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Message from the Editors

The Online Journal of New Horizons in Education (TOJNED) reflects the nature of interdisciplinary bridge by valuable researches. As the mission of journal is to stress the significance of different practices in the field of education by academic efforts and researches, selected research papers enlