space and time or "hronotop" or the problem that concerns the relations of "I" and "I". (Bahtin, 1991, 71).

Leaving the philosophy of precise concepts, we involve the dialogue as an instrument of making the trace of constant playing between the past and the future, we include in the system of construction, deconstruction and reconstruction of the elements separated in the space, and differ one of another. By this kind of understanding the world, we are in a position to speak about the problem of constructing the images through the multicultural dialogue. (Bahtin, 1991, 135)

The phenomenon of individuality does not express the feeling of fullness, instead of that it is the feeling of individual emptiness and strong dependence of the other. According to Bakhtin, there is no natural meaning through which the identity could be defined, only the other is the one who can utter his understanding by creating and identifying the true of the" I" and its individuality. That means that individuality depends of the alterities. It has to make its projection of the sense in every moment of its existence in the world and those projections create the polyphony of representations. The identification as a true could be possible if it is accompany by the process of deleting the universality/ the absolute/ and by continuing the process of possible verification. (Bahtin, 1980, 20)

Because of that, the relation between the identities and alterities has a specific explanation: the differences produce the meanings of identification and consequently, the meaning produces the differences. (Ferdinand de Sosir, 1989, 18).

2 THE PHOTOGRAPHY AND THE PERFORMANCE OF THE ART

Nearby Kusadasi, one of the famous tourists places on the Turkey's coast which name means 'the Island of birds', spread out beside the sea the ancient cities Ephesus, Millet, Didyma, (Didim) Prien that belong to the different periods of the history, such as Antic Greek or Roman period BC. Inside of them, besides the tourist voices, everyone can listen the sound of time and may feel such as someone who is out of the objective time, or like someone who is free of the border system of his life. A photography that made there corresponds with imaginary picture of freedom and humanity. It is an artificial structure, which is free of all oscillations actual in national vision. I can say that it is an example of a Trans-cultural form of art and communication. On the photography and in the reality (because the reality itself is the referent of the photography, according to Roland Barthes, 1981, 33) there is a hill with the buildings/monuments constructed in a different periods of the history; they are made from different empires, Greek, Roman Empire and Ottoman Empire. Those buildings are the magnificent results of different cultures, ethnic or folklore groups, different religions and politic systems. Up on the hill, everyone can see the Church of St Johan, in the middle is an Isa Bey Mosque and on the bottom, there is a temple devoted to goddess Artemis (Diana)- Artemision temple- that is one of the worlds miracles. It is not an abstract body. A real body that insists to ruin the borders and exists for someone has specific interior sense, an ability to cross the borders of all past and present times and places and to concentrates, him to this artistic reality made of time and space. This is a sublime picture of Mediterranean world.

I would like to make the comparison between the reality of the photography and the performance called "Culturalization or ontological missing of the tragedy" made by Zaneta Vangeli in Skopje. She tries to displace the codes, or better to make the mixture of codes from different cultural systems and refers to the procedure of shifting and transformation in their meaning. Her sublimation realizes an imaginary reproduction of the interior of the church of St Sophia/Hagias Sophia in Istanbul. This building was an orthodox temple, a church, but through the period of Ottoman Empire, transformed in a mosque, but today it is a museum, or a building of culture.

By using this performance can be explain the possibility of transformation, or better of shifting the codes and to accord to their projection on the actual and contemporary dialogues and misunderstanding between the people, between "I" and the "Others". The photography and this performance clearly points to the James Donald thought that 'a nation doesn't express itself through its culture; it is culture that produces the nation". (James Donald, 1993, 167). He also means about the "culturalization" of the social or of the importance of the culture as a process in transformation.

From a beginning I would like to point out to the whole heterogeneous world of living from which is consists the reach base of European culture or its hard situated in the Mediterranean world of differences.

3 THE ONTOLOGY OF THE BEINGSNESS/GLOBALIZATION OR MULTICULTURAL DIALOGUE

Great demonstrations of the students and the polemics of the intellectuals in Europe in 1968 introduce in our thought about the world system, an idea of a new politic evaluated as a politic of humanity, understanding and developing. It seems that the world was set up for changes and for a better direction of developing its potentials for democracy and dialogue. Everybody was admiring of the possibility and needless of showing the differences between the existences of everything, first of all importance of exchanging the ideas presented as human and positive. It also includes the differences of the human beings; differ in their national, sex, race or class position. Dialogue and exchanging the ideas between the cultures from the North and South, from the West and East establish the desire in that open space between the differences

Contrapuntal explanation of the great expectation of this positive flow inscribed in the slogan "Vive la difference", according to E. Balibar, start with the problem of its deconstruction, or with something that is not marked 'in it'. Positive and negative elements included in the concept are limited in its appearance as fullness. It is impossible to escape from the past or historical background of the concept of difference that pointed out to the dominant understanding of the differences as differences in hierarchy, domination, injustice, or social inequality. Contradiction of the positive explanation of developing the differences was the social or racist claims, which are also included in the meaning of the slogan "Long lives the difference."E.Balibar explains that new racism is 'differencialist" (Balibar-Immanuel Wallerstein, 1990, 28.)

Although, the demonstrations from 1968 seems like a positive event, because they express the changes that were expected to enter and to be applied in the documents of the representative institutions of the state, in the politic of governments, it was impossible to delete the negative consequences and the crisis. Model of living in the communities that exist *as alternative* and separated from the elite part of the state were freedom and liberty.

Latter, many of us attach their hope for better future by making the connection with the time of the "great event in the next decade of great expectations and hope". It was in 1989, and the great historical event was the event of" breaking the wall "in Berlin with which starts the great concept of making the integration or rather construction of the global relations between many different parts of the world. This kind of expectations, as an action brings the world to the new ideology of globalization and signalizes full changing of the position of the people. Instead of fixed existence, they accepted the dynamic culture of living in constant movement.

Maybe, 1969 was in the name of celebrating the differences, freedom and liberation from the norms of believing and leaving. Before that year, many countries in the world liberated and decolonized themselves; they start with the process of constructing the system of the western model of state organization.

I have to say that the event in the 1989 looks like a great transformation that becomes a part of a definitive establishing of the separate states in the East Block. That was a process of 'transition', or on Russian, "perestroika". However, it does not occur without negative connotations. According to Rada Ivekovic, the problem is in the concept of "transition", she explains that it is a "pitifully misleading and empty (...) in itself, (...) pragmatically practical, (...) used for post-socialist and post-colonial transition, what means from one ideological system of leaving to another. But this concept never explains to what it is meant to be a transition." She concludes her explanation with these words:" Surely, it must be a globalization of the Western/Northern pattern of post-modern neo-liberal capitalism." (Rada Ivekovic, 2001).

That means that this transition or the phenomenon of trans/nationality understood as the battle against the differences is a phenomenon that leads to the system of integration under the 'monetary system' of power. Because of that, 1989 was the demarcation line of the end of socialism and the date of embarkation of the past socialist transition, never clearly defined. On the micro-level, the differences appear as a forceful disintegration of the Soviet Union or Ex-Yugoslavia. The process of making the clear national states was in its beginning, it passed through horrible events that stigmatized people's life in the period of nineties. The situation of differing could be also definite as a retrograde process of disintegration and a contrapuntal process of European integration. The whole societies built as a universal model of socialism became new forms of reconstructed identities put in a crisis of transformations. They had to change the paradigm through the processes of negotiation and renegotiation by signifying many specific contracts with the European Community as a guarantee. Many of them were not applicable for the countries that are in a phase of their establishing. These renegotiations was not brought a successfully forms of life, they achieve only the results of the war. In these contacts were included the dimensions of a new models of dialoging between the different communities of people that belong to the different national or cultural traditions "condemned" to live side by side in one country, but with appetites to differ and to border their separate territory of the new "clean" national state.

4 ALTERITIES AS STIGMA: IMAGE OF THE BALKANS

The problem of differences expressed by specific complex of characteristics is under the concept of **balkanization**. According to Maria Todorova, several terms differentiate the people from this region from the other nations of the Europe. It is not a region of the "clear and clean" national states, but the territory settled with the people from different nations.

I would like to say something about the specific way of living in this part of the world: Mediterranean world. The traditional image point out to its establishing through the alterities, it is mottled carpet consists of different colors and different images of the ethnic, national or cultural identities. Paradoxically or not, the main characteristic of the end of the 20th century becomes the essential examination of the identity, provokes by the others, but also, a process of deleting the identity of the others like an act of violent elimination and radical insisting of clear identity represented as a national, sexual or class position of self-identification. That usually leads to the result of violent resolving the life with dead or with war. According to Prof. Rada Ivecovic, it is a strong tendency of bordering the territories and creating the identity according the land in that territory. (Rada Ivekovic, 2001). In that context, we are witnesses of a total disappearing of any reflection of the Other and the whole effort is concentrates on the distinguish oneself. By that way Balkans touch the bottom of the life, the death, the violence, and they can see the practicing of violence that characterized most of the histories of the nations that live for many years in the Mediterranean world.

If in the center of our thinking we emphasize the idea of establishing the identity, we have to speak about the national, ethnic or cultural identity, but usually about the identity through its reflection in the eyes of the others. Identity always asks for the territory, it establishes its imaginary borders, and after that, it insists to master the history and at least the universal or the humanity.

The identity "nests through the story and images", but it usually needs the others who are prepared to listen and to accept these images, to react and confirm the existence. The story, also means developing the dialogue through the borders between the territory of the "I" and the existence of "Others" in its world. I pretend to eliminate the established histories and to accept the representations of the individual imaginary world of identifying through the story. All histories in the past in the Mediterranean world insisted on its validity and on its true. I want to point out to the "other", sophisticated stories, representative for a country, or material world, but usually straitened in the borders. My essay is some kind of an effort to make a revival of an individual explanation which will be able to save the past and to integrate the differences and by recognizing the aspects of individuality in a space of the text to point out to a dialogue as an instrument of existence with the Others.

First of all, as a region, Balkan is traditionally bordered/divided from the other parts of Europe as a lagging region, although it belongs to the continent although, the roots of the European civilization were planted here, this part was rather separated than integrated *with* the Europe.

Traditionally characterization of the Balkans was ethos: independent, proud, and courageous and honor. According to Erik Hobsbaum, the concept of "balkanization" is derivative from the phenomenon of "kleinestaat", by analyzing the etymology of this term; we can find the same explications. The verb "balkaniser"means "national fragmentation" and it explains the situation in the Balkan region" after the First World War. "Balkanisieren"signifies the process of fragmentation of the state by making a many, many mini-national projects that are enemies between them. In the Oxford Dictionary of English language, Norman Paunds explains the term and concept of "balkanization "as elimination or destroying the territory of one geographical region through establishing the micro-national states that are usually in relations of the enemy. In the Dictionary of Italian language, "balkanization" means despotism, revolution, contra revolution, guerilla and attempting of one's life. After the Second World War, the activated term balkanization was in connection with the process of decolonization. (Marija Todorova, 1999, 66-73)

Today this is concept with a specific interpretation. It is a term that points out to the connotation of multicultural dimensions of a society, or it is a metaphor of postmodernism or post-communism. Harold Blum used this term as a synonym of dehumanization, deestetization, or as a process of ruining the civilization. Out of his explanations we have to accept the concept of balkanization as a concept that always refer to fragmentation, and it is too dangerous if it points out to the ideological fragmentation, which always convey the process of consolidation of the external power that usually dictates the construction or reconstruction of the model of existence in these "kleinestaat". (Ibid. 66-73).

The opposite side of this process understood by looking for the transnational perspectives or multifocal approaches to the world explains a necessity of every human being to make the projection of himself in the mirror of the universe and community as an equal person. The identity in the unity of many different persons (alterities) that is included in it. The problem of any person as an identity could be understood through the attempts of integration his very close, but differ aspects: wide "ego" aspect and "the aspect of the other as

unconscious part of the mind". However, that problem of the human beings according to our starting positions points out to the solicitation for difference, as mark of a subversion of every realm which is fixed and bordered. Making the identity is a process of constant deployment of human being, or rather of his ontological differences. It is a confirmation of a specific thought that convey to the possibility of conceptualizing the difference. It is a process of making the marks of the transnational and intercultural movement of this deployment

It is easier to analyze the problem of differentiation, instead the possibilities of intercultural integration or transnational dialogue of cultures. Contemporary life corresponds with the process of differentiation with many dilemmas about the new integration, although the globalization is constantly presence in all dialogues about the power of the integrated capital in the trade system. Activation of the problem of the differences shows the specific movements in the contemporary life. The societies in transition lose their epistemological coherence or pattern, although the start point of our explanation is the ontological status of living in a society that has confirmed its coherence through the power of integration of different cultural and national traditions.

Each society or each culture has some epistemological coherence, says Rada Ivekovic, where everything holds within the same logic: inter-communications, exchanges between groups and generations, the transmission of knowledge, certain coherence between a self-image and reality.

If I speak about the subject and its identification in the multicultural zone or transnational zone of Ex-Yugoslavia in the past, I could not forget the presence of ideal that was physically embodied and through whose presence we measure and integrate our identity. Our growing was a long process of constructing the self and the self-reality through the images of the others. As a younger generation, we enjoyed in the mythical time of present that exists without the continuum of changes. With stability of its institutions that represents and constructs the ideal or fixed image of identification, we border the space of 'equal' and uniform people. By that way of understanding the world, as R.Ivekovic points out, we lose the feeling of time. The reality was a happy world situated in an ideal present that deleted any consciousness of our individual past life, or our future. The main position has the founding fathers. We were more pseudo-subjects or rather no-subjects. (Rada Ivekovic, Florence, 2001).

My efforts to explain the space of differences and the relation between the local or different, and the global, or transnational concept of the culture, will point out to some other complex term introduced by Zoran Konstantinovic. The term "balkanization" is very close to the Turkish word and a very complex concept of "palanka". The palanka, is a form of leaving, a society that is emerging as a rural, patriarchal culture, with constant tendency to access the form of urban culture. The world of "palanka" exists only through the dream and constant desire for a different world, because of what the palanka is only an imitation of life. People live in a community with a high degree of safety life, but they live in a melancholy because of constant lack or unfulfilled desire to become someone who is the Other.

By including the problem of palanka against the urban life, we speak about the relations between the province and central cities, about the center and margin, or about the local bordered world as it is the national state and the universe of the global world of transnational living through the multicultural dialogue realized from the separate positions.

The spirit of palanka is a symbol of our living on the Balkan, the phenomenon of existence that will never be the part of the urban European life. It is also a description of a difference between the minority and the majority. This is why the description of palanka represents many types of contemporary societies, especially post-colonial ones. If we want to escape from the bordered concept of nationalism and to fascism, the concept of palanka has to change and move to the consciousness of the necessity of multicultural relations. (Zoran Konstantinovic, 1981).

5 THE BOUNDAIRES AND THE BORDERS

Outside of the European efforts to make the world system of a global economy, global polity, global culture or global society, a "Europe without borders" and an "everyman" who lives in it, without identity or with identities, we are witnesses that there are much deep opposition between Balkans and Europeans. How could we speak about the boundaries of East and South, if we did not respect the reality of all societies involved in the hybridization or globalization, when they have not the modern history and transformation in to a post-modern one. Many of them, such as Macedonia, live in a close connection to their tradition. Although we are speaking about the 'collaboration and displacement of domains of differences", Macedonia is an example of a state which is in the close relations with the former structure of Tito'sYugoslavia. By Nira Yuval Davis" the formal etnicization of different regions in Yugoslavia in a revised constructions approved by Tito during the last years of his life was a major development in the country's history and a partial explanation of later developments and its disintegration". (N.Y.Davis, 1997, 82)

In 1971, Canadian premier Pierre Trudeau, involved in the practical political living the idea of the state that was new; his explanation was about the Canadian model of life. It was not, as he said, the concept of a bicultural state, which gave the real image of our society, but the multicultural society which is the more precise notion of the reality. From the point of view of the Balkans, maybe we can find the positive elements of the politic of globalization. However, we should not understand this phenomenon as a process of mechanic homogenization the differences and making the units of everyone or nobody. We can speak about the transversal politic of dialogues that are always open for the others. Globalization understood, as a politic of empowerment to everybody, has an intention to break the boundaries between the individual and the communal. Yuval-Davis notice that" transversal politics stop where the proposed aims of the struggle are the conserving or promoting unequal relations of power, and where essentialzed notions of identity and difference naturalize forms of social, political or economic exclusion. The process of shifting and rooting can help to distinguish between differences of values and goals. That is a story of radical revision of the community itself. It is not a story of 'new internationalism', but of new cultural politic which is for Mediterranean world some kind of searching for the new vocation of the civilization today.

The dialogue, which is today discordant between the fundamentalism and globalization remained the only instrument, maybe this phrase is too shabby, but I must use it to designate the necessaries of establishing the 'dialog' with the others which become the confirmation of our live in the future.

REFERENCES

Frank, M. (1994). Kazivo i nekazivo, Zagreb:Naklada MD Croatialiber.

Bahtin, M.I (1991). Autor i junak u estetskoj aktivnosti, Novi Sad: Bratstvo jedinstvo.

Bahtin, M.(1980). *Marksizam i filozofija jezika*, Beograd: Nolit.

Sosir, F. (1989). Opšta lingvistika, Beograd: Nolit

Derrida, J. (2002). Difference in *The Phenomenology Reader*, London/New York ed. by Dermont Moran and Timothy Mooney, Routledge.

Bathes, R. (1981). *Le Chambre claire*, Paris: Editions du Seul.

Donald, J., Carter E., Squires, J. (eds.) (1993). How English is it? Popular literature and national culture, *Space and Place Theories, Identity and Location.* London: Lawrence and Wishard in association with New Formations.

Balibar - Wallerstein I. (1990). Nation, Race, Class. Les identities ambiguous, La decouverte, Paris.

Ivekovic, R. (2001). Gender and national border and boundaries. European integration and the ethnicisation of the Balkans, Summer School, Florence, 17-22 June.

Todorova, M. (1999). Imaginarni Balkan, Beograd: Nolit.

Konstantinovic, Z. (1981). Filozofija palanke, Beograd: Nolit.

Yuval Davis, N. (1997). *Gender and Nation*, SAGE Publications, London: Thousand Oaks.

CITATION: Proceedings of ICES 2018 – 1st International Congress on New Horizons in Education and Social Sciences, April 9-11, 2018- Istanbul, Turkey

ISBN: 978-605-2132-22-7

DOI: 10.21733/ibad.423418

EUROPEAN UNION ERASMUS + PROJECT: RECOGNITION AND VALIDATION OF PRIOR LEARNING

Ozlem Unluhisarcikli1*, Dilek Erzurumlu2 and Sinem Atakul3

 ^{1*}Assoc. Prof., Boğaziçi University, TURKEY, unluhisa@boun.edu.tr² Ms., Boğaziçi University, TURKEY, dilek.erzurumlu@boun.edu.tr
 ³ Ms., İstanbul Medeniyet University, TURKEY, <u>radatakul5@gmail.com</u> *Corresponding author

Abstract

The Erasmus+ project Effectiveness of VPL Policies and Programs for Labor Market Inclusion and Mobility – Individual and Employer Perspectives (EffectVPL) seeks to evaluate the effectiveness of validation programs in terms of how the recognition of prior learning benefits the individual. The focus thereby will be placed on if and how validation procedures and programs support individuals' labor market inclusion, employability and further learning pathways. Through introducing biographical perspectives into the validation process and identifying the role of employers for validation and recognition of prior learning (VPL), the project seeks to enhance the effectiveness of VPL practice in Denmark, Germany, Poland and Turkey. The project is coordinated by the Center for Labor and Political Education, University of Bremen. This paper focuses on the effectiveness of VPL practice in Turkey based on the findings of a mixed method research that integrated quantitative (survey study) and qualitative (semi-structured interviews) research methods for data collection. The survey sample consisted of 69 individuals who have been in validation procedure and for the qualitative part of the study semi-structured interviews were conducted with 22 participants. Results reveal how the participants experience the VPL process and opportunities and challenges the process involves in Turkey.

Keywords: Validation of prior learning (VPL), informal learning, vocational qualification.

1 INTRODUCTION

The Erasmus+ project Effectiveness of VPL Policies and Programs for Labor Market Inclusion and Mobility – Individual and Employer Perspectives (EffectVPL) seeks to evaluate the effectiveness of validation programs in terms of how the recognition of prior learning benefits the individual. The focus thereby will be placed on if and how validation procedures and programs support individuals' labor market inclusion, employability and further learning pathways. Through introducing biographical perspectives into the validation process and identifying the role of employers for validation and recognition of prior learning (VPL), the project seeks to enhance the effectiveness of VPL practice in Denmark, Germany, Poland and Turkey (Haasler, Anslinger, Laudenbach, 2018). In addition, the project will review the advancement of VPL policies and programs over the project period. The results of the review, empirical investigations and several company case studies will be channeled into the ongoing VPL policy dialogue and also be reflected in a jointly developed training module to support VPL practitioners. As a Strategic Partnership for Adult Education, the project enhances the exchange as well as the cooperation between the eight partner organizations participating in the project that combine practical expertise

and theoretical background knowledge. Based on a common learning process, the project contributes to enhancing the transparency and recognition of skills and qualifications and facilitating labor market inclusion through access to training and recognition of competences for all. The project is coordinated by the Center for Labor and Political Education, University of Bremen.

Validation of non-formal and informal learning in Turkey has been implemented rather recently. In Turkey, VPL is carried out by the Ministry of National Education (MoNE), and Vocational Qualifications Authority (VQA) which is established in 2006. There are many public organizations involved in such activities; among them are the MoNE, Council of Higher Education (CoHE), and Turkish Employment Agency. Private sector is involved in validation activities as well. General Directorate of the Lifelong Learning (LLL) in the MoNE conducts some projects to contribute to the development of the validation system in Turkey.

In Turkey, validation is applied only to the vocational and technical sector, not to the education sector. So, the certificates received from validation of non-formal and informal learning are treated differently than those gained through formal learning and do not provide access to the formal education system (European Commission, Cedefop, ICF International, 2014). The VPL practice in Turkey is implemented mainly by the VQA through the accredited institutions which provide Vocational Qualifications Certificate (VQC) to validate an applicant's prior learning.

The Official Statement on the Occupations that Require Vocational Qualifications Certificate by the VQA was published in the Official Gazette (25 May 2015, no. 29366). The purpose of this Official Statement is to identify the occupations that require the VQC for employees. This requirement is especially for the dangerous and very dangerous jobs such as natural gas infrastructure construction controlling, steel welding, and industrial pipe installing (Akkök, 2016).

In this context, VQC has become compulsory in specific occupations mentioned in the Official Statement. Those who do not have a VQC twelve months after the publication date of the Official Statement will not be employed in these occupations (Official Gazette, 2015).

One of Turkey's most important developments since 2014 on validation is the development and acceptance of the TQF (Turkish Qualification Framework). The TQF is the essence of the establishment of the validation system and responsible for clarifying the duties and responsibilities of the authorized certification bodies (ACBs) that validate informal and non-formal learning. The VQA, which carries out the certification process, approves and distributes vocational qualification certificates based on the national qualification framework. The VQC awarded by the VQA is valid at both national and international level.

The validation processes within LLL aim to identify the knowledge, skills and competencies acquired in informal and non-formal learning contexts at all TQF levels. So, the TQF is formed to make it possible to certify the qualifications obtained as a result of learning in a non-formal and informal learning environment.

The examination and certification processes generally operate in the following way for the VPL practice in Turkey: The examination and certification processes are carried out by the organizations that have been accredited in the designated national qualifications and authorized by the VQA. Organizations that have completed the accreditation process and fulfilled the inspection, audit, and evaluation processes are authorized by the VQA. Accredited certification bodies carry out testing and certification activities. The ACBs carry out all the procedures for documentation under the supervision of the VQA. Those who successfully go through the measurement and evaluation processes administered by ACBs are entitled to VQCs. The requirements for obtaining the VQC are determined by the National Qualifications developed for each occupation. Accordingly, candidates who wish to receive the VQC apply to one of the relevant qualified ACBs. The details of the procedure for certification are determined by the Vocational Qualification, Examination and Documentation Regulation issued by the VQA (VQA website).

Anyone who wishes to certify their vocational qualification according to the national qualifications published by the VQA may apply to relevant authorized certification bodies to have the VQA Vocational Qualification Certificate. All professions except for the ones in the fields of medicine, dentistry, nursing, midwifery, pharmacy, veterinary medicine, engineering, and architecture and that require at least undergraduate level education, and whose entrance conditions are regulated by law are covered by the VQA Law No 5544 (VQA website).

2 STUDY

This paper focuses on the effectiveness of the VPL practice in Turkey based on the findings of a mixed method research that integrated quantitative (survey study) and qualitative (semi-structured interviews) research methods for data collection. The survey sample consisted of 69 individuals who have been in validation procedure, and for the qualitative part of the study semi-structured interviews were conducted with 22 participants. The VPL process in this study refers to the process for getting the VQC from the certification bodies authorized by the VQA.

The questionnaire for the survey study is developed by the leading partner in Denmark and revised based on the pilot study results and suggestions provided by the other partner countries including Turkey. The final form of the questionnaire consisted of 27 questions inquiring about demographic characteristics, validation process, and the level of satisfaction of the participants.

The interview guide for the qualitative part of the study is also developed by the leading partner in Denmark. Indepth interviews were conducted with either those who volunteered to be further interviewed after the survey study, or with others who participated in the study later on a voluntary basis. The interview guideline consisted of 18 questions that inquired the validation of the prior learning of the participants. Since the in-depth interviews were conducted after the survey study, the findings of the survey study also provided an insight to further explore topics that stood out as relevant issues, challenges, or difficulties relating to the VPL process.

Data collection process was the most challenging phase of the project since reaching the project's target sample, those who have been through the validation process, proved to be difficult. In order to reach the target sample, first, we contacted all authorized certification bodies in Turkey via e-mail or telephone to ask for their cooperation in finding the companies that hire individuals who have the VQC. We informed them about the scope and the objectives of the project and invited them to contribute to our study. However, among a hundred or so of the ACBs only one returned back with an intention for collaboration. This certification body provided us a list of companies that hired those who were certified. Later, we contacted these companies to ask if we can access to their employees who have the VQC to collect data. Only one company agreed to help. One of the companies reflected that they would not like to spare their employees from work even for a short period of time for an interview since it would mean for the company loss of work. This may be relevant for other companies as well, since most of them did not return back to our request. As a result, the sample consisted of the employees of the company that agreed to participate in the study and other employees that the researchers contacted through snowball sampling.

3 FINDINGS

In the following, the research findings of the survey study are provided along with some excerpts from the indepth study.

Half of the employees who had been through the certification process in this study had elementary or lower levels of schooling (50,7 %). The high school graduates constitute about one-third of the participants (31,9 %), and those who have a higher education degree are generally from two-year programs (11,6 %) and only 5,8% are form four-year programs (Table 1).

	Frequency	Percent
Primary school	15	21,7
Elementary school	20	29,0
High school	22	31,9
Two-year degree	8	11,6
Bachelor's degree	4	5,8
Total	69	100,0

About three-fourths (76,8 %) of the survey participants indicated their current work status as skilled worker (Table 2).

During the in-depth interviews the interviewees explained further how they acquired their expertise throughout the years, although many did not have any formal vocational and technical education schooling. For instance, a skilled worker explained how he acquired his work experience form his master:

"I am a graduate of a religious vocational high school, not a graduate of a technical and vocational high school. I am a CNC operator. I started this job on the advice of a friend and have been working for the last five years. I learned my job from my master during these five years." (Interview 19)

	Frequency	Percent	
Employed as unskilled worker	6	8,7	
Employed as skilled worker	53	76,8	
In a managerial or leading position	9	13,0	
Self employed	1	1,4	
Total	69	100,0	

Table 2. Current work status of	survey participants
Tuble El Guillent Work Status of	Survey purcherpuncs

Another skilled worker also explained how he acquired his skills through work, even though admitted that not all skills are possible to acquire through exposure:

"I am a graduate of open education high school and started working at the age of 17. In my first workplace, I learned the job from my masters; and still am learning from my masters in my current workplace. I first watched them then started to do on my own. It did not take too much time to learn what I have learned so far. My job is to bring pieces together. However, learning CNC software takes much more time. It is impossible to learn it while working in my current job. Our masters know the software but they do not teach us." (Interview 20)

When the level of satisfaction with the information available during the process of validation analyzed, findings show that more than half of the participants were satisfied (56,5 %) while about one-fifth were dissatisfied (18,8 %) (Table 3).

Table 3. Satisfaction with information available during the process of validation

	Frequency	Percent	
Not satisfied at all	5	7,2	
Not satisfied	8	11,6	
Neutral	17	24,6	
Satisfied	29	42,0	
Very satisfied	10	14,5	
Total	69	100,0	

The findings indicate that the participants are generally (66,7 %) satisfied with the overall validation process, whereas those who are not satisfied with the process are comparatively very small (13 %) (Table 4).

	Frequency	Percent	
Not satisfied at all	5	7,2	
Not satisfied	4	5,8	
Neutral	13	18,8	
Satisfied	34	49,3	
Very satisfied	12	17,4	
Not applicable	1	1,4	
Total	69	100,0	

Table 4. Satisfaction with the overall validation process

During the validation process, the applicants usually take a practical exam, and based on the type of validation there would also be a theoretical test.

"I was tested with a helmet-camera on my head. An interview was not needed since how I did my job was recorded." (Interview 4)

When the level of satisfaction with the outcome of the validation process considered, the participants were generally of the opinion that the process was satisfactory (66,7 %). Only a small amount (10,1 %) indicated some level of dissatisfaction (Table 5).

	Frequency	Percent	
Not satisfied at all	3	4,3	
Not satisfied	4	5,8	
Neutral	16	23,2	
Satisfied	32	46,4	
Very satisfied	14	20,3	
Total	69	100,0	

Table 5. Satisfaction with the outcome of the validation process

About three-fourths (72,5 %) of the participants indicated that being involved in the certification process improved their career chances (Table 6). The in-depth interviews indicate the reasons behind this positive contribution to the career chances of the VPL certificate holders. As the following interviewee explained, the certificate works as a proof of a skilled employee's work qualifications.

"I have been in this sector for almost 10 years. I think people I meet in the workplace value me because of the quality service and support I provide. However, they get surprised when they find out that I am a high school graduate. A corporate firm that I applied for a position asked me first for how long I have been in the sector and if I have a document to prove it. Showing them my vocational qualification certificate was an answer to their question. This made me feel good and relieved." (Interview 5)

However, the interviewees also pointed to the fact that the certificates only fulfill a requirement but not improve the vocational skills of an employee.

"Vocational qualification certificates do not have an impact in hiring process other than meeting the requirement. Nowadays, everyone has the certificate. If I were an employer, I would ask for it, but would not pay much attention to it." (Interview 21)

On the other hand, they admit the functionality of the certification.

"Do you know why employers ask for this certificate? The labor turnover is high. The certificate serves as proof that shows one has at least some experience in the field." (Interview 19)

	Frequency	Percent	
Yes	50	72,5	
No	11	15,9	
No idea	8	11,6	
Total	69	100,0	

Table 6. Whether the VQC increased job opportunities for the participants

Most of the participants (82,6 %) indicated that they would recommend the validation process to their coworkers (Table 7). As the results above show the VQC increases the job opportunities of the employees and this increases the self-confidence of the participants to a great extend as reflected by several interviewees.

"Being certified increased my confidence. It is not convincing just to talk about yourself in the hiring process; employers want to see proof. So, certification makes the process easier. But of course acquiring the certificate does not mean that you are a master. Experiences I have gained so far have more effect on my job than the certificate I received." (Interview 4)

Table 7. Whether the participants would recommend the validation p	rocess to a colleague
--	-----------------------

	Frequency	Percent	
Yes	57	82,6	
No	4	5,8	
No idea	8	11,6	
Total	69	100,0	

The participants point out the fact that the VPL certificate is just a way to prove that they have the necessary qualifications to do their jobs, otherwise, they admit that the process do not add any new skills or qualifications. However, as one participant confessed, they were imbued with new found confidence after the certification process.

"Being certified boosted my confidence. I am now much more comfortable doing my job than before." (Interview 3)

"I believe acquiring the certificate increased my possibility of finding a job. While certification increases confidence, it does not have an impact on increasing knowledge. I received the certificate and left it at home. I did not learn anything new regarding my job in the process of certification; I learned everything from my masters. Do you think employers would let me use a machine worth of 650.000 TL just because I have a certificate? It is nonsense! I received the certificate just to please the employer." (Interview 20)

In general, the survey participants and interviewees considered the VQC as a positive contribution to their work status and job opportunities since the certification proves that they have the required qualifications if they do not possess any other proof or relevant schooling.

However, there are also some difficulties or challenges of the certification process. One of the interviewees referred to the limited function of the VPL certificate and how it would easily become invalid in a different job qualification:

"In my vocational qualification certificate, my qualification is on metal products installation, which is my first job. But my certificate won't be valid if I start to do for example air conditioning installation." (Interview 18)

4 CONCLUSION

This study explored the effectiveness of VPL practice for the employees who have gone through the process in Turkey. As mentioned previously, the VPL practice in Turkey is implemented mainly by the VQA through the accredited institutions which provide VQC to validate an applicant's prior learning. The results reveal that, generally, the beneficiaries of the certification process are satisfied with the procedure, and the VQC improved their job opportunities. They admit that although the process do not increase their knowledge and skills, since their prior learning are validated through the process they would recommend the certification process to their co-workers.

These findings also contribute to the EffectVPL joint research project that aggregate the findings from four countries. The project is expected to enhance the transparency and recognition of skills and qualifications and facilitating labor market inclusion through access to training and recognition of competences for all.

Acknowledgement: The authors wish to thank the Erasmus+ project Effectiveness of VPL Policies and Programmes for Labour Market Inclusion and Mobility – Individual and Employer Perspectives (EffectVPL) for support.

REFERENCES

- Akkök, F. (2016). Update to the European Inventory on Validation of Non-Formal and Informal Learning 2016 Country Report: Turkey.
- European Commission, Cedefop, ICF International (2014). European Inventory on Validation of Non-Formal and Informal Learning 2014: Country Report Turkey. Retrieved from Http://Libserver.Cedefop.Europa.Eu/Vetelib/2014/87078_Tr.Pdf
- Haasler, S R, Anslinger, E, Laudenbach, F (2018). Comparative Perspectives on Validation of Prior Learning Experience from Four European Countries, Tvet@Asia, Issue 10, 1-16. Retrieved from Http://Www.Tvet-Online.Asia/Issue-10/Issues/Issue10/Haasler-Etal-Tvet10
- Official Gazette (2015). Meslekî Yeterlilik Kurumu Meslekî Yeterlilik Belgesi Zorunluluğu Getirilen Mesleklere İlişkin Tebliğ (no. 29366, 25 May). Retrieved from http://www.resmigazete.gov.tr/eskiler/2015/05/20150525-4.htm

VQA website (not-dated). Vocational Qualification Authority. Retrieved from https://www.myk.gov.tr/

CITATION: Proceedings of ICES 2018 – 1st International Congress on New Horizons in Education and Social Sciences, April 9-11, 2018- Istanbul, Turkey

ISBN: 978-605-2132-22-7

DOI: 10.21733/ibad.423421

PRELIMINARY RESULTS PART 1: INVESTIGATING OF EARTHQUAKE OCCURRENCES WITH DIFFERENT DISTRIBUTION MODELS IN THE MARMARA SEA AND SURROUNDING, TURKEY

Tugba Turker^{1*}, Yusuf Bayrak²

¹Phd. Student. Karadeniz Technical University, Turkey,tugbaturkerktu@gmail.com ²Prof. Dr. Karadeniz Technical University, Turkey,bayrak@ktu.edu.tr *Corresponding Author

Abstract

In this study, we investigated earthquake occurrences with different distribution models in the Marmara Sea and surrounding, Turkey. We analyzed for all earthquake occurrences of M_s magnitude of a reliable homogeneous earthquake catalogue to each instrumental other historical periods. So, we used Beta, Normal, Gamma, Lognormal and Weibull distributions for 6 different seismogenic source zones in the Marmara Sea. Later, we plotted Probability Density Function (PDF), Cumulative Distribution Function (CDF), Hazard Function (HF), Cumulative Hazard Function (CHF), Survival Function (SF), Probability Difference, P-P plot, Q-Q plot. We determined the best suitable model for the assessment of earthquake occurrences. After that, we applied Goodness of Fit for used all distributions and obtained test results. Goodness of Fit concerned Kolmogorov Smirnov (K-S), Anderson Darling and Chi-Squared tests. Consequently, we determined to used earthquake hazard analysis with different distribution models. This study can be helpful science humans to determined earthquake hazard analysis in the Marmara Sea and surrounding.

Keywords: The Marmara Sea and Surrounding, Different Distribution Models

1.INTRODUCTION

The North Anatolian Fault Zone (NAFZ) composed of a series of right lateral strike-slip segments (Ketin, 1948) broaden from eastern Anatolia to the northern Aegean Sea. So, it created one of the important neotectonic elements in the eastern Mediterranean (McKenzie, 1972). The one of from fault zones that North Anatolian fault zone (NAFZ) had the most important and active morphological element in the Marmara Sea. The basins in the Marmara Sea are the formed of a put upon evolutionary history characterized by two district-aged fault systems: the early Miocene-early Pliocene Thrace-Eskisehir Fault Zone and its branches, and the late Pliocene-Recent North Anatolian Fault and its branches (Şengör et. al. 2005).



Figure 1. The tectonic and epicenter distributions map plotted in the Marmara Sea and surrounding.

The aim of this study, the earthquake occurrences investigated with Beta, Normal, Gamma, Lognormal and Weibull different distribution models (Fig. 3, 4, 5, 6, 7 and 8) for 6 different seismogenic zones (Table 1 and Fig. 2) in the Marmara Sea and surrounding. We determined for all earthquake occurrences of M_s magnitude of a reliable homogeneous earthquake catalogue to each instrumental other historical periods. However, we only used instrumental period with Ms≥4.0. The original catalog ordinarily implicated backgrounds as well as seismically triggered events (main-shocks, foreshocks and aftershocks). The declustering of an earthquake catalog assigned the background events (seismic events generated by regular earth movements), that lead to an objective estimation of seismic activities in a zone. We applied decluster analysis for earthquake catalogue, so used only main-shocks. Bayrak and Türker (2017) investigated earthquake hazard in the NAFZ.



Longitude

Figure 2. 6 different seismogenic zones map shown in the Marmara Sea and surrounding. Table 1. The Marmara Sea and surrounding divided into 6 different seismogenic zone.

Zone 1	Zone Location		
1	Saroz Gulf		
2	Marmara Sea		
3	İzmit-Sakarya		
4	Sakarya-Düzce		
5	The Southern Branch of NAF		
6	The Southern of Marmara		

2.METHODS

The distribution fitting results (graps) used to added good results in the earthquake hazard investigates. The earthquake catalogue assess with the goodness of fit of one or more distributions at the same time. We selected some important distribution types for earthquake catalogue in the Marmara Sea and surrounding.

The following distribution types are supported:

- Probability Density Function
- Cumulative Distribution Function
- Survival Function
- Hazard Function
- Cumulative Hazard Function
- P-P Plot
- Q-Q Plot

h

Probability Difference

2.1. PROBABILITY DENSITY FUNCTION

The probability density function (PDF) was the probability that the variable has the value x:

f(x) = P(X = x)

For distinct distributions, the empirical (sample) PDF is showed as vertical lines symbolizing the probability block at each integer x. In the calibration results window, the theoretical (fitted) PDF is showed as a polygonal line for preferable sensation, even though it is described for integer x values solely:

In order to continual distributions, the PDF is explained in conditions of an integral between two points:

$$\int_{a}^{b} f(x) dx = P(a \le X \le b)$$

(2)

(1)

The empirical PDF is demonstrated as a histogram occurring of equal-width vertical bars (bins), each displaying the number of sample data values (dowing into the coincidenting interval), disunited by the total number of data points. The theoretical PDF is demonstrated as a constant curve appropriately scaled counting on the number of intervals.

2.2. CUMULATIVE DISTRIBUTION FUNCTION

The cumulative distribution function (CDF) is the probability which the variable takes on a value less than or equal to x:

$$F(x) = P(X \le x) \tag{3}$$

For distinct distributions, this is explained as:

$$F(x) = \sum_{i=0}^{x} f(i)$$
(4)

The empirical CDF is demonstrated as vertical lines at each integer x, and the theoretical PDF is demonstrated as a polygonal line.

In order to continual distributions, the CDF is explained as:

$$F(x) = \int_{-\infty}^{x} f(t) dt$$
⁽⁵⁾

Therefore the theoretical CDF is showed as a continual curve. The empirical CDF is indicated and is demonstrated as a stepped intermittent line depending on the number of bins.

$$F_n(x) = \frac{1}{n} \cdot \left[\text{Number of observations} \le x \right]$$
(6)

2.3. SURVIVAL FUNCTION

The survival (reliability) function was the probability that the variable received on a value greater than x:

$$S(x) = P(X > x) = 1 - F(x)$$
⁽⁷⁾

2.4. HAZARD FUNCTION

The hazard function was the ratio of the probability density function to the survival function:

$$h(x) = \frac{f(x)}{S(x)} = \frac{f(x)}{1 - F(x)}$$
(8)

The hazard function is used in reliability applications to describe the instantaneous failure rate at any point in time.



Figure 3. The Probability Density Function (PDF), Cumulative Distribution Function (CDF), Hazard Function (HF), Cumulative Hazard Function (CHF), Survival Function (SF), Probability Difference, P-P plot, Q-Q plot graphs plotted to assessment earthquake occurrences for Zone 1 in the Marmara Sea and surrounding.

2.5. CUMULATIVE HAZARD FUNCTION

The cumulative hazard function (CHF) was the integral of the hazard function. The CHF can be evaluated as the probability of failure at time x given survival until time x:

$$H(x) = \int_{-\infty}^{x} h(t) dt$$

This function can also be explained:

$$H(x) = -\ln(1 - F(x))$$

2.6. P-P PLOT

The probability-probability (P-P) plot was a graph of the empirical CDF values plotted against the theoretical CDF values. The P-P plot is used to identify how well a certain distribution fits to the observed data.

April 9-11, 2018 Istanbul, TURKEY

(9)

(10)



Figure 4. The graphs plotted to assessment earthquake occurrences for Zone 2 in the Marmara Sea and surrounding.



Figure 5. The graphs plotted to assessment earthquake occurrences for Zone 3 in the Marmara Sea and surrounding.



Figure 6. The graphs plotted to assessment earthquake occurrences for Zone 4 in the Marmara Sea and surrounding.

2.7. **Q-Q PLOT**

The quantile-quantile (Q-Q) plot was a graph of the input (observed) data values plotted opposite the theoretical (fitted) distribution quantiles. Both axes of this graph were in units of the input data set.

The quantile-quantile graphs are produced by plotting the observed data values x_i (i = 1, ..., n) against the X-axis, and the following values opposite the Y-axis:

$$F^{-1}\left(F_n(x_i) - \frac{0.5}{n}\right) \tag{11}$$

where:

- F⁻¹(x) inverse cumulative distribution function (ICDF);
- $F_n(x)$ empirical CDF;
- n sample size.

2.8. PROBABILITY DIFFERENCE GRAPH

The probability difference graph was a plot of the difference between the empirical CDF and the theoretical CDF. It can be used to define how well the theoretical distribution fits to the observed data and crosschecked the goodness of fit of several fitted distributions.

$$Diff(x) = F_n(x) - F(x)$$

(12)



Figure 7. The graphs plotted to assessment earthquake occurrences for Zone 5 in the Marmara Sea and surrounding.



Figure 8. The graphs plotted to assessment earthquake occurrences for Zone 6 in the Marmara Sea and surrounding.

3. GOODNESS OF FIT TESTS

The goodness of fit (GOF) tests evaluated the relevance of a random sample with a theoretical probability distribution function. Also, these tests shown how well the distribution selected fits to sample data. The results are introduced in the form of interactive tables that help detected which model explained sample data in the best way (Table 2).

The following GOF tests are shown:

- Anderson-Darling •
- Kolmogorov-Smirnov •
- Chi-Squared

Table 2. Goodness of Fit test applied for Zone 6 in the Marmara Sea and surrounding

Distribution		Kolmogorov SmirnovAnderson DarlingChi-S				lared
	Statistic	Rank	Statistic	Rank	Statistic	Rank
<u>Beta</u>	0,15686	21	18,819	42	2,1284	7
<u>Gamma</u>	0,16083	27	1,641	19	2,7161	11
Weibull	0,18446	32	3,1256	31	4,4674	22
Lognormal	0,15772	25	1,5162	15	4,5454	24
Normal	0,17238	29	2,048	24	4,6397	28
Zone 1						

		<u>Anderson</u> <u>Darling</u>		<u>Chi-Squared</u>	
Statistic	Rank	Statistic	Rank	Statistic	Rank
0,18581	28	5,196	32	16,338	36
0,19527	30	3,2446	20	8,4353	21
0,17974	24	2,7125	16	3,6948	5
0,21755	37	3,9409	28	9,2356	25
0,22389	41	5,4877	33	9,6085	29
),18581),19527),17974),21755	0,18581 28 0,19527 30 0,17974 24 0,21755 37 0,22389 41	28 5,196 0,18581 28 5,196 0,19527 30 3,2446 0,17974 24 2,7125 0,21755 37 3,9409 0,22389 41 5,4877	28 5,196 32 0,19527 30 3,2446 20 0,17974 24 2,7125 16 0,21755 37 3,9409 28	0,18581 28 5,196 32 16,338 0,19527 30 3,2446 20 8,4353 0,17974 24 2,7125 16 3,6948 0,21755 37 3,9409 28 9,2356 0,22389 41 5,4877 33 9,6085

Zone

Distribution	<u>Kolmogorov</u> <u>Smirnov</u>		<u>Anderson</u> Darling		<u>Chi-Squared</u>	
	Statistic	Rank	Statistic	Rank	Statistic	Rank
<u>Beta</u>	0,19267	36	21,84	48	N/A	
<u>Gamma</u>	0,16322	26	1,467	24	4,2196	23
<u>Lognormal</u>	0,14353	18	1,0958	16	7,3513	36
<u>Normal</u>	0,17749	31	1,7705	29	6,5428	29
<u>Weibull</u>	0,16341	27	3,6864	33	2,5235	20

Zone 3

<u>Distribution</u>	<u>Kolmogorov</u> <u>Smirnov</u>		<u>Anderson</u> <u>Darling</u>		<u>Chi-Squared</u>		
	Statistic	Rank	Statistic	Rank	Statistic	Rank	
<u>Beta</u>	0,23645	47	3,1737	39	13,557	41	
<u>Gamma</u>	0,18353	33	2,1184	28	8,2768	34	
<u>Gamma (3P)</u>	0,08373	8	0,3748	12	3,4391	18	
<u>Lognormal</u>	0,17593	31	1,8789	25	3,7517	19	
<u>Normal</u>	0,20505	36	2,6409	36	8,2796	35	
<u>Weibull</u>	0,2123	42	3,8423	40	5,9317	30	
Zone 4							

	<u>Kolmogorov</u> <u>Smirnov</u>		Anderson Darling		<u>Chi-Squared</u>		
Statistic	Rank	Statistic	Rank	Statistic	Rank		
0,19946	31	7,9142	34	10,707	39		
0,20736	34	3,0787	25	6,4584	28		
0,18098	23	2,461	15	3,3667	12		
0,21658	37	3,512	28	6,5281	29		
0,19885	30	6,5084	31	6,7952	30		
	0,19946 0,20736 0,18098 0,21658	0,19946 31 0,20736 34 0,18098 23 0,21658 37 0,19885 30	0,19946 31 7,9142 0,20736 34 3,0787 0,18098 23 2,461 0,21658 37 3,512	0,19946317,9142340,20736343,0787250,18098232,461150,21658373,512280,19885306,508431	0,19946317,91423410,7070,20736343,0787256,45840,18098232,461153,36670,21658373,512286,52810,19885306,5084316,7952		

Distribution	<u>Kolmogorov</u> <u>Smirnov</u>		<u>Anderson</u> Darling		<u>Chi-Squared</u>		
	Statistic	Rank	Statistic	Rank	Statistic	Rank	
<u>Beta</u>	0,11464	8	63,075	47	N/A		
<u>Gamma</u>	0,17582	32	4,578	20	7,0432	10	
<u>Lognormal</u>	0,14944	16	3,9524	16	10,553	20	
<u>Normal</u>	0,17504	31	5,523	25	7,1087	11	
<u>Weibull</u>	0,18174	33	8,5831	31	18,474	33	
Zone 6							

4.RESULTS and DISCUSSIONS

We investigated earthquake occurrences with different distribution models in the Marmara Sea and surrounding, Turkey. So, we used Beta, Normal, Gamma, Lognormal and Weibull distributions for 6 different seismogenic source zones in the Marmara Sea. We plotted for each zone as Probability Density Function (PDF), Cumulative Distribution Function (CDF), Hazard Function (HF), Cumulative Hazard Function (CHF), Survival Function (SF), Probability Difference, P-P plot, O-O plot. We estimated the best model for 6 different (Saroz Gulf, Marmara Sea, İzmit-Sakarya, Sakarya-Düzce, the southern branch of NAFZ, the southern of Marmara) seismogenic zone in the Marmara Sea and surrounding. While, Normal, Gamma, Lognormal and Weibull distributions for PDF function determined trust results in 6 different zone, Beta distribution wasn't determined trust results for 6 zone. Also, Beta distribution gave the opposite results when compared to other distributions ((CDF), (HF), (CHF), (SF), Probability Difference, P-P plot, Q-Q plot). So, we weren't decided to use the beta distribution for earthquake hazard researches in the Marmara Sea. We determined the best suitable model as Normal distribution for the assessment of earthquake occurrences in the Marmara Sea. So, we decided Normal distribution model for earthquake hazard studies in the Marmara Sea and surrounding. After, we investigated trust results with Goodness of Fit for used all distributions and obtained test results. Goodness of Fit concerned Kolmogorov Smirnov (K-S), Anderson Darling and Chi-Squared tests. As a result, we investigated different distribution models for earthquake hazard analysis. This study can be helpful science humans to determined earthquake hazard analysis in the Marmara Sea and surrounding.

REFERENCES

Bayrak Y, Türker T, (2017). Evaluating of the earthquake hazard parameters with Bayesian method for the different seismic source regions of the North Anatolian Fault Zone, Natural Hazards, 85, 379-401.

Ketin, İ., (1948). Uber die tektonisch-mechanischen Folgerungen aus den grossen anatolischen Erdbeden des letzten Dozennimus. Geologische Rundschau, 36, 77-83.

McKenzie, D., (1972). Active tectonics of the Mediterranean region. Geophysical Journal of the Royal Astronomical Society, 30, 109-185.

Şengör, A.M.C., Tüysüz, O., İmren, C., Sakınç, M., Eyidoğan, H., Görür, N., Le Pichon, X., and Rangin, C., (2005). The North Anatolian Fault: A New Look: Annual Review of Earth and Planetary Sciences, doi: 10.1146/annurev. earth.32.101802.120415.

CITATION: Proceedings of ICES 2018 – 1st International Congress on New Horizons in Education and Social Sciences, April 9-11, 2018- Istanbul, Turkey

ISBN: 978-605-2132-22-7

DOI: 10.21733/ibad.423556

FINAL RESULTS PART 2: CREATING OF PREDICTION MODEL MAPS OF EARTHQUAKE OCCURRENCES WITH GEOGRAPHIC INFORMATION SYSTEMS (GIS) IN THE MARMARA SEA AND SURROUNDING, TURKEY

Tugba Turker^{1*}, Yusuf Bayrak²

¹Phd. Student. Karadeniz Technical University, Turkey,tugbaturkerktu@gmail.com
²Prof. Dr. Karadeniz Technical University, Turkey,bayrak@ktu.edu.tr
*Corresponding Author

Abstract

In this study, we investigated earthquake occurrences to created prediction model maps in the Marmara Sea and surrounding. So, we used Geographic Information Systems (GIS) for this maps. After, the statistical analysis estimated for catalogue and study area divided into 6 different seismic source zone based on some important information. We used deterministic methods to investigated earthquake occurrences and created probability model maps in GIS. These methods were respectively, Inverse Distance Weighting (IDW) was a quick deterministic interpolator that was exact, Global Polynomial (GPI) was a quick deterministic interpolator that is smooth (inexact), Radial Basis Functions (RBF) were moderately quick deterministic interpolators that are exact, Local Polynomial (LPI) was a moderately quick interpolator that is smooth (inexact). We calculated earthquake occurrences and compared prediction model maps of this methods. As a result, Marmara Sea zone will be occur an earthquake at 7.5 magnitude in the next 100-year, while İzmit-Sakarya zone will be occur will be occur an earthquake at 6 and above magnitude in the next 100-year to determined predictions using four different method. This investigates in the Marmara Sea can be used to predict of earthquake occurrences by some scientists.

Keywords: Geographic Information Systems (GIS), the Marmara Sea and Surrounding

1. INTRODUCTION

The 1500-km-long North Anatolian Fault Zone (NAFZ) divided two branches into three branches to the east of the Marmara Sea according to some scientists. These branches finished where the westward escape of the Anatolian Block convert anticlockwise rotational range in the northern Aegean Sea and Edremit Bay. These three branches indicated distinct kinematic and seismic aspect in the Marmara region. First of all, the NAFZ divided into two branches west of about 30.5E latitude into two branches. While the northern strand of the North Anatolian Fault expanded from Bolu to Izmit (Bozkurt, 2001), the second branch expanded southward from Bolu and divided into two branches once more in the Pamukova Plain at about 30E latitude (Koçyigit, 1988). The northern of these final branches was the middle strand of the North Anatolian Fault that expanded nearly west-east along Iznik Lake, Gemlik Bay and Bandırma Bay. It altered aspect round the western part of Bandırma Bay and rotational south-westward into a fault zone created of a lot of faults. The southern branch of the North Anatolian Fault was a northeast-southwest-trending fault extension from Pamukova. The NAFZ formed the Yenişehir pull-apart basin with other fault to the north.

An eastern portion of a 150-kilometer-long segment of the North Anatolian Fault broke beneath Turkey's Marmara Sea in 1999 year. Consequently, the Izmit earthquake occurred a 7.6 magnitude quake in Turkey and it was series magnitude and some cities and towns destroyed thousands of lives. After an earthquake, scientists investigated the main Marmara Fault to find out if the segment is a locked or creeping fault. In the course of locked segments, energy set up quietly over time, before it is delivered quickly in big earthquakes. However, creeping faults, on the contrary to, nonstop delivered energy outside significant seismic complexity.

The Marmara Sea concluded different basins (Tekirdağ, Çınarcık, Central and Kumburgaz). We plotted epicentre distribution in the Marmara Sea and surrounding (Fig. 1). Addition, we selected 6 different seismogenic zone (Table 1). We compared faults with earthquake occurrences, so we realized buffer analysis in 5 and 10 km (Fig. 2).



LONGITUDE

Figure 1. The tectonic and epicentre distribution map plotted in the Marmara Sea and surrounding (1/3.000.000 scale).



Figure 2. The Buffer analysis map plotted for (a) 5-km and (b) 10-km in the Marmara Sea and Surrounding.

2. DETERMINISTIC METHODS FOR SPATIAL INTERPOLATION

Deterministic interpolation techniques formed surfaces from measured points, based on either the extent of similarity (inverse distance weighted) or the degree of smoothing (radial basis functions). Deterministic interpolation techniques occurred from two groups (global and local). While global techniques calculate estimated using the entire dataset, local techniques computed predictions from the measured points within neighborhoods. It are smaller spatial areas inside of the larger study area. Geostatistical Analyst included different technics as a global interpolator and inverse distance weighted, local polynomial, radial basis functions. In this study, we selected 4 different function (Inverse distance weighting (IDW), Global Polynomial (GPI), Radial Basis Functions (RBFs), Local Polynomial (LPI)) and plotted prediction maps of earthquake occurrences for the 6 different zone (Fig. 3, 4, 5, 6, 7, 8, 9 and 10).

ZONE NO	ZONE LOCATION	DATE	LONGİTUDE	LATİTUDE	Ms
1	Saroz Gulf	09.08.1912	27.20	40.60	7.3
		08.10.1912	27.10	40.60	6.3
2	Marmara Sea	22.05.1766	29.10	40.80	7.3
		10.07.1897	28.70	40.60	7.0
		18.09.1963	29.09	40.71	6.4
3	İzmit-Sakarya	17.08.1999	29.99	40.70	7.8
4	Sakarya-Düzce	20.06.1943	30.48	40.83	6.4
		26.05.1957	30.80	40.80	6.0
		12.11.1999	31.21	40.74	7.2
		23.08.2000	30.75	40.71	6.3
5	The Southern Branch of NAFZ	04.01.1935	27.45	40.30	6.3
		04.01.1935	27.49	40.30	6.4
		26.05.1957	31.00	40.58	7.0
6	The Southern of Marmara	18.11.1919	26.71	39.26	7.0
		10.06.1944	26.56	39.48	6.8

Table 1. The Marmara Sea and surrounding in the past years occurred Ms≥6.0 earthquakes for 6 different zones.

2.1. INVERSE DISTANCE WEIGHTED INTERPOLATION

Inverse distance weighted (IDW) interpolation clearly performed the guess that works that were immediate to one another were more similar than those that were further separate. According to predict a value for any unmeasured location, IDW applicationed the measured values surrounding the prediction location. The measured values immediately to the prediction location had more impact on the predicted value than those farther away. IDW supposes that every measured point had a local effect that reduced with space. It delivered greater weights to points immediately to the prediction location, and the weights decrease as a function of space, therefore the name inverse distance weighted.

A surface calculated using IDW. So, it counted on the choice of the power value (p) and the exploration neighborhood strategy. IDW was an exact interpolator that the maximum and minimum values in the interpolated surface can only form at sample points. The output surface was susceptible to clustering and the existence of outliers. IDW methods that the phenomenon being modeled is application by local variation that can be conquered (modeled) by characterizing an enough exploration neighborhood.


Figure 3. IDW function maps plotted to 6 different seismic source zone in the Marmara Sea.

2.2. RADIAL BASIS FUNCTIONS

Radial basis functions (RBFs) were a sequence of complete interpolation techniques also, the surface should crossed through each restrained sample value. Five distinct foundation functions available:

- Thin-plate spline
- Spline with tension
- Completely regularized spline
- Multiquadric function
- Inverse multiquadric function

Every basis function had a diverse form and results in a distinct interpolation surface. RBF methods were a specific situation of splines.

2.3. GLOBAL POLYNOMIAL INTERPOLATION

Global polynomial interpolation fits a smooth surface that is defined by a mathematical function (a polynomial) to the input sample points. The global polynomial surface changes gradually and captures coarse-scale pattern in the data.



Figure 4. RBFs function maps plotted to 6 different seismic source zone in the Marmara Sea.



Figure 5. Global Polynomial Interpolation function maps plotted to 6 different seismic source zone in the Marmara Sea.

2.4. LOCAL POLYNOMIAL INTERPOLATION

In the meanwhile global polynomial interpolation complied a polynomial to the whole surface, local polynomial interpolation complied many polynomials, every within represented overlapping areas. The exploration areas must be described by using the size and shape, number of earthquakes and sector format. Addition, the Exploratory Trend Surface Analysis parameter can be used to simultaneously change the Bandwidth, Spatial Condition Number (if enabled), and exploration areas values.



Figure 6. Local Polynomial Interpolation function maps plotted to 6 different seismic source zone in the Marmara Sea.

3. RESULTS and DISCUSSION

We explored earthquake occurrences to obtained prediction model maps using Geographic Information Systems (GIS) in the Marmara Sea and surrounding (between from 10 to 100 years). So, we used deterministic methods (Inverse Distance Weighting (IDW) was a quick deterministic interpolator that was exact, Global Polynomial (GPI) was a quick deterministic interpolator that is smooth (inexact), Radial Basis Functions (RBF) were moderately quick deterministic interpolators that are exact, Local Polynomial (LPI) was a moderately quick interpolator that is smooth (inexact)) for prediction magnitudes of earthquake occurrences. We calculated earthquake occurrences and compared prediction model maps of this methods. Whole prediction maps observed low magnitudes with blue colors, also observed medium magnitudes with yellow and orange colors, but observed high magnitudes with red colors. IDW function will be occur 4 and above earthquakes up to the next from 10 years to 40 years, but observed higher 5 and above earthquakes prediction up to 50 years and also, will be occur 6 and above earthquakes up to 100 years in the all zones. RBFs will be occur 4, 5, 6 and above all earthquakes up to from 10 years to 100 years in the all zones. While Local Polynomial Interpolation function won't be occur 4 up to from 10 to 40 years and above earthquake, will be occur 5 and 6 above earthquakes between in the next from 10 to 100 years. While Global Polynomial Interpolation function will be occur with higher prediction of 4 and 6 above earthquakes between 10, 20, 30, 40 and 100 years, will be occur with lower prediction of 5 and above earthquakes in the next 80 years. Consequently, Marmara Sea zone will be occur an earthquake at 7.5 magnitude with %0.5 probability in the next 100 years, while İzmit-Sakarya zone will be occur

will be occur an earthquake at 6 and above magnitude with % 0.5 probability in the next 100 years to determined predictions using four different method.



LONGITUDE



Figure 7. IDW function maps plotted to all zones in the Marmara Sea and surrounding.

LONGITUDE



LATITUDE



LONGITUDE

Figure 9. RBFs function maps plotted to all zones in the Marmara Sea and surrounding.



LONGITUDE

Figure 10. Local Polynomial Interpolation function maps plotted to all zones in the Marmara Sea and surrounding.

REFERENCES

Bozkurt, E., (2001). Neotectonics of Turkey ^ a synthesis. Geodin. Acta 14, 3-30.

Koçyiğit, A., (1988). Tectonic setting of the Geyve basin: age and total displacement of Geyve fault zone. METU Pure Appl. Sci. 21, 81-104.

CITATION: Proceedings of ICES 2018 – 1st International Congress on New Horizons in Education and Social Sciences, April 9-11, 2018- Istanbul, Turkey

ISBN: 978-605-2132-22-7

DOI: 10.21733/ibad.423557

PAREMIOLOGICAL UNITS OF METONIMIC NATURE IN ENGLISH, RUSSIAN AND TATAR LANGUAGES

Indira Tukhvatullina^{1*}, Elvina Kapustina²

¹Lec., Kazan Federal University, Russia, itukhvatullina@mail.ru ²Lec., Kazan Federal University, Russia, itukhvatullina@mail.ru *Corresponding author

Abstract

Every language has its own sets of proverbs, owing their origin to literary works or religious books. Proverbs from different languages are popular and used many times by all people. Many authors and the story-tellers use the provers quite often to emphasis their points and perceptions. The political orators as well as the religious preachers use the proverbs from their respective religions to make their points strong and convincing.

Proverbs are words of wisdom or simple home truths expressed in a sentence often metaphoric or metonymic in nature. Proverbs and sayings of metonymic nature are the least studied part of the modern paremiological foundation. The relevance of this work is bound to the growing interest to Oriental and European languages and intercultural communication, because paremiological units contain specific knowledge about the people speaking the language, their culture, history, etc.

Key words: paremia, proverbs, mrtonymy, research, education, curricular.

1. INTRODUCTION.

The study of proverbs is called paremiology (from Greek $\pi\alpha\rho\circ\mu(\alpha - paroimía, "proverb")$ and can be dated back as far as Aristotle (Wikipedia, the free encyclopedia). Paremiology as a philological science of modern times dates back to the 19th century. It studies paremia, which draw the attention of both folklorists and linguists, while applying literary and linguistic research methods. Folklorists study proverbs, jokes, proverbs, tongue twisters, riddles, little songs, that is, small folk genres, within the framework of paremiology.

1.1 The proverb is a genre of folklore, an aphoristically compressed, figurative, grammatically and logically finished saying with an instructive meaning, in a rhythmically organized form ("What you sow, you will reap"). The proverb is "a short parable, a judgment, a verdict, a lecture, expressed in plain outrage and put into circulation, under the mint of a nationality". "Proverb is a flower, a proverb is a berry" [Dal 2000].

The proverb is portrayed by Lord Russell as "The wisdom of many, the wit of one" and by Cervantes as "Short sentences drawn from long experience." Ibn Ezra describes the proverb as having "three characteristics: few words, good sense, and a fine image."

The world's leading paremiologist, Wolfgang Meider (1985) has defined the proverb as "a short, generally known sentence of the folk which contains wisdom, truth, morals, and traditional views in a metaphorical, fixed and memorizable form and which is handed down from generation to generation". He also points to some proverbs which refer to the definition of proverbs for example; "Proverbs are the children of experience," "Proverbs are the wisdom of the streets," and "Proverbs are true words." "Proverbs obviously

contain a lot of common sense, experience, wisdom, and truth, and as such they represent ready-made traditional strategies in oral speech acts and writings from high literature to the mass media". Neal Norrick (1985) has proposed the following definition for the proverb: "The proverb is a traditional, conversational, didactic genre with general meaning, a potential free conversational turn, preferably with figurative meaning." Using a linguistically crafted matrix, isolates the key features of the proverb as: (1) a propositional statement (hence eliminating proverbial phrases such as "bite the dust" and larger units such as fables); (2) sayings woven into the fabric of a conversation (as opposed to riddles, jokes or tales which are set off from a conversation]; (3) a traditional and spoken statement (in contrast to aphorisms [statement of insight, often paradoxical and thought provoking] and epigrams [a brief poem of a single point] which are typically written, non-traditional, and attributed to a particular author); and (4) a fixed form with didactic intent and completeness of thought (dissimilar to cliches that lack didactic intent). Furthermore, a proverb is a generalization, unlike a curse or blessing that is personal and particular. A proverb may be figurative when it uses metaphors or similes or plainly literal (maxim). Usually it is poetically enhanced through such techniques as rhyme, alliteration, ellipsis, paronomasia, repetition or parallelism which aid in making it memorable and quotable (Norrick, 14).

2. PROBLEM STATEMENT AND RESEARCH QUESTIONS

One of the little-studied sources of modern paremiology are proverbs and sayings of metonymic nature. The relevance of this work lies in the fact that communication problems of various cultures and peoples are intensively investigated in connection with the increasing significance of knowledge of Eastern and European languages. Paremiology increases the effectiveness of learning vocabulary, contributes to the enrichment of the language of cross-cultural knowledge, reflecting the specific conditions of life.

The aim of our study is a comparative analysis of metonymic paremia in three languages in various aspects: lexical, grammatical and syntactic. To do this, it is necessary to solve the following tasks: a) to define the phraseology as a science and consider the stages of its development; b) to review existing definitions and classifications of paremiological units in the work of Russian and foreign researchers; to show that phraseology and paremiology have different objects of study; c) to define metonymy and show the place of its use in paremia; d) to investigate the main features of the lexical and grammatical forms of proverbs and sayings of a metonymic nature in three languages: Russian, Tatar and English.

The object of the research are Russian, Tatar and English Proverbs and sayings of metonymic nature, identified on the basis of sampling from dictionaries and literary texts.

3. METHODS AND METHODOLOGY

2.1.1 Proverbs and sayings of a metonymic nature are the subject of our study, identified on the basis of a sample of dictionaries and literature. The theoretical and methodological basis for the study are the ideas and concepts given in scientific studies of such authors as S. Adalberg, A. Aksamitov, F. Schindler, V. Zhukov, V. Dal, E. Ivanova, V. Mokienko, G. Permyakov, I. Snegireva, I. Franko, F. Cermak and others. The material for the study was 1200 English proverbs and sayings from the "Dictionary of modern English floorboards and sayings," 3,000 English proverbs from the manual "English proverbs and sayings and their Russian correspondences" by V. Modestov, which includes, in addition to sayings and phraseological phrases, the dictionary of V. Dal "Proverbs of the Russian people", which includes 30,000 proverbs.

2.1.2 The words *metonymy* and *metonym* come from the Greek $\mu\epsilon\tau\omega\nu\nu\mu$ (α , 'metōnymía', "a change of name", from $\mu\epsilon\tau\alpha$, 'metá', "after, beyond", and - $\omega\nu\nu\mu$ (α , '-ōnymía', a suffix that names figures of speech, from ő $\nu\nu\mu\alpha$, 'ónyma' or ő $\nu\nu\mu\alpha$, 'ónoma', "name". Scholars have long been interested in metonymy as a literary and rhetorical device. Ancient Greek and Latin scholars discussed the way in which metonymy changed words and meanings by providing new referents and connections between concepts. Authors have used metonymy for millennia for many different reasons. One primary reason is simply to address something in a more poetic and unique way. Authors can also add more complexity and meaning to ordinary words by using metonymy, thereby drawing the reader's attention to what otherwise would not be noticed. Sometimes metonymy is also helpful to make statements more concise.

The classical definition of metonymy belongs to the ancient Roman rhetorician and thinker Mark Fabius Quintilian (circa 35 - circa 96 AD): "Metonymy consists in replacing one name with another. Its essence consists in replacing what is said about the cause of this latter." That is, "renaming names borrows from related or close objects names, by which things can be implied, not called by their real names". This should be understood in such a way that "metonymy is the replacement of one concept by another, related to, being with it in connection which is necessary or accidental." So it can be named: a) the cause or the person producing the action, instead of what they say about; b) the material from which the thing is made, instead of the name of

the thing itself; c) abstract nouns instead of concrete ones; d) containing instead of content or owner instead of possession, and vice versa; e) a feature of the object instead of the object itself.

"Metonymy has primarily a referential function, that is, it allows us to use one entity to stand for another. But metonymy is not merely a referential device. It also serves the function of providing understanding. For example, in the case of the metonymy THE PART FOR THE WHOLE there are many parts that can stand for the whole. Which part we pick out determines which aspect of the whole we are focusing on. When we say that we need some good heads on the project, we are using "good heads" to refer to "intelligent people." The point is not just to use a part (head) to stand for a whole (person) but rather to pick out a particular characteristic of the person, namely, intelligence, which is associated with the head..."(George Lakoff 2003).

"Metonymy is the relationship between two types of lexical meanings - subject-logical and contextual, based on the identification of specific relationships between objects." (A. Potebnya p. 139). "... this is a path or mechanism of speech consisting in the regular or occasional transfer of a name from one class of objects or a single object to another class or a separate object associated with the data by contiguity, involvement in one situation" (N. Arutyunova, In: Linguistic Encyclopedic Dictionary, Moscow, 1990, p.300).

Like metaphors, metonymies are not random or arbitrary occurrences, to be treated as isolated instances. Metonymic concepts are also systematic, as can be seen in the following representative examples that exist in our culture. THE PART FOR THE WHOLE Get your butt over here! We don't hire longhairs. The Giants need a stronger arm in right field. I've got a new four-on-the-floor V-8. PRODUCER FOR PRODUCT I'll have a Lohrenbrc u. He bought a Ford. He's got a Picasso in his den. I hate to read Heidegger. OBJECT USED FOR USER The sax has the flu today. The BLT is a lousy tipper. The gun he hired wanted fifty grand. We need a better, 'lolveat third base. The buses are on strike. Nixon bombed Hanoi. Ozawa gave a terrible concert last night. Napoleon lost at Waterloo. Casey Stengel won a lot of pennants. INSTITUTION FOR PEOPLE RESPONSIBLE Exxon has raised its prices again. You'll never get the university to agree to that. The Army wants to reinstitute the draft. The Senate thinks abortion is immoral. I don't approve of the government's actions. THE PLACE FOR THE INSTITUTION The White House isn't saying anything. Washington is insensitive to the needs of the people. The Kremlin threatened to boycott the next round of SALT talks. Paris is introducing longer skirts this season. Hollywood isn't what it used to be. Wall Street is in a panic. ((39)) THE PLACE FOR THE EVENT Let's not let Thailand become another Vietnam. Remember the Alamo. Pearl Harbor still has an effect on our foreign policy. Watergate changed our politics.

2.1.3 In this research work proverbs and sayings of metonymic nature are represented by three groups (or relations). Here are the most frequent types of them:1) paremia, in which an organ performs an action:

Walls have ears. И у стен есть уши. Колак торгызу. One hand washes the other. Рука руку моет. Кул кулны юа. An ox is taken by the horns, and a man by the tongue. Язык мой — враг мой, наперёд ума лепечет. Язык без костей: скажет и обратно спрячется. Тел сөяксез (ни сөйләмәс). Out of sight, out of mind. C глаз долой – из сердца вон. Күздән киткән – күңелдән киткән.

2) paremia where a tool is used to signify a job it does:

Money begets money. Деньги к деньгам идут. Акча акчаны ярата. Many words hurt more than swords. Слово пуще стрелы разит. Әйткән сүз - аткан ук. The tongue is not steel yet it cuts. Бритва скребет, а слово режет. Кеше сүзе кешене үтерә. Hard words break no bones. Слово лечит, слово и калечит. Яхшы сүз - җан азыгы, яман сүз - баш казыгы.

3) paremia where an object is comparing with another one:

Blood is thicker than water. Кровь людская не водица. Кан су тугел. An ounce of practice is worth a pound of theory.

The above proverbs have a structure inherent in proverbs, where there is a comparison of two qualities, things, properties, etc., where a hierarchy of priorities is built.

CONCLUSION

The practical significance of this study is reduced to an understanding of the nature and essence of the proverbs and sayings in different languages, a comparison of their lexical and grammatical features, and the use of English in the classroom as part of the university and school curricula.

Proverbs and sayings as the most powerful and effective instrument for the transmission of culture, social morality, manners and ideas of a people from one generation to another have been the object of attention and research.

As proverbs are universal, there are analogous proverbs in different nations that have related cultural patterns. Proverbs are therefore useful in the students' discussions of cultural ideas when they compare the proverbs' equivalents in different languages.

REFERENCES

Arutyunova, N. Linguistic Encyclopedic Dictionary.(1990). Moscow, p.300

Bayramova, L. Educational thematic Russian-Tatar phraseological dictionary.(1991). Kazan.

Collins V.H. A book of English Proverbs. (1974). Greenwood press

Dal, V. Proverbs and sayings of Russian people. (2003). Moscow: Eksmo NNN, p.616.

Isenbet, N. Tatar phraseological dictionary: 2 books. (1989-1990). Kazan.

Longman Dictionary of Contemporary English. (2001). London.

Longman Dictionary of English Idioms. (1996). London

MacCoinnigh, M. (2012). Syntactic structures in Irish-language proverbs. Proverbium: Yearbook of

MacCoinnigh, M. (2014). Structural aspects of proverbs. In H. Hrisztova-Gotthardt & M.A.Varga (Eds.),

Introduction to paremiology: A comprehensive guide to proverb studies, p.112-132.

Mieder, W. (2004). Proverbs: A Handbook. London: Greenwood Press, p. 119.

Meider, W. Dundes, A. (1995). The Wisdom of Many: Essays on the Proverb, (Ed). NewYork: Garland.

Mieder, W. (2005). A proverb is worth a thousand words: Folk wisdom in the modern mass media. Proverbium, vol. 22, p. 167 - 234.

Mieder, W. (2012). Think outside the box: Origin, nature, and meaning of modern Anglo-American proverbs.

Proverbium: Yearbook of International Proverb Scholarship, vol. 29, p. 137-196.

Norrick, N.R. (1985). How Proverbs Mean? Semantic Studies in English Proverbs. Amesterdom: Mouton.

Norrick, N.R. (2014). Subject area, terminology, proverb definitions, proverb features. In H. Hrisztova-Gotthardt

Palmer, G. B. (1996). Toward a theory of cultural linguistics. Austin, TX: University of Texas Press.

Grigorii L'vovich Permiakov. 1989. On the question of a Russian paremiological minimum. *Proverbium*Safiullina, F. Tatar-Russian phraseological dictionary. (2001). KazanSchuster. E. (1998). Proverbs: A Path to Understanding Different Cultures. Journal of Extension, 36.1,18-23.

CITATION: Proceedings of ICES 2018 – 1st International Congress on New Horizons in Education and Social Sciences, April 9-11, 2018- Istanbul, Turkey

ISBN: 978-605-2132-22-7

DOI: 10.21733/ibad.423559

THE EFFECT OF CONTEXT-BASED LEARNING ON THE ATTITUDE TOWARDS THE DAILY LIFE CHEMISTRY

Canan Kocak Altundag^{1*}, Fatma Alkan²

¹Assoc. Prof. Dr., Hacettepe University, Turkey, canan.kck@gmail.com ² Assoc. Prof. Dr., Hacettepe University, Turkey, alkanf@hacettepe.edu.tr *Corresponding author

Abstract

While such traditional approaches have dominated mainstream chemistry classrooms throughout the last 20 years, an alternative approach to chemistry teaching has emerged in a minority of classrooms during this time. These pedagogical approaches fall under the umbrella of 'context-based' teaching and have been trialled in an attempt to make the learning of chemistry meaningful for students by situating the learning in students' realworlds. Every day, more studies focus on teaching models, methods and strategies shaped around active learning-based approaches. One of the teaching methods promoting active participation of students in their learning processes is the "Context-based Learning Model". The research aims to analyse the effects of the chemistry experiments, which have been prepared according to context-based learning, on the daily life chemistry attitudes of preservice chemistry teachers. The sampling of the study consisted of 17 preservice chemistry teachers studying at Hacettepe University, Faculty of Education. This is a two-dimensional research study where qualitative and quantitative research methods are used together. The effects of designed experiments and materials on preservice chemistry teachers' attitudes towards everyday life chemistry will be examined. The study was participated by 17 preservice chemistry teachers studying at Hacettepe University, Faculty of Education. This study was conducted using the pre-posttest design involving a treatment group. The treatment group was taught within the context-based teaching model. The scores obtained by participating groups from The Attitudes towards Chemistry Scale (Koçak, 2014).

Keywords: Context-based chemistry teaching, preservice chemistry teachers.

1 INTRODUCTION

In the ever-changing world, there is a need for individuals who embrace innovations and developments while being aware of their responsibilities. For a community to reach modern levels, it is never enough to transfer knowledge, beliefs and emotions to individuals directly. Today, individuals are required to produce knowledge rather than consuming it. An individual in a modern world neither accept the transferred knowledge directly nor expect to be shaped or directed; they interpret knowledge and participate actively in process of constructing the meaning. Individuals of the modern world have different ways of perceiving, understanding, approaching, problem solving and learning. Active teaching and learning becomes more important to teachers and students in

this respect. In general, active learning is the learning when the student actively participates in learning. It is important to put the learner in the position of an active participant in learning rather than being an observer. In other words, the learner does not simply participate in the learning process, but is encouraged to use his/her skills, think, interpret knowledge and make decisions (Rubin & Herbert, 1998).

Physical sciences are one the leading science branch that promotes scientific thinking of students. However, negative perceptions that students have towards physical sciences can prevent their abilities to conduct their scientific thinking effectively. When causes of negative perceptions that students have towards science classes are analysed it appears the fact that a lot of factors are effective. The most prevalent one among these factors is the topics of physical sciences. Since there is no connection between daily life, and science topics are more in number and abstract, it causes students to show a negative attitude towards classes of physical sciences (Osborne & Collins, 2001; Gilbert, 2006). How can negative attitudes of students towards classes of physical sciences be turned into positive attitudes? According to researchers, improvement in educational environment is necessary. For the improvement of educational environment, contexts should be established. The contexts that are meaningful and expedient, especially in classes of physical sciences, make the learning process of the content and scientific concepts easy (Holbrook, 2010). Today's educators of physical sciences are all agree with the idea that contexts are necessary in physical sciences for students to have the ability of scientific literacy (Mork & Jorde, 2004). Then, what is context? De Jong (2008) answers the question of what context is. "Context is a situation that helps students to make some sense out of scientific rules, concepts, and laws." In context-based learning, basic concepts are conveyed by being associated with daily life. Establishing concepts between daily life, and concepts and the content of the class is not as easy as it is thought. Especially in a chemistry class, caution is warranted while preparing contexts. It is because topics of the chemistry class have a spiral and related pattern (Bennett, Grasel, Parchmann, & Waddington, 2005). Therefore, the role of teachers and their approaches towards context-based teaching in implementing context-based education effectively are so important. As interests of students depend on the topic being taught during the class, it may also depend on social, emotional, or methodical behaviour of the teacher. Attitudes that teachers have influence the teaching approaches that they conduct, and teachers adopt positive or negative attitudes with their experiences throughout their instruction life (Hewson & Hewson, 1988). Thus, preservice chemistry teachers should be involved in learning environments that they gain experience providing positive changes on their attitudes towards chemistry class before they step into teaching profession.

2 METHODOLOGY

The research aims to analyse the effects of the chemistry experiments, which have been prepared according to context-based learning, on the daily life chemistry attitudes of preservice chemistry teachers. The sampling of the study consisted of 17 preservice chemistry teachers studying at Chemistry department of Hacettepe University, Faculty of Education. The experiments were designed according to learning outcomes for chemistry courses principles. The preservice chemistry teachers were handed out worksheets on the topic of the day. A passage from the first part of the worksheet about a daily life event was read along with the students. Relevant contexts were given to the preservice chemistry teachers to arouse their curiosity. The preservice chemistry teachers then participated in a discussion where questions about the reasons for the event were asked. In the focus phase of the generative learning model, experiments were performed to concretize the perceptions of the preservice chemistry teachers that were acquired in at the preliminary phase. Later on, the observations of the preservice chemistry teachers during the experiment and their conclusions were discussed. Following the experiments, the preservice chemistry teachers' theoretical knowledge was clarified. In the challenge phase of the generative learning model, the preservice chemistry teachers completed the activities on the worksheet (puzzles, matching questions, gap filling). They were informed of various examples of the use of topics in everyday life. The activities enabled the preservice chemistry teachers to achieve their missing knowledge and establish links with their existing knowledge. In the final phase of the generative learning model, the preservice chemistry teachers tried to solve the problems on worksheets selected from daily life events related to topics using the knowledge they had attained. A general evaluation together with the preservice chemistry teachers was made about their understanding about topics. During the evaluation, the main focus was on enabling the preservice chemistry teachers to link their existing knowledge with the new knowledge. This is a twodimensional research study where qualitative and quantitative research methods are used together. The scores obtained by participating groups from The Attitudes towards Daily Life Chemistry Scale (Koçak, 2014). The Attitudes Towards Daily Life Chemistry scale consisted of 15 items. Within the qualitative research dimension of the study, data collected from preservice chemistry teachers were evaluated through content analysis, while the quantitative dimension of the study was evaluated using tables displaying the statistical analysis results.

3 RESULTS

3.1 Quantitative Findings

3.1.1 Findings of Preservice Chemistry Teachers' Opinions on the Benefits of Daily Life Chemistry

The Daily Life Chemistry Attitude Scale items include the benefits of daily life chemistry. Descriptive statistics of the opinions of preservice chemistry teachers about the benefits of daily living chemistry are summarized in Tables 1 and 2.

Table 1. The descriptive statistical results of preservice chemistry teachers towards the benefits of the daily life chemistry

	Tests	Mean
Attitudes of preservice chemistry teachers towards the benefits of	Pre-test	4.03
the daily life chemistry	Post-test	4.21

According to the finds (Table 1) that have been acquired at the end of the research, after context-based chemistry implementations, positive attitudes of preservice chemistry teachers towards the benefits of the daily life chemistry have increased and there have been some changes in their points of view.

Table 2. Results of preservice chemistry teachers towards the benefits of th	e daily life chemistry
	<i>c</i> aany me enemes

	Tests	Mean	Sd
I think daily life chemistry information will be very useful.	Pre-test	3.70	1.403
	Post-test	4.00	1.17
The daily life chemistry affects the chemistry viewpoint.	Pre-test	3.94	1.24
	Post-test	4.23	.664
The daily life chemistry provides concrete thinking.	Pre-test	3.88	.927
	Post-test	3.94	.747
The daily life chemistry provides better interpretation of chemistry course information.	Pre-test	4.17	1.01
course mormation.	Post-test	4.47	.717
The daily life chemistry allows you to understand the essence of	Pre-test	4.23	1.14
chemistry.	Post-test	4.23	.970
The Daily life chemistry topics make the concept easier.	Pre-test	4.05	1.08
	Post-test	4.23	1.03
Chemistry information becomes more permanent as it relates to daily	Pre-test	4.23	1.14
life.	Post-test	4.35	.996

Context-based chemistry implementations have become influential in order for preservice chemistry teachers to adopt positive attitudes towards the idea that the daily life chemistry ensures concrete thinking, a more effective interpretation of information, understanding the essence of chemistry, facilitating comprehending topics, and

making information more useful and permanent.

3.1.2 Findings of Preservice Chemistry Teachers' Negative Attitudes towards Daily Life Chemistry

The level of participation of the preservice chemistry teachers in the items indicating the negative attitudes of the Daily Life Chemistry Attitude Scale was examined (Table 3 and Table 4).

Table 3. The descriptive statistical results of preservice chemistry teachers negative attitudes towardsdaily life chemistry

	Tests	Mean
Negative Attitudes of preservice chemistry teachers towards the	Pre-test	4.07
daily life chemistry	Post-test	3.97

After context-based implementations, it has emerged that participation levels of preservice chemistry teachers in negative attitude choices towards the daily life chemistry have decreased.

Table 4. Results of preservice chemistry teachers negative attitudes towards the daily life chemistry

	Tests	Mean	Sd
The chemistry of everyday life is very boring.	Pre-test	4.00	.866
	Post-test	3.88	1.26
It is illogical to carry daily life class in chemistry classes.	Pre-test	4.00	1.41
	Post-test	3.82	1.46
It is not meaningful that chemistry course topics are related to daily life.	Pre-test	4.23	1.14
ine.	Post-test	4.03	.831

According to research results, it is defined that participation levels in negative attitudes such as the idea that daily life chemistry is boring, and transporting daily life into the class is unnecessary and meaningless have noticeably decreased and more positive attitudes towards the daily life chemistry have been gained after context-based implementations

3.1.3 Findings of Preservice Chemistry Teachers' Other Opinions towards Daily Life Chemistry

The other attitudes of the preservice chemistry teachers towards the daily life chemistry were examined and indicated in Tables 5 and 6.

Table 5. The descriptive statistical results of preservice chemistry teachers other opinion towards the daily life chemistry

	Tests	Mean
The Other Attitudes of preservice	Pre-test	4.21
chemistry teachers towards the daily life chemistry	Post-test	4.43

The results of the other positive attitudes of the preservice chemistry teachers towards their daily life chemistry are shown in Table 5.

	Tests	Mean	Sd
Preservice chemistry teachers should be conscious about the chemistry of daily life.	Pre-test	4.29	.985
	Post-test	4.41	1.00
Relationships between events in everyday life and chemistry topics should be established.	Pre-test	4.17	1.131
should be established.	Post-test	4.41	1.00
The chemistry can be made more interesting by associating it with	Pre-test	4.17	1.13
everyday life.	Post-test	4.47	1.00

Table 6. Results of preservice chemistry teachers other attitudes towards the daily life chemistry

After the context-based chemistry implementations conducted in the research, preservice chemistry teachers think that it is necessary to be more conscious when it comes to the daily life chemistry.

3.2 Qualitative Findings

3.2.1 Qualitative Findings of Preservice Chemistry Teachers' Opinions on the Benefits of Daily Life Chemistry

A question was asked to preservice chemistry teachers about the benefits of daily life chemistry. Preservice chemistry teachers generally reported opinions that the chemistry of daily life provides experience with persistent learning, concrete thinking.

It is understood from the following expressions that the preservice chemistry teachers' daily life chemistry is beneficial:

S1: I like working with examples from everyday life. Because it's more permanent.

S5: I find work on daily life more permanent. The person provides experience and observation.

S8: Activities on the subject of daily life can provide concrete thinking in a short time. Time is ahead of everything and it is very important that the information is always in the mind.

S12: I think the daily life chemistry events are more memorable.

S10: By doing daily life chemistry experiments, information can be made more permanent and instructive.

S11: It is better for us to learn theoretically and practice it in practice. For this reason, context-based chemistry is important for our learning, understanding and application.

3.2.2 Oualitative Findings of Preservice Chemistry Teachers' Negative Attitudes towards Daily Life Chemistry

It was determined that when preservice chemistry teachers were asked what their thoughts about reconciling daily life and chemistry lessons were, they developed positive attitudes toward chemistry of daily life from their thoughts.

Examples of positive attitudes of preservice chemistry teachers are given below:

S3: When chemistry is associated with everyday life, it can be ensured that someone is having fun, being interested and working in discipline.

S7: I prefer to study daily life chemistry. Because it's more fun.

S9: We have to experiment in some daily life situations to get clearer results.

S5: It makes sense to bring me daily life in chemistry classes. I prefer to do things because I can not see the consequences and explain it.

S4: It is very meaningful to put the chemistry subjects explained in theory into practice by relating them to daily life.

3.2.3 Qualitative Findings of Preservice Chemistry Teachers' Other Opinions towards Daily Life Chemistry

Other important attitudes of preservice chemistry teachers towards daily life chemistry have been tried to be determined by other questions. It has been determined that the candidates should be sufficiently conscious of the chemistry of daily life before they become preservice chemistry teachers in the answers they give to the questions.

A few examples from preservice chemistry teachers are as follows:

S8: Preservice chemistry teachers should be conscious about the chemistry of daily life. Because when you graduate from classical experiments, your experiments should be studies that can match daily life. Thus, when they graduate, they can study lessons in the direction of students' interest and curiosity.

S2: In theoretical experiments, this is how it is supposed to be known. In everyday life applications, you see the proof by doing it yourself. It is more intelligent and conscious learning.

S4: The chemistry of everyday life is effortless and learned more quickly. For this reason, the lesson of chemistry can be explained in relation to the events in everyday life.

S6: There is chemistry in every moment of our life. Chemistry can make this more interesting.

S3: Context-based chemistry classes are the environment in which we can learn something new.

S9: In order to acquire information that complements each other, it is necessary to establish relations between the events in daily life and chemistry subjects.

4 CONCLUSION AND DISCUSSION

The research aims to analyse the effects of the chemistry experiments, which have been prepared according to context-based learning, on the daily life chemistry attitudes of preservice chemistry teachers. According to the finds that have been acquired at the end of the research, after context-based chemistry implementations, positive attitudes of preservice chemistry teachers towards the benefits of the daily life chemistry have increased and there have been some changes in their points of view. According to Lamanauskas (2003), education of physical sciences has a significant role in widening the mindsets of those who learn it. It is because the fact that in science classes, students get acquainted with real and concrete informations which are a part of daily life. Hence, when the chemistry class is associated with daily life, important changes in the points of view of students can happen. In the research, positive opinions of preservice chemistry teachers about the idea that information related to the daily life chemistry can be beneficial for them have increased thanks to context-based chemistry implementations. In the work conducted by Wu (2003), it has occurred that students have transformed their daily life experiences into scientific information with the daily life-based implementations that are executed in chemistry teaching, and therefore they have made the information more practical. Researches of the opinion that a bond can be established between the chemistry class and daily life through such activities state that students can have an opportunity to practice their information in such learning environments. Context-based chemistry implementations have become influential in order for preservice chemistry teachers to adopt positive attitudes towards the idea that the daily life chemistry ensures concrete thinking, a more effective interpretation of information, understanding the essence of chemistry, facilitating comprehending topics, and making information more useful and permanent. In the work conducted by Kerber and Akhtar (1996), a daily life-based general chemistry laboratory programme was prepared. Inside the lab, topics of chemistry class were told by being associated with daily life, and were supported with laboratory activities. The students who were participated in the work stated that they learned more information unlike traditional laboratory classes, and they would suggest their friends to attend such classes. After context-based implementations, it has emerged that participation levels of preservice chemistry teachers in negative attitude choices towards the daily life chemistry have decreased. When results of the research carried out by Ulusoy and Önen (2014) are analysed, it is found that context-based chemistry motivations of the students have increased after context-based activities and the students have improved positive attitudes towards the chemistry class. According to research results, it is defined that participation levels in negative attitudes such as the idea that daily life chemistry is boring, and transporting daily life into the class is unnecessary and meaningless have noticeably decreased and more positive attitudes towards the daily life chemistry have been gained after context-based implementations. In the work conducted by Wanjek (2000), after the daily life chemistry themed experiments and chemistry applications associated with daily life, it is detected that there are some positive progress in the attitudes of the students towards chemistry class. They have expressed that they find chemistry topics boring since the chemistry class has no connection with daily life, but they have stated that they like this practice so much because it combines chemistry topics

with daily life. After the context-based chemistry implementations conducted in the research, preservice chemistry teachers think that it is necessary to be more conscious when it comes to the daily life chemistry. After the result of the work carried out by Schmidt, Freienberg, and Flint (2002), following the activities themed the daily life chemistry, semi-structured interviews were had with the students. In general, the students stated that they were so pleasant about the activities and such daily life themed activities should be made more often. In the result of the work conducted by Huntemann and his friends (1999), the students remarked that they enjoyed in daily life-based chemistry class, and it was a quite interesting class for them, and also the content is also interesting. In other words, findings obtained show that the students were so content about the context-based chemistry class. During the training of preservice chemistry teachers, they are over-loaded with the information about their own branches, but they cannot gain the ability to apply that information to different situations and daily life very well (Özmen, 2003). Although it is often mentioned that it is necessary to associate the chemistry class with daily life, with reference to the idea that daily life-based learning activities are not sufficient for teacher training, this research has been designated. For this reason, the experimental activities that are of the practical implementations of the daily life chemistry and designated according to the learning perspective of preservice teachers have been carried out.

REFERENCES

Bennett, J., Grasel, C., Parchmann, I. & Waddington, D. (2005). Context-based and conventional approaches to teaching chemistry: comparing teachers' views. *International Journal of Science Education*, 27(13), 1521–1547.

De Jong, O. (2008).Context-based chemical education: How to improve it? *Chemical Education International*, 8(1), 1-7.

Gilbert, J.K. (2006). On the nature of –context in chemical education. *International Journal of Science Education*, 28(9), 957–976.

Hewson, P. W. & Hewson, M. G. (1988). On Appropriate Conception of teaching Science: a view from studies of science learning. *Science Education*, 75 (1), 529-540.

Holbrook, J. (2010). Education through science as a motivational innovation for education for all. *Science Education International*, 21(2), 80-91.

Huntemann, H., Paschmann, A., Parchmann, I. & Ralle, B. (1999). Chemie im kontext - ein neues konzept für den chemieunterricht? Darstellung einer kontextorientierten konzeption für den 11. Jahrgang. *CHEMKON*, 6(4), 191-196.

Kerber, R. C. & Akhtar M. J. (1996). Getting real: a general chemistry laboratory program focusing on —real world substances. *Journal of Chemical Education*, 73(11), 1023-1025.

Lamanauskas, V. (2003). Natural science education in contemporary school. Siauliai: Siauliai University Press.

Mork, S. M. & Jorde, D. (2004). We know they love computers, but do they learn science? using information technology for teaching about a socio-scientific controversy. *Themes in Education*, 5(1), 69-100.

Osborne, J. & Collins, J. (2001). Pupils' views of the role and value of the science curriculum: A focus-group study. *International Journal of Science Education*, 23(5), 441–467.

Özmen, H. (2003). Kimya öğretmen adaylarının asit ve baz kavramlarıyla ilgili bilgilerini günlük olaylarla iliĢkilendirebilme düzeyleri. *Kastamonu Eğitim Dergisi*, 11 (2), 317-324.

Schmidt, S. Freienberg., J. & Flint A. (2002). Backpulver und das prinzip von le chatelier. *CHEMKON* 9(3), 142-143.

Ulusoy, F. M. & Önen, A. S. (2014). A research on the generative learning model supported by context-based learning. *Eurasia Journal of Mathematics, Science & Technology Ed*ucation, 10(6), 537-546.

Wanjek, J. (2000). *Einflüsse von alltagsorientierung und schülerexperimenten auf den erfolg von chemieunterricht*. Inaugural-Dissertation zur Erlangung des akademischen Grades des Doktors, Westfälischen Wilhelms-Universität, Münster.

Wu, H. (2003). Linking the microscopic view of chemistry to real-life experiences: intertextuality in a high-school science classroom. *Science Education*, 87, 868–891. DOI:10.1002/sce.10090.

CITATION: Proceedings of ICES 2018 – 1st International Congress on New Horizons in Education and Social Sciences, April 9-11, 2018- Istanbul, Turkey

ISBN: 978-605-2132-22-7

DOI: 10.21733/ibad.423560

THE METAPHORICAL PERCEPTIONS OF HIGH SCHOOL STUDENTS TOWARDS CHEMISTRY

Canan Kocak Altundag^{1*}, Aysem Seda Onen Yucel²

¹Assoc. Prof. Dr., Hacettepe University, TURKEY, canan.kck@gmail.com ² Prof. Dr., Hacettepe University, TURKEY, aseda@hacettepe.edu.tr *Corresponding author

Abstract

Metaphors allow educators to explain things by comparing two things, emphasizing the similarities between two things or replacing one thing with another. The purpose of this study was to determine the metaphorical perceptions of students "Chemistry" concepts. The chemistry concept was interpreted with the help of the ideas and images revealed through metaphors. With the help of these metaphors, the certain imaginative categories and statements of students about the chemistry. The sampling of the study involved 100 high school students. The participants were asked to fulfil the "Chemistry is like because" expression featured in the survey form. The analysis concluded with the categorization of metaphors obtained under categories according to their common characteristics. This is a two-dimensional research study where qualitative and quantitative research methods are used together. In the research, the metaphors created by the students have been classified in two common perceptions (positive and negative) in the first place, then in two common categories separately; and the results have been interpreted within the scope of these categories. According to the result of the research, it is determined that most of the students have used the metaphors including negative perceptions towards the concept of chemistry.

Keywords: Chemistry, metaphors, high school students.

1 INTRODUCTION

As being a tool for interconnecting two objects or concepts, metaphors are accepted as a symbolic language structure in which two different ideas or concepts are linked in order to pass into one experience area from another or make a comparison. In daily language, metaphors appear as noun, verb or qualifiers (Palmquist, 2001). The essence of the metaphor is to comprehend something from the perspective of another individual and experience it. Our conceptual metaphor system automatically works below the consciousness level perpetually. In this context, metaphors can be defined as grasping a concept by linking it with another concept that belongs to a different semantic field. The essence of the metaphor is to understand –a thing- through another thing and experience it. Metaphors are a powerful tool of modeling and mental mapping at the same time in the sense of

perceiving the world and make a sense of it. Metaphors' being one of the basic mental patterns indicates that each of us perceive life with metaphorical ways. Metaphors allow us to establish a connection for comprehending and defining a new phenomenon with the concepts existing in the mind beforehand. In other words, metaphors tell about "an unknown thing" with "a known thing." In this manner, by the means of metaphors, the concretization of abstract concepts is provided (Lakoff and Johnson, 2003).

The metaphor enables us to re-conceptualize the object or phenomenon that we want to comprehend by connecting it to a network of concepts belonging to another semantic field, and see it from different angles, and illuminate some situations that went unnoticed before (Taylor, 1984). Shuell (1990;Akt. Saban, 2004) highlights that if a picture is equal to one thousand words, then a metaphor is equal to one million words. In this context, metaphors are important as for giving a feedback about the practices that teachers make both for themselves and their students in their teaching and learning processes. There are a lot of positive sides in using the metaphor. Metaphors have many functions such as interconnecting two objects or concepts, creating a feature of comparison relating to objects, cases, concepts or incidents, and having a motivation increasing feature in learning processes, and helping to keep information in mind. Therefore, findings about its ability to remove problems regarding to classroom environment, its creation of positive effects on the development of the individuals' affective characteristics, and its contribution to the creation of creative and exploratory learning environments have an important place in the body of literature (Arslan and Bayrakçı, 2006; Çelikten, 2006; Fraser, 2000; Fretzin, 2001; Hanson, 1993; Osborn, 1997; Sanchez, vd., 2000; Palmquist, 2001).

It is thought that metaphors can be of great importance in revealing many positive and negative factors related to the course environment and in the process of solving the metaphors of the students in view of the fact that metaphors not only reflect cognitive structures like thoughts and beliefs but also reflect emotions as a tool (Kadunz & Straber, 2004). In the research at issue, with the metaphors taken from the students regarding to the chemistry course environments at high schools, it is aimed to identify what their attitudes and perceptions towards the lessons are. In this way, it is thought that the metaphors about chemistry asserted by the students can contribute to solving many problems about the chemistry lesson.

2 METHOD

The purpose of this study was to determine the metaphorical perceptions of students "Chemistry" concepts. Study was conducted with 100 high school students. A survey form, consisted of 1 open-ended question, was used as data collection tool to set students' perceptions. The participants were asked to fulfil the "Chemistry is like" expression featured in the survey form. No demographical information (name, surname, number, grade level, etc.) is asked from students during the study. This enabled students to reveal their thoughts confidently and freely.

The analysis concluded with the categorization of metaphors obtained under categories according to their common characteristics. This is a two-dimensional research study where qualitative and quantitative research methods are used together. Within the qualitative research dimension of the study, data collected from students were evaluated through content analysis, while the quantitative dimension of the study was evaluated using tables displaying the statistical analysis results. Also, in case the students may have difficulty while describing their emotions and ideas in black and white, the students have been asked to draw a picture about the metaphors they have produced. According to Selfe and Gardner, drawings cause to symbolize the emotions of individuals (Aktaran: Yavuzer, 2011, s.31). Another reason they have asked the students to draw a picture is to minimize the possibility that the metaphor alone created by the student may not be sufficient for depiction.

FINDINGS

2.1 Qualitative Findings

2.1.1 Metaphor Categorization Creation Study

In the research, perceptions of the students about chemistry have been analyzed one by one with the semistructured sentences they have filled in and the pictures drawn. The metaphors created by the high school students towards the chemistry class can be seen in Table 1.

	Tuble I chemistry reson metaphors of students							
Water	Diet	Friday	Game	Excitement	Alphabet	Crossword	Knowledge cube	Ferris wheel
Tree	Rose	House	Notes	Interesting	Experiment	Labyrinth	Death	Glass
Mother	Flower	Siberia	Universe	Magic	Life	Puzzle	Cactus	Road
Oxygen	Sun	Music	Score	Diamond	Scorpio	Love	Origami	Soups
Cooking	Life	Marathon	Art	Marathon	Mixing	Labyrinth	Physics	Hate
Bugaboo	Matter	Relative	Bird	Sea	Salad	Model	Bomb	Balance
Space	Atom	Fun	Novel	World	Cycle	Child	Torture	Car
* Some metaphors have been repeated.								

Table 1. Chemistry lesson metaphors of students *

Some of the metaphors shown in Table 1 are reproduced in Table 2 by making quotations from the explanations of the students.

Table 2. Sample	e metaphorical images
-----------------	-----------------------

Chemistry is like	Notes	because	if we compare elements to nostalgia, we can disappear in the mind of the person.
	Music		there is no limit in chemistry like we can not always listen to the same music. You investigate, you discover
	Friday		lessons and topics are not boring.
	Art		atoms and molecules paint.
	Novel		you do not want it to finish.
	Game		I'm having fun in chemistry.
	Magic		I feel like I'm doing magic while composing compounds.
	Life		it's about our lives.
	Tree		they have roots and fruit.
	Mother		it feeds on all the sciences.
	Siberia		it is a cold science.
	Marathon		the work is not finished.
	Diet		you can not start working.
	Salad		it's so complicated.
	Bugaboo		it scares me.

Cactu	S	it hurts.
Physic	cs	I do not like both.
Scorp	io	it stings.
bird		the information just goes away.

This research attempts to determine what the perceptions of the students towards the chemistry class are and the way they express these perceptions through their own drawings in the light of the data acquired by the metaphors. Some of the pictures, which are drawn by the students, depicting the metaphors given in Chart 2 can be seen in Figure 1.



Fig. 1. The pictures drawn

The analysis concluded with the categorization of metaphors obtained under categories according to their common characteristics. Figure 2 displays these categories



Fig. 2. Categories metaphorical images

When the metaphors acquired are analyzed, it is determined that the metaphors and drawings expressing the positive and negative perception patterns towards the chemistry class are excessive. For this reason, the metaphors obtained as shown in Figure 2 are classified under two main groups as Positive Perception and Negative Perception in the first place. Later on, the metaphors in these groups have been categorized once again for more specific analyses. Taking the metaphorical images gathered under those groups into account, the new-made categories have been given names. While naming the categories, the metaphors expressed by the students have been used as much as possible. For example, the Life metaphor often expressed by the students in the extent of Positive Perception and the Frightening metaphor in the extent of Negative Perception have been determined as category names.

2.1.2 Validity and Reliability Studies

After the definition of 100 metaphors and development of image categories, these categories were submitted to expert opinion for reliability and validity studies. Categories, which reached their final structures after expert opinions were evaluated together with the metaphorical images in a confirmation meeting with a group of 25

selected among the participants. Categories and the metaphorical images listed under categories were shared with 25 high school students. Participants discussed and agreed on whether the information structured under categories was temporary or periodic, whether metaphorical images were understood accurately and whether they were listed under correct categories.

2.2 Quantitative Findings

In the quantitative research dimension of the study, in the light of the data obtained by the drawings and semistructured sentences, which have been used as a data collection tool, the percentage values of the metaphor categories reflecting students' perceptions about all the components of the concept of Chemistry (Necessary, Life, Fun, Mysterious, Mixed, Nonpermanent, Frightening, Hard) have been calculated and the distribution of the categories according to these values is shown in Graph 1.



Graph 1 Distribution of metaphorical categories

In order to make an inference about which metaphor group the students have mainly preferred relating to the chemistry class, the percentage values seen in Graph 1 have been used. The findings appearing in the result of the calculations have been summarized under different titles below.

2.2.1 Evaluation of Metaphorical Perceptions for Student

Metaphors developed by students on Chemistry have been analyzed and the values obtained are displayed on Table3.

Table 3. Percentage values of metaphorical categories of students for chemistry

Metaphorical Perceptions	%
Positive Perception	47
Negative Perception	53

When Table 3 is analyzed, it is seen that the metaphorical perceptions of the students towards the concept of chemistry gather under the category of Negative Perception. In other words, it is determined that 53% of the metaphors expressed by the students relating to the concept of chemistry are the metaphors including negative perception patterns.

3.2.2.1. Evaluation of the Positive Metaphorical Perceptions of The Students

As it is seen on Table 4, the way the chemistry class has been positively perceived by the students has been analyzed in 4 metaphorical categories.

Table 4. Percentage values of positive metaphorical perceptions of students for chemistry

Metaphorical Perceptions %

Necessary	34
Life	30
Fun	28
Mysterious	8

As a result, it appears that the positive metaphorical perceptions of the students towards the concept of chemistry form a group in the categories as Necessary with 34% value, Life with 30% value, Fun with 28%, and Mysterious with 8% value. That is to say, looking at the positive metaphorical perceptions formed for the chemistry class, it is defined that the students mostly see the chemistry class as a necessary class.

3.2.2.1. Evaluation of the Negative Metaphorical Perceptions of The Students

In the process of solving the data, the negative metaphors towards chemistry lessons have been grouped into 4 categories taking similar aspects into consideration, and the values have been defined as percentages on Table 5.

Metaphorical Perceptions	%
Frightening	37
Mixed	35
Nonpermanent	15
Hard	13

Table 5. Percentage values of negative metaphorical perceptions of students for chemistry

The negative metaphorical perceptions of the students about the concept of chemistry have been gathered under the categories as Frightening with 37% value, Mixed with 35% value, Nonpermanent with 15% value and Hard with 13% value. Looking at the negative metaphorical perceptions formed for the chemistry class, it is determined that the students mainly see the chemistry class as a frightening class.

3 RESULTS

The metaphors which facilitate explaining abstract concepts by presenting them in a more concrete structure are the system of metaphorical expression used to convey ideas (Pratte, 1981). It is known that metaphors are important tools used in the comprehension of human behaviors and perceptions in numerous fields. One of these fields is the education field. Metaphors being an important part of the conceptual system and a result of theoretical thinking enrich the mental phenomena of education (Inbar, 1996; Lakoff & Johnson, 2005). Therefore, the analysis of the metaphors used by students, prospective teachers and teachers is situated in the centre of the interest increasing gradually in today's world (Celikten, 2006; Inbar, 1996; Yalçın; 2011). However, it is possible to encounter a lot of research in literature analyzing how individuals perceive concepts through metaphors (Berman vd, 2002; Döş, 2010; Saban, 2004; Öztürk, 2007). In this study, the chemistry class perceptions being one of the educational phenomena of the students have been examined through metaphors. In the study, by using metaphors, the perceptions of high school students towards the chemistry class have been identified and whether these perceptions reflect the positive and negative attitudes of the students regarding to the chemistry class has been researched. The perceptions of the students towards the chemistry class have been determined by the metaphors and pictures drawn in response to an open-ended question. When a short literature review is made, through the metaphors parallel to this study, the existence of the studies in which courses such as Chemistry (Kocak vd., 2011), Mathematics and Geography (Güveli vd., 2011; Gecit & Gencer, 2011; McColm, 2007; Öztürk, 2007) have been questioned stands out.

In the research, the metaphors created by the students have been classified in two common perceptions (positive and negative) in the first place, then in two common categories separately; and the results have been interpreted within the scope of these categories. According to the result of the research, it is determined that most of the

students have used the metaphors including negative perceptions towards the concept of chemistry. In order to concretize the negative expressions and perceptions, metaphors can be called upon (Zanotto, Cameron & Cavalcanti, 2008). As a matter of fact, it is defined in the result of the research that the students create numerous metaphors reflecting the negative perceptions of the students towards the chemistry class. The metaphors at issue have been analyzed under 4 categories such as Frightening, Mixed, Nonpermanent, and Hard. As a result, the finding that students mostly perceive the chemistry class as a frightening class appears. The number of the students who do not find the chemistry class Mixed, Hard, and Permanent is also excessive. According to Palmquist (2001), metaphors are cognitive tools that individuals use in their process of making sense of their own life experiences. When a person creates a metaphor, he or she consciously or unconsciously expresses the truth according to his or her own experiences. Hence, it can be used as a means of experience and understanding in reflecting the ideas of students in education (Lakoff & Johnson, 2003; Woon & Ho, 2005; Gültekin, 2013). Within the frame of these opinions, it is thought that the students create the metaphors reflecting their negative perceptions towards the chemistry class by thinking of the negative experiences they have had in the chemistry class.

As a result of this research, when the positive perceptions towards the chemistry class are studied, it is identified that the students associate the chemistry class with the Necessary (34%) metaphor category to a large extent. Since this metaphor group includes the metaphors of which they see the chemistry class as a necessary class as they state, it can be said that the result of the study emphasizes that the chemistry class is a necessary class. In the meantime, the students associate the chemistry class with the metaphors characterizing it as Life (%30), Fun (28%), and Mysterious (8%). The metaphors depicting the positive perceptions chosen by the students for the chemistry class are actually the metaphors that they mention the necessity of the class. Accordingly, the causes of the students' being in a positive attitude towards the chemistry class stem from its being perceived as the necessity of the class, being a part of life, and fun to some and mysterious. According to Lakoff and Johnson (2003), metaphors are a linguistic tool that can be used to discover how individuals perceive the world. For this reason, what positive perceptions the students in a positive attitude towards this class have could be determined through metaphors.

According to Wanjek (2000), the reasons of the students' having positive and negative perceptions towards the chemistry class are hidden in the chemistry class. Thanks to the metaphors examined within the scope of this research, it is thought that it is thought that different perceptions of the students towards the chemistry course are revealed and the analysis of the content of the chemistry course could be done.

REFERENCES

Arslan, M.M. & Bayrakçı, M. (2006). Metaforik düşünme ve öğrenme yaklaşımının eğitim-öğretim açısından incelenmesi. *Milli Eğitim*, 171, 100-107.

Berman, J., D. Boileau Little, L. Graham, J. Maurer, D. Paterson, C. Richmond & J. Sargeant (2002). *A teacher is ... the use of metaphors with pre-service teachers*. Paper presented to the Challenging Futures: Changing Agendas In Teacher Education joint conference organised by School of Curriculum Studies, UNE & The Change in Education Research Group, UTS: Armidale, January.

Cerit, Y. (2008). Students, teachers and administrators' views on metaphors with respect to the concept of principal. *Education and Science*, 147 (33), 3-13.

Çelikten, M. (2006). Kültür ve öğretmen metaforları. Erciyes Üniversitesi Sosyal Bilimler Dergisi, (21), 269-183.

Döş, İ. (2010). Metaphoric perceptions of candidate teachers to the concept of inspectors. *Gaziantep University Journal of Social Sciences*, 9(3), 607 - 629.

Fraser, D.C. (2000). Sin, hope and optimism in childrens methaphors. *AARE Conference*, Dec. 4-7, Sydney, Australia.

Fretzin, L. (2001), Metaphors in Teaching, http://irs.ed.vive.edu/students/ fretzin/EPL1195mtaphors.htm adresinden 18.06.2007'de indirildi.

Geçit, Y. & Gençer, G. (2011). Sınıf öğretmenliği 1. sınıf öğrencilerinin coğrafya algılarının metafor yoluyla belirlenmesi. Rize üniversitesi örneği. *Marmara Coğrafya Dergisi*, 23, 1-19.

Gültekin, M. (2013). İlköğretim öğretmen adaylarının eğitim programı kavramına yükledikleri metaforlar. *Education and Science*, 38(169), 126-141.

Güveli, E., İpek, A.S., Atasoy, E. & Güveli, H. (2011, Mayıs). *Sınıf öğretmen adaylarının matematik kavramına ilişkin sahip oldukları metaforlar*. 10. Ulusal sınıf öğretmenliği eğitimi sempozyumunda sunulan bildiri, Cumhuriyet Üniversitesi, Sivas.

Hanson, L. (1993). Affective response to learning via visual metaphor. *Acıvla*, October 13-17, New-York.

Inbar, D. (1996). The free educational prison: Metaphors and images. *Educational Research*, 38 (1), 77–92.

Koçak, C. (2013). Metaphorical Perceptions of Teacher Candidates towards the School Concept: Lotus Flower Model. *Mevlana International Journal of Education (MIJE)*, 3(4), pp. 43-56

Kadunz, G. ve Straber, R. (2004). Image-Metaphor-Diagram: Visualisation in Learning Mathematics. *Proceedings of the 28th Conference of the International Group for the Psychology of Mathematics Education*, 4, 241-248.

Lakoff, G & Johson, M. (2003). *Metaphors we live by*. Chicago: University of Chicago Press.

McColm, G. (2007). Mathematics education. *Notices of the AMS*, 54(4), 499-502.

Osborn, M. (1997). The play of metaphors, education. Fall, 118(1), 1-4.

Önen, A.S. & Koçak, C. (2011). Candidate teachers' tour in campus with their metaphoric images. *Procedia - Social and Behavioral Sciences*, 15, 3555-3559.

Öztürk, Ç. (2007). Sosyal bilgiler, sınıf ve fen bilgisi öğretmen adaylarının 'coğrafya' kavramına yönelik metafor durumları. *Ahi Evran Üniversitesi Kırşehir Eğitim Fakültesi Dergisi (KEFAD)*, 8(2), 55-69.

Palmquist, R. A. (2001). Cognitive style and users metaphors for the web: an exploratory study. *Journal of Academic Librarianship*, 27(1), 24-32.

Pratte, R. (1981). Metaphorical models and curriculum theory. Curriculum Inquiry, 11 (4), 307-320.

Saban, A. (2004). Giriş düzeyindeki sınıf öğretmeni adaylarının "öğretmen" kavramına ilişkin ileri sürdükleri metaforlar. *Türk Eğitim Bilimleri Dergisi*, 2(2), 131–155.

Sanchez, A., M.B. ;Victor, Jose, M. (2000), "Desing of Virtual RealitySystems for Education: A Cognitive Approach", Educational Information Technologies, 5(4), 358.

Semerci. Ç. (2007). A view to the new primary school curricula with the metaphors relating to curriculum development. *Cumhuriyet University Journal of Social Sciences*, 31(2), 125-140.

Shuell, T. J. (1990). Teaching and Learning as Problem Solving. Theory into Practice, Special Issue: Metaphors We Learn By, 29(2), 102-108.

Taylor, W.(1984). *Metaphors of education*. London: Heineman Educational Books.

Wanjek, J. (2000). *Einflüsse von alltagsorientierung und schülerexperimenten auf den erfolg von chemieunterricht*. Inaugural-Dissertation zur Erlangung des akademischen Grades des Doktors, Westfälischen Wilhelms-Universität, Münster.

Woon, J.& Ho, Y. (2005). Metaphorical construction of self in teachers' narratives. *Language and Education*, 19 (5), 359-379.

Yalçın, M. (2011). İlköğretim okullarında okul müdürüne ilişkin metaforik algılar. Yüksek Lisans Tezi, Gaziosmanpaşa Üniversitesi, Tokat.

Yavuzer, H. (2011). Resimleriyle Çocuk (15. Baskı). İstanbul: Remzi Kitabevi.

Zanotto, M. S., Cameron, L. & Cavalcanti, M. C. (2008). *Confronting metaphor in use: An Applied linguistic approach*. Amsterdam: John Benjamins Publishing Company.

CITATION: Proceedings of ICES 2018 – 1st International Congress on New Horizons in Education and Social Sciences, April 9-11, 2018- Istanbul, Turkey ISBN: 978-605-2132-22-7

DOI: 10.21733/ibad.423561

THE PLACE AND SIGNIFICANCE OF OTTOMAN JUDICIAL RECORDS IN THE NOVELS OF LUAN STAROVA AS REPRESENTATIVE OF MACEDONINAN LITERATURE

Seyhan Murtezan Ibrahimi

Teaching Assistant, International Balkan University, Macedonia, smurtezanibrahimi@gmail.com

Abstract

Since the ancient times the humankind has established various civilizations and every nation has created its own history. Under the auspices of the geographical region the empires were influenced by different social and cultural structures. The Ottoman Empire had a deep impact on the politics, economy, religion, culture and society as well as on the protection of the roots of the Balkans. Therefore its splendor, reign, government understanding and traces have been topics of research in many studies. Regardless of their religious and ethnic identities Balkan nations, in their essence, carry several identities and cultures. After the retreat of the Ottoman Empire from this land Balkans faced a turbulent period. New states were established and people that remained in this region started searching for their identities and cultural roots. One of the persons that felt and faced this processes his entire life is the topic of our study Luan Starova. Starova was born in Albania but due to various political reasons his family was often forced to migrate. Living in the Republic of Macedonia Starova has become one of the significant writers whose works have placed their mark on Macedonian literature. The head of Starova family, who had his share of forced migrations, is the father who is also the protagonist of Starova's novels. In order to discover the roots of the family Luan Starova's father starts to explore the Ottoman judicial records in Bitola as the only reliable source. In most of his works Luan Starova writes about his father's quest for their past roots through the exploration labyrinths and his efforts to establish an identity. The significance of the Ottoman judicial records is emphasized in this point. As a result of this research we conducted, starting our journey from the works of Luan Starova, we saw the importance of the Ottoman Empire in the Balkans, the way it looked after its people regardless of their race and religion through the records kept and the way it became a beacon of light in the dark historical period. Moreover, despite the smear policy of the Ottoman Empire and the Turks contained in the novels in the past and present, we can still state that the most glorious and prosperous period of the people living in this land is the one under the Ottoman Empire.

Key words: Luan Starova, Balkans, Ottoman Judicial Records, novel.

1 INTRODUCTION

Centuries long rule of the Ottoman Empire over the Balkans as well as the splendor, reign, government understanding and traces it left behind have been topics of research in many studies. When first Balkan countries

under the Ottoman Empire declared their independence some speculative historical and literary works have defended the idea that Ottomans forced people to proselytize and this idea still persists and is reflected in historical as well as literary works. By depicting Ottomans as barbarians and the people as oppressed slaves they tried to insert religious and national animosity and provoke hostility towards Turkish people. Yaşar Nabi Nayır, who was born in Skopje and was one of the founders of the Seven Torches society and a prominent writers who takes a significant place in Turkish literature in his book *The Balkans and the Turkishness* published in 1936 referred to this topic. *First of all I would like to point out that when Balkan countries first declared their independence in order to intensify religious and national animosity they deliberately instigated hostility towards the Turkish people and even today it continues to exist among friendly and allied nations regardless of the actions and conduct of the official authorities.* Unfortunately Yaşar Nabi's assertion about propaganda for instigating animosity towards the Turkish people made 82 years ago is sustained to this day by the enemies of the Turkish people

1.1 Relation between literature and history

There are many definitions about literature but all of them could eventually be reduced to the following contrasts transitive – intransitive and extraverted – introverted. Plato in his famous work *Republic* emphasized that in the context of art, literature in its general and broad sense of the word is a kind of reflection. There is analogy between mirror and literature. Literature should reflect the world the way mirror reflects things and entities. (Özdemir, 1980, p. 1)

Literature is a written or verbal expression of one's feelings, thoughts, dreams, the past, one's worries, and helplessness using an idiosyncratic language and all within the frames of esthetic rules. As these types of works are closely related to many fields they are also tightly related to history. Changes that occur in the course of history and influence the social life interest literature as well. Mehmet Kaplan describes this relation in the following way: *Literary work is without a doubt closely related to the writer's life, history and social environment* (Kaplan, 10). Kundera, on the other hand, as a novelist feels as if being within history all the time, in the middle of a road, engaged in a dialogue with the ones before him or maybe the ones that will come after him.

Ottoman Turkish novels in the 19th century are in close relations with ideas of freedom and sovereignty of nations. Dreams of freedom as a reaction to absolute imperisl domination, an obstacle against all types of human rights; while the concept of sovereignty is seen as the end of the rebellious movements which resulted in the independence of Balkan nations (Seyhan, 2014,p. 45). Thus the type of novels related to nations' ideas of sovereignty as part of history, longing for freedom and traces of desires about exploring roots is visible not only in Turkish novels but also in the developing literatures in the Balkans.

In order to understand its past and evaluate the findings a nation should examine works that contain traces of the past. It is common knowledge that man is a social being surrounded by those around him/her. To understand the present based on the past, to find our roots in order to advance to the future, we should receive correct data from real and reliable sources. At this point, Ottoman judicial records, as one of the most reliable sources that contain true information and have gained an important place during the course of history, come into play. Lexical meaning of the word record defines it as a list of official documents and information about people (Özkan, 2007, p. 518). Therefore besides the Turks other Balkan nations can undoubtedly discover their cultural roots and historical past in these records. Culture has a number of basic components. One of them is history. History provides the political and social flow of culture as well as its durability through time (Turan, 2002, p. 189). As a result, the utmost advantage of culture related concepts and classifications we have in our heads and carry with us is the fact that it makes us think about things whether they are there or not or even if they never existed (Hall, 2017, p. 82).

2. LUAN STRAOVE AND OTTOMAN JUDICIAL RECORD IN HIS NOVELS

The past historian works on is not a dead past, it is a past that in a certain sense still exists today (Carr, 2002, p. 26). The topic of our study Luan Starova, is also after the history and past left to die among the dusty records. As observed by Bernard Lewis "the downfall of great empires has always been a fascinating topic of interest" and the downfall of the Ottomans is not an exception (Seyhan, 2014, p. 46).

Starova was born in Albania but due to various political reasons he was often forced to migrate. Living in the Republic of Macedonia we will study Starova as a Macedonian man of literature and while studying his works, especially his novel Ash Castle we notice the significance of the records.

We would like to show the significance of the Ottoman judicial records by presenting a short summary of the novel by underlying this phenomenon. After his passing the father figure in the novel (the protagonist in his novels is his real father) bequeaths his sons the books in his possession as well as the thought to solve the codes

of the judicial records and clarify their messages. He gave his heart and soul into these records and he was aware that they did not contain just his past but a period that lasted for 500 years, the past of all the Balkan nations that were under the sovereignty of the Ottoman Empire.

The story narrates about the migration labyrinth which occurred by the decisions made by the father. When we look back at the mankind's history we can easily notice that the phenomenon of migration is an indispensable part of history. As migration is a consequence of social issues, the pioneer of nihilism Pisarev defends the fact that one of the characters of Dostoevsky's *Demons* Shigalyev expresses the social issues with a maxim. He finds a solution of the social issue in starting from an unlimited freedom and arriving at an unlimited despotism (Oktay, 2008, p. 60). He defends the idea that this maxim is the only solution for the existing, imposed dictatorships in the society.

The center or the direction of the family i.e. of the father that runs away from this type of dictatorship is the books he took with him. When the son (the narrator in the novel) enters his father's library after his passing and notices his father's secret library. He notices that these books write about a clash among new ideologies. He puts the books from the secret library in a suitcase and settles in their house near the lake. While going through the books his attention mostly turns towards the judicial records. Records taken by his father contain information about his life adventure in Istanbul. Records which had ashes and tears of over them turned into a maze of ash and tears.

While his father's voice from every page of the records which kept his memories alive the boy's eyes fill with new fresh tears. The metaphor of the records designates hopelessness and the son's new quest and his journey to the past begins...

Afterwards his eyes turn and he feels as if standing on a centuries old fortress marked by fallen empires and past emperors' troops. He starts to think about the real downfall of the Balkan empires. He especially concentrates on the reasons that caused the downfall of the Ottoman Empire.

While walking between the fortress and Mustafa Pasha mosque and going down towards the old part of the city the father visits Sultan Murat mosque which draw his interest and about which he heard so many things. During his walk he filters the history in his mind. A moment of doubt he lived in his youth comes to life before his eyes. Under the auspices of the Ottoman Empire, many of his friends after finishing their education in Ottoman law took their families, joined Ataturk and went to the South. Should he have done the same or should he have returned to his birth place and tried continue his father's melancholy in the Balkans! As if seeing all the liveliness, authenticity and tangibility of the Ottoman period the father's head is filled with different questions and meditates whether he would be able to track the handwritings from the Ottoman period.

He thinks his mission is to discover and revive the language and the culture of those who were sent to die under the Ottoman wreck by his god and accepts it as such. At the same time the father gets the impression that he witnessed the downfall of the Ottoman Empire and returned to the Balkans to face another Ottoman period.

While thinking, the father turns his eyes to the books. Wanting to break this silence the mother tells him that she and the children cleaned up the house and carried the books according to the predetermined order. Only thing left is to place the books. Because the father knows the essence of the words spoken by his wife he places the books in the following order: *Sacred books will be placed on the top shelf; encyclopedias on the middle shelf after that my Istanbul books...* Starova, 2008, p. 23)

Noticing the uneasiness of the mother in order to satisfy her curiosity starts his sentence my darling and tells her about his dream. He tells her that in his dream his mother went to his uncle Fethi Okyar Bey and even went to Ataturk to beg for the return of his son to the Balkans and asks him to convince him to come back. The uncle answered his mother in the following way:

My dear sister, we always believed that happiness only lied in our departures. We broke away from our roots, reached our peaks but our souls remained empty. By going to foreign places we get into a state of victims.... Let your son go in the way he determined his fate... despite all the objects we own, despite the peaks we reached we are still at the bottom. Let him discover who we are. Everyone has a mission in his life! (Starova, 2008, p. 24)

The head of the household, continuing his life spent in the bumpy Balkan exile roads filled with the same oddness, the morning of the day he was to apply for a job in the court remains confused about how to prove his identity with the documents he owned from different Balkan regimes.

Alal Kombi's eagerness grows and he waits for an opportunity to start an argument. Disregarding him Chapaev continues his speech:

Until our candidate recommended for the magistracy arrives at the court one of the persons that was screened comes to mind. He studied sharia law and Islamic philosophy in Istanbul University. He received judicial education in the years Ottoman Empire started to downfall. He is also familiar with the modern

European law which was taken as a base for Ataturk's reforms. He developed his personality by assimilating both eastern and western legal systems as diametrically opposite and antagonistic systems. (Starova, 2008, p. 42)

He was asked to present his thoughts on the judicial system in the Balkans during the sovereignty of the latest empires during the period when Macedonian legal system was still being structured. The father begins to talk:

I'm in no position to state all the experience I had in the field of law in the past in this speech. You know well that justice is the most complex and the most complicated aspect of the human life. My life past in defending and moderating every discrepancy, whether it was alevi, ethnic or religious. The judicial tradition started in my mother's family long time ago. Almost all men in the family were educated in law. When the foundation of the Ottoman Empire stated to shake almost all of them went to Turkey. There, they continued to receive education in law and remained loyal to the tradition. With the help of my close family members most of who work in the new state, administrative and judicial institutions established by Ataturk I too received law education in this unique city on Bosporus. When I returned to my native land I wasn't welcomed the way I hoped. I could not work beside the King. In this situation my only option was the law, remaining loyal to justice. (Starova, 2008, p. 51)

Alal Kombi thought that the father was presumptuous and strayed from the real issue. He asked him how he would defend a socialist revolutionary law with Ottoman diploma. The father continues his speech with the same tranquility and states the following:

In order not to put at risk their sovereignty and avoid contradiction the Sultans did not want to destroy the foundations of the legal traditions of the nations they subdued. Thanks to this they have been able to retain the joint existence of Ottoman tradition codes, attested by life itself, with Christian and Muslim laws. The Ottoman Empire did not harm the religions of the nations under their sovereignty and made use of their laws. Empires that ruled in the Balkans and even in the world have rarely showed this kind of conduct (Starova, 2008, p. 52)

He leaves home and in order to learn the truth of the matter goes to talk with comrade Chapaev. Chapaev verifies the things spoken and as they get one step closer to the project they dreamed about they become very happy. They will both head off to Bitola. Whenever they speak about the cities in Macedonia, the father always dreams about going to Bitola where he believed he could find the Ottoman judicial records. As he believed in the aforementioned and Chapaev concurred he never turned down his business trips and always signed them.

The journey to Bitola starts. As they approach Bitola through one of the shorter tracks of Balkan Express, he feels closer to the Ottoman period. He has been attached to this town where the friendship seeds between Ataturk and his Uncle Okyar Bey have been sown, since the day he took his first steps. He read about this town in almost every book he brought form Istanbul. After leaving the train station the father heads towards the center of the town, towards the mosques, madrasahs and foundations which could hide the old Ottoman documents.

Knowing that the discovered records contain the old times, the Father, although difficult, tries to contain his excitement. In a moment he unleashes himself towards the documents which broke the link between his inner and outer world confined in himself. He starts to read the book titles enthusiastically loosing the concept of place and time while the ones around him wait for an explanation. At last he composes himself and starts to speak in a way that would allow everyone to understand him. Due to the things said he has an argument with the secretary of the party.

Father: These documents will have a revolutionary effect on enlightening both the Bitola judiciary of the time as well as four hundred year long history of a broader region...

Party secretary: Despite everything do not go too far. Do not be a dreamer more than it is necessary. The revolution you are talking about was already done by our party. Try to finish the task we took upon ourselves sooner without going too far and explain to these people what

kind of records are these. Your duty is just to make interpretation not to pass a judgment! There are others for that.

Father: Esteemed comrade secretary. Balkan nations are not without a history! In fact they are victims of an excess of history; but this history has not been enlightened enough because we have not consulted key sources. Those sources are right here, in front of your eyes inside these dusty crates! These are the three hundred years old history! We were deprived of many authentic documents. All the other centuries collapsed on our century. History buried us.

Party secretary: This is not the time to argue. If you were a member of the party we would have had a different discussion. After these discovery your task is to inform our leadership about what kind of records are these so they could decide what to do with them in due time and in a responsible manner (Starova, 2008, p. 112)

The discovery of the Bitola records takes the Father to his youth spent in Istanbul. He believes that with this discovery he will actually have discovered his mother's Balkan family circle. Returning from the building where Ataturk and Fethi Okyar Bey attended military high school the Father learns that the expected decision about the records arrived. The crates are placed in a special railway car and the journey starts. The number of documents is not small. Hundreds of thousands of documents, every document contains one fate, hidden, peeking through the gateway of time. The Father feels as if being face to face with the Ottoman period. Examining the documents he plans to connect the past to the present and future.

According to the Father the records contained years, life codes entered into carton paper, the task of the printer the publisher's task would be so easy, he would only have to add few words to describe the records, struggling with these thoughts he went home late. The Mother as always serves his husband his dinner and tea. She notices he is sad but doesn't attempt to ask him why. The father takes out a sum, which none of the family saw before, from his pocket and hands it to his wife. He states that the money was given to him for the records which will be published but complains as well: *They through few crumbs at me to ease my consciousness. Until they burry the documents again they will need me more.* (Starova, 2008, p. 145)

The last conversation they had was related to the comments about the three records he brought for translation. These records help him complete his monograph titled *Islamization of Balkan Christians between XVI and XIX centuries according to Bitola judicial records* (Starova, 200, p. 211).

He carefully reads one of the stories written by his son after he was influenced by an event that took place in one of the monasteries titled "The Dead God" which recollected the period of Stalinism when Albania was made godless. After reading his son's works whenever there was need of criticism he used soft words and this time was no different and he tries to tell his son about the Balkan reality until exhaustion: *What you have written is a masterpiece. Without knowing whether God exists or not, why do you declare him dead in your story my son?"* (Starova, 2008, p. 219). When he feels tired he falls asleep. Being influenced by the things his father said the son continues to watch him.

In fact in his novels the writer is trying to tell us about the feeling that by crossing the border we get closer the freedom lost or rather escape the death which is so close to us. (Starova, 2017, p. 14) They underline the journey through history as well as the significance of the roots in the places. The places in the novels have different functions. Although they are mostly just a décor the place where the event takes place is a place where characters live or a place where they distinguished themselves. They help us understand the persons' economic and social state and reveal their true characters. Apart from real places where events take place novels also use some symbolic places as well. The "fortress" used in the title of the novel "Ash Fortress" has been used symbolically. But "no matter whether the place is real or imaginary, being linked to the action or the flow of time, it is closely connected and fused to the characters". (Bourneuf, Ouellet, 1989, p. 91)

During one of the interviews with Starova while preparing this study we asked him the following in regards to this topic and perception and the answer we received proves that the things he writes about in his novels are not just fiction.

- Apart from the "Pax Romana" reality when we take into consideration the "Pax Ottomana" reality as well do you think that there is mutual respect and intercultural understanding among Balkan nations or more precisely how does these facts reflect on your works?
- The identity which is subject here is not imaginary but complex. The empires that ruled the Balkans (Divide et impera (divide and rule) in the name of imperial obligations and management models Roman, Byzantium, Austrian Hungarian, Ottomans) with the mediation of migrations and changes

mixed the identities, divided and scattered them through various interventions. After the downfall of the empires there were pursuits to homogenize the perception of state – nation. Result: wars, ethnic tragedies. In the novel "Ash Fortress" the person that discovers Bitola judicial records and records the Ottoman judicial records also gains access to the list of persons that converted from Christianity to Islam. In other words, in time one would also discover historical records. Discovering the truth about one's own identity is not just a pre-thesis for the homogenization of identities, but it determines the quest for the real meaning of life or rather it determines that the last country is actually one's real homeland.

In order to convince the majority to like them from political or cultural point of view Balkan nations even today abandon their values and turn towards different cultures. No matter how nationalist a Balkan country wants to be the Ottoman legacy is an integral part of each individual's life which cannot be erased easily. For example in every language there are many Turkish words. (Jelavish, 2009, p. 109) No matter how much the Balkan people complain about the Ottoman sovereignty at the same time they took advantage of it in many ways. Ottoman architecture displayed in mosques, bridges, little caravanserais and state offices and public buildings or personal houses was much superior to anything that replaced (Jelavish, 2009, p. 110). While spending his last days and during his last moments in life Luan Starova's protagonist the Father tells him about the significance of the records for Balkan people. The same words are stated in the rear cover of the book. With it he made a bald determination of the situation of the Balkan people with no words left to be spoken;

We are the records my son, all of us. We, the damn Balkan people. Blended but unable to melt in a single melting pot. Migrated, but unable to keep a home. Converted, but unable to adopt the new religion. Taken from their roots but unable to break away from them completely. Divided by borders but unable to fit into the borders. Without these records our history is incomplete. Not having them is equal to centuries missing. At least we lived the past, but without today there is no future my son. The records are the best witnesses of this truth. The identity of every Balkan nation remains a mystery. The records witness how much the Balkan nations blended.

REFERENCES

Bourneur R., Quellet R. (1989). *Roman Dünyası ve İncelemesi*, çev: Hüseyin Gümüş, Ankara: Kültür Bakanlığı Yayınları.

Carr, E. H. (2002). *Tarih Nedir*. İstanbul: İletişim Yayınları.

Hall, S. (2017). *Temsil – Kültürel Temsiller ve Anlamlandırma Uygulamaları,* Çev. İdil Dündar, İstanbul: Pinhan Yayıncılık.

Jelavich, B. (2009). Balkan Tarihi – 20. Yüzyıl, çev: Zehra Savan, Hatice Uğur, İstanbul: Küre Yayınları.

Kaplan, M. Hikâye Tahlilleri, İstanbul: Dergâh Yayınları.

Luan, S. (2008). Kül Kalesi (Siciller), çev: Suat Engüllü, İstanbul: Yapı Kredi Yayınları.

Oktay, A. (2008). Toplumcu Gerçekçiliğin Kaynakları, İstanbul: İthaki Yayınları.

Seyhan, A. (2014). *Dünya Edebiyatı Bağlamında Modern Türk Romanı,* Çev. Erkan Irmak, İstanbul: İletişim Yayınları.

Turan, R. (2002). Kültür Alanındaki Gelişmeler, Türkiye Cumhuriyeti Tarihi (Komisyon) C.II, Ankara: Merkezi Yayınlar.

Старова, Л. (2017). Граница, Скопје: Издавачки центар Три.

CITATION: Proceedings of ICES 2018 – 1st International Congress on New Horizons in Education and Social Sciences, April 9-11, 2018 - Istanbul, Turkey

ISBN: 978-605-2132-22-7

DOI: 10.21733/ibad.423563

THE RELATIONS BETWEEN SOCIETY AND PERSON IN HUSEYN JAVID'S CREATION

Sevinj Gojayeva

Assoc.Prof.Dr., Baku State University, Azerbaijan, sevincmalikqizi@mail.ru

Abstract

Huseyn Javid's works creating a complete impression about his views of being, mind, his attitude to life reveal his thoughts about society and person. When speaking about the existence with God, relations between a person and God in the thinker's creation it is more expedient to pay attention to his verses. When choosing any theme the poet tried to present sound logical results dealt with a person, spirituality, society and he succeeded. The great master knowing the Islamic notions dealt with creation of man and his position very well realised that the humanity's tragedy is greediness that can't be ruled and looked for salvation in real love. From this standpoint his verse "Hubuti Adam" (Fallen Adam) attracts special attention. Adam, a man who harmed the highest love was held away from paradise, his beauty was taken away from him, too. Emphasizing Adam's yellow face Huseyn Javid is deeply impressed. According to the mythical thought yellow colour is considered to be a symbol of separation. In "Hubuti - Adam" Adam and Eve were informed about their exile from the paradise and overthrow on the Earth by the beautiful Fairy by order of God. From Fairy's words turn out that Adam's descendants' life on the earth won't be pure like the flowing water at all. Describing the first prophet's careless days in Edem in his verse "Hubuti-Adam" H.Javid tells about story happened before Adam's lowering on the earth. The poet tells about hard, fatal human life in this world by Fairy's words. He thinks that the only salvation is not to be a slave of insatiability and is mental purity. Evidently H.Javid appealing to the Koran story expresses his ideas about the society and person. Presenting the important human idea he uses expressive words caused by his, artistic imagination and theosophy as means of artistic self-expression.

Key words: H.Javid, God, Adam, love, beauty

INTRODUCTION

Huseyn Javid's works creating a complete impression about his views of being, mind, his attitude to life reveal his thoughts about society and person. When speaking about the existence with God, relations between a person and God in the thinker's creation it is more expedient to pay attention to his verses. Thus "there is deep life philosophy, common sense and logic, stable belief in man's intellect in Javid's verses. Javid sketched the "draft" of the problems solved in his further dramas in his verses" (5,9).

When choosing any theme the poet tried to present sound logical results dealt with a person, spirituality, society and he succeeded. The great master knowing the Islamic notions dealt with creation of man and his position very well realised that the humanity's tragedy is greediness that can't be ruled and looked for salvation in real love. From this standpoint his verse "Hubuti Adam" (Fallen Adam) attracts special attention. The theme of this lyric passage is taken from the famous Koran story about prophet Adam. It is known that Nizami Ganjavi put the same legend in verse in the first part "Praise to Adam" in his poem "The Storehouse of Mysteries". The story about Adam beginning from his creation and till his repentance is reflected in Nizami's work as in the Koran surah "Bagarah" (The Cow). As it is obvious from the name the poet tries to explain to himself and his readers God's purpose to create Adam. But Javid thought more about the reason of Adam's fall from the high position granted him by God. That is why the verse was named "Hubuti Adam Fallen Adam") "Hubuti" is a master of word choice. H.Javid knowing Sufism and precursors' poetic legacy very well took into consideration all meanings of the word "hubut" in the Arabic language and named his verse.

Essence

Not touching upon such stages as creation of Adam, the order of adoration, Adam's repentance Huseyn Javid began his verse from Adam and Eve's stay in the paradise, from the forbidden tree and description of their life in the paradise: "unpleasant affairs of the world didn't dirty this couple living in the lights". He desceribed it in romantic colours. But hapiness isn't endless, and their hapiness was short-lived, too.

When living in such lights

Low passion comes over.

Excessive complacency... perplexity!

At last that passion destroyed

That sublimity,

That sublime modesty.

At last a small wild mistake

Destroyed that high love.

(here and further all literal translations are made by the author of the article – S.G.).

What does "everlasting love" mean? The verses of the Koran say that God created a man in a perfect form and breathed into his nostrils the breath of life. Adam was given knowledge. A person's position is higher than angels'. Only a perfect man is worthy of assigned mission. According to the

Islamic thought, "creation of the world" was realised in a person's memory. The creation of the world would be meaningless without a man" (7,81). Verse 54 of the Koran of Surah "The Cow" says: "And who believe in what hath been sent down to thee, and in what hath been sent down before thee, and full faith have they in the love to come: These are guided by their Lord: and with these it shall be well".

According to theosophy love forms the basis of creation. F.Attar wrote[^] "Everything resulted from love" (2, 286). In Javid's opinion the main purpose of

creation is love. Being lost in thought in front of Sheikh Sanan's tomb the poet wrote:

Undoubtedly the whole creation is nothing without love

Yes, the purpose of this legendary creation is love.

The theory of the unity of being first systematized by Ibn Arabi is very interesting: "Absolute God wants to realise and observe Himself in the other thing besides Him. This God's wish can be characterized as His love to Himself, that is to say as his love to the characters and phenomena of the world created by Him. Ibn Arabi analysing the different kinds of love came to the following conclusion: after all everything ends with mutual love between God and His beings. God's love finds its pithy response only in a person, because all other beings love God blindly" (8, 84).

Adam, a man who harmed the highest love was held away from paradise, his beauty was taken away from him, too. One third of his beauty was returned to him only after his repentance.

This event acquires new significance in Nizami's creation. In Nizami's opinion "Adam expelled from paradise is guilty his face is black. But he suffers this punishment, he doesn't complain. He repents again, he weeps bitter tears and they are tears of repentance. He suffers God's will with hope and blot of guilt is removed" (1, 74). But Javid hints at this event:

His (Adam's – S.G.) face turned yellow, pale, he became hollow – cheeked (4, 28).

According to the mythical thought black colour represents evil, darkness, but yellow colour is considered to be a symbol of separation. Saying that Adam's face is black Nizami hints on the one hand at his giving way to devil's temptation and being guilty, on the other hand at Adam's repentance and grief that cause his pallor. Emphasizing Adam's yellow face Huseyn Javid is deeply impressed. According to Sufism soul having come down from Edem on the earth is given a body. A soul being separated from the garden where it was first created remembers its last days and complains about separation. It wishes to return to its essence.

Though Soul is pure the body's material and physical needs "makes the Soul dirty with the worldly affairs". It was expressed in the laconic form in Saib Tebrizi's creation: "Oh, those days when I was a master of myself in isolation and paradise. I don't know what I did, what my fault is, why I am incarcerated in this body and dirty with the worldly affairs" (3,11).

The ney (a kind of flute – S.G.) in M.Fizuli's work "Seven bowls" complaining about separation from its original birth-place is also yellow:

I asked it: "Oh, majestic crown of grief,

Why are you yellow?! Explain the commotion in your heart!

Tell me, oh, what burning wails you have,

The tears are rolling down your faded cheeks!

Actually the Ney being separated complains and its wails set hearts on fire. Thus the Ney is also in love and realises the suffering from separation caused by love. Fizuli like J.Rumi thinks that nobody can understand separated lovers as well as the Ney can. In Sufi symbols the Ney is understood as human's soul that having come from Edem was incarcerated into the body, as a heart that won the flesh.

Thus the reason of Adam's yellow face is bitterness of separation. The reason of this separation is harm that Adam caused to the real love.

In H.Javid's opinion beauty has divine origin, it was given to Soul. The more human's soul is pure the more its beauty is mysterious. The Soul's sublimity is connected with real love. Thus love and beauty are interconnected, human's beauty is considered to be like the quantity of his love. The Koran says: "The world is God's shadow". According to the Sufi definition based on this verse creation is a copy of meaning. "All creatures being transitory join God" (8, 68). Those who love God are to love His creatures, too. Both in Fizuli's and Javid's creation the highest love to the Supreme is characterized as love to the whole humanity in the material world. Javid thinks that love makes person love beauty.

There are the following ideas in his verse " Everywhere is picturesque, exhilarating":

How can a person live without love in the world!?

Love makes a person love beauty,

If beauty loses love, it will be lifeless

The only wealth in the world is love (4,61).

Having harmed love Adam and Eve lost their beauties. Devil isn't the main reason of these troubles in Javid's creation. The main reason is their avidity:

Be sure, wherever avidity rules,

The real love is destroyed unfairly (4, 29).

In "Hubuti – Adam" Adam and Eve were informed about their exile from the paradise and overthrow on the Earth by the beautiful Fairy by order of God. From Fairy's words turn out that Adam's descendants' life on the earth won't be pure like the flowing water at all. They will be exposed to disasters, troubles, trials:

You will live on the dale of tortures being depressed

But those days will never return, alas!

While the world exists these wails will never be over because of the racking stroke of fate.

This ignorance is such mean crime that it will never calm anybody.

The only thing left by you as pledge for descendants is disaster, disaster!...(4,29).

Fairy explained to Adam that the only thing left by him for descendants will be disaster and trouble. Human life on the Earth confirms the following thought once more: all disasters on the Earth will be
created by human beings. All crimes, bloodshed, murder, suffering, injustice, treachery, greediness will be created by human beings and will lead Adam's descendants to the guff.

Verse 30 of the Surah "The Cow" says: "Your Lord said to the angels, Indeed, I will make upon the earth a successive authority". Thus Adam's mission was to be God's deputy in the world. "Deputy is a person appointed as a substitute with power to act" (6, 103). The question arises: did God appoint only Adam who was a perfect man as his deputy or this highest position could be got by all human beings? Muhammad Bagir Saivar basing Himself on the angels' question in Verse

30 of the Surah "The Cow" comes to the following conclusion: deputy mission is related not only to Adam but also to all human beings (6, 104).

That verse says: "They [angels] said: "Will you place upon it [the earth] one who causes corruption therein and sheds blood, while we declare Your praise and sanctify You?"

The great Fizuli hints at this verse in one of his couplets, too:

At first Adam gave his dwelling and took paradise

Having heard Angels' recriminations he regreted.

The poet means that deceived Adam considering this world to be Paradise, Edem came down in the material world, but having heard the angels' recriminations regreted.

Adam who was created to be God's deputy on the earth at first lived in Paradise with his wife, the first prohibition was inflicted on him here: "it was a way to subject a man to trial putting him in the face of choice between good and evil (7, 80). Adam didn't pass muster fittingly. Devil was a reason of his disaster in Paradise, but he was punished and ordered to come dawn on the earth together with Adam. Adam regreted very much, repented and was forgiven. There are the following words in the verse "Prophet":

He will forgive, He is merciful to His slaves (4, 152).

Adam appointed as deputy by God was lowered to earth and according to Islam position the main purpose was the following: "Adam who was the first man and father of humankind was to choose voluntarily either perfection and obey it or to refute it and the ground for it was also prepared by God" (6, 110).

In Javid's opinion greediness and insatiability are man's inner enimies. The only way to be saved of disasters and troubles on the earth is not to give way to temptation and stand the test of life fittingly:

The one whose spirit is the highest is strong,

The one who is a captive of greediness is always week (4, 29).

Thus the main purpose of creation of a man and endowing him with knowledge, mind is to establish truth and justice on the Earth. The world must

change to floweret at persons' expense that are considered to be higher than angels. If persons put themselves on the right road and become pure they will be able to change this world into Paradise.

Earth is a proving ground for Adam and his descendants, because his sworn enemy Devil was sent to this world together with him. Adam's descendants should learn a lesson from the incident in Paradise.

The disaster happened to Adam "is perception of life truth. A person must prepare himself for divine mission for his life on the earth and gradual perfection" (6,109).

In thinker's opinion, heart is a devil's nest without love, evil can't settle in the heart that is full of love. If human heart is illumed by love it can rid itself of wickedness.

The one who doesn't try to do it is his own enemy. Farideddin Attar wrote appealing to God: "Everybody is afraid of You, but I am afraid of myself, because I saw good from You, but I saw evil from myself" (2,31).

Society consists of individuals. Its happiness is connected with their mental perfection. Genius Nizami came to the following conclusion in his work "Eskander Nameh": If persons are in sound spirit, they will be able to make up perfect society. To achieve mental purity a person must illume his microworld and extirpate darkness here:

Evil is like a sore of the body,

Cut it, let the body recover (4, 215).

The poet hints at malice, greediness and envy that are in a human being. Devil in H.Javid's work "Devil" confirms it? too:

Even if you move away from me, run away from me to Heavens, we'll always meet and unite

We are inseparable because we are always together (4, 68).

Adam's descendants' only way out is to kill devil inside them, and it is possible in case of overcoming insatiability.

Describing the first prophet's careless days in Edem in his verse "Hubuti-Adam" H.Javid tells about story happened before Adam's lowering on the earth. The poet tells about hard, fatal human life in this world by Fairy's words. He thinks that the only salvation is not to be a slave of insatiability and is mental purity.

Evidently H.Javid appealing to the Koran story expresses his ideas about the society and person. Presenting the important human idea he uses expressive words caused by his, artistic imagination and theosophy as means of artistic self- expression.

Conclusion

The article deals with the problem of relations between society and person in H.Javid's creation. His verse "Fallen Adam" is analysed in the light of the Koran, Islamic concepts, theosophy, Nizami Ganjavi's, Fizuli's and other poets' and philosophers' works. The main attention is given to such notions as the highest love, perfection, moral cleanliness and delivarance from evil, insatiability and envy. The goal is to maximize the love inside persons and outside them; it goes deeper than correct behavior and obedience to commands. Thus in Javid's opinion purity is the result of continued spiritual harmony with God and love to Him and his creatures.

REFERENCES

Alizadeh M. Nizami about human merits/ Nizami Ganjavi – 850. Collection of articles, 1992, p.67-104 (in the Azerbaijani language)

Feriduddin Attar. Birds' logic (translated into Turkish by Yashar Kechechi). Istanbul, 1998, 288 p. (in the Turkish language).

Ali Fuad Bilkan. The words of wisdom from Said Tebrizi. Izmir, the Publishing House Basgi Chaglayan A.Sh. 2003, 72 p. (in the Turkish language).

Huseyn Javid. Works in 5 volumes. Vol. I. Baku: the Publishing House Lider, 2005, 256 p. (in the Azerbaijani language).

Garayev Ya. H.Javid's creation. Foreword to H.Javid's works in 5 volumes. Vol I., Baku: the the Publishing House Lider, 2005, p.7-24, (in the Azerbaijani language).

Muhammad Bagir Saivar. Creation of Adam, human greatness// Hikmet, №3, 2004, p.100-110 (in the Azerbaijani language).

Mamedov A. Islamic concepts of creation of universe, man and love to God//Hikmet, №1, 2003, p.79-84 (in the Azerbaijani language).

Rustamov Yu. Movlana Jalaladdin Rumi's philosophy//Hikmet, №3, 2004, p.56-69 (in the Azerbaijani language).

CITATION: Proceedings of ICES 2018 – 1st International Congress on New Horizons in Education and Social Sciences, April 9-11, 2018 - Istanbul, Turkey

ISBN: 978-605-2132-22-7

DOI: 10.21733/ibad.423565

EFFECTS OF THE RISE OF BRITAIN IN INTERNATIONAL TRADE: A GLOBAL POWER AFTER INDUSTRIAL REVOLUTION

Gozde Yirmibesoglu^{1*}, Fatma Cande Yasar Dincer²

¹Assoc. Prof. Dr., Akdeniz University, TURKEY, gozdey@akdeniz.edu.tr ²Master Student, Akdeniz University, TURKEY, cande_yasar@hotmail.com *Corresponding author

Abstract

Industrial Revolution took place in Britain during the second half of the eighteenth and the first half of the nineteenth centuries. Economic transformation was influential in areas such as industry, technology, trade, finance, transportation and agriculture. Technological innovations caused an increase in production type and its quantity as well as capital accumulation and infrastructure investment. Substantial coal reserves in the country were cheap energy sources and profitable export opportunities created great support to other industries which are the basic elements of Industrial Revolution. International trade and the power of the country in terms of its monopoly in maritime business caused a cheap and profitable commerce network. As a result, Britain became the centre of global trade and capital with its ports and banks. Furthermore, the country was a monopoly in trade for long distance travels in oceans. Moreover, it became successful in protecting its position in international trade. After the second half of the nineteenth century, Britain was the leading trade and industrial country as well as its power to own capital accumulation incomparable to its competitors. Hence, this study aims at exploring the effects of the Industrial Revolution on British economy and the phases that Britain has become a global power in international trade while accumulating substantial capital in the international arena.

Keywords: International trade, Britain, global power, Industrial Revolution

1. INTRODUCTION

As a result of Geographical Discoveries that took place between 1400 and 1600, the world was circumnavigated and new continents were discovered. In concurrence with the transfer of the discovered wealth to Europe, commercial, economical, scientific and technological development of the continent has been realized. All these resulted in the establishment of overseas empires for the first time in history and

trade has begun across the world. According to Barker (1947, pp. 119-120); "The founders of the new sea empires were the Atlantic States: first Spain and Portugal, and then afterwards, from about 1600 onwards, Great Britain". In the 17th century, the country became the main actor of trade between East and America. Also, at the same time, Britain dominated the Atlantic Ocean. Britain emerged as a global force upon obtaining a victory over the French-Spanish fleet at Trafalgar in 1805, the victory against France between 1793 and 1815, and in consequence of the conventions of the 1815 Vienna Congress, which later established a balance between the great powers of Europe (Officer and Page, 2012, p. 63; Black, 2015, p. 118; Blair, 2015, p. 4). War and international competition have made the country the leading Empire of the world.

Industrial Revolution took place in Britain between the second half of the eighteenth and the first half of the nineteenth centuries. "Capitalism in the sense of the creation, mobilisation and direction of capital, was crucial to the development of Britain's global links and, more narrowly, to the ability to make overseas colonies and activity work, and, in particular, work in accordance with the global economy" (Black, 2015, p. 84). With the influence of the Industrial Revolution, the United Kingdom became a country that controlling the world trade. Today, the country is one of the developed countries with an important share in global trade. In this study, firstly, the reasons why the Industrial Revolution emergerged initially in Britain will be investigated. Secondly, the transformations in the country's economy during the Revolution will be examined. Thirdly, the consequences of the Revolution for the country will be investigated, and in the last part starting from the Industrial Revolution up until today, the global power of the United Kingdom will be assessed.

2. THE REASONS WHY THE REVOLUTION FIRST APPEAR IN BRITAIN

Due to the geographical position of Britain, which is formed by the group of archipelago, it is difficult to be occupied. This has led maritime and maritime commerce to play a key role in the development of the country (Long, 1928, pp. 245-246; Black, 2015, p. 1). Explorations, trade and wars made Britain the richest country in the world. Between the14th and 17th centuries, London was a port of international trade. According to Blair (2015, p. 1), "For more than half a millennium, Britain has sought to exercise influence at a global level". In the 16th century, in order to increase its wealth, Britain attempted to establish colonies and trade networks especially focusing on America and Asia. According to Blair (2015, p. 11), "Alongside the formal control that Britain had over its colonies, the dominant position that it occupied as the leading industrial and trading nation meant that it essentially controlled the economies of many other countries, ranging from China in the East to Argentina in South America".

In the 17th century, Queen Elizabeth II's country policy was to improve the resource balance of Britain, to expand its market, to encourage domestic manufacturing employment and to increase invisible gains (Zahedieh, 2014, p 417). As a result of political success, the country dominated the Atlantic Ocean in the 17th century, becoming the main actor in trade between the East and America. The success of the country's foreign policy based on world conquest, overseas expansion, and imperial gains have directly increased the level of wealth and prosperity (Cain and Hopkins, 1987, p.1; Langdford, 2000, p. 34). Leaving behind its rivals, Britain established a vast colonial Empire. Thus, it solved resource and market problems and provided new employment areas.

The reasons why the Industrial Revolution first appeared in Britain were mainly; country's, successful transition from the feudal structure to the commercial society, huge coal reserves of the country, effects of social, political, economic, demographic factors and Britain's respect and support for financial success. Substantial coal reserves in the country were cheap energy sources and profitable export opportunities created great support to other industries which are the base of the Revolution. Availability of cheap coal was of capital importance for the development of other industries that has constituted the basis of the revolution as well as providing cheap energy and profitable exports.

3. INDUSTRIAL REVOLUTION AND BRITAIN

Industrial Revolution took place in Britain between 1770 and 1850. As a result of the Revolution, the production character of the country has changed. The traditional production style which was based on

arm power was replaced by mass production based on machine production. Industrial Revolution emerged as a result of the integration of the various processes in the production stages of the new inventions. As a result of the Revolution, the production character of Britain changed and radical changes occurred in especially textile, iron, and steel industries and the transportation system. Due to the establishment of a national patent system, inventions were protected and identified. After 1759, as a result of the developments in patent industry, the country became a leader in steam engine technology.

Industrial Revolution emerged in textile sector in the country due to market demand. Britain as the world's leading force in the eighteenth century has significantly increased its overseas trade with the facilitating influence of the technological innovation created by the revolution. (Black, 2014, p. 84). Economic transformation was effective in areas such as industry, technology, trade, finance, transportation and agriculture. "By the eighteenth century the British Empire had expanded further. Although not yet in name, the beginnings of globalisation were taking place" (Black, 2015, p. 4). During the 18th century, exports and imports increased five times and re-export nine times in the country (Ackroyd, 2016, p. 98). It was estimated that the manufacturing industry constituted 25 per cent of Britain's national income by 1800, while trade and transportation accounted for 23 per cent (Harvie and Matthew, 2000, p. 9). Textiles made up over 50 per cent of exports by value in 1750, and over 60 per cent by 1800. Cotton, insignificant in 1750, was dominant with 39 per cent in 1810 (Harvie and Matthew, 2000, p. 13). Cotton technology spread to other textiles. But it also boosted engineering and metal construction.

The development of spinning technique of the yarn, water pump works and trying to process the iron with other energy sources were effective elements at the beginning of the Revolution. Iron production, boosted by war demand, by use of coal instead of charcoal for smelting, and by perfecting in the 1780s of puddling and rolling wrough iron, rose by 200 per cent between 1788 and 1806 (Harvie and Matthew, 2000, p. 14). In later developments, the revolutionary movement was completed by occurring in chemical, electrical and petroleum-based engine industries. Following 1820, channels, railways and steam engine ship technology, initiated a rise in capital flow to and through the country. All these have contributed to strengthening Britain's global sovereignty in the early 19th Century.

4. CONSEQUENCES OF THE REVOLUTION

As a result of the Revolution, technological innovations caused increase in production type and quantity as well as capital accumulation and infrastructure investment. Mercantilist tendencies gained momentum in this period, political and financial stability, the rule of law and minimum government intervention encouraged entrepreneurship (Bravo, 2006, p. 522). During this period, the British Navy supported the growth of overseas trade and made the world safe for trade of the country. (Blair, 2015, p. 4). Due to the Industrial Revolution, there has been expansion in trade volume and also uninterrupted productivity growth occurred.

The Revolution occurred regional in the country. Towns and cities were established in close proximity to the mines in order to provide the energy needed for increased domestic demand. Also production increase attracted population to these areas. Due to Industrial Revolution, cities became the center of commercial and industrial activities. For example; Cotton production had almost doubled between 1820 and 1930 and Manchester's population had risen by 47 per cent (Harvie and Matthew, 2000, p. 49-51). Up to 1870s, economic progress led to the emergence of an urban-centric and industry-oriented economy (Harvie and Matthew, 2000, p. 77). Self-sustaining long-term growth emerged both in production and population. Also developments in medical technique with industrialization enabled to increase in the length of life.

5. BRITAIN: A GLOBAL POWER AFTER THE REVOLUTION

Holding the possession of large coalfields and the increased use of coal due to the Industrial Revolution directly contributed to the rise of the country to the dominant position in the maritime business (Spear, 2014, pp. 85-87). After the second half of the 19th century, Britain was the leading trade and industrial country and also capital accumulation of the country was incomparable to its competitors (Allen, 2014, p.

292; O'Rourke, 2014, p. 72; Harley, 2014, p. 2; Crafts, 2014, p. 27). International trade and the power of the country in terms of its monopoly in marine provided cheap and profitable commerce network (Spear, 2014, p. 85; Ackroyd, 2016, p. 98; Wilson, 2016, p. 9). While the development of foreign trade has increased prosperity of the society, the importance of being influential in the oceans and international trade has been understood in order to make development continuous.

Especially in the period between the end of the 19th century and the beginning of the 20th century, the country, officially under control of a quarter of the world population, turned into a gigantic empire with incredible speed (Wilson, 2016, p. 83; McAleer, 2017, p. 190). During this period, Britain expanded its areas of dominance, from the Atlantic to the Pacific, from Arctic to Antarctic. At the same time it was officially controlling one fourth of the world population. "During the period between 1848 and 1914, approximately 400 million people and 10 million square miles were added to the British Empire" (Blair, 2015, p. 7).

According to Blair (2015, p. 11-12), "in the early years of twentieth century, British influence was particularly marked in the area of international trade and finance, and the City of London was the leading provider of banking, insurance and investment services". Today, the country has 35% of world marine insurance premiums and 60% of protection and compensation insurance (Melia et al., 2017, p. 19). As a result of such developments, Britain became the center of global trade and capital with its ports and banks. Furthermore, the country was monopoly in trade for long distances in the oceans. In this period, it was successful in protecting its dominance position in international trade. Until the US took over world hegemony after the First World War, the country had a global commercial and military superiority.

In the 21st century, despite losing its title as the world hegemony, the country has adapted to the new orientation in order not to break from the world stage. Its ports are the largest in Europe and the operation variety is quite high. Approximately 96% of all import and export volume is provided through ports (Melia et al., 2017, p. 1). Besides, 32 million international passengers use the UK ports each year (Melia et al., 2017, p. 1). According to Wilson (2016, p. 79), "by facilitating international trade and the movement of labour, Britain could take a slice of the pie at every stage. The country was well placed to do so. This is because the country already has the necessary news, information, transportation and infrastructure. Today, with its capital accumulation and commercial capacity, the country is one of the most influential global forces in the world conjuncture.

6. CONCLUSION

In the 17th century the Britain was dominating the trade between the East and the America as well as its sovereignty over the Atlantic Ocean. The country strengthened its hegemony and influence in the world after the Industrial Revolution between the second half of the 18th century and the first half of the 19th century. The reasons for the emergence of the Industrial Revolution for the first time in Britain were generally that the country has extensive coal resources and increases its wealth and knowledge through wars, explorations and trade. Furthermore, improvement in patent industry encouraged the explorers and investigators to discover more inventions. The Revolution took place in the textile industry due to market demand and then it appeared in the iron and steel industries. Finally the Revolution ended with innovations in electric, chemistry and petroleum-based engine industries.

The transition to serial machine production after the Industrial Revolution has resulted in increased in national capital accumulation and infrastructure investments of the country. Due to the Revolution, trade volume of Britain grew and cities became commercial and industrial centers. Also variety of industries and wealth in country rose incomparably. As a result of the Revolution and discoveries, the country obtained more wealth and controlling over the world seas. Due to facilitating effect of technological innovations that stemming from the Industrial Revolution, the country created cheap and profitable trade connections all over the world. Furthermore by reinforced its dominance on ocesans and seas, the country became the hegemon of global trade.

In the 20th century, the country widened its influence area and it became the center of global capital with its banks and ports. Although lost its monopoly status in trade, nowadays the country is still one of the most important actors in global trade due to its economic position and its improved good and service sectors.

ACKNOWLEDGEMENT

This study has been supported by the Scientific Research Projects Coordination Unit of Akdeniz University. Project Number: 2212. The topics discussed in this study were compiled from the master thesis titled "The Polar Policies of the UK in the Context of Classical Realism and Neo-Realism".

REFERENCES

Blair, A. (2015). Britain and the World Since 1945, Routledge.

Barker, E. (1947). Great Britain and the British Dominions. Saga Publications, 110 (2).

Ben, W. (2016). Heyday: Britain and the Birth of the Modern World, Weidenfeld & Nicolson.

Bravo, M. (2006). Geographies of Exploration and Improvement: William Scoresby and Arctic Whaling, 1782-1822. Journal of Historical Geography, 32 (2).

Cain, P. J. and Hopkins, A. G. (1987). Gentlemanly Capitalism and British Expansion Overseas II: New Imperialism, 1850-1945. Economic History Review, 40 (1).

Officer, C. and Page, J. (2012). A Fabulous Kingdom: the Explaration of the Arctic, Oxford University Press.

Cristopher, H. and Matthew, H. C. G. (2000). Nineteenth-Century Britain: A very Short Introduction, Oxford University Press.

Black, J. (2015). A Short History of Britain: Second Edition, Bloomsbury.

McAleer, J. (2017). Britain's Maritime Empire: Southern Africa, the South Atlantic and the Indian Ocean, 1763-1820, Cambridge University Press.

O'Rourke, H.K. (2014). "From Empire to Europe: Britain in the World Economy". Roderick Floud, Jane Humphries, Paul Johnson (eds.). The Cambridge Economic History of Modern Britain Volume II: 1870 to the Present, Cambridge University Press.

Knick, H. (2014). "The Legacy of the Early Start". Roderick Floud, Jane Humphries, Paul Johnson (eds.). The Cambridge Economic History of Modern Britain Volume II: 1870 to the Present, Cambridge University Press.

Long, M. H. (1928). Imperial Process of Great Britain. Council on Foreign Relations, 6 (2).

Nathanael, M., Hanies, K. and Hawkins, E. (2017). Future of the Sea: Implications from Opening Arctic Sea Routes, Foresight-Future of the Sea Evidence Review. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/63 4437/Future_of_the_sea_-_implications_from_opening_arctic_sea_routes_final.pdf

Crafts, N. (2014). "Economic Growth During the Long Twentieth Century". Roderick Floud, Jane Humphries, Paul Johnson (eds.). The Cambridge Economic History of Modern Britain Volume II: 1870 to the Present, Cambridge University Press.

Zahedieh, N. (2014). "Overseas Trade and Empire". Roderick Floud, Jane Humphries, Paul Johnson (eds.). The Cambridge Economic History of Modern Britain Volume I: 1700-1870, Cambridge University Press.

Langford, P. (2000). Eighteenth-Century Britain: A Very Short History, Oxford University Press.

Ackroyd, P. (2016). The History of England Volume IV: Revolution, Macmillan.

Allen, R. (2014). "Technology". Roderick Floud, Jane Humphries, Paul Johnson (eds.). The Cambridge Economic History of Modern Britain Volume I: 1700-1870, Cambridge University Press.

Spear, B. (2014). Coal-Parent of the Industrial Revolution in the Great Britain: the early Patent History. World Patent Information, 39.

CITATION: Proceedings of ICES 2018 – 1st International Congress on New Horizons in Education and Social Sciences, April 9-11, 2018- Istanbul, Turkey

ISBN: 978-605-2132-22-7

DOI: 10.21733/ibad.423566

CHILDREN'S LITERATURE SUPPORTING EMERGENT LITERACY SKILLS FOR THE YOUNG CHILD

Filiz Shine

Ph.D, Uskudar University, Turkey, filizshine@gmail.com

Abstract

Children's literature supports emergent literacy skills in many ways. It is important for families to understand how critical it is to read aloud and share books with their children. Parents also have to know how to select quality literature and appropriate books for their child according to their age levels. General evaluation criteria has been established for the selection of books for young children. By sharing criteria we can help families choose quality literature for their children. Sharing books with the children help children to acquire emergent literacy skills naturally. Children learn how to handle a book understand that print carries meaning and discovers literary element of a story. They learn that a story has a beginning, middle and end. But one of the most important elements of sharing books is that children learn to value literacy and begin a journey of lifelong learning that is enjoyable. After all if young children love to listen to stories and read they are already paving the path for success in later school years.

Keywords: Early reading&writing, children's literature, families, oral reading

INTRODUCTION

Children's Literature is vital because it plays an important role in supporting emergent literacy. It is important for families to realize the significance of reading quality books to young children. What are quality books for the young child and what are some of the benefits of reading books to the young child? I will discuss some of the evaluation criteria of what makes a good book for a young child and also discuss the importance sharing books and reading aloud to your child. I will be looking at what we already know about emergent literacy and books for children.

Emergent Literacy is referred to as a time where children first notice print and begin to wonder what people are doing when interacting with print. We know that learning to read is a complex process that includes a plethora of abilities and competence. We are aware that children come to school with a set of experiences and knowledge in regards to what reading is. Some children have had more opportunities to interact with books than others and seem to be more familiar with print than their peers who have not had such interactions with books. We know that learning to read is related to phonological awareness and knowledge of letters as well as their knowledge about the functions of print (Lonigan, Burgess, & Anthoney, 2000, Wagner et al., 1997, Ehri, 1998; Purcell-Gates, 1996). If children come from a household where reading and writing is part of the daily routine and often done then we know that by the time children enter school they

have a great deal of knowledge in regards to Literacy. This is also true if they come from a community where reading and writing is done often the result is that children acquire a vast amount of knowledge in regards to literacy (Temple, Ogle, Crawford & Freppon 2011). We now know how important it is to surround children in a print rich environment and to read to them on a regular basis along with giving them ample opportunities to explore and attempt reading and writing on their own. When we think of all these factors then we can state emergent literacy is the time where children first notice print and the early informal and formal teaching that children get when they are in preschool and kindergarten. What we also know is that early language and literacy development begins from the time the child enters this world. This is closely connected (language and literacy development) with a child's first experiences with stories and books. Parents need to realize that the foundational blocks for language, reading and writing are based on the interactions that the child has with literacy materials and the adults in their lives. Another important aspect is that the new understanding that we have about emergent literacy development is that it parallels the current research that supports the vital role of early experiences in shaping the child's brain meaning brain development. We have the knowledge that children gain a vast amount of knowledge in writing, reading and language before they enter school. Before children come to school, they can talk, write, read and participate in social literacy interactions with adults and their peers. Social literacy interactions are developed by using literacy materials such as books, paper, crayons, pencils, and markers just to name a few. Literacy research has demonstrated that reading and writing develop at the same time and this is a process that is continuous which is initially started in the first years of life. Emergent literacy skills develop in authentic situations with authentic experiences and through positive interactions with peers and adults. An important factor here is that all of this should be developmentally appropriate. In young children, we want children to learn in a more natural way and this can occur through the sharing and enjoyment of quality children's literature books and with authentic literacy rich experiences. It is important to choose appropriate books for young children so that a love of reading, enjoyment and sharing of books can be instilled in the child. We do have certain evaluation criteria guidelines that help us to select quality literature for young children.

Here are some of the criteria or guidelines for choosing books for young children. The best type of books for infants and toddlers should relate to usual types of experiences that children have. Pictures should be clear and not busy. The background of the pictures should be clear and not distracting to the child. The pages of the book should be strong and able to last, as we know children who are teething put everything in their mouth. The language should be and authentic and the stories should be predictable. Humor in the stories will help children to feel superior and stories should offer children the option to interact and participate with the story. Finally but not last the book should be able to keep the child's attention and as we know young children have a short attention span(Huck, Hickman Kiefer , 2011).

Another type of book for toddlers are alphabet books. Usually alphabet books provide children with big bright pictures. These types of books besides teaching about letters also allows for the discussion of the solitary object or the animal that may be in the picture. Chicka Chicka Boom Boom illustrated by Lois Ehlert and written by Bill Martin Junior and John Archambault is an exceptional alphabet book, which helps children, learn the alphabet through chants and rhyme. Another unique aspect of this book is instead of having an animal or a single object the letters are active and embark upon climbing up the coconut tree by inviting each other up(Huck Hickman and Heplar, 2011). Some guidelines for evaluating alphabet books are that the illustrations of animals or objects should be clear and for the very young child one or two objects should in the picture. Common types of animals or familiar objects that young children can recognize shou be used. Objects that have several different names should be avoided. The purpose of the book should be transparent. The pictures of the book should go hand in hand with the text and reflect the overall mood of the book. The organization of the alphabet book should be transparent(Huck Hepler,Kiefer, 2011).

For young children there are many types of books such as wordess books, books about common life experiences, naming books for babies, toy books, mother goose books, concept books, wordless picture books, predictable books, and big books.

Reading aloud to your child provides time for you and your child to cuddle, share quality time together and allows your child to learn quite a bit about emergent literacy skills. The National Early Literacy Panel did research and from this research, they found that there are certain factors that help to predict success in reading for children five and younger in regards to learning how to read. There are language factors such as the ability to hear sounds, vocabulary and grammar and along with these print criteria such as recognizing letters knowing the way print is arranged on a page and being able to write their own names. First of all a child has to learn the concept of a word.... Example Luckycomeherenow. Children must be able to figure out this sentence is made up of four words and that the words are made up of letters and separated by a space. Actually this is quite an accomplishment. If a child does not know this then when trying to read their eyes will scan the whole sentence rather than focus on the word. Your child will learn about how to handle a

book that print carries meaning and the directionality of how to read. Your child will learn about words and that words have spaces between them plus words make up sentences. He/she will also learn about language and written language and literary elements such as the beginning middle and end to a story. However, the single most important element that your child should acquire is the love of reading this is crucial to your child's success in school and life long learning.

Sharing books with your child is an important step in having your child develop emergent literacy skills and instilling in your child love of reading. Many different types of genres and books are available for your young children and if properly selected the impact of sharing quality literature in later years will beneficial for the child in many ways. One of the most important gifts we can give to children as parents and educators is to instill the love of reading in our children.

REFERENCES

Bronfenbrenner, U. (1974). Is early intervention effective? Teachers College Record, 76(2): 279-303

Brooks-Gunn,J.,Fuligni,A.S., & Berlin,L.J.(Eds.).(2003). Early child development. In the 21st century: Profiles of current research initiatives. New York: Teachers College Press.

Ehri,L.C.,(1998). Grapheme- phoneme knowledge is essential for learning to read words in English. In J.L. Metsala & L: 3-40.

Harter, S.(1999). The construction of self: A developmental perspective. New York: Guilford.

Harvard Family Research Project (2006). 'Family Involvement in Early Childhood Education'. Harvard Graduate School of Education, Harvard Family Research Project, NO.1 in a series SPRING 2006.

Hickman, J., (1992). What comes naturally? In C. Temple P. Collins, (Eds), Stories and Readers. Norwood, MA: Christopher Gordon.

Huck,C.S., Hickman,J., Hepler, S.&Kiefer, B.Z.(2011). Children's Literature in the Elementary School (11ed.).. New York,NY: McGraw HI11.

Lonigan, C.J., Burgess, S.R., & Anthony, J.L. (2000). Development of emergent literacy and early reading skills in preschool children: Evidence from a latent-variable longitudinal study Developmental Psychology, 36:596-613.

Marcon, R. (1999). Positive relationships between parents school involvement and public school inner-city preschoolers' development and academic performance. School Psychology Review, 28(3): 395-412.

Mitchell, L., Cubey, P.(2004) Wilton Playcentre: A Journey of Discovery, New Zealand Council for Educational Research, Wellington.

Nord,C.W.,Lennon, J, Liu, B, Chandler K. (1999). Home literacy activities and signs of children's emerging literacy, 1993 and 1999, NCES Publication No.2000-026, Washington, DC: National Center for Education Statistics, US Department of Education, Office of Educational Research and Improvement. http://ncess.ed.gov/pubsinfo.asp?pubid=2000026 :1 Nisan 2015

Paley, V. G. (2004). A child's woek: The importance of fantays play. Chicago, IL: University of Chicago Press.

Purcell-Gates V.(1996). Stories, coupons, and the Tv Guide: Relationships between home literacy experiences and emergent literacy knowledge. Research Quarterly, 31:406-428.

Stanovich,K.,E., (1992) Are we overselling literacy? In C. Temple P. Collins, (Eds), Stories and Readers. Norwood, MA: Christopher Gordon.

Temple,C.,Ogle, D., Crawford, A., Freppon, P., (2011). All Children Read Teaching for Literacy in Today's Diverse Classrooms. Pearson. Boston 3rd Edition.

The National Education Goals Panel (1997) Special Early Childhood Report, 1997. Washington, DC:U.S governmentPrinting Office. http://govinfo.library.unt.edu/negp/reports/spcl.pdf: 1 Nisan 2015

Topor,D., Keane, S., Shelton, T.,and Calkins, S.(2010). Parent involvement and student academic performance: A multiple mediational analysis. J Prev Interv Community. 38(3):183-197

Wagner, R:K:;Torgesen, J.K., Rashotte, C.A.,Hecht, S.A., Barker, T.A., Burgess, S.R., Donahue., J.,&Ganon, T.(1997). Changing Relations between phonological prpcessing abilities and word level reading as children develop from beginning to skilled readers: A five year longitudinal study. Developmental Psychology, 33:468-479.

CITATION: Proceedings of ICES 2018 – 1st International Congress on New Horizons in Education and Social Sciences, April 9-11, 2018 - Istanbul, Turkey

ISBN: 978-605-2132-22-7

DOI: 10.21733/ibad.423567

EDUCATION AND INNOVATION A COMPARISON OF CYPRIOT AND KYRGYZ TURKISH FOLK TALES IN TERMS OF VIOLENCE ELEMENTS

Mustafa Yeniasir^{1*} and Burak Gokbulut²

¹Assist.Prof. Dr., Near East University, Northern Cyprus (TRNC), mustafa.yeniasir@neu.edu.tr ²Assist.Prof. Dr., Near East University, Northern Cyprus (TRNC), <u>burak.gokbulut@neu.edu.tr</u> *Corresponding author

Abstract

Since the emergence of mankind, violence is among the social problems that are waiting to be solved. Unfortunately violence - albeit at different ratios - is one of the most fundamental problems of both developed and developing countries. Due to the indifference of people, the phenomenon of violence is claiming more space in our lives every day, and is evaluated under different titles such as physical, psychological, economic, social and political by researchers. Elements of violence claim wide space in different genres of literature such as novel and drama but especially tales. This is due to the fact that while tales, which are one of the basic elements of oral literature, are being created, children were not considered as target audience. Later, authors who decided that tales are important for children tried to adopt these texts for children in order to fill the gap in children's literature. An evaluation of tales as one of the most important products of childhood periods in terms of violence elements will contribute to the better understanding of reasons which create violence and bringing a social solution to this problem. The objective of this study is to identify and compare the violence elements in Cypriot and Kyrgyz Turkish folk tales. For this purpose, the problem of the study is represented by the question "what kind of violence elements are found in Cypriot and Kyrgyz Turkish folk tales?" The study will employ qualitative research method and document examination technique. Within the scope of the study, 30 tales selected among Cypriot and Kyrgyz Turkish folk tales will be examined by subjecting to content analysis.

Keywords: Cyprus, Kyrgyz, Tale, Violence, Children.

INTRODUCTION

Tales occupy and essential place in both folk literature and the lives of children. As one of the oldest products of oral literature tradition, a tale "is a verbal expression type with some characters such as animals and supernatural beings, of which events take place in a country of tales and is a product of imagination; yet, they can make their audience believe they are real" (Sakaoğlu 1999: 2).

The most important feature of tales which express the experience, desire and longings of humanity in ancient times is that the people and events have supernatural characteristics. People ascribed their imaginations to realist and extraordinary types and kneaded them in time to create tales. A tale "can be anything contemplated or not contemplated. You can ride on a cube and take a distance of one year in one blink. You can meet the sultan of ants at seven stories below the ground and talk to the sultan of lions by rising to the twelve stories of sky on the back of a dragon" (Tezel 1997: XV).

Tales are indispensable elements of childhood representing a genre which ornament and enrich the imagination of children. Having said that, the most striking functional feature of tales is education. When carefully selected and used considering the didactic dimension, tales make positive contribution to the education of children "and enrich the thinking and imagination of children as well as equipping them with virtues such as goodness, honesty, diligence and benevolence in events which they have to acquire" (Karatay 2007: 471).

Similar to the case in all world tales, in Cypriot and Kyrgyz Turkish tales there are elements which can harm the development and education of children. The most striking element is that violence and ferocity, killing, harming people are given considerable place in the mentioned tales. In the examined tales, such violent acts as butchering people, cooking children, killing animals (wolf, fox, sheep, rat...), beheading and skinning people, torturing etc. which children (especially pre-school and elementary level children) should never read and hear about are frequently portrayed. As is known, children see role models in the characters they see on television and texts they read. Violent acts displayed by these characters will cause the children to be raised as aggressive people, too. "If children watch cartoons with violent elements in their early childhood period which is one of the periods when children are most prone to see role models, their personalities and ethical development can be negatively affected" (Yıldız 2016: 713). Therefore, when choosing tales and other literary texts for use especially in education, teachers have to be extremely cautious and choose texts which are most suitable to the development of children. At this point, researchers have essential and remarkable findings as regards the cognitive and psycho-social development of children. According to the information given by Murat Asci, "first of all, language development of a child is the mirror of the economic, social and cultural status of the family. If newspapers and books are read in the family, if there is a library in the house, and more importantly, if parents and other family members give importance to reading and writing, and share with each other what they read, the child who is raised in such a family will be more inclined towards reading and writing. The literacy or language skills of children of parents who do not pay any attention to the foregoing or who do not have these opportunities cannot develop" (Aşıcı 2005: 24).

According to Haluk Yavuzer, "while acquiring reading and writing habit to the child, in the beginning the child loves small books including short stories and interesting pictures which he/she can easily hold. These books mostly consist of fantastic events. Children of 3-4 years of age want that illustrated story books are read to them. Most children take huge delight in hearing stories consisting of some imaginary adventures and they identify themselves with the characters in these stories" (Yavuzer 2005a: 157). Likewise, according to Yavuzer, "health, intelligence, socioeconomic conditions, gender, family relations and encouragement for speaking are among the factors which affect language development. The children of families with good socio-economic status speak earlier and more decently. In addition to the environmental factors which play important role in the language development of the child, the number of books read by the child, the involvement of parents with their child and the games that the child plays are also essential" (Yavuzer 2005b: 93). It is a reality that carefully selected works with artistic value which reflect the beauties of Turkish language are extremely important especially in terms of the language development of children. Thus, teachers will choose in Turkish courses texts with high quality free from violent elements which will equip students with the habit and joy of reading, contribute their ethical development and ensure that they reach the level that they will be able to evaluate what they read.

Objective of the research

The objective of the study is to identify and compare the violent elements in 30 tales belonging to Cypriot and Kyrgyz Turks. For this purpose, the problem of the research consists of the question "which violent elements can be seen in Cypriot and Kyrgyz Turkish folk tales?"

1. METHOD

1.1. Model of the research

In the study, qualitative research has been applied as method and document analysis was employed for data collection.

1.2. Sample of the study

The sample of the study consists of 30 tales in total selected from Cypriot and Kyrgyz Turks. This study is based on convenience sampling which is a type of purposive sampling as a result of which 30 tales which were examined by the researchers previously, about which the researchers were knowledgeable and which included important clues about violent elements were preferred. The examined Cypriot Turkish tales were taken from the books titled "Compilations from Cypriot Turkish folklore-Tales I (1998) and Compilations from Cypriot Turkish folklore-Tales II (2006)" written by Oğuz Yorgancıoğlu. Kyrgyz Turkish tales were borrowed from "Kyrgyz Tales and Legends" (2017) written by D. Brudnıy-K. Eşmambetov.

1.3. Data collection and analysis method

The data of the study were compiled from 30 tales in total chosen from Cypriot and Kyrgyz Turks. The tales were analysed by means of "descriptive analysis" in the study.

2. EXAMINATION

The word "violence" is defined by sociologists as toughness and use of brute force. Violent behaviours are usually displayed to terrorise and intimidate people. Violent behaviours generally appear as disobeying laws, harming, insulting, degrading people, ending one's peace, overriding one's rights, battering or hurting someone and using force (Erten and Ardali 1996: 143, cited in Kocacık 2001: 2).

Researchers studying on this topic for a long time classified the phenomenon of violence under different titles such as physical, sexual, economic, psychological, verbal and social. When the 30 tales examined in the article are evaluated in terms of the mentioned titles, the following conclusions are reached:

Violence types identified in Cypriot Turkish folk tales	F	%	Violence types identified in Kyrgyz Turkish folk tales	F	%
Physical violence	2 4	160	Physical violence	3 4	226
Sexual violence	1	6.66	Sexual violence	0	0
Economic violence	2	13.33	Economic violence	4	26.66
Psychological violence	6	40	Psychological violence	1 4	93.33
Verbal violence	4	26.66	Verbal violence	9	60
Social violence	0	0	Social violence	5	33.33

Table 1. Classification of Violent Elements	Identified in	Cypriot and K	yrgyz Turkish Folk
Tales			

As can be understood from the table, there are several violence elements in both Cypriot Turkish folk tales and Kyrgyz Turkish folk tales. When Cypriot and Kyrgyz Turkish folk tales are evaluated in terms of the types of violence in the texts, it can be said that physical violence is common in the tales of both countries with higher frequency compared to other types of violence. Nevertheless, it is seen that Kyrgyz Turkish folk tales include 226% physical violent elements whereas Cypriot

Turkish folk tales include 160% physical violence. This difference can be explained by the fact that the harsh structure of nomad culture is still existent today.

The second type of violence in both Cypriot and Kyrgyz Turkish folk tales following physical violence is psychological violence. The ratio of psychological violence in Cypriot Turkish folk tales is 40% whereas this ratio is 93.33% in Kyrgyz Turkish folk tales. This high ratio in Kyrgyz Turkish people can also be explained with their historical experiences and especially the oppression of Russians and pro-Russian wealthy class. "The new administrative system implemented by the Russians in the region brought about several complexities as it was contrary to the traditional Kyrgyz system. The artificial class distinctions were created artificially so as to ensure that internal conflict in the volost and warfare would never end. As the case in all Turkistan Turks, divide and rule tactic was implemented on Kyrgyz Turks." (Kara 2007: 331).

Another type of violence which is frequently witnessed in the tales of both countries is verbal violence. In Cypriot Turkish folk tales verbal violence ratio is 26.66% whereas the ratio in Kyrgyz Turkish folk tales is 60 percent. Social violence is non-existent in Cypriot Turkish folk tales whereas the ratio in Kyrgyz Turkish folk tales is 33.33 percent. This high level of social violence in Kyrgyz Turkish folk tales can be attributed to the fact that the Central Asia geography has a harsh structure. In addition, sexual violence identified in Cypriot Turkish folk tales. In terms of economic violence, the ratio in Cypriot Turkish folk tales is 13.33% compared to 26.66% in Cypriot Turkish tales. This result concerning economic violence elements can be attributed to the reality that Kyrgyz Turks have more economic difficulties compared to Cypriot Turks.

An examination of the types of violence in tales and the elements belonging to these types show that the types of violence and the experiences of both societies throughout history are interrelated. Table 2. Types of violence determined in Cypriot and Kyrgyz Turkish folk tales and the elements within the scope of mentioned violence

Violence	Violence types identified in	Violence types identified in Kyrgyz
types	Cypriot Turkish folk tales	Turkish folk tales
Physical Violence	Sacrificing ram – cutting spouse into pieces – committing suicide – women beating her husband – removing teeth – man strangling woman – stabbing a baby – eating children – cutting off the hand of sibling – throwing children into the stream – Sultan punishing his mother and midwife (by killing) – rich woman going green with envy and dying – hunting – wanting to cut and eat children – fish swallowing the girl – prince punishing the odalisk (by killing) – two girls cooperating to kill the sibling – the old man beating the sultan and his men – inclining towards suicide – the man killing the wolf – the man killing the fox – the snake being killed – the giant being killed – the man being wounded by sword	The witch wanting to make the girl snake food – the man pulling his gun to kill the sheep – Bekcal beheading the dragon – Karakuş wanting to swallow the man- Bekcal cutting the sheep and goats into pieces and storing food – Bekcal cutting meat from his own hip and feeding the blackbird – sultan turning people into animals – the Khan's sons wanting to kill Bekcal out of jealousy – Hunting – Bereke killing snakes, lions and tigers with his sword – the witch butchering a human every day– Cail gunning down the witch – Cail blinding the witch by searing – the prisoners butchering and skinning the white goat – the giant trying to kill Makmut – Makmut skinning the fox – siblings butchering and eating the sheep – one of the siblings killing the giant bird – the farmer beheading the Khan – Two masters beating the servant – mambet stabbing the sheep – siblings making plans to kill each other – the servant leaving the masters under a rock – butchering and eating the horse – Namer putting Mert's

Sexual Violence Economic Violence	Cooking the tit of the woman Poor sister being despised – extraordinary forces taking two children back to their poor lives	eyes out – the animals eating the man – Mert butchering the dog – butchering the bullock and burying its brain – beating of poor people – beating of the poor – death of the Master – animals tearing down the clothes of the man – Çakabay being strangled – girls beating the servant. - Poor people being despised – The shepherd being insulted due to being poor – rich girls despising poor people – Khan making the girl his servant
Psycholo gical Violence	Exposure to starvation – sultan repelling his daughter – sultan threatening his wife with death – sultan threatening the man – sultan threatening his son – siblings thrown into a well	Temirhan putting his servant Temirhan putting his son and daughter in the dungeon – two siblings cooperating to throw their little sibling into a well – the witch imprisoning people – Bolbos khan threatening people with death – the Khan threatening the orphan child with death – the Khan threatening the farmer with death – the Khan terrorising his men – the Khan imprisoning seven rich people in the dungeon – Omurbek khan threatening people with death – the master oppressing people and threatening them with death – Master threatening the young apprentice – the man throwing his wife out – the khan threatening the boy with death – the man throwing his wife out.
Verbal Violence	Anathemazing – sultan threatening the man – sultan threatening his son – sultan threatening his wife with death	Bolbos khan threatening people with death – the Khan threatening the orphan child with death – the Khan threatening the farmer with death – Omurbek khan threatening people with death – the master oppressing people and threatening them with death – Master threatening the young apprentice – The shepherd being insulted due to being poor– the khan threatening the boy with death – the khan terrorising the boy
Social Violence	-	– sultan turning people into animals – Bolbos khan threatening people with death – Omurbek khan threatening people with death – the master oppressing people and threatening them with death – the Khan tyrannizing people

One of the most remarkable points in Kyrgyz Turkish folk tales which include far more violence elements than Cypriot Turkish folk tales is that sheep, goats, bullocks and horses which have an essential place in the diet of Kyrgyz Turks are frequently butchered in tales. Although sheep and goats have an essential place in the diet of Cypriot Turks, too, it is seen in the examined tales that the only example of butchering was when a ram was butchered.

Another striking point in the examined tales is that hunting is witnessed in the tales of both countries. As is known, hunting has an important place in Turkish culture. Therefore hunting is

frequent in verbal literacy works such as tales and legends. However, in any event, killing an animal is a show of violence.

As is known, both richness and poorness are two phenomena which exist from the very existence of the world organized for human beings into the eternity. It can be said that the poor people are despised in the tale texts of both countries but in Kyrgyz Turkish folk tales it is more distinctive. An examination of the tales of both countries in terms of psychological and verbal violence elements, it can be seen that the people called Khan applied verbal and psychological violence in Kyrgyz Turks compared to the sultans in Cypriot Turks. Based on tale texts, it can be claimed that the oppression applied by Khans in Kyrgyz Turks is more severe compared to the oppression of sultans in Cypriot Turks. The sultan exerts individual oppression in Cypriot Turkish folk tales whereas Khans in Kyrgyz tales mostly apply social oppression and threaten the society as a whole.

3. CONCLUSION

Tales are literary texts that include the cultural elements of societies and reach the present day by being transferred from generation to generation. Tales convey the cultural values of a society by decorating them with imaginary figures to readers or listeners. Therefore it is emphasised that tales, which serve an extremely important function especially in the transfer of culture, are critical for the development of children. In the examined Cypriot and Kyrgyz Turkish folk tales, it is seen that cultural elements of both societies are found to some extent. It can be said that some of the mentioned cultural values (horse, sheep, goat butchering, hunting etc.) are portrayed in a very harsh manner in tale texts as elements of violence.

As tales give the lecture from event the harshest event by entertaining, they play an essential role in the early education of children. Especially the tales with a happy ending have an essential role in the development of children, introducing them with life, and teaching them good values. The values such as honesty, love, respect and justice, which are the pillars of life, are learned through tales in the best manner.

Serving an extremely important function in terms of the education of children, tales also include several violence elements as will be seen. Unfortunately violence – albeit in different ratios – is one of the most fundamental problems of both developed and developing countries. For this reason, tales which will be used in the education of children have to be chosen very carefully by pedagogues and presented to the children. If a child born and/or living in Cyprus or Kyrgyzstan is raised uninformed about Cypriot or Kyrgyz Turkish history, literature and culture will bring about the collapse and loss of identity of the country in time. For this reason, all literary texts, including tales, should be actively integrated in the education system of both countries with all elements belonging to Cypriot and Kyrgyz Turkish cultures.

ACKNOWLEDGEMENT: This paper is supported by Scientific Research Projects unit (BAP).

REFERENCES

Așici, M. (2005). Language Activities In School Age-Literacy In Elementary School Years İstanbul: Morpa Kültür Publications.

Brudniy, D. and Eşmambetov, K. (2017). Kyrgyz Tales And Legends. (Translated By C. Buyar And İ. Ragibova.) İstanbul: Bilge Kültür Sanat Publications,.

Erten, Y. and Ardali, C. (1996). Psychosocial Constructs Of Aggression Violence And Terror. Cogito Winter-Spring (6-7), 143-164.

Kara, F. (2007). Russia's Colony Politics In Kyrgyzstan. Fırat University Journal Of Social Sciences, 17 (2), 329-340.

Karatay, H. (2007). The Importance And Function Of Tales In Language Acquisition And Value Teaching Period. Gazi University Turkish Education Sciences Journal, 5 (3), 463-475.

Kocacik, F. (2001). On The Phemoneon Of Violence Journal Of Economic And Administrative Sciences, 2 (1), 1-7.

Sakaoğlu, S. (1999). Tale Studies. Ankara: Akçağ Publications.

Tezel, N. (1997). Turkish Tales I-Ii. Ankara: Ministry Of Culture Publications.

Yavuzer, H. (2005a). Parent And Child-Child Education On Family. İstanbul: Remzi Publications.

Yavuzer, H.(2005b). Child Psychology. İstanbul: Remzi Publications.

Yildiz, C. (2016). The Analysis Of Viloent Content In Cartoons Preferred By Children Aged 3-6. Abant İzzet Baysal University Journal Of Education Faculty, 16 (2), 698-716.

Yorgancioğlu, O. (1998). Compilations-Tales From Cypriot Turkish Folklore I. Famagusta: Canbulat Publications.

Yorgancioğlu, O. (2006). Compilations-Tales From Cypriot Turkish Folklore Ii. Famagusta: Canbulat Publications.

CITATION: Proceedings of ICES 2018 – 1st International Congress on New Horizons in Education and Social Sciences, April 9-11, 2018 - Istanbul, Turkey ISBN: 978-605-2132-22-7 DOI: 10.21733/ibad.423568

HISTORICAL GRAMMAR BOOK AUTHORS: BERGAMALI KADRI, AHMET CEVDET PASHA AND ABDURRAHMAN FEVZI EFENDI

Esra KARABACAK¹

¹Prof. Dr., Near East University, Northern Cyprus (TRNC), burak.gokbulut@neu.edu.tr

Abstract

The book titled Müyessiretü'l-Ulûm (the ease of sciences) written by Bergamali Kadri and presented to the Sadrazam of Suleiman the Magnificent, Ibrahim Pasha, is the first grammar book of Turkish written in Turkish language. Turkish grammar science was established by Kaşgarlı Mahmut in Turkistan in the middle ages. His main grammar book titled *Kitâbu Cevâhirü'n-Nahv fi* Lugati't-Türk (The Jewel and Directions of Turkish in Thesaurus) is missing; however, Kitâbu Divâni Lugâti't-Türk (The Large Thesaurus Book of Turkish) which he wrote in order to teach Turkish grammar to Arabs gives rules of the Turkish language of that period. However, due to its basic purpose which is teaching Turkish to Arabs, it was written with a somewhat different system based on the rules of Arabic language. *Müyessiretü'l-Ulûm* is the first grammar of western Turkish. Ahmet Cevdet Pasha, on the other hand, is as important for Turkish history as for Turkish grammar. He was a pioneer for all grammar books in a period when western elements started to enter Turkish language. At the same time it dealt with several topics such as learning of our language, finding counterparts for new concepts, eliminating the difference between spoken and written language, and making innovations in Arabic language. It played a leading role for all grammar books in a period when western elements started to enter Turkish language. The book titled Mikyâsü'l-Lisân Kıstâsu'l- Beyân (Criteria of language, comparison of expression) written by Kütahvalı Abdurrahman Fevzi Efendi was completed in 1847 before Ahmed Cevdet Pasha's book, accepted by the Ministry of Education, but was printed in 1882 after the decease of the author. The preface of the book contains the opinions of Abdurrahman Fevzi Efendi on Turkish language. According to Abdurrahman Fevzi Efendi, linguistic is a supreme art which comprises of several benefits; however, none of the scientists who are superior in creating nice books did not use their pens in this topic and reveal their opinions. Taking this into consideration he imagined writing a principal Turkish grammar book. In this paper comparison evaluations and examinations will be provided on the books of these three important figures who are essential for Turkish language history.

Keywords: Ahmet Cevdet Pasha, Bergamalı Kadri, Abdurrahman Fevzi Efendi, historical grammar books, first grammar book

INTRODUCTION

Turkish grammar studies were initiated in Turkistan by Kasgarlı Mahmud. Although the grammar book of Kaşgarlı Mahmud titled Kitâbu Cevâhirü'n-Nahv fî Lugati't-Türk is lost, in his book titled Kitâbu Divâni Lugâti't-Türk (Atalay 1985-1986) which was written with the purpose of teaching Turkish language to Arabs, rules about Karahanlı Turkish grammar are provided. The book titled *Müyessiretü'l-Ulûm*, which was presented by Bergamalı Kadri to Ibrahim Pasha (1493-1536) the Grand Vizier of Suleiman the Magnificent in 1530, is the first Turkish grammar book (Atalay 1946). The Tanzimat leaders who believed that Turkish should be studied in the schools which were opened later took action believing that there was a huge gap in Turkish teaching. However, due to the lack of an essential source and their madrasah roots, they tried to see an example in the Arabic grammar, the classical language they were familiar with, for Turkish grammar. In the meantime several grammar books were being written. The first grammar books were *Medhal-i Kavâid* by Ahmed Cevdet Pasha and Kavâid-i Osmâniye by Keçecizade Mehmed Fuat and Ahmed Cevdet Pasha, who were members of the Council of General Education (Ahmet Cevdet Paşa 1851). The book titled Mikyâsü'l-Lisân Kıstâsu'l- Beyân by Kütahyalı Abdurrahman Fevzi Efendi was completed and approved by Ministry of Education in 1847 before the book of Ahmed Cevdet Pasha; however, it was published after the death of the author in 1882 (Kütahyalı Abdurrahman Fevzi Efendi 1847). The first study on this book was conducted by Ali Ulvi Elöve (1942). The study is essential as it is the first time when this book is introduced to the world of scholars. In addition, Ilhan Erdem prepared a master's thesis on the book which was promoted with an article (Erdem 1998).

EXAMINATION

Historical grammar books are mostly based on Arabic grammars which usually begin with the topic "verb" and continue with the derived words as lexicalizing is done with verbs and nouns are derived from verbs. We can see this obviously in the Müyessiretü'l-Ulum of Bergamalı Kadri.

Examples from Müyessiretü'l ulum: Mazi Malum, bildimüfred-i gayib, bildiler tesniye-i gayib ve cem'-i gayib, bildün müfred-i muhatab; mazi mechul bilindi müfred-i gayib, bilindiler tesniye-i gayib ve cem'-i gayib, bilindün müfred-i muhatab, bilindünüz tesniye-i muhatab ve cem'-i muhatab, bilindüm, mütekellim vahdeh, bilindük ma'a'l-gayr; mechul-i ism-i mekan bilinecek mekan müfred, bilinecek mekanlar tesniye ve cem; ma'lum-ı ism-i alet bilecek alet müfred, bilecek aletler tesniye ve cem; mechul-i ism-i tafzil bilinicirekdür müfred-i gayib, bilinicireklerdür tesniye-i gayib ve cem-i gayib, bilinicireksin, müfred-i muhatabbilinicireksiz, tesniye-i muhatab ve cem'-i muhatab, bilinicirekem mütekellim vahdeh; ma'lum-ı fi'l-i ta'accüb ne aceb bildi müfred-i gayib, ne aceb bildüler tesniye-i gayib ve cem-i gayib, ne aceb bildün müfred-i muhatab, ne aceb bildünüz tesniye-i muhatab ve cem'-i muhatab

Turkish grammar books also follow this layout. Nevertheless, Turkish language is not suitable for this layout. Prof. Dr. Tahsin Banguoğlu handles this topic in his work titled *Grammar issue, Spelling issue* (Banguoğlu 1941: 9-10) as follows: "After the 18th century Turkish grammar books have been written in Europe in various languages. These are considerably successful. In Turkey, Tanzimat leaders believed that Turkish should be studied in newly opened schools but they lacked essential studies needed to create the Turkish grammar. They were not much familiar with the translations of Turkish grammar in western and eastern worlds. They saw an example in Arabic grammar, which was the classical language they were familiar with, for Turkish grammar and put Turkish in the patterns of that language. Cevdet Pasha was the first person to write Turkish grammar for schools." It is a reality that Cevdet Pasha was a historian and a thinker; in addition, he was a philologist representing the beginning of a new era in Turkish grammar history. In these and later years studies in the west continued, too. We still see the impact of Arabic in the grammars written thereafter. Abdurrahman Fevzi Efendi claimed that linguistic is a divine art which includes several benefits in itself. In the years when Arabic sciences were taught to the students of High School of Education, fifteen or sixteen year old teenagers who came to Islam

countries from European schools had already covered the grammars of their native languages; thus, after completing the grammars of a few foreign languages, they learned drawing, essaywriting, geography and several other sciences; as a result, they were able to learn Arabic and Persian much faster than their peers. Considering all the foregoing, he dreamed of writing a thorough Turkish grammar book. He decided to write a reference book covering the types and qualifications of Turkish letters, types, genres and qualifications of pure Turkish words used in writing with these letters, their changing patterns, types of compositions and sentences, and rules which show the way to accurately write and pronounce these words, which would also include explanatory examples. The son of Sultan Gazi Mahmud Han (1784-1839), Sultan Abdulaziz Han (1830-1876) believed and decided that this work could only be succeeded by a qualified person like him, whereupon he worked harder and completed the book in 1847. According to the author, Turkish language was a great language in that it had changing word types, especially the second singular person imperative transforming and changing into several patterns, that rules concerning all simple and compound forms had no exceptions, and that there were resources as regards all of the foregoing. However, he still thought that Arabic language had no match and equal, that Arabic was superior to all other languages in that it had rules and no exceptions. Turkish was about to vanish due to the combination of Arabic and Persian. For this reason, Turkish had to be saved from the patterns of Arabic and examined in accordance with its characteristics as far as possible. It should be known that there is a single branch of science which collects, orders and reports the several patterns of words in a language which is linguistic (grammar). In this manner, the grammar of each language is a kind of art consisting of several ordered topics explaining the methods of accurate pronunciation and writing. Scholars classified the issues related to Arabic language into four sections. They are called "sarf, etymology, syntax and script". The issues which show the way to ease the pronunciation of some words which are difficult in some Arabic words are compiled and put in an order which is called "sarf". New words are also obtained in different forms from some words, which is called "etymology". The need to determine the place of some words in the sentence and determine the type of the sentence is called "syntax". The attempt to determine the shape of letters and vowel points to protect spelling from mistakes is called "script". Historical grammar books are also classified and examined according to this division.

According to Abdurrahman Fevzi Efendi, one has to know very well the rule concerning the letters and vowel points used in order to indicate Turkish words and there has to be a book in place which shows the way of accurate pronunciation and writing of these letters and vowel points. Unless we have such a book, the accurate writing of Turkish words cannot be known as the rules concerning changes in other languages cannot be measured and compared with the rules of our language; as a result, one cannot learn and complete in a relatively short time the changing rules of foreign languages and translate the expressions in the books in other languages. A book must be written which will compile the issues concerning the metamorphosis and change of Turkish words and configurations in their script. When we take a general look at the books of this important author, we can see that they are all related to the opinions presented in the introduction of "Mikyâsu'l-Lisan Kıstâsu'l-Beyân". In particular Müyessiretü'l-Ulum, despite being written much later, was founded on the same system. Those who tried to write about Turkish grammar after Abdurrahman Fevzi Efendi continued to adopt the same opinions and attempt to apply these opinions to their period.

Ahmet Cevdet Pasha pioneered the preparation of coursebooks and ensured that Turkish played an essential role in education and is given as weight as possible. Ahmet Cevdet Pasha's book titled Kavaid-i Türkiyye on the education of Turkish was used as coursebook in primary schools; Medhal-i Kavaid was used as coursebook in secondary schools, and Kavaid-i Osmaniyye and Tertib- Cedid Kavaid-i Osmaniyye were used as coursebooks in Turkish language teaching. As the author of the earliest western-style grammar books, Ahmet Cevdet Pasha set an example to the people who followed him. Grammar books of Cevdet Pasha covers the learning of Turkish at schools, consideration of the difference between speaking language and writing language, the effort to clean it from Arabic and Persian, and the problems during the usage of Turkish with Arabic letters. With the exception of Medhal-i Kavaid, Ahmet Cevdet Pasha tried to give the rules of Turkish, Arabic and Persian together. He began with nouns to cover the types of words, and in

Tertib-i Cedid Kavaid-i Osmaniyye word endings began with third person with the impact of Arabic. In Medhal-i Kavaid, the order of he/she/it, you, I, they, we and you was followed in the ending of nouns and verbs just like the case in Arabic. Kavaid-i Türkiyye is the book where elements of Turkish are examined broadly. According to Ahmet Cevdet Pasha, Encümen-i Daniş will improve Turkish language in terms of enrichment, development and purification of Turkish as a government and education language. Encümen-i Daniş decided that a Turkish grammar book would be prepared and published, a Turkish glossary is prepared and a history is written in a language that could be understood by everyone. The first work of Encümen-i Daniş, Kavaid-i Osmaniyye, 12-volume Tarih-i Cevdet, the history written by Hayrullah Efendi, the second chairman of Endümen-i Daniş, and Lehçe-i Osmani (Ottoman Dialect) of Ahmet Vefik Pasha, were written as a result of these decisions.

Kavaid-i Osmaniyye was written by Ahmet Cevdet Pasha and Keçecizade Mehmet Fuad Pasha. It was written as the first book of Encümen-i Daniş in Hijri 1267 (Christian 1851) as lithograph and is the first grammar book of Turkish language written in Turkish. Abdurrahman Fevzi Efendi wrote a Turkish grammar in Hijri 1263-1278 (Christian 1867-1861) with the title Mikyasü'l- Lisan Kıstasü'l- Beyan but his book was published in Hijri 1299 (Christian 1882) after his death. This book is important in that it covers Turkish in a detailed manner and uses new grammar terms. The book was used as a coursebook for almost 50 years, reprinted at least 10 times in short intervals, translated to German and Arabic, and set an example to other grammar books of Ahmet Cevdet Pasha and other grammar books written in the same period.

In this book, special emphasis was put on private noun, common noun, singularity and plurality noun forms and gender in nouns in Arabic. Importance was also given to Turkish, Persian and Arabic nouns. The plurality form of nouns, their combination in the sentence, noun phrases, cases of nouns and changes of sound were covered. Turkish and Persian plurality forms of Persian nouns were given with their usage with Turkish annexes/prefixes and Persian noun phrases are examined. Arabic nouns, gender, singularity, plurality, Deuteronomy forms, rhythms and phrase forms are emphasised. In addition, adjectives are defined and Turkish, Persian and Arabic adjectives are examined along with their structure and usage.

Afterwards, under the title of "kinaiyat" (allusive and touching words used in drama) personal pronouns, demonstrative pronouns and indefinite pronouns are explained in three sections in their forms used in Turkish and Ottoman Turkish along with their forms in Persian and Arabic. Verbs are covered in three forms including infinitive, finite verb and words derived from verbs. In the first section, Turkish verbs, their infinitive form and the usage of infinitive like a noun, voices of verb according to object and subject, derivation of verb and compound forms were explained. In addition, emphasis was put on the simple and compound inflections of verbs in Turkish. Usage of present participle and the object as adjective verb and other affixes/prefixes which produce nouns form verbs are explained.

Medhal-i Kavaid was first printed as lithograph and with 55 pages in Hijri 1268/Christian 1852. In the book, the place of language in human life is explained with hadiths and verses, and prayer is made to the Prophet, his bloodline and friends. In the preamble section, the value given by the Sultan to science and the popularisation of education is mentioned and it is explained that the author wrote the book so that it could facilitate learning for new beginners and act as an introduction to the first book. In the introduction, the emergence of Ottoman language, its letters, vowel points and other script signs are explained. In the book, nouns, their singular and plural forms and the cases of nouns are explained with examples.

Kavaid-i Türkiyye is the grammar book written by Ahmet Cevdet Pasha for the language education of children studying at infant schools. It was first printed in Hijri 1288/Christian 1871, and was reprinted for 6 times thereafter. The book was written with a plain language mostly based on Turkish rules. In the introduction section of the Kavaid-i Türkiyye, emphasis was put on the sound features of Turkish, alphabet, spelling and the signs which make vowel sounds read. In the introduction it is explained that the foundation of our language is Turkish bit Arabic and Persian elements which was followed details on the letters and signs.

CONCLUSION

In conclusion, Bergamalı Kadri, Ahmet Cevdet Pasha and Abdurrahman Fevzi Efendi are important people who left their mark in Turkish grammar history. Above all, they adopted language with its grammar. For Turkish, it is needed to minimize Arabic and Persian to some extent and purify Turkish from these two languages. When necessary these two languages can also be learned which is most required especially in the period when this book was written. In these languages information can be obtained not only on religious maters but in all topics. This is a requirement to become a cultivated person. It is especially necessary to know a western language along with Arabic and Persian very well in order to study such areas as Turkish language and literature and history. There are several Arabic and Persian manuscripts and printed works in these fields. There are even many books translated from Greek to Arabic in the field of natural sciences. One has to reach these books if he/she wants to study and have in-depth knowledge in these areas.

REFERENCES

- Abdurrahman Fevzi Efendi (1882). Mikyâsu'l-Lisan Kistâsu'l-Beyan. İstanbul: Mahmud Beg Printing House.
- Ahmet Cevdet Paşa and Fuat Paşa (1858). Kavâid-İ Osmâniye, Istanbul.
- Ahmet Cevdet Paşa (1851). Medhal-i Kavâid. İstanbul.
- Elöve, A. U. (1942) Kütahyali Abdurrahman Hoca Mikyasül Lisan Ve Kistasülbeyan. Istanbul: Turkish Language Institution Publications.
- Banguoğlu, T. (1940). Ana Hatlariyla Türk Grameri (Essentials Of Turkish Grammar). İstanbul.
- Atalay, B. (1946). Bergamali Kadri, Müyessiretü'l-Ulûm (Facsimile, -Transcripted Text And Index). Istanbul: Turkish Language Institution.
- Atalay, B. (1985-1986). Divanü Lugati't-Türk Tercemesi, I-III; Divânü Lugati't-Türk Dizini "Index", IV. Ankara: Turkish Language Institution (TDK).
- Erdem, İ. (1998). Mikyâsu'l-Lisân Kistâsu'l-Beyân (Abstract- Index Of Terms And Annexes). Unpublished Master's Thesis, İnönü University Graduate School Of Social Sciences.
- Kütahyali Abdurrahman Fevzi Efendi (1847). Mikyâsü'l-Lisân Kistâsu'l-Beyân. Istanbul.
- Kütahyali Abdurrahman Hoca (1942). Mikyasüllisan Ve Kistasülbeyan. (Translated By A. U. Elüve) Istanbul.

Banguoğlu, T. (1941). Gramer Meselesi, İmlâ Meselesi (Grammar Issue, Spelling Issue). Istanbul.

CITATION: Proceedings of ICES 2018 – 1st International Congress on New Horizons in Education and Social Sciences, April 9-11, 2018 - Istanbul, Turkey **ISBN**: 978-605-2132-22-7

DOI: 10.21733/ibad.423569

THE EFFECT OF HANDS-ON CHEMISTRY EXPERIMENTS ON SELF-DIRECTED LEARNING READINESS

Fatma Alkan^{1*} and Canan Kocak Altundag²

¹ Assoc. Prof. Dr. Hacettepe University, TURKEY, alkanf@hacettepe.edu.tr ² Assoc. Prof. Dr. Hacettepe University, TURKEY, canan.kck@gmail.com *Corresponding author

Abstract

The aim of this research is to examine the effects of daily life-based chemistry experiments on prospective teachers' views about science experiments of hands-on science and self-directed learning readiness. The sample of the research is the prospective teachers' who are studying in Hacettepe University, Faculty of Education, and Department of Chemistry Education. The research is designed in a mixed method design. A single group pretest-posttest design was used in the quantitative dimension of the study. In the data analysis, the difference between prospective teachers' opinion scores on hands-on science experiment and self-directed learning readiness scores. The qualitative dimension of the research was carried out in accordance with the situation pattern, and focus group interviews were conducted with the prospective teachers' on the methodological methods used and the findings obtained helped explain the quantitative results. The data is collected with views about science of hands-on science experiments scale and self-directed learning readiness scale. In the quantitative findings of the study, it was determined that the prospective teachers' opinions about the use of hands-on chemistry experiments in their lessons and self-directed learning readiness developed. In qualitative findings, it is emphasized that such experimentation practices still bring chemistry lessons more enjoyable, provide information permanence, reinforce learning and benefit theoretical lectures.

Keywords: hands-on science, self-directed learning, chemistry laboratory, prospective teachers.

1. INTRODUCTION

Since physical sciences and chemistry analyze the relevance in abstract concepts, they are seen hard to grasp by individuals, and therefore the interest in these fields are gradually decreasing (Mete & Yıldırım, 2016). The daily life-based learning approach is a pattern that has been improved in order to increase the diminishing interest in these classes due to the fact that physical sciences, especially chemistry, are perceived to be abstract and detached from life. The daily life-based learning approach provides the connection between an incident in our daily life and a topic in physical sciences. The aim of the daily life-based learning approach is to tell about scientific concepts through the incidents we come across in daily life, and thus increase the interest in physical sciences and other sciences and enable the correlation between the incidents we come across in daily life and physical sciences to be apprehended (Sözbilir, Sadi, Kutu & Yıldırım, 2007). The daily life-based practices have

some positive effects such as increasing the interest of students in science classes, noticing the bonds between daily life and science classes, and creating an effective learning (Bennett, 2003). The daily life-based learning provides the establishment of the connection between theoretical and practical information. In physical sciences, especially in the field of chemistry, there is no time left for practical applications. Instead, theoretical information is explained in long details and it makes the topic hard for the student to understand. In fact, if the lesson is structured by the practical applications like the incidents related to physical sciences or chemistry in daily life, it will both cause to increase the interest of students in physical sciences and cause to have a meaningful learning (Reid, 2000). The success of daily life-based practices in science education has been demonstrated through the researchers conducted (Değirmencioğlu, 2008; İlhan, 2010; Kutu & Sözbilir, 2011; Acar & Yaman, 2011; Hırça, 2012; Korsacılar & Çalışkan, 2015; Gül, Keskin & Özay Köse, 2016; Şensoy & Gökçe, 2017).

Planning and teaching the chemistry activities with the materials used in daily life will be more meaningful for students as they need to believe that information has a place in their daily lives in order to accept the newly taught information. In this context, it stands out that teachers need to associate the information related to the topics taught with daily life so that students can structure what is taught in a meaningful way. Based on this, this research aims to analyze the effect of the daily life-based chemistry experiments on the opinions of prospective chemistry teachers about the hands-on science experiment and self-directed learning readiness.

2. METHODS

The research is designed in a mixed method design. In the quantitative dimension of the study, a single group pretest-posttest research design was used. The qualitative dimension of the research was carried out in accordance with the situation pattern, and focus group interviews were conducted with the teacher candidates on the methodological methods used and the findings obtained helped explain the quantitative results.

2.1. Sampling

The study group of the study is consists of 16 prospective chemistry teachers' who are studying at Hacettepe University, Faculty of Education. The study was carried out in the General Chemistry Laboratory course during the spring semester of 2017-2018 academic year.

2.2. Data Collection Tools

2.2.1. Opinions about hands-on science experiments scale

The scale was developed by Uzal, Erdem, Önen & Gürdal (2010). The scale consists of 12 items in 4-point likert type. The Cronbach alpha reliability coefficient of the scale is .92 for the whole scale. The Cronbach Alpha reliability coefficient obtained from the sample datas' is 0.84.

2.2.2. Self-directed learning readiness scale

The scale was developed by Kocaman, Dicle, Üstün & Çimen, (2006) and consist of 40 items in 5-point likert type. The scale has three sub-scales: self-management, willingness to learn, and self-control. The Cronbach alpha reliability coefficient of the scale is 0.924 for the whole scale. The Cronbach alpha reliability coefficients of the subscales are 0.857; 0.847 and 0.830. The Cronbach Alpha reliability coefficient obtained from the sample datas' is 0.93.

2.3. Data Analysis

Analysis of the quantitative data obtained from the study was performed with the SPSS 15 packet program. Primarily descriptive statistics were calculated for the variables of opinions about hands-on science experiments and self-directed learning readiness. Thus, opinions about hands-on science experiment and self-directed learning readiness levels of the study groups were determined. The difference between pre-test and post-test scores of prospective teachers' opinions about hands-on science experiment and self-directed learning readiness level was examined by Wilcoxon signed rank test.

The qualitative dimension of the study was conducted in accordance with the situation pattern. Focus group discussions were held on the methodological activities with prospective teachers'. The obtained data were analyzed and codes related to the opinions about hands-on science experiments and self-directed learning readiness were determined. Findings have helped explain quantitative results.

3. **RESULTS**

3.1. Quantitative findings

Descriptive statistics related to pre-test scores of prospective teachers' opinions about hands-on science

experiments and self-directed learning readiness before daily life-based learning in chemistry laboratory application are summarized in Table 1.

Pre-test data	Х	sd		
Scale	Opinions a	3.16	.41	
Scale	Self-direct	4.11	.48	
	Self-management		3.94	.49
	Willingness to learn		4.25	.57
	Self-control		4.14	.56

Table 1. Descriptive statistics of pre-test data

When Table 1 is examined, it has seen that the prospective teachers' opinions about hands-on science experiments are at the level of medium (X: 3.16) and self-directed learning readiness level is higher (X: 4.11). When the subscales of the self-directed learning readiness scale are examined, it is noteworthy that the highest scores is in the willingness to learn.

Descriptive statistics of the prospective teachers' related to scales after the application are summarized in Table 2.

Post-test data				sd
Scale	Opinions a	3.45	.52	
Scale	Self-direct	4.32	.45	
	les	Self-management		.54
	o -scales	Willingness to learn		.57
	Sul	Self-control		.49

Table 2: Descriptive statistics of post-test data

When Table 2 is examined, it is noteworthy that the increase of prospective teachers' opinions about hands-on science experiments and self-directed learning readiness.

As a result of the application, the difference between pre-test and post-test scores of prospective teachers opinions about hands-on experiments was examined by Wilcoxon signed rank test.

Table 3: Wilcoxon signed rank test results of opinions about hands-on science experiments

			Х	sd	Z	р
Opinions hands-on	about	Pre-test	3.16	.41	-2.229	.026*
experiments	science	Post-test	3.45	.52	-2.229	.026

When the table 3 is examined, there is a statistically significant difference between pre-posttest scores of opinions about hands-on science experiments (Z=-2.229, p<0.05).

The difference between pre-test and post-test scores of prospective teachers self-directed learning readiness level was examined by Wilcoxon signed rank test, and the results are seen in table.

		Х	sd	Z	р
Self-directed	Pre-test	4.11	.48	2 252	024*
learning readiness	Post-test	4.32	.45	-2.252	.024*

Table 4: : Wilcoxon signed rank test results of self-directed learni	ing readiness
--	---------------

There is a statistically significant difference between pre-posttest scores of o self-directed learning readiness level (Z=-2.252, p<0.05).

Self-directed learning readiness level		Х	sd	Z	р
Salf management	Pre-test	3.94	.49	1 700	074
Self-management	Post-test	4.15	.54	-1,789	,074
	Pre-test	4.25	.57	1 0 1 0	212
Willingness to learn	Post-test	4.35	.57	-1,010	,312
Solf control	Pre-test	4.14	.56	2 425	015*
Self-control	Post-test	4.45	.49	-2,435	,015*

Table 5: Sub -scales analyses of self-directed learning readiness

When the table is examined, it has seen that there is a statistically significant difference between pre-posttest scores of self-control sub-scales of self-directed learning readiness scale (Z=-2.435, p<0.05).

3.2. Qualitative findings

3.2.1. Qualitative findings related to opinions about hands-on science experiments

According to the findings obtained from the focus group interviews with the prospective teachers the codes were determined. The codes and the students who gave their opinions were given in table.

Table 6: Qualitative findings related to opinions about hands-on science experiments

Codes	Students
Daily life based experiments make laboratory lessons enjoyable.	S4, S6, S12, S13, S15
Daily life based experiments reinforce learning.	S1, S2, S3, S5, S7, S8, S9, S10, S11, S14, S16

Example sentences of codes are given below.

Code 1

S4: Daily life-based experiments are more fun than classical experiments

S12: Daily life-based experiments offer a funny and safety working environment.

S13: At first, the laboratory seemed to be a problem on its own. Daily life-based experiments have allowed me to get used to the environment and not to be encouraged

Code 2

S1: The work done with practical applications of theoretical knowledge in daily life-based experiments is more memorable

S2: Daily life-based experiments make it easier for the student to re-examine himself

S3: I can rethink what I did during the experiment at home, making it easier to understand and work on my onestop topic.

3.2.2. Qualitative findings related to self-directed learning readiness

According to the findings obtained from the focus group interviews made with the prospective teachers, the students who gave opinions about self-directed learning readiness were given in the table.

Table 7: Qualitative findings related to self-directed learning readiness

Codes	Students
Self-management	S6, S8, S11, S14
Willingness to learn	S1, S2, S3, S5, S9, S10
Self-control	S4, S7, S12, S13, S15, S16

Example sentences of codes are given below.

Code 1

S6: It is much easier to construct the daily life-based experiment phases in the head.

S8: Daily life-based experiments allow me to be aware of my own responsibility and make me feel courageous.

Code 2

S5: Experimenting with daily life-based experiments firstly helps me to plan and work on my schedule.

S10: It is more difficult for people to forget what they are doing, and mistakes in an act that they do are more noticeable than the intellectual mistake and learn the truth more easily.

Code 3

S7: Daily life-based experiments allow me to understand when I go home that I have learned to repeat it.

S12: Daily life-based experiments combine theoretical knowledge with other information in the mind.

4. DISCUSSION AND CONCLUSION

In this research, the effects of daily life-based chemistry experiments on the self-directed learning readiness, which consists of such features as the increase of the interest in learning and experimentation, the ability to solve the problems encountered in daily life and the ability to use the time well, planning a self-oriented learning, creating self-discipline, generating new ideas, critical thinking, and need for learning something new, have been analyzed.

As a result of the research, it is determined that the daily life-based chemistry experiments have affected the opinions about hands-on science experiments in a positive way, and also have an impact on the level of selfdirected learning readiness. It has also emerged with the help of the daily life-based experiments that there has been a significant difference in the extent of self-control involving some readiness such as concentration of prospective teachers on a problem, determination of their own learning goals, taking responsibility, keeping their expectations high, believing in their capabilities, and being aware of their limitations. In the qualitative findings of the study, by analyzing the data acquired from the result of focus group interviews with prospective teachers, it is stated that the daily life-based experiments have made laboratory lessons enjoyable and reinforced learning. Some expressions of prospective teachers support this finding, such as "...at first, laboratory seemed to be a problem itself. The daily life-based experiments have made me accustomed to the environment and encouraged me... and ... The daily life-based experiments make re-examining the topic easy for the student by himself or herself. The contribution of the daily life-based experiments to the self-directed learning readiness emerges from such expressions as "the daily life-based experiments provide me with being aware of my own responsibility and being courageous...., It is harder for people to forget what they have done and they notice the fault they have done in an action easier than the fault in thinking and learn the truth more easily.... and ... the daily life-based experiments allow me to understand whether I have learned the topic when I go home and regurgitate the topic. The qualitative findings of the study support the quantitative findings.

April 9-11, 2018 Istanbul, TURKEY

When literature is reviewed, findings that practices of the daily life-based learning approach motivate students to learn (Dong, 2005; Demircioğlu, Demircioğlu & Ayas, 2006; Stolk, Jong, Bulte & Pilot, 2011), allows to facilitate obtaining information, permanence and meaningful learning (Murphy & Whitelegg, 2006; Sözbilir, Sadi, Kutu & Yıldırım, 2007; Özay Köse & Çam Tosun, 2011; Topuz, Gençer, Bacanak & Karamustafaoğlu, 2013; Korsacılar & Çalışkan, 2015; Gül, Keskin & Özay Köse, 2016; Şensoy & Gökçe, 2017) support the results of the research.

Findings about how the daily life-based practices provide the usage of information in daily life, and the daily lifebased learning help students to remember the information they have obtained in their further education lives and facilitate learning following topics (Sadi-Yılmaz, Othan & Cantimur, 2014), at the same time, the daily lifebased practices encourage prospective teachers to motivate students for the class and allow to give wide coverage to practices in the class (İlhan, Doğan & Çiçek, 2015) support the qualitative results of the research.

In this research, it is determined that the daily life-based chemistry experiments influence the opinions about hands-on science experiments and prompt them to self-directed learning. We are not aware of the daily life states of the theoretical information that we know. In education system, information should ensure individuals to understand the concrete experiences that they will use in their daily lives. Chemistry and other course contents of classes should be associated with incidents that students encounter in their daily lives. The information learned in this way will be remembered more easily, permanent and internalized. The change and relationship of the daily life-based experiments with other variables apart from self-directed learning can be researched. Also, an analysis can be made with other sample groups and results can be contrasted. The effectiveness of daily life-based learning in different branches except for chemistry can be explored. Thereby, it has been aimed to bring social aspect of the chemistry into the forefront for prospective teachers in a chemistry teaching environment based on real practices.

REFERENCES

- Acar, B., & Yaman, M. (2011). The Effects of Context-Based Learning on Students' Levels of Knowledge and Interest. *Hacettepe University Journal of Education, 40,* 1-10.
- Bennett, J. (2003). Teaching and learning science. London: Bookcraft.
- Demircioğlu, H. (2008). *Developing instructional materials about the topic of 'states of matter' based on the context based approach for primary students teachers and probing their effectiveness*. Unpublished doctoral dissertation, Karadeniz Technical University, Institute of Science and Technology, Trabzon.
- Demircioğlu, H., Demircioğlu, G., & Ayas, A., (2006). Storylines and Chemistry Teaching. *Hacettepe University Journal of Education*, 30, 110-119
- Dong, Z.Y. (2005). Improving learning in undergraduate control engineering courses using context-based learning models. *International Journal of Engineering Education*, 21 (6), 1076–1082.
- Gül, Ş., Keskin, B., & Özay Köse, E. (2016). The Effect of Context-Based Learning Approach on Students' Knowledge Levels about Drug Addiction. Adnan Menderes University Faculty of Education Journal of Education Sciences, 7(1), 52-64.
- Hırça, N. (2012). The Effects of Hands on Activities Depend on Context-Based Learning Approach on Understanding of Physics and Attitudes. *Mustafa Kemal University Journal of Social Sciences Institute*, 9(17), 313-325.
- İlhan, N. (2010). *Effect of context based teaching approach on learning of chemical equilibrium*. Doctoral dissertation, Atatürk University, Institute of Science and Technology, Erzurum.
- İlhan, N., Doğan Y. & Çiçek, Ö. (2015). Preservice Science Teachers' Context Based Teaching Practices in "Special Teaching Methods" Course. *Bartın University Journal of Faculty of Education*, 4(2), 666-681.
- Kocaman, G., Dicle A., Üstün, B., & Çimen, S. (2006). Self-directed Learning Readiness Scale: Validity Reliability Study. III. Active Education Congress Book, Dokuz Eylül University, 3-4 July, 245- 256. İzmir
- Korsacılar, S., & Çalışkan, S. (2015). Effects of the Context-Based Teaching and Learning Stations Methods on 9th Grade Physics Course Achievement and Retention. *Mersin University Journal of the Faculty of Education*, 11(2), 385-403.

- Kutu, H., & Sözbilir, M. (2011). Teaching "Chemistry in Our Lives" Unit in the 9th Grade Chemistry Course through Context-Based ARCS Instructional Model. Ondokuz Mayis University Journal of Education Faculty, 30(1), 29-62.
- Mete, P., & Yıldırım, A. (2016). Views of Teaching Staff about Application in Chemistry Classes of Context-Based Learning Method. *Journal of Bayburt Education Faculty*, *11*(1), 100-116.
- Murphy, P. & Whitelegg, E. (2006). *Girls in the physics classroom: A review of the research on the participation of girls in physics.* Institute of Physics Report, London, UK.
- Özay Köse, E., & Çam Tosun, F. (2011). Effects of Life-Based Learning on Student Achievement in the Nervous System. *Journal of Turkish Science Education*, *8* (2), 91-106.
- Reid, N. (2000). The presentation of chemistry logically driven or applications-Ied?, *Chemistry Education: Research and Practice in Europe, 1* (3), 381-392.
- Sadi Yılmaz, S., Othan, O. & Cantimur, E. (2014). Effect of the Processing of Electricity, Matter and Heat According to the Life-Based Learning. e *Kafkas Journal of Educational Research*, 1(3), 41-49.
- Sözbilir, M., Sadi, S., Kutu, H. & Yıldırım, A. (2007). Context-based Teaching Approach in Chemistry Education and Applications in the World. *I. National Chemistry Education Congress*, 20-22 July, 108.
- Stolk, M.J., Jong, O.De., Bulte, A.M.W., & Pilot, A. (2011). Exploring a framework for professional development in curriculum innovation: empowering teachers for designing context-based chemistry education. *Research in Science Education*, 41(3), 369–388.
- Şensoy, Ö., & Gökçe, B. (2017). The Effect of the Context-Based Learning Approach on the Achievement and Motivations of Students. *The Journal of Academic Social Science Studies*, 56, 37-52.
- Topuz, F. G., Gençer, S., Bacanak, A., & Karamustafaoğlu, O. (2013). The opinions and practice levels of science and technology teachers on the context-based approach. *Amasya Education Journal*, *2*(1), 240-261.
- Uzal, G., Erdem, A., Önen, F., & Gürdal, A. (2010). The Evaluation of Teachers' Opinions about Hands-on Science Experiments and the Performed In-Service Training. *Necatibey Faculty of Education Electronic Journal of Science and Mathematics Education, 4* (1), 64-84.

CITATION: Proceedings of ICES 2018 – 1st International Congress on New Horizons in Education and Social Sciences, April 9-11, 2018 - Istanbul, Turkey ISBN: 978-605-2132-22-7 DOI: 10.21733/ibad.423570

THE EFFECT OF INQUIRY BASED CHEMISTRY LABORATORY ON CRITICAL THINKING

Fatma Alkan¹

¹ Assoc. Prof. Dr. Hacettepe University, TURKEY, alkanf@hacettepe.edu.tr

Abstract

Although lab study is accepted as a fundamental and helpful part of science education, many studies have shown that lab education has not properly reached its objective. The primary reliance on verification-type lab activities may be one reason why lab education has failed to provide expected learning outcomes. Many believe that lab education should move away from traditional verification-type applications toward helping students to embrace the importance of experimentation in learning and to understand the role of self-management in the learning process. This study aimed to determine the effect of a scientific-inquiry-based learning method on prospective chemistry teachers' critical thinking. A pretest–posttest design was used with 27 prospective chemistry teachers' enrolled in the Department of Chemistry Education at Hacettepe University, who were divided into two groups. In analyzing the data, nonparametric tests were used since sampling numbers were below the recommended values. The experimental group participated in an inquiry-based chemistry laboratory activity, whereas the control group experienced a traditional verification laboratory approach. The results indicated that inquiry-based learning is effective in promoting critical thinking.

Keywords: chemistry laboratory, scientific inquiry, critical thinking, prospective teachers.

1. INTRODUCTION

Educational institutions should contribute to raise creative individuals who can think critically and generate new knowledge from existing situations (Gürol, 1995). However, existing teaching methods in these institutions often constrain the desired learning process (Cobb, 1994). Education systems that rely largely on digestion and

reproduction of subject content have not produced the desired results. In place of feeding students ready-made knowledge, student-oriented approaches that emphasize how and where to find and use knowledge have become more prominent. One of these approaches is inquiry-based learning (Çalışkan, 2008). The term inquiry refers to searching for knowledge and doing research on phenomena. According to the U.S. National Research Council (NRC), inquiry helps students to comprehend scientific concepts, to realize what they know about science and how they know it, to comprehend the nature of science, to gain the skills necessary to become individual researchers, and to improve their science-related skills and attitudes (Hassard, 2005). Inquiry-based learning activities enable students to increase their knowledge, learn how to think scientifically, and understand how scientists work in natural life (NRC, 2000). This learning approach consists of several steps: doubt or curiosity, defining the problem, generating hypotheses, gathering information, analysis of information and its evaluation, testing the hypotheses, and resuming research in a new way (Obenchain, & Morris, 2003).

Science educators emphasize that applied scientific inquiry is an effective way for students to learn and use scientific knowledge (Ertepinar, & Geban, 1996; Seifert, Fenster, Dilts, & Temple, 2009). Inquiry-based learning is a method of finding out new things about a phenomenon, asking questions, and searching for knowledge. In inquiry-based learning, the student learns by forming cause-and-effect relationships, thinking critically, and combining scientific knowledge and operations (Parim, 2009). The aim in scientific inquiry is to encourage students to participate actively in the learning process, look for knowledge that stems from daily life, and develop the skills and attitudes needed in order to generalize this knowledge (Wilder, & Shuttleworth, 2005). Through the inquiry process, the student is enabled to thoroughly understand the subject that he or she has been asked to learn and to find solutions to related problems. The student's active involvement includes taking on tasks, asking questions, making observations, and providing explanations throughout the process. Inquiry-based learning shows how people can solve the problems they face in daily life. During scientific-inquiry based learning, the learner determines his or her level of knowledge by engaging in a scientific question, event, or phenomenon. The learner forms hypotheses and conducts research in order to fill perceived knowledge gaps. He or she then organizes the data obtained from the research, analyzes it, and interprets the results.

Scientific inquiry helps individuals' to realize what they know about science, to comprehend the nature of science and to improve acquisition of skills became a researchers. Students are constructing their own knowledge at the inquiry-based learning process. Therefore teaching process should be supported by different applications and experiences. Inquiry-based learning consists of problem identification, hypothesize, designing experiments, practice, observing, recording, exploring the relationship between variables and draw a conclusions sections. According to studies in the literature, inquiry based learning activities is a highly effective way in teaching science education. In the present study, the aim is to the importance of scientific-inquiry-based chemistry lab applications as opposed to traditional verification labs. As such, this study examines the effect of scientific inquiry in chemistry labs on students' critical thinking attitude.

2. METHODS

The research is designed in a mixed method design. In the quantitative dimension of the study, a single group pretest-posttest research design was used. The qualitative dimension of the research was carried out in accordance with the situation pattern, and focus group interviews were conducted with the prospective teachers' on the methodological methods used and the findings obtained helped explain the quantitative results. Control and experimental groups were determined through objective sampling. The experimental group completed chemistry lab applications using a scientific-inquiry-based learning approach, whereas the control group used a traditional verification lab approach.

2.1. Sampling

The study group of the study is consists of 23 prospective chemistry teachers' who are studying at Hacettepe University, Faculty of Education. The study was carried out in the Analytical Chemistry Laboratory course during the spring semester of 2014-2015 academic year. There are 11 prospective teachers in the experimental group and 12 in the control group.

2.2. Data Collection Tools

The critical thinking scale was developed by Saracaloğlu and Yılmaz (2011). The scale consists of 19 items in 5point likert type. The scale has four sub-scales: establishing an argument, evidence based decision making, notice the problem, data collection. The Cronbach alpha reliability coefficient of the scale is .78 for the whole scale and for the subscales are 0.69; 0.71; 0.70 and 0.62. The Cronbach Alpha reliability coefficient obtained from the sample data's is 0.85, for subscales 0.60; 0.85; 0.64; 0.80.

2.3. Data Analysis

Analysis of the quantitative data obtained from the study was performed with the SPSS 15 packet program. Primarily descriptive statistics were calculated for the variable of critical thinking. Thus, critical thinking levels of the study groups were determined. The difference between pre-test and post-test scores was examined by Wilcoxon signed rank test and the post-test scores of experimental and control groups was analyzed with the Mann-Whitney U-test. The difference between the critical thinking sub-scales according to the experiment-control group was examined by "Multivariate Variance Analysis MANOVA". MANOVA is a technique that examines whether groups differ significantly in terms of more than one dependent variable. Which dependent variables are included in the variance is interpreted by looking at the significance values in the Intergroup Interaction Test calculated by MANOVA. In addition, MANOVA analysis takes into account the eta square value criterion determined by Cohen (1988) when interpreting the differences in the outcome-dependent variables by the independent variable. Cohen (1988) defined .01 as small, .06 as moderate, and .14 and above as large square values of eta.

2.4. Experimental Operation

Experimental group

The steps followed in scientific inquiry applications differ depending on the group involved and the topic (Justice, Warry, Cuneo, Inglis, Miller, Rice, & Sammon, 2002). Within the scope of this study, the steps that comprise scientific inquiry in chemistry labs as determined by the National Research Council (NRC, 2000) were followed. According to this source, scientific-inquiry-based learning in chemistry labs is comprised of five phases, as described below.

Phase 1: Students deal with a scientific question, event, or phenomenon. During this process, they observe a discrepancy between what they already know and their own ideas, and this discovery motivates them to learn. Within the scope of the present study, prospective teachers focused on their level of knowledge about volumetric analysis and attention was drawn to the function of volumetric analysis methods. The participants looked primarily at the importance of neutralization titrations in our daily lives.

Phase 2: Students do research that involves activities in which they can actively participate. They determine hypotheses, test their hypotheses, solve problems, and explain their observations. In this study, prospective teachers researched the place of neutralization titrations in our daily lives; to this end, they conducted experiments and observations about the acid levels of freshly squeezed fruit juice and factory-produced fruit juice, and they then compared and discussed their data.

Phase 3: Students analyze and interpret the data, synthesize their ideas, form models, and clarify concepts and definitions with the help of the instructor and other scientific sources. In the lab, prospective teachers researched available data on the acid levels of freshly squeezed fruit juice and factory-produced fruit juice and compared this information to their own experimental data.

Phase 4: Students establish their new learning and apply their newly acquired knowledge to other situations. To fulfill this phase in the present study, prospective teachers researched the importance of precipitation titrations and oxidation-reduction titrations. They identified applications and explained these processes by reference to commonly used foods and chemicals.

Phase 5: Students review what they have learned and how they have learned it with their instructors. Prospective teachers in the present study completed this phase by discussing what they had learned about volumetric analysis methods and their importance with their instructors and other pre-service teachers.

Control group

Traditional verification lab approach has been employed in the control group, and the prospective teachers' have been formerly given the instructions showing detailed information about the aim of the experiment, how to do it and how to analyze the data. The findings of the experiment have been used to verify the notions, principles and laws which have been known previously.

3. **RESULTS**

3.1. Quantitative findings

Descriptive statistics related to pre-test scores of prospective teachers' critical thinking level before scientific inquiry in chemistry laboratory application are summarized in Table 1.

Due test date			Experiment		Control	
Pre-test data		Х	sd	Х	sd	
Scale	Critical thinking level			.59	3.83	.28
	Sub -scales	Establishing an argument	3.42	.78	3.58	.39
		Evidence Based Decision Making	3.26	1.01	3.40	.71
		Notice the problem	4.11	.45	4.27	.33
		Data collection	4.27	.57	4.22	.46

Table 1. Descriptive statistics of pre-test data

When Table 1 is examined, it has seen that the prospective teachers' critical thinking attitudes is medium level (X: 3.71; X: 3.83) When the subscales of the critical thinking scale are examined, it is noteworthy that the highest scores is in the data collection.

Descriptive statistics of the prospective teachers' related to scales after the application are summarized in Table 2.

Post-test data			Experiment		Control	
			Х	sd	Х	sd
Scale	Critical thinking level			.34	3.93	.33
	Sub -scales	Establishing an argument	4.50	.39	3.88	.54
		Evidence Based Decision Making	3.75	.42	3.57	.81
		Notice the problem	4.47	.38	4.15	.45
		Data collection	4.27	.42	4.25	.43

Table 2: Descriptive statistics of post-test data

When Table 2 is examined, it is noteworthy that the increase of prospective teachers' critical thinking and it is noteworthy that the average of the experimental group was higher than the control group.

The comparison of critical thinking attitude averages for the two groups before application was examined by Mann-Whitney U-test, and the results are seen in table.

Table 3: Mann-Whitney U-test results of critical thinking

		N	Х	sd	U	р
Critical thinking	Experiment	11	3.70	.59		.338
Critical thinking	Control	12	3.83	.28	50.500	

When the table 3 is examined, there is no statistically significant difference between the averages (U=50.500; p>0.05).

The difference between pre-test and post-test scores of prospective teachers critical thinking level was examined by Wilcoxon signed rank test, and the results are seen in table.
Critical thinki	Critical thinking		Х	sd	Z	р
Evnorimont	Pre-test		3.70	.59	-2.490	.013*
Experiment	Post-test	11	4.252	.34	-2.490	.013*
Control	Pre-test	12	3.83	.28	1.025	200
Control	Post-test	12	3.93	.33	-1.025	.306

When the table is examined it has seen that there is a statistically significant difference between pre-post test scores of experimental group (Z=-2.490, p<0.05; Z=-1.025, p>0.05), for the control group the difference was not statistically significant.

The difference between post-test scores of groups' critical thinking level was examined by Mann-Whitney U-test.

Table 5: Mann-Whitney U test results of critical thinking

		Ν	Mean rank	Sum of ranks	U	р
Critical thinking	Experiment	11	14.64	161.00	25 500	05*
Critical thinking	Control	12	9.58	115.00	35.500	.05*

When the table 3 is examined, there is a statistically significant difference between experimental and control groups of critical thinking level (U=35.500, p<0.05).

Critical thinking	Experiment	Х	sd	Z	р	
Establishing an	Pre-test	3,42	,78	2047	00.4*	
argument	Post-test	4,50	,38	-2,847	,004*	
Evidence Based Decision	Pre-test	3,25	1,02	1 200	,191	
Making	Post-test	3,74	,42	-1,309		
Nation the much law	Pre-test	4,10	,45	2 (07	0.05*	
Notice the problem	Post-test	4,47	,38	-2,687	,007*	
Data callection	Pre-test	4,27	,57	0(1	051	
Data collection	Post-test	4,31	,41	-,061	,951	

When the table is examined, it has seen that there is a statistically significant difference between pre-post test scores of establishing an argument and notice the problem sub-scales of critical thinking scale (Z=-2.847, Z: - 2.687 p<0.05).

Critical thinking	Control	Х	sd	Z	р	
	Pre-test	3,58	,38	1 400	120	
Establishing an argument	Post-test	3,88	,54	-1,480	,139	
Evidence Based Decision	Pre-test	3,40	,71	002	272	
Making	Post-test	3,57	,81	-,892	,372	
Notion the surgebour	Pre-test	4,26	,33	1 1 2 2	257	
Notice the problem	Post-test	4,15	,45	-1,133	,257	
	Pre-test	4,22	,46	256	700	
Data collection	Post-test	4,25	,43	-,256	,798	

Table 7: Sub -scales analyses of critical thinking

When the table is examined, it has seen that there is no statistically significant difference between pre-post test scores for control group.

The comparison of establishing an argument, evidence based decision making, notice the problem, data collection sub-scales of critical thinking level of prospective teachers' in the experiment and control groups was examined with MANOVA.

Firstly, it has been examined whether the data can be met by MANOVA's assumptions. The normality of distribution of the data and homogeneity of group variances were tested. And it was found that the data obtained from the critical thinking scale provided a normal distribution count and a homogeneous count of group variances. MANOVA analysis was interpreted as Wilks' Lambda value (Tabachnick & Fidell, 1989).

Another assumptions of MANOVA is homogeneity of variances. For the equality of variances, it was looked at the Levene test and the equality of variances in terms of dependent variables was accepted [p>.05].

Table 8: MANOVA Values of Critical Thinking of Experiment and Control Groups

Effect		Value	F	Hypothesis Sd	Error Sd	η^2
Group	Wilks' Lambda	.544	3.767	4	18	.456

From the table it has seen that scientific inquiry and traditional verification lab approaches have a significant effect on the critical thinking of prospective teachers (Wilks' Lambda =.544, $F_{(4.18)}$ =3.767 η^2 =.456, p<.005).

Table 9: Interaction between Experiment and Control Groups Critical Thinking Sub Scales

Source	Dependent variable	Sum of squares	Sd	Mean squares	F	р	η^2
Group	Establishing an argument	1.771	1	1.771	8.440	.008*	.287
	Evidence Based Decision Making	.183	1	.183	.430	.519	.020
	Notice the problem	.598	1	.598	3.382	.080	.139
	Data collection	.003	1	.003	.017	.899	.001

When the table is examined, it is seen that there is a significant effect of teaching method only in the establishing an argument sub-scales. There is no significant differences were observed in evidence based decision making, notice the problem, data collection sub-scales of the scale.

The explanation percentage of critical thinking component of establishing an argument variable with teaching method independent variable was 28.7%. According to Cohen (1988), this of eta square (η^2) is great.

4. DISCUSSION AND CONCLUSION

The study results indicate that inquiry-based teaching is an effective method for enhancing critical thinking level. This finding is consistent with those of previous studies (Manlove, Lazonder, & de Jong, 2009; Garcia-Mila, Andersen, & Rojo, 2011; Akpullukcu, & Gunay, 2013; Pandey, Nanda & Ranjan, 2011; Abdi, 2014; Maxwell, Lambeth & Cox, 2015; Şen, Yılmaz & Erdoğan, 2016; Kaya & Yılmaz, 2016; Yıldırım & Türker Altan, 2017).

Inquiry-based teaching sparks students' curiosity as well as their scientific understanding by drawing examples from daily life and asking the students to make predictions. It gives students the opportunity to learn by exploring and through student-centered inquiry (Yoon, Kim, Kim, Joung, & Park, 2013). An inquiry-based environment permits students to activate their knowledge and helps them to organize their work so that they can be successful in the inquiry process (Pedaste & Sarapuu, 2012).

Moreover, through inquiry applications, students become aware of the criteria used to evaluate scientific knowledge and the processes of generating scientific knowledge, testing, and revision (Smith, Maclin, Houghton, & Hennessey, 2000). This method enables students such activities as preparing a study plan, determining a hypothesis, testing the hypothesis, repetition of experiments to obtain the best result, and writing and presenting a research report (Alkan, 2012). For this reason, the level of critical thinking of prospective teachers has improved. There is also evidence that inquiry-based education leads to strong learning outcomes. The inquiry method also provides students with an appropriate environment in which to learn and apply research skills (Spronken-Smith & Walker, 2010), improves their inquiry skills and enables them to comprehend scientific questions thoroughly (Wu & Wu, 2011), and offers students the opportunity for open and reflective discussions (Khishfe, & Abd-El-Khalick, 2002). Moreover, inquiry has also been described as a real-life, student-centered approach that provides opportunities for interdisciplinary study (Mousoulides, 2013).

The success of inquiry-based learning can be explained in terms of students being active participants in researching concepts and developing related skills (Lane, 2007). Students learn science as they obtain the skills needed for scientific inquiry through active learning (Hassard, 2005), applying a student-centered approach that enables them to obtain academic skills and take responsibility for absorbing and strengthening their knowledge. This approach teaches students to obtain and interpret knowledge on their own. All these characteristics of inquiry could have contributed to the results of this study.

REFERENCES

Abdi, A. (2014). The Effect of Inquiry-based Learning Method on Students' Academic Achievement in Science Course. *Universal Journal of Educational Research*, *2*(1), 37-41.

Akpullukcu, S., & Gunay, Y. (2013). The Effect of Inquiry Based Learning Environment in Science and Technology Course on the Students' Academic Achievements, Attitudes and Retention Level. *Ege Journal of Education*, *14*(1), 67-89.

Alkan, F. (2012). *Effect of self-directed learning on the students' success, learning readiness, attitudes towards laboratory skills and anxiety in chemistry laboratory.* Ankara: Hacettepe University, Institute of Science, Unpublished Doctoral Thesis.

Cobb, P. 1994. Where is the Mind? Constructivism and Sociocultural Perspectives on Mathematical Development. *Educational Researcher*, *23*(7), 13–20.

Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences* (2nd ed.). Hillsdale, New Jersey: Lawrence Erlbaum Associates.

Çalışkan, H. (2008). *The effect of inquiry-based learning approaches in 7th grade social studies course in primary school on attitude towards course, academic achievement and the degrees of retention.* Ankara: Gazi University, Institute of Educational Sciences, Unpublished Doctoral Thesis.

Ertepinar, H., & Geban, O. (1996). Effect of Instruction Supplied with the Investigative Oriented Laboratory

Approach on Achievement. *Educational Research*, 38(3), 333–341.

Garcia-Mila, M., Andersen, C., & Rojo, N. E. (2011). Elementary Students' Laboratory Record Keeping During Scientific Inquiry. *International Journal of Science Education*, 33(7), 915–942, DOI: 10.1080/09500693.2010.480986.

Gürol, M. (1995). *Educators training system and cultivation of this system of the information society.* 1. Systems Engineering and Defense Applications Symposium. (12-13 September 1995), Ankara: Military Academy.

Hassard, J. (2005). *The Art of Teaching Science. Inquiry and Innovation in Middle School and High School.* New York. Oxford University Press.

Justice, C., Warry, W., Cuneo, C., Inglis, S., Miller, S., Rice, J., & Sammon, S. (2002). A grammar for Inquiry: Linking goals and methods in a collaboratively taught social sciences inquiry course. The Alan Blizzard Award Paper: The Award Winning Papers. Windsor: Society for Teaching and Learning in Higher Education and McGraw-Hill Ryerson. Available from: www.mcmaster.ca/cll/inquiry/inquiry.research/Grammar.pdf [Last accessed May 11, 2009].

Kaya, G. & Yılmaz, S. (2016). The Impact of Open Inquiry Based Learning on Students' Achievement and Development of Science Process Skills. *Hacettepe University Journal of Education.* 31(2), 300-318.

Khishfe, R., & Abd-El-Khalick, F. (2002). Influence of Explicit and Reflective Versus Implicit Inquiry-Oriented Instruction on Sixth Graders' Views of Nature of Science. *Journal of Research in Science Teaching*, *39*, 551–578.

Lane, J. (2007). Inquiry-Based Learning. www.schreyerinstitue.psu.edu/pdf/IBL.pdf Accessed July 15, 2015.

Manlove, S., Lazonder, A. W., & de Jong, T. (2009). Collaborative Versus Individual Use of Regulative Software Scaffolds during Scientific Inquiry Learning. Interactive Learning Environments, *17*(2), 105–117, DOI:10.1080/10494820701706437.

Maxwell, D.O., Lambeth, D.T., & Cox, J.T. 2015. Effects of Using Inquiry-Based Learning on Science Achievement for Fifth-Grade Students. *Asia-Pacific Forum on Science Learning and Teaching*, *16* (1), 1-31.

Mousoulides, N. G. (2013). Facilitating Parental Engagement in School Mathematics and Science Through Inquiry-Based Learning: An Examination of Teachers' and Parents' Beliefs. *ZDM the International Journal on Mathematics Education*, 45(6), 863–874.

National Research Council. Inquiry and the National Science Education Standards: A Guide for Teaching and
Learning.Washington,DC:TheNationalAcademiesPress,2000.http://www.nap.edu/catalog.php?record_id=9596 Accessed May 06 2015.

Obenchain, K. M. & Morris, R. V. 2003. 50 Social Studies Strategies for K-8 Classrooms. New Jersey: Merrill Prentice Hall.

Pandey. A, Nanda. G.K., & Ranjan. V. (2011). Effectiveness of Inquiry Training Model over Conventional Teaching Method on Academic Achievement of Science Students in India. *Journal of Innovative Research in Education*, 1, 7-20.

Parim, G. (2009). *The effects of inquiry on the concept learning, achievement and development of scientific process skills of 8th grade students as related to photosynthesis and respiration*. İstanbul: Marmara University, Institute of Science, Unpublished Doctoral Thesis.

Pedaste, M., & Sarapuu, T. (2012). Design Principles for Support in Developing Students' Transformative Inquiry Skills in Web-Based Learning Environments. *Interactive Learning Environments*, iFirst article, 1–17, DOI:10.1080/10494820.2011.654346.

Saracaloğlu A. S. & Yılmaz, S. (2011). An Investigation of Prospective Teachers' Critical Thinking Attitudes and Locus of Control. *Elementary Education Online*, *10*(2), 468-478.

Seifert, K., Fenster, A., Dilts, J. A., & Temple, L. (2009). An investigative, cooperative learning approach to the general microbiology laboratory. *CBE—Life Sciences Education*, *8*(2), 147–153.

Smith, C. L., Maclin, D., Houghton, C., & Hennessey, M. G. (2000). Sixth-Grade Students' Epistemologies of Science: the Impact of School Science Experiences on Epistemological Development. *Cognition and Instruction*, *18*(3), 3349–3422.

Spronken-Smith, R., & Walker, R. (2010). Can Inquiry-Based Learning Strengthen the Links Between Teaching

and Disciplinary Research? Studies in Higher Education, 35(6), 723-740.

Şen, Ş., Yılmaz, A., & Erdoğan, I. Ü. (2016). Prospective Teachers' Views of Inquiry-based Laboratory Activities. *Elementary Education Online*, *15*(2), 443-468.

Tabachnick, B. G., & Fidell, L. S. (1989). *Using Multivariate Statistics*. New York: Harper & Row, Publishers, Inc.

Wilder, M., & Shuttleworth, P. (2005). Cell Inquiry: A 5E Learning Cycle Lesson. Science Activities, 41(4), 37–43.

Wu, H. K., & Wu, C. L. (2011). Exploring the Development of Fifth Graders' Practical Epistemologies and Explanation Skills in Inquiry-Based Learning Classrooms. *Research in Science Education*. *41*(3), 319–340. DOI 10.1007/s11165-010-9167-4.

Yıldırım, M. & Türker Altan, S. (2017). Effect of Inquiry-Based Learning Approach on Primary School Pupils' Science Process Skills. *Mustafa Kemal University Journal of Graduate School of Social Sciences.* 14(38), 71-89.

Yoon, H. Y., Kim, M., Kim, B. S., Joung, Y. J., & Park, Y. S. (2013). Pre-service Teachers' Views of Inquiry Teaching and Their Responses to Teacher Educators' Feedback on Teaching Practice. *Eurasia Journal of Mathematics, Science & Technology Education*, 9(4), 347–359. DOI: 10.12973/eurasia.2013.944a.

CITATION: Proceedings of ICES 2018 – 1st International Congress on New Horizons in Education and Social Sciences, April 9-11, 2018 - Istanbul, Turkey

ISBN: 978-605-2132-22-7

DOI: 10.21733/ibad.423571

EDUCATIONAL LEXICOGRAPHY AND ONOMASTICS

Reyhan Habibli¹

¹Assoc.Prof.Dr., Baku State University, Azerbaijan, venerahr@rambler.ru

Abstract

Onomastic units are the important part of the vocabulary. Onomastics has quite a wide spectrum of problems. At present scientists take a special interest in onomastic lexicography. Onomastic dictionaries differ from the other dictionaries first of all by the structure of the lexicographic apparatus that is caused by semantic and other peculiarities of proper names. As a rule such dictionaries contain encyclopaedic and linguistic information. Besides at present there is a tendency of universalization of onomastic dictionaries. Improvement of the structure is connected with regulation of collected material and rational placing of entries. A dictionary is always one of the effective learning tools, but terminological, linguocultural dictionaries with educational purpose have not been compiled vet. In the modern world scientific and technological progress is a cause of creation of new onomastic terminological dictionaries. Choice of lexicographic resources that describe onomastic terminology is limited to small number of monolingual dictionaries. It is necessary to compile special onomastic dictionaries of linguocultural type that fully reflect onomastic material. The main goal of such a dictionary is to increase foreign students' vocabulary, to create conditions for better understanding and deeper acceptance of culturological texts with onomastic components, to acquaint them with the national culture. The purpose of the research is to elaborate the structure and principles of terminological and linguocultural onomastic dictionaries and substantiate their theoretical significance. The methods of the research are dessriptive method that consists of observation and classification, lexicographic and interpretative methods, onomastic analysis. The structure of the dictionary and its principles were worked out during the research. The article deals with educational lexicography, typology of terminological and linguocultural dictionaries. The special attention is given to the principles of compiling onomastic terminological and linguocultural onomastic dictionaries, determination of the unified principles of presentation of terms and onyms in these dictionaries.

Keywords: Onomastics, Onomastic dictionary, Onomastic terminology, Linguoculturology, Educational lexicography

INTRODUCTION

Over the past decade there has been an increasing interest both in theoretical and practical lexicography: the different lexicographical editions, scientific monographs, manuals have been published, thematic conferences have been held. Despite rich lexicographical traditions there are always such problems that aren't solved and caused by demands of the time. Most of them at the same time deal both with general and educational lexicography.

Educational lexicography has been a part of the general lexicographical tradition for centuries and developed its scopes. It is reflected in the development of educational dictionaries. The theoretical basis of educational lexicography began to develop only in the XX century. Actuallization of the anthropocentric approach over the past decade has highlighted the explanation of vocabulary as a fragment of the language system. The anthropocentric approach considers an addressee to be taken into consideration during description of the vocabulary. In G. N. Sklarevskaya's opinion, dictionaries of an anthropocentric type don't describe an abstract system, they describe really used living language aimed at contemporaries' consciousness (Sklarevskaya, 2013, p.103). Anthropocentrism of lexicography manifests itself in reflection of the important features of the portrait of the modern person, orientation towards user demands and maximal accounting of the factor of an addressee. Though educational lexicography is an independent sphere vocabulary is explained by traditional methods in dictionaries, preference is given to the significative aspect of the lexical meaning. Such dictionaries are aimed at carriers of national language so it is rather difficult to use them by foreigners. Undoubtedly dictionaries aimed at carriers of national language have several advantages and high quality. However compiling educational dictionaries aimed at the specific educational conditions, particularly at foreigners is very significant. It is necessary to undertake theoretical and applied research in this field. In N.D.Golev's view, deviation from the academic pole shouldn't be understood as distortion of quality, it should be understood as quantitative reduction - compression of form and content. It should be understood as transformation of scientific concepts into the other of forms, not as their transfer to everyday concepts; as a result of such transformation educational discourse becomes a type of scientific discourse (Golev, 2009, p.31).

The object of the article is presentation of explanation of the material of monolingual dictionaries (particularly for foreigners). The purpose of the research is elaboration of principles of compiling onomastic dictionaries, linguistic typology of explanation for monolingual educational dictionaries.

METHODOLOGY

The tasks of our research require use of some methods. Descriptive method consisting of observation and classification, lexicographical and interpretative methods, onomastic analysis are used during the research.

1. PECULIARITIES AND DIRECTIONS OF DEVELOPMENT OF EDUCATIONAL LEXICOGRAPHY

One of the current problems of educational lexicography is compiling perfect monolingual dictionaries that correspond to user requirements. Such problems as inclusion in an entry of culturological information about the word, formation of the glossary, descriptive parameters of lexical units are actively discussed by researchers. V.V.Dubichinsky shows the following principles of this field:

1. The principle of fully consistent of the dictionary with the stage of training, level of knowledge, students' psychological characteristics, regard for availability (or absence) of linguistic milieu;

2. The principle of the gradual and sequential complexity of the studied material;

3. The principle of the systemic: the system of interconnected dictionaries compiled on the principle of gradation that means complex of several dictionaries of the same or different types aimed at the different stages of training could be the greatest achievement of the national educational lexicography. The main feature of such a system must be the gradual increase of amount of diverse information about the head unit and complication of forms and character of its presentation;

4. The principle of complexity that means a synthetic model of dictionary description – presentation of the largest possible number of the features and peculiarities of the described language uint;

5. The principle of functionality – an educational dictionary being didactic modeling of a language must promote producing of live functioning speech and hence successful communication;

6. The principle of normative vocabulary, its strict synchronicity and orientation towards certain subjects and purposefulness of education;

7. The principle of minimization of the vocabulary, compression of structural and semantic characteristics of the lexical system of the language and frequency of units that are realized in the system of lexical minima (Dubichinskiy, 2009, pp. 340-346).

The main directions of the development of educational lexicography are determined by linguistic ideas and needs of educational process. It is both an applied sphere concentrating theory and practice of compiling educational dictionaries and one of the aspects of explanation of the vocabulary with educational purpose. The function of the educational dictionary must be directed to the study of the language. M.Mahmudov writes: "Naturally when learning a language it is impossible to remember all words of the vocabulary. So it is more advantageous to remember the most important words. The most important words are the ones that are used in the speech and written texts. Thus determination of frequently used and infrequent words in the texts connected with language teaching is of particular relevance" (Mahmudov, 1992, p. 99). Methodics factors determine an addressee, type of a dictionary, volume of its glossary, structure of entries, ways and methods of presentation of its lexical material.

2. ONOMASTIC EDUCATIONAL DICTIONARIES: TERMINOLOGICAL DICTIONARY

The modern lexicographical publications reflect the linguistic environment of the present time, the most important changes in the modern native speakers' lexicon. Dictionaries play a great role in preservation of people's cultural memory. Geopolitical changes and social processes taking place in the world, interlingual and intercultural relations cause change of the language picture, enrichment of the vocabulary, formation of new names. In that regard study of onomastic units in educational lexicography, their inclusion in dictionaries are very significant. The necessary principles for their fixing in educational dictionaries of a new type can be used taking into account the result of the available researches.

The problem of compiling integrated dictionaries of the new type has become more actual lately. At present researchers show special interest in onomastic lexicography. In its turn scientific and technological progress onomastic lexicography promotes the appearance of new onomastic terminological reference books in the modern world. Choice of lexicographic sources that describe onomastic terminology is limited to a small number of monolingual dictionaries.

Compiling explanatory terminological onomastic dictionaries is caused by user desire for such a reference book. User want to see such a dictionary as a source of linguistic (semantic, orthoepic, spelling, etimological and other characteristics) and extralinguistic (pragmatical, linguistic-regional, culturological and other components) information. Improvement of the structure is connected with the collected material at present and with rational order of dictionary entries on the pages of dictionaries.

Plenty of new books on onomastics appeared at the end of the XX century and at the beginning of the XXI century, quite a lot of theses were defended; onomastics theory has developed vastly, and it makes one look at terms quite differently. Defects of terminology show themselves more brightly during the periods of intensive development of science.

Certainly no science can do without its own terms; it is impossible to express scientific notions and laws and to show the essence of scientific ideas without them. Ideal terminology is a regulated system that meets the requirements. The system of terms reflects the system of scientific notions. This is what makes terminology systemic. A term as a sign of notion enters the system of notions and it enters as a word the system of words. However development of science, new inventions cause reconstruction of the system of obsolete notions. The volume and character of the notion change, but words – names remain unchanged for a while. Such a phenomenon is generally of a language.

Terminology is constantly developing; appearance of new terms is an immutable result of the scientific progress. Every year new terms are created not only for sections and subsections of onomastics but also for small groups of proper names. Specially onomastics directions that have developed intensively for the past decade are more problematic sphere.

Compiling of dictionaries of onomastic terms has been studied very little. It should begin from publication of the series of dictionaries of terms that are related to the outlying spheres. Widespread terms, little-known terms created in recent years and new terms that can fill the existing voids may be included in such dictionaries. It is expedient to compile such dictionaries both in the form of a book and in an electronic variant. Their task is an

analysis of the existing terminology system, working up and preparation of its criteria of regulation, creation and description of new terms. Such dictionaries will help the persons who aren't specialists in sectoral terminology to understand it more easily, and they also will help to unify used terminology. Having passed extensive discussion these sources can be united in the dictionary of onomastic terms.

There are different types of dictionaries of onomastic terms:

1) Monolingual terminological dictionaries. There are explanatory dictionaries and glossaries among such onomastic dictionaries. Glossaries, list of unexplained terms are useful for compiling terminological dictionaries and regulation of terminology. Glossaries must fully cover the whole existing terminology. All synonymous terms occurred in literature are registered here. At this time it is useful either to refer to a certain term near each synonym or to place such a term as a head word and give synonyms near it. All derivative terms are to be recorded, too. Glossaries can be given in two parts. All terms can be given in alphabetical order in the first part, and the terms can be given on a thematic principle in the second part. Such arrangement of the material makes it possible to examine each term (an alphabetical dictionary) on the one hand and to determine the place of this term in the system (a thematic dictionary) on the other hand.

Explanatory dictionaries of onomastic terms can pursue the different aims, can embrace the various terms, so they are divided into two types: dictionaries of modern terminology and historical dictionaries.

An explanatory dictionary of onomastic terminology is to register terms, give their explanation, reflect defects of modern terminology (polysemy and synonymy of terms, non-systemic nature of some terms), give recommendation about the use of terms, i.e. they are to be of reference-normative nature. Such dictionaries are to be general ones – to embrace the whole modern onomastic terminology and to be special ones – to include terminology of a certain part of onomastics.

It is more expedient to arrange the material in alphabetical order in an explanatory dictionary: the main purpose is reference; alphabetic method facilitates searching the required word. The system of reference marks makes it possible to reduce the volume of dictionary entries and the book on the whole.

Frequently used synonymous terms should be shown in the dictionary. Explanation of the word should be given near one of these terms, the other terms should be given on their places without explanation, with reference to the explained word. Homonymy of terms can be also reflected in the dictionary; if different authors use the same term in the different meanings it is permissible to give two or more explanations of some terms. The structure and content of the dictionary entry determine the tasks of the explanatory dictionary. Its origin, etimology are shown after a headword; as required it should be noted by whom the term was offered. Then the word is explained. If a term is understood as a monosemantic one in any scientific sphere it has educational-dogmatic nature. At the same time a dictionary must also reflect the different linguists' comprehension of language phenomena. It would be better to compare the different authors' ideas and definitions.

Two types of bibliographic index is possible. The list of general linguistic works can be given. Besides some articles, main works dealt with the considered subject (if there are any) must be shown.

A historical dictionary of onomastic terms has two tasks: first it is to show the whole collection of terms brought up by a certain linguistic school or by a certain scientist. It is like spade work for compiling of general dictionary, because such a special dictionary makes it possible to choose terminology on the basis of the limited material. Creation of such a special dictionary makes the compiling of the general dictionary easy. Secondly such a dictionary makes it possible to form a notion of the terminological system of that school. Such a dictionary can include either all terms that occur in school representatives' works or special widely used terms that are specific or typical for this school and have special meaning in those works. New onomastic terminology must be reflected in the dictionary, too. Naturally individual terms used by any author will also be included in such a dictionary. If a term is monosemantic and is used by several authors it's enough to give one citation and references from the other works. Such dictionaries being used in linguistic literature can be means of reference; giving information about new terminology they will help to realize the choice and unification of terms in the future.

2) Translation dictionaries. Bilingual and multilingual translation dictionaries make it possible to compare onomastic terms used in the different languages, hence they can be a basis of the further work on unification of terminology. The volume of the glossary of such a dictionary is to differ from the glossary of the explanatory dictionary of the onomastic terms, i.e. it must embrace the terms occurring in literature as much as possible.

3) Onomastic terminological dictionaries can be general and sectoral. The general ones consist of terms of the different sectors of onomastics, the sectoral ones consist of terms of one sector of onomastics. It would be better

to quote a corresponding term and term-combinations in a dictionary entry, to show their derivatives, to put the origin of a term between brackets after a headword according to the tradition.

There must be a card index that reflects the state of the onomastic system and serves as a material basis for compiling of dictionaries. As this index card consists of data about proper names it can serves a basis for the different onomastic researches. When compiling an index card collected on a certain system one must try to make it reflect onomastic vocabulary of the language, and each onomastic phenomenon must be provided with the different materials. In the first place it is necessary to determine onomastic sources in this process. Usually all written and oral sources which onyms are used in are considered to be onomastic ones. Reference books that make it possible to determine prevalence and frequency of use of oral speech materials, onomastic units are very interesting as sources of a card index. Sources must be effective and urgent. The complete registration of onomastic vocabulary is an important source for a card index of the dictionary.

The structure of the dictionary can be in two variants – alphabet and thematic ones. Each of these variants has its own advantages and disadvantages:

a) A dictionary is usually used as a reference book to know or to specify the meaning of the word. The alphabetic method is the most convenient for these purposes.

b) One of the purposes of a dictionary is regulation of onomastic terminology. A thematic dictionary is more convenient for this purpose, the terms are united because of their internal connections here. Such a dictionary makes it possible to compare terms and to reveal the breaches of terminological system.

One of the optimal variants is a dictionary which is both alphabetic and thematic. The thematic part contains explanation of terms. The second part of the dictionary must contain the alphabetic list of all the terms given in the first part: the place where the term is explained (a page, a paragraph) must be shown.

The different grammatical forms of terms, some productive morphems that serve for formation of terminological series (for example: allo-, homo-, meta etc.) must be arranged in the dictionary. Besides the list of sources and bibliographic abbreviations, table of reading letters in the different alphabets, index of names must be appended.

Definition of a headword-term takes a primary place in a dictionary entry. Choice of definition of a headword must be determined by accuracy, unabiguity, apprehensibility etc. As Hamza Zulfikar points out, "understandable definition, its conformity with linguistic rules, observance of spelling rules must be carried out under a linguist's control" (Zülfikar, 2017, p.379). If a term is not explained in the card index, its description and definition must be there. Entries of monolingual terminological dictionaries contain a headterm, its definition, terms-synonyms, illustrations (texts, citation, examples, pictures, draught, scheme). A headterm is to be stressed. Additional historical and stylistic information (when the term was created, who is its author; what speech invironment it is used in etc.) must be included in the dictionary. Compiler's notes (correction of mistakes, explanations, marks etc.) are given in the square brackets.

Addressees of the dictionary are not only linguists-specialists, but also students, doctors Ph., so widespread examples from the Russian, Western European and Oriental languages can be chosen as illustrative material. Bibliographical references must be given at the end of the dictionary entry.

The main task of the onomastic terminological dictionary is reference, registration and analysis. It is to collect and explain terms in the linguistic literature. The final goal of the dictionary is not only explanation of terms, but also their codification, systematization and so unification. Compilers must be very objective and describe the modern onomastic terminology. It is very important to use special methods to compile new types of dictionaries.

3. CULTUROLOGICAL INFORMATION IN THE ONOMASTIC EDUCATIONAL DICTIONARY

Political, economic and social innovations taking place in Azerbaijan provoke a strong interest in Azerbaijan and also in learning the Azerbaijani language. In that regard, the role of educational materials has increased. An educational dictionary takes a special place among these materials.

Study of proper names in the practice of educational lexicography is explained by their important role in communication. Onomasticon is a very complicated spectrum of name categories, and it is closely linked to history, culture, traditions and peculiarities of human psychology. Proper names are an inseparatable part of vocabulary in any language: they are widely used in spoken language, carry out nominative, cumulative and communicative functions and have a certain lexical background. They influence all spheres language of human activity.

During the period of expansion of international relations sociolinguistic and regional approaches to study of vocabulary are considered to be the important directions of lexicography. Onomastic vocabulary reflects the language picture of the world. From this standpoint the problem of compiling culturological onomastic dictionaries becomes more urgent.

Choice of names for culturological onomastic dictionaries must be on the basis of the following criteria:

- 1) a type and volume of a dictionary;
- 2) user language level;
- 3) nationality;
- 4) frequence of concrete onyms;
- 5) cultural and encyclopaedic significance of concrete realities.

Choice of lexical units for culturological onomastic dictionaries must be solved concretely and specific character of the dictionary, its general purposes must be taken into consideration. When determining a glossary for such a dictionary it is necessary to take into consideration the modern panorama of the social life, national cultural traditions, educational- methodic feasibility and regulation principles: the volume of the dictionary on the one hand must be optimal, not to bore users with unnecessary information, on the other hand it must be sufficient. Cultural traditions and frequency of the names are the factors that influence their inclusion in the vocabulary.

The main condition in the culturological onomastic vocabulary is urgent cultural-encyclopaedic information about proper names, illustrations related to onyms must be given in the culturological onomastic dictionary. It is not appropriate to give infrequent names, the names that don't have big culturological information and need additional explanation. The author's individual aspirations in presentation of illustrations must be on the backburner.

The different kinds of proper names can be included in the dictionary. As is known, geographical knowledge is very significant in the increasingly globalized world. From this standpoint the toponyms given in the dictionary can be used in the encyclopaedic and culturological contexts. Cultural information can be reflected in anthroponyms that play an important role in communication and also names of literary and artistic works; the data about historical knowledge and social system can be reflected in chrononyms, ergonyms and ethnonyms. The factual material about the famous scientists' and researchers' names makes the scientific information. The other encyclopaedic data must be given by astronyms as humanity has great interest in space issues at the present stage of development.

CONCLUSION

The special attention must be given to more effective presentation of actual data about the concrete onomastic units in educational dictionaries. For this, however, an optimal format of the entry that reflects the information about a name must be prepared. It is possible to include some cultural encyclopaedic information in the entry by means of proper names. An educational dictionary must teach readers to use a language properly. The onomastic educational dictionary compiled on the basis of the principles put forward have some advantages in comparison with the other onomastic dictionaries because informativeness of onyms completely manifests itself here. Such dictionaries develop student's ability for research. The results of this research can be used for regularization of the system of onomastic terms, compiling educational dictionaries of a new type, presentation of linguo culturological information of proper names in dictionaries.

REFERENCES

Dubichinskiy, V.V. (2009). Leksikografiya russkogo yazika: uchebnoye posobiye. Moskva: Flinta Nauka.

Golev, N.D. (2009). Obidennoye metayazikovoye soznaniye kak ontologicheskiy i gnoseologicheskiy fenomen (k poiskam "lingvognoseologem"). Obidennoye metayazikovoye soznaniye: kak ontologicheskiye i gnoseologicheskiye aspekti. Ch.1.

Mahmudov, M. (1992). Tezlik lüğetleri dil tedrisinde. Azerbaycan Elmler Akademiyasının Xeberleri. Edebiyyat, dil ve incesenet seriyası, No: 3-4

Sklarevskaya, G.N. (2013). Antroposentricheskaya leksikografiya: idei i praktika / Leksikografiya. Yazik. Rech. Sb.st. pamati Anni Lipovskoy.

Zülfikar, H. (2017). Sözlük çalışmalarında uygulamalar ve kullanılan terimler. III.Uluslararası sözlükbilimi sempozyumu bildiri kitabı. No:285

CITATION: Proceedings of ICES 2018 – 1st International Congress on New Horizons in Education and Social Sciences, April 9-11, 2018- Istanbul, Turkey

ISBN: 978-605-2132-22-7

DOI: 10.21733/ibad.423572

CHALLENGES OF A CONTENT-BASED SYLLABUS IN A FRESHMAN ENGLISH CONTEXT IN TURKEY

Deniz Ezgi AVCI VILE¹

¹Ms., Istanbul Sehir University, TURKEY, deniezgivile@sehir.edu.tr

Abstract

The selection of a particular syllabus design; what to teach and in which order, would inadvertently reflect the beliefs and values on 'language' and 'language learning' as the types of syllabus are also manifestations of how the nature of language and language learning viewed. While most Freshman English Programs seem to reflect the common practices of 'compartmentalized' nature of the Turkish education system where students are divided into science and social majors and receive ESP or EAP, a pioneering Freshman English Program at Istanbul Sehir University has been integrating literary texts; short stories and novels in an attempt to transform the idea of 'language as a rule-based system' into 'language as a socio-semantic system'. This paper will present a brief overview of the initial stage of this pioneering thematic content based syllabus put in action in 2015-2016 academic year sharing the underlying reasons behind the course design and the challenges faced in the attempts of aiming to build on cultural competence, language and critical thinking skills with a communicative approach helping students to respond to the demands of a tertiary education at their best abilities.

Key Words: Freshman English, content-based syllabus, English as a second language, literature; Turkey

1 INTRODUCTION

Foreign language education in Turkey has been experiencing a rapid change since 1990s. The recent boom of private universities with the medium of instruction in English has made the need for Turkish students to acquire English proficiency more critical than ever. Even though all universities with the medium of instruction in English offer a one-year English instruction, called a preparatory school, when students pass the institutionalized proficiency tests and move to their faculties, the real challenges come into play as they are often ill equipped to cope with the required language, analytic and critical thinking skills to function in an academic context. Freshman English classes be it English for Academic Purposes, English for Specific Purposes or Composition classes are designed to bridge this gap in an attempt to build on the language proficiency level and endow students with the skills to survive in an academic context at tertiary level which makes the approaches taken to 'syllabus design' of utmost importance. This article will provide an overview of an innovative Freshman English Program at tertiary level, which integrates a thematic content based syllabus aiming to build on cultural competence, language and critical thinking skills with a communicative approach helping students to respond to the demands of university education at their best abilities in accordance with the institutional values.

2 AN OVERVIEW OF SYLLABUS DESIGN

The choice of a particular syllabus design for any language course is a fundamental decision in determining the value and the success of the program. Syllabus determines what is to be incorporated in a language course (Jordan, 1997), says what will be learnt (Hutchinson and Waters, 1987) and it is concerned with selection, grading and sequencing of the content in manageable units (Jordan, 1997 & Hyland 2006). Therefore, the selection of a particular syllabus design; what to teach and in which order, would inadvertently reflect the beliefs and values on 'language' and 'language learning' as the types of syllabus are also manifestations of how the nature of language and language learning viewed.

Wilkins and White introduced two types of syllabus: syntactic & analytical syllabi (Wilkins, 1976) and Type A and Type B syllabi (White, 1988). The former; 'syntactic' and 'Type A' type syllabi, are somehow alike as Type A is a product oriented syllabus; what to teach is presented step by step, fixed and determined by the syllabus designers. Learners are expected to master the rules of the language and produce it as a whole, which resembles the syntactic syllabus where the content is divided into small units, graded and at the end of a step by step instruction, learners are expected to synthesize and put together small units and carry on a meaningful communication (Nunan, 1993). An analytical syllabus, on the other hand, focuses on the communicative tasks and requires learners to discover particular aspects of language after analyzing it in a given context. Likewise, a Type B syllabus is concerned with how to learn and how to convey a message; thus it focuses on the process rather that the end product, the communicative purpose of language. (*ibid.*) Hyland (2006) points out that EAP courses tend to implement the analytical type of syllabus and this could be due to the fact that it offers a better opportunity to focus on meaning and meaning construction through authentic texts, context and discourse provided and that it approaches 'language' as a whole where communication is emphasizes. Procedural, process and task syllabi are examples of the analytic syllabus (Long and Crookes, 1993: 11).

Communicative Language Teaching movement has led to a paradigm change in ELT and thus a reexamination of traditional approaches (Aural-Oral Method and Situational Language Teaching), which are "based on the belief that grammar could be learnt through direct instruction and through a methodology that made much use of repetitive practice and drilling" and the syllabuses of which consisted of graded words lists and grammar lists across levels (Richards, 2006: 7). CLT focuses on 'communicative competence' referring to the knowledge and skills needed to use the language for different communicative purposes and rejects the notion that language ability is solely compromised of grammatical competence and this paradigm shift has led to a number of approaches that share the same basic set of principles but differed in instructional practices. Rogers (2001) states that "these CLT spin-off approaches include The Natural Approach, Cooperative Language Learning, Content-Based Teaching, and Task-Based Teaching" (2). Content Based Instruction (CBI), one of these communicative- based approaches has been applied widely and its popularity has increased since 1990s (Stoller, 2002: 107). CBI teaching could be 'regarded as a logical development of some of the core principles of CLT, particularly those that relate to the role of meaning in language learning (Richards and Rogers 2001: 151) Such a syllabus does not start with a list of forms and functions but with topics or themes compromising of network of issues, concepts. Content is the focus and the departure of the course providing a contextualized and meaningful language presentation which Eskey (1992) believes in this kind of a syllabus "content is not merely something to practice language with; rather, language is something to explore content with" (15). This is also believed to be motivating since students focus on ideas, issues, problems and opinions and language becomes a vehicle and comes secondary to delivering and conveying meaning. (Richards and Rogers, 2001).

Stryker and Leaver (1989: 271) propose that CBI is bound to meet four essential features: subject matter core, use of authentic texts, learning of new information and appropriateness to student needs. In the same vein, Gable and Stoller (1997: 19-20) argue that all instruction is theme-based and posit seven rationales for the application of CBI approach which offers manifold opportunities for a design of an EAP course. In our context, UNI123 syllabus is designed as a theme-based course which is not a CBI prototype. Met (1999) identifies this model to be a language-driven model where subject matter is not linked to other discipline courses but autonomous and the goal is to assist students develop L2 skills and proficiency.

3 FRESHMAN ENGLISH PROGRAM AND STUDENT NEEDS

In our teaching context, at a private university in Istanbul, after a one-year general English instruction at preparatory school, students are required to take a in-service proficiency exam and pass with a 60 which is the equivalent to IELTS overall band 5.5 (minimum 5 from each band; speaking, writing, listening and reading) to be

eligible to start their faculty courses. UNI123 Textual Analysis and Effective Communication and UNI124 Textual Analysis and Academic Writing courses, the former being a prerequisite course and the syllabus design of which is the focus of this article, are two of the Common Courses offered in the first one or two years of faculty.

Silva and Matsuda (2001) state that EAP "should be thoughtfully designed to integrate immediate students' needs with the hierarchy of institutional values, disciplinary goals and professional expectations", therefore these courses should aim at training students to respond the demands of faculty assignments as well as being aligned with institutional values and expectations (144). Each ESL context and educational institution is unique and distinct. Belcher (2006) posits that needs should not be deemed as problems or lacks that teaching can eliminate by "tailored-to-fit" instruction. Thus, needs analysis should include all the stakeholders, be approached holistically and reevaluated each academic year. In our context, the demands of faculty assignments, which are mostly in the forms of academic papers, discussions and presentations, are based on a demonstration of accurate language together with higher order skills such as 'analysis of arguments, evaluation, synthesis, problem-solving, making inferences, creating and testing hypothesis through evidence' in written or spoken language.

4 COURSE GOALS

It is true that at tertiary level "advanced level language learning has to do with much more than 'language' per se. It requires "familiarization with new frames of interpretation, new genres, new social practices, and new ways of thinking and about the language in question" (Kern 2003: 2). Noteworthy language objectives of 'UNI123 syllabus designed to bring students' language skills up to this advanced level are linguistic, cultural and strategic including the following: (a) familiarization with the notions of symbolism and implicit meanings within a given text, (b) locating any given text within its broader cultural, historical, political and psychological contexts, (c) introduction of how audience, purpose, and the language form the function and the meaning of the text, (d) produce grammatically, lexically and mechanically accurate language in coherent, cohesive and organized manner, (e) gaining the basic skills of academic presentations on a variety of topics, (f) using a blend of in-text citation techniques namely paraphrasing, summarizing and quoting, (g) gaining the basic knowledge of conducting a small-scale research by assessing the credibility of the sources and avoiding plagiarism.

To be able to accomplish these specific goals and develop students 'communicative competence', the syllabus draws its principles from 'Communicative Language Teaching' and 'Content based approach', the latter described as "an extension of the CLT movement" (Richards, 2006: 27). Advocates of Content Based Instruction believe that the best way to apply CLT principles in classroom is "by using content as the driving force of classroom activities and to link all the different dimensions of communicative competence to content" (Richards 2006: 27). Content is the departure or organizing principle, which provides exposure to authentic materials, enables meaning construction and practice of higher order skills in written and spoken form through challenging and engaging communicative classroom activities and tasks collaboration and sharing.

5 UNI 123 COURSE DESIGN, IMPLEMENTATION CHALLENGES AND FUTURE DIRECTIONS

The themes and sub-themes presented in the UNI123 syllabus are grounded on mostly reading and occasionally listening, oral presentations and written works are used as a foundation to explore the issues regarding vocabulary and grammar. The quality and quantity of the content selection is two-fold and is built on: (1) scaffolding, practice and recycling of the required skills in spoken and written forms and (2) increasing language awareness and cultural competence. While students are engaged with literary texts in the first part of the program, the last seven weeks the program deals with a more technical process with the introduction of other authentic text types such as editorials, case studies and journal articles organized around the themes 'urban renewal', 'identity and race' and 'altruism'. Here, following the developmental model Bragger and Rice (1999) proposed for content based instruction, there is a shift to less familiar academic content and language input and the length and the difficulty level of the texts increase. Students explore language and research techniques, intext citation techniques and creating substantiated arguments already presented and practiced in the first part of the program, and these are recycled in more debt to train the students for their final project, a research paper.

The strengths of the UNI123 syllabus could be attributed to CBI approach to 'language learning'; that is, language is not taught as separate items of lexical chunks, grammar, functions or skills but as a whole and it guides students to explore, hypothesize and construct meaning, thus "the language is being learnt with little or no direct or explicit effort to teaching the language itself separately from the content being taught" (Kranhnke 1987: 65). This choice is based on the assumptions that "content provides a coherent framework to link and develop all of the language skills, people use better when they use the language as a means rather than the end to itself, and that CBI better reflects learner needs' for learning a second language" (Richards, 2006:28). Within our

institutional context, taking content as a driving factor seems to make a big difference in how students view language and it encourages them to be more engaged and autonomous learners in meaning construction. This is evident in the initial seven-weeks of the course when the focus is on a literary text; a 'novel' which is divided in eight microstructures. The rationale behind choosing a literary text as the first authentic material is to start the training or induction of higher thinking skills since literary texts initiate personal response and imagination and enable readers to make connections through experiences, develop awareness for different perspectives and multiple levels of meanings (McKay, 1984, Carter and Michael, 1991, Appleman, 2009). The bigger goal is to activate 'the fifth skill; thinking in English' (McRae, 1997) and leading learners towards a discovery that language is also a socio-semantic system which demands meaning construction putting the pieces together and in most contexts information transfer or reporting might not suffice to fulfill this demand. Richard and Rogers (2001) advocate the view that "content-based courses seek to bring together knowledge, language and thinking skills (208). An analysis of a novel in shorter sections also facilitates the process of recycling and practice of these skills where students are engaged in activities such as group discussions, debates, oral presentations, role plays, writing paragraphs and a literary essay. Particularly being exposed to literary texts as an initial stage enables students to distance themselves from the previously built assumptions that 'language is only a rule based system' where reporting, filling the blanks with correct information would suffice. This no doubt creates a shift in students' thinking to some extent, as they are required to question, look for evidence, make connections, inferences and implications, creating hypothesis and attempting to prove it.

In this process of meaning construction students are also engaged in practicing and developing all language skills; speaking, writing, reading and listening as well as clarifying their shortcomings in the areas of vocabulary and grammar when constructing and conveying meaning to their audience during in class discussions and written works they produce. This is due the presentation of language in connected discourse rather than isolated fragments. Inclusive of classroom activities, assessment components serve as another vehicle in this process of integration of skills as they compromise of paragraphs, oral presentations, essays (open book exams) and a two draft final paper. Richards (2006) states that one of the key issues in implementing a content based course is assessment and whether "it will be assessing content knowledge, language or both?" (30). As for UNI123, The criteria used to assess students' written and oral output are heavy on content and language. It could be argued that because grammar and vocabulary are not taught explicitly, students should not be assessed heavily on language use; however this shortcoming is expected to be resolved through the feedback students receive on their oral and written work. Detailed feedback and corrections given on language, content and organization to first drafts are used as a vehicle to point out language errors and weak content which leads students to be more autonomous, and to take-charge of their learning process and see the improvement in their final drafts. Nevertheless, optimum exploitation of grammar and lexis should be integrated in the syllabus in a systematic way and the pedagogical guidelines Brinton and Holten (2001) propose could serve as a starting point to create a fine balance in the practice of accuracy and fluency.

Despite the aforementioned strengths of the syllabus, students who receive a borderline pass (5 band in IELTS) in writing and speaking areas in IELTS are the ones who struggle to cope with the language expectations of the program, they need extra help and guidance in writing skills and language proficiency regardless of the fact that they pass the proficiency test and qualified to be proficient in language and eligible for the faculty courses. As grammar and vocabulary are not taught explicitly, language accuracy is heavily based on the feedback students receive and how much time the lecturer is willing to assist such students through tutorials and other guidance. In the same vain, because there are no specific language items on the syllabus to be exploited, it is hard to assess the level of language and vocabulary exploration during class time and this is more likely to depend on teachers' approaches to syllabus and how it is implemented in classes. Eskey (1992) calls this challenge "the old accuracy/fluency problem", and explains further that "content-based courses tend to come down hard on the side of fluency ... and attending to grammar in any systematic way is difficult within communicative paradigm" (18). Written output, drafting and oral presentations are the components where accuracy is also in focus and evaluated; however, there needs to be a better balance between fluency and accuracy and this could be developed through research on teachers' attitudes and lesson practices or even with constructive peer observations.

Another issue coming into play is related to students' and teachers' roles and the moderation and exploitation of authentic materials. Some students find it hard to adjust to their new roles as autonomous students as Turkish students are the products of an education system mostly based on exam training where traditional classrooms take place and thus the role of the teachers and students are designed accordingly. Some are overwhelmed by the weekly readings assigned and the continuous hard work and effort they need to put in rather than cramming for the exams one week before the midterm and final exams. This shift in thinking regarding their roles is not

April 9-11, 2018 Istanbul, TURKEY

easy; however, it is noteworthy that the majority of students enjoy the variety of texts presented and contrary to the common belief most engineering students have expressed their gratitude and make a note of the positive and enjoyable experience they had engaging with literary texts. This is compatible with the proposal that "through content-based instruction, learners develop language skills while becoming more knowledgeable citizens of the world" (Stoller 2002: 107). Still, one of the assumptions of CBI is that teaching is built on students' previous knowledge and experience and if they are not adequately primed "missing schemata needs to be provided or students need to be kept from enrolling until they are ready" (Styker and Leaver 1993: 292). The biggest challenge is their lack of exposure to other cultures and world history and also how strong the indoctrinated beliefs, religious or national ideologies often come into play and lead to prejudices or a lack of willingness to participate. Teachers need to background info and lectures and language practice where students take charge while moderating the language to ensure maximum comprehensibility. Considering this, the choice and design of the materials and in class activities should serve as guidance as they are coherently presented in a thematic organization and supported by visual representations.

6 CONCLUSION

CBI seems to offer a wide range of opportunities for EAP courses whose goals are related to developing academic skills and in our context despite some shortcomings, UNI123 syllabus serves to meet specific students' needs in terms of strategy introduction, discourse comprehension, introduction to higher thinking skills and academic skills due to the focus it puts on 'meaning construction and negotiation', 'communicative competence', 'language acquisition through comprehensive input', 'recycling of target academic and higher thinking skills' and 'collaborative learning'. It also offers a flexible framework and a greater flexibility in activity sequences for improvement in regards to specific pedagogical needs and change in student profile. Content presented in a thematically organized way gives way to integration of previous knowledge and experience, language, new information and thinking and thus enables students to practice and develop all language skills while building on cultural competence. Nevertheless, as Eskey (1992:18) puts it 'the old accuracy and fluency problem" seems to prevail in UNI123 course as in most content-based courses which needs to be addressed. UNI123 syllabus and some of the ambitious goals such as academic skills and development of higher thinking skills are regarded to be an initiation stage, not an end to itself. Thus, UNI124 Textual Analysis and Academic Writing course to be taken next is designed as a continuum and a final stage of the Freshman English Program, which is in itself a manifestation of the beliefs and values on 'language' and 'language learning'.

REFERENCES

Appleman, D. (2009). *Critical Encounters in High School English: Teaching Literary Theory to Adolescents.* New York: Teachers College Press

Belcher, D. D. (2006). English for specific purposes: Teaching to perceived needs and imagined futures in worlds of work, study, and everyday life. TESOL Quarterly, 40(1), 133–156. doi: 10.2307/40264514

Bragger, J. D., & Rice, D. B. (1999). The message is in medium: A new paradigm for content-oriented instruction. *Foreign Language Annals*, *32*(3), 373–391.

Brinton, D. and Holten, C. (2001). Does the emperor have no clothes? A re-examination of grammar in contentbased instruction. In J. Flowerdew & M. *Peacock (Eds.) Research perspectives on English for academic purposes.* Cambridge: Cambridge University Press.

Candlin, C.N (1984). Syllabus design as a critical process, ELT Documents, No: 118, pp: 29-46, London Pergamon & British Council.

Carter, R and Michael, N.L (1991). Teaching Literature. England Sussex: Longman Group UK Limited

Eskey, D. (1992). Syllabus design in content-based instruction. The CATESOL Journal 5 (1): 11-23.

Grabe, W. and F. L. Stoller (1997) "Content-based instruction: Research foundations". In M. A. Snow and D.M. Brinton (eds.) *The Content-Based Classroom. Perspectives on Integrating Language and Content.* White Plains, NY: Addison Wesley Longman. 5-21.

Hayland, K. (2006) English for specific purposes. Cambridge: Cambridge University Press

Hutchinson, T, Waters, A. (1987). English for Specific Purposes. Cambridge: Cambridge University Press

Jordan, R (1997). English for academic purposes. Cambridge: Cambridge University Press

Kern, R. (2003). Literacy and advanced foreign language learning: Rethinking the curriculum. In H. Byrnes & H. Maxim (Eds.), Advanced foreign lan- guage learning: A challenge to college programs (pp.2–18). Boston: Thompson/ Heinle.

Krahnke, K. (1987). Approaches to Syllabus Design for Foreign Language Teaching. Washington, DC: Center for Applied Linguistics.

Long, M.H. and Crookes, G. (1993). Units of analysis in syllabus design: the case for the task. In G. Crookes & S.M. Gass (Eds.). *Tasks in a Pedagogical Context*. Cleveland, UK: Multilingual Matters. 9-44.

McKay, S. (1984). Literature in the ESL Classroom. In Brumfit C. J. and Carter R. A. (eds.) (1984) Literature and Language Teaching. Oxford University Press, Oxford, pp.191-198

McRae, J.(1991/1997). *Literature with a Small 'l'*, London: Macmillan/Prentice Hall.

Met. M. (1999, January). *Content-based instruction: Defining terms, making decisions*. NFLC Reports. Washington, DC: The National Foreign Language Center.

Nunan, D. (1993). Syllabus Design. Oxford: Oxford University Press

Richards, J.C (2006). Communicative Language Teaching Today. New York: Cambridge University Press

Richards, J.C and Rogers, T.S (2001) Approaches and Methods in Language Teaching. New York: Cambridge University Press

Rogers, T. (1989). Syllabus design, curriculum development and polity determination. In R.K Johnson (ed.), The second language curriculum. New York: Cambridge University Press. 24-34

Rodgers, T.S. (2001).Language Teaching Methodology. ERIC Clearing house on Languages and Linguistics. Washington DC: Center for Applied Linguistics

Silva, T. J. and Matsuda, P. K. (Eds.). (2001). Advanced EAP writing and curriculum design: What do we need to know? (2nd ed.). Mahwah, NJ: Lawrence Erlbaum.

Stykler, S. and Leavre, B. (1993). Content-based instruction in Foreign Language Education. Washington D.C: Georgetown University Press

Stoller, F. (2002). Project work: A onesie to promote language and content. In J.C. Richards & W.A. Renandya (Eds.) Methodology in Language Teaching. An Anthropology of current practice (pp.107-119) Cambridge University Press.

CITATION: Proceedings of ICES 2018 – 1st International Congress on New Horizons in Education and Social Sciences, April 9-11, 2018- Istanbul, Turkey ISBN: 978-605-2132-22-7 DOI: 10.21733/ibad.423573

THE IMPORTANCE OF CODING AND IMPACTS TO A COUNTRY DEVELOPMENT IN COMPUTER TECHNOLOGY TEACHING

Yelda Firat¹

¹Assist. Prof. Dr., Çanakkale Onsekiz Mart University, TURKEY, yfirat@comu.edu.tr

Abstract

The aim of this study is to examine the importance of coding education, the place of education policies and the effects on the development of the country, which has been frequently emphasized in the world and our country in recent years. One of the main reasons of being coding the most talked field is taking it as a key competence for students, workers working in different fields. One of the most important factors that show the development levels of a country in the current age is the human development. The use of computer technologies is a necessity for the creation of the information society which is necessary in the human development. Therefore, it is necessary to make the young people of the country acquire the coding skills used in computer technology. This is only possible with the education given at a young age. While most European countries have given coding training as a compulsory subject at primary school level, many European countries have initiated studies likewise that have made serious changes in their educational policies. In Turkey, a coding lesson with special curriculum is not available, literally in the stage primary and secondary schools. These courses are taught only in the informatics sections of the vocational high schools. However, as of 2016, within the framework of the protocol signed between the Turkish Ministry of National Education and Google, the studies towards coding education required for the first and middle grades in the Turkish National Education System have gained momentum and these studies have been started to be implemented in the determined pilot level.

Keywords: Coding, Coding Education, Computational Thinking.

1 INTRODUCTION

In the present century, the countries that take place in the world differ from each other according to the economic, social and political arrangements that they have. In other words, the ways of life style, economic, socio-cultural and educational statuses of the people living in these countries are different according to the people living in other countries. In this sense, the development of a country makes it possible through self-growth, structural change in the form of production, technological innovations, the renewal of social-political and cultural institutions, and improvement of people's living conditions (Kaya, 2009, p. 7).

Countries need to form the necessary development plans to reach the higher levels of welfare. In its broadest sense, the development planning is defined as the process by which the resources are managed by specific bodies in order to achieve the socio-economic objectives and statistically determined objectives optimally that the society wants to reach in a certain period in the light of valid economic, social and political value judgments in a country (Erol, 2012, p. 50).

Social and human development, in addition to economic development, also constitutes an important place to change the developmental level. Qualitative education should be given great importance to the human development in particular in the formation of the necessary information society. In this sense, the accumulation of new scientific knowledge and the integration of this information with technology for the economic growth should be seen as a necessity (Sayın and Seferoğlu, 2016, p. 2).

The use of the necessary conditions for the development depends on the human skills and training provides these skills to human. If information is also thought to be a production component, the use of computer technology is a necessity in such operations as processing, storage and management of information (Kaya, 2009, pp. 10-15).

Today, an educated person in the information society means a person who actively uses the information and communication technologies, can follow the developments about himself/ herself, apply and interrogate them in his/ her life and open to development.

Therefore, in the adaptation to the world in the future, providing the country youth with the coding skills utilized in the use of computer technologies should be regarded as a necessity.

Within this context, in the second part of the work, by being defined coding and coding education, the information about the place of coding in European and Turkish education system and its effects on the country development have been given. Moreover, in this part, on which platforms the coding has been taught in the Turkish education system has been shown with examples. In the third part, the final results have been explained.

2 THE LITERATURE

2.1 Coding

In its simplest word sense, coding or programming refers to the whole set of operations anticipated to be performed according to the certain conditions and orders. In other words, it is defined as a whole or a part of the commands sequence written to make an operation to computers or mechanisms composed of the electronic circuits and mechanical systems.

Coding for human which builds such skills as systematic thinking, problem solving, seeing relationships between events, creative thinking is written in a programming language. In other words, programming languages are used so that the programs can enter the computer in groups of commands.

The programming language is a standardized notation that allows the programmer to issue the certain commands to a computer. Since computers are digital systems, they work as binary codes indicated with 0s and 1s. And these codes take the names of machine language. The programs written by being used the programming languages are converted to machine language with compilers and made functional. In this context, the steps of program writing are as pointed out in Fig. 1.



Fig. 1. The stages to write a program

As it is seen in Fig. 1, the first stage in the coding is to determine the problem. Then, the program is analysed and the best solutions are tried to be found. The best solution in coding is to reach the solution with the least code

and error in the shortest time. Today, object-based programming languages are used for this purpose. After deciding the solution, the algorithm of the program and the flow chart are revealed and the program is compiled by being coded with the programming language preferred by the programmer. If errors are available, they are tested by being corrected.

Algorithms are the methods that are open, sequential, simple and formed by repetitive steps if necessary to solve a problem at the end of time. In other words, it is the singlestep writing of process steps. They are displayed in three different ways. As can be written in text, they are represented by pseudo codes, that is, by understandable expressions like command, or by geometric shapes called flow diagrams. A sample flow diagram is shown in Fig. 2.



Fig. 2. Sample flow diagram

The flow chart of the program that prints the sum of numbers from 1 to 20 is shown in figure 2.

2.2 The Coding Training

As mentioned above, computer programming is the process of transferring a set of instructions to a computer to perform a task. This process comprises analyzing the solution of a problem, making the algorithm of the solution results and testing the accuracy of the algorithm by being coded through a program language. As seen, the purpose of programming is to automate to carry out a specific task or find a set of instructions that will solve a given problem. In this sense, the programming process requires expertising in many subjects, including specific algorithms and knowledge of formal logic, according to the field of application (Michael and Omoloye, 2014, p. 11).

Teaching the basic computing concepts and skills to school students is the main goal of the curriculum in many countries today. In parallel to this trend, the advances and teaching methods in coding or programming environments aim at being more accessible and more motivating to computer science (Howland, 2015, p. 224).

In this context, the educational use of programming began with the language of Logo programming, which Seymour Papert developed in the 1960s so that children would play computer, compose music and make their paintings on the computer. Although it has been successfully used for a few years, it has gone out of its training environment because of the problems faced by learners and teachers in learning the syntax and starting with activities that do not depend on the interests and experiences of the students (as producing prime number lists and drawing simple lines) (Calao, Correa and Robles, 2015, p. 19).

In recent years, the use of new visual programs for children and young people and the use of coding in education have begun to emerge. Some of these are Alice, Squeak Etoys, Flip, Scratch programs developed for young programmers together with professional programming languages like Flash/ActionScript (Resnick, Maloney, Hernandez, Rusk, Eastmond, Brennan, Millner, Rosenbaum, Silver, Silverma and Kafai, 2009, p. 62).

According to a study conducted by Lewis and Shah using Scratch, mathematical test results were found to be associated with programming (Lewis and Shan, 2012, p. 57).

The Scratch program was inspired by the children's lego game, while supporting computational thought development. In this program, it is recommended that the connectors on the blocks should be brought together, as is the case with the lego bricks. Children try to put the bricks together in different orders and combinations. Also, there is no ambiguous syntax or punctuations in traditional programming languages in this program. The ground is at low-level and fun (Resnick, Maloney, Hernandez, Rusk, Eastmond, Brennan, Millner, Rosenbaum, Silver, Silverma and Kafai, 2009, pp. 62-63).

The results of the research show that lego and visual programming education is effective in playing productive role of the students and the students regard such kind of teaching methods as positive and attractive activities (Sayın and Seferoğlu, 2016, p. 4).

It has been observed that other visual programs developed such as Scratch motivated the students to learn and enjoy generating materials by creating their own interactive games using their coding skills. It has been shown that the students, even in some cases, have a natural ability and help develop an understanding about the computational concepts (Howland, 2015, p. 239).

Today, as it is understood, computer programming or coding training is used to improve computational thinking in students. Computational thinking is a way of solving problems, and understanding the human behavior by using concepts of computer science and designing the systems.

In other words, computational thinking skill is associated with some similar concepts such as problem decomposition, data presentation and modeling, and is described as a basic skill for everyone, not just computer scientists (Wing, 2006, p. 33).

2.3 The Place of Coding in European and Turkish Education System

Today, people need a range of skills to use their computer applications and techniques effectively in their profession areas (Settle and Perkovic, 2010, p. 1).

In this context, in recent years, countries have begun to include coding training in their education curricula so that their citizens can acquire the ability to use computer techniques and practices.

When we consider the European countries in the century in which we are (Balanskat and Engelhardt, 2015, pp. 9-11),

- While coding education is mainly taught at the level of secondary education, it seems to be increasingly widespread in primary education, as well. It is also aimed at being integrated at secondary level of vocational education.
- Especially after 2014, Estonia, France, Israel, Spain, Slovakia, England started to provide coding education at the level of primary education. Belgium, Finland, Poland and Portugal, to be provided, have considered the need of coding education in their training plans at the level of primary education.
- In addition, Estonia, Israel and Slovakia have integrated coding education at every stage of schooling.
- In Poland, a new computer / computer science curriculum (accepted in 2016) has begun to replace the existing computer activities and information topics as K-12 program at all school levels.
- In countries such as Bulgaria, the Czech Republic, Denmark, Portugal, Slovakia, Spain and the United Kingdom, the coding training has been integrated as a part of compulsory and essentially computer course for certain levels of education. In Denmark, it is compulsory to know the basic coding for the Physics, Chemistry and Mathematics curriculum.

In Turkey, Information Technologies and Software course with the curriculum published in 2012, began to be taught as an elective course at 5, 6, 7 and 8th grades. This curriculum is not a program for direct coding or computer software development. Competences within the scope of the course have been determined as communication by using information technologies, sharing the information and self-expression, researching, structuring the information and collaborative working, solving problem, programming and developing an

original product. The use of social coding environments is encouraged in the program, but a special curriculum for coding has not yet been established (Sayın and Seferoğlu, 2016, p. 5).

Furthermore, at the beginning of 2017, within the framework of the cooperation protocol signed between the Turkish Ministry of National Education and Google, the studies on the development of teaching materials that the students and teachers will use for Information Technology and Software course started. Within the scope of coordination of the Directorate General for Basic Education, it appears that the materials which have been prepared by being worked together with the academics, teachers and other experts, with the support provided by Google, provide the students and teachers with rich and practical resources. As for the qualified materials to be applied for Information Technologies and Software course; it is observed that the materials prepared within the scope of classroom interactive activity applications, worksheets, presentations, videos, animations, posters and teacher guides are being supported with games. As from 2017, these materials prepared have been made available to the 5th grade classroom teachers and students. However, it can not be said that these materials prepared are fully generalized to all levels of education and to the whole of the country, and also the studies of training of competent teachers for these have been done literally.

However, in view of providing children and young adults oriented with computational thinking, the Turkish Ministry of National Education has been trying to gradually increase the number of compulsory coding course as 2-hour weekly in 1, 2, 3, 4th grades, as 4-hour weekly in 5 th, 6 th, 7 th, 8 th grades and as 4-hour weekly in 9th in 10 th, 11 th and 12 th grades and it seems that the studies are also continuing.

Teaching plans about how the computer systems work in the information departments of vocational schools and vocational high schools in the Turkish National Education System have been applied. In general, in these teaching plans; the courses in the field of programming, hardware, operating systems, computer network architectures, multi-media desktop publishing technologies, web-based applications and database architects are available. While programming languages such as C, C ++, C #, Java, PHP (Hypertext Preprocessor), Delphi and Python are taught especially in coding-oriented courses, the commands and command threads for creating and managing databases in the platforms such as Access and SQL (Sequential Query Language) Server are being shown. The sample code threads and the result printouts of these codes made in the courses at these schools are shown in Fig. 3, Fig. 4.

Form1.cs [Design] &	- 🖗 Form1 Load(object si	ander Eventilier el	*	IntelliTrace
preason in the rest construction for senser)		nder, Eventwigs ej	+	
<pre>{ ayarlar = new SqlConnectionStringt ayarlar.DataSource = "LAB1-TER1\\ ayarlar.InitialCatalog = "deneme2" ayarlar.IntegratedSecurity = true; baglanti = new SqlConnection(ayarl baglanti.Open(); } private void button1_Click(object sender); </pre>	doktor adi:	- X		Streaming Video: Colle To view IntelliTrace data, y braak execution of your application. If Break all More options: Open IntelliTrace settings Learn more about IntelliTrace
<pre>{ uygula = new SqlCommand("insert ir //parametre tanım: SqlParameter isim = new SqlParamet isim.SqlDbType = SqlDbType.VarChar isim.Sqlab = "@dadi"; isim.Size = 50; isim.Value = textBox1.Text; uygula.Parameters.Add(isim); // SqlParameter alam = new SqlParameter alam Collburge SolDbType SolDbType VarChar </pre>	er();		values(@dadi,@dbr/	
			•	

Fig. 3. The code block written in C #

The code block in Fig. 3 has been written in the C# programming language and shows how to add records to the database file.

			ត្រឹង ។			-	1	- 🗐 Generic D
Execute Debug		1 路自				-2 24	* =	
→ ₽ ×	100 %	insert (tarib, values((getdat (getdat (getdat (getdat select	<pre>into banka aciklama, getdate(), e(),'makbu e(),'makbu e(),'makbu</pre>	borc_ala 'makbuz1' z2',0,175 z3',1,189 z4',1,16, z5',1,36,	D X SQLQue acak_tipi, tut ,0,275, 'abc bank'), ,'abc bank'), 'tek bank'), 'tek bank')	ar, ban ank'),	LTER1\Lab1-Ter((65))* SQLQuery1
		bankaid	tanh	aciklama	borc_alacak_tipi	tutar	bankaadi	
	1	1	2017-12-14	makbuz1		275,00	abc bank	
	2	2	2017-12-14	makbuz2	0	175,00	abc bank	
	3	3	2017-12-14	makbuz3	1	189,00	abc bank	
			2017.12.14	makbuz4		16.00	tek bank	
	4	4	2017-12-14		1			
		4 5	2017-12-14			36,00	tek bank	

Fig. 4. The code Script written in SQL Server

The code Script in Fig. 4 shows how to add records to the database file in SQL Server and list the records added.

As it can be seen, as the courses for teaching informatics, especially coding, are taught to the Turkish students at late ages through few qualified instructors and inadequate methods, the success is not achieved both in academic and in production fields.

In the OECD countries, as of 2012, the Information Technologies sector, which constitutes 5.85 percent of total added value and 3.68 percent of employment is regarded as a sector that creates dynamic and qualified employment with high added value. In this sense, the countries developing and having young populations, such as Turkey, are obliged to apply and prepare the training plans elaborately towards Computer Technology, considering that their investments in education make proportional effect to their developments (Information Society Strategy and Action Plan, 2015, p. 16).

3. CONCLUSIONS AND RECOMMENDATIONS

In today's century, the creation of information society focused on growth and employment constitutes an important place in the development of countries. The main aim of the Turkish National Education System in the formation of this information society is to educate the individuals who can think systematically, solve problems, see relationships among the events, think creatively and be efficient in the possession of the possibilities provided by information and communication technologies. Encoding training is an important tool in achieving this goal.

As it is expressed in the literature, getting coding education at younger age improves a child's computational and algorithmic thinking skills. A person who knows coding can makes the computers do the work they want by programming them, as well as make creative designs towards robot technology and have the ability to add new features and tasks to these systems. The coding and algorithmic (systematic) thinking skills that today's children will have, when they grow up, will make it easier for themselves to deal with large amounts of stored data for a long time and help them to analyze large data and achieve meaningful results. In this context, countries should allocate more space to coding education in their teaching plans and prepare platforms towards how and in what ways they will teach coding to their students in the most effective way. Especially, in terms of well-trained human resources, Turkey should require to give more space and importance to this topic in their curriculum.

The next study to be carried out in this sense will be creating a game platform that will teach the C# programming language in the most effective way, taking into consideration the individual differences of the

students in the Vocational Schools and immediately after Vocational School of Higher Education in the Turkish National Education System.

REFERENCES

Balanskat, A. and Engelhardt, K. (2015). Computing our future computer programming and coding - priorities, school curricula and initiatives across Europe. European Schoolnet. http://fcl.eun.org/documents/10180/14689/Computing+our+future_final.pdf/746e36b1-e1a6-4bf1-8105-ea27c0d2bbe0

Calao, L. A., león, J. M., Correa, H. E. and Robles, G. (2015). Developing mathematical thinking with Scratch: an experiment with 6th grade students. Design for Teaching and Learning in A Networked World Springer International Publishing, 17-27. DOI: 10.1007/978-3-319-24258-3_2

Erol, S. I. (2012). The role of values on economic development (from the perspective of Ibn Haldun). Journal of Labour Relations, 3 (2), 49-65.

Howland, K. and Good, J. (2015). Learning to communicate computationally with Flip: a bi-modal programming language for game creation. Computers & Education, 80, 224-240.

Kaya, Y. K. (2009). İnsan yetiştirme düzenimiz, politika, eğitim, kalkınma (Our organization of human growth, policy, education, development). Pagem Akademi.

Lewis, C. M. and Shah, N. (2012). Building upon and enriching grade four mathematics standards with programming curriculum. In: Proceedings of the 43rd ACM Technical Symposium on Computer Science Education, 57-62.

Michael, K. A. and Omoloye, A. E. (2014). Improving Structural designs with computer programming in building construction. IOSR Journal of Computer Engineering (IOSR-JCE), 16(3), ver. VI, 10 - 16.

Republic Of Turkey Ministry Of Development. (2015). 2015-2018 Information Society Strategy and Action Plan. <u>http://www.bilgitoplumu.gov.tr/en/wp-</u>

content/uploads/2016/03/Information_Society_Strategy_and_Action_Plan_2015-2018.pdf

Resnick, M., Maloney, J., Hernandez, A. M., Rusk, N., Eastmond, E., Brennan, K., Millner, A., Rosenbaum, E., Silver, J., Silverma, B. and Kafai, Y. (2009). Scratch: Programming for all. Communications of the ACM, 52(11), 60-67.

Sayın, Z. and Seferoğlu, S. S. (2016). Yeni bir 21. yüzyıl becerisi olarak kodlama eğitimi ve kodlamanın eğitim politikalarına etkisi (The Impact of coding training and coding as a new 21st century skill on educational policies). Academic Information 2016, 1-7, 30 January-5 February, Adnan Menderes University, Aydın. http://ab.org.tr/ab16/kabul.html

Settle, A. and Perkovic, L. (2010). Computational thinking across the curriculum: A Conceptual Framework. Technical Reports, 1-50.

Wing, J. M. (2006). Computational thinking. Communications of the ACM, 49(3), 33-35.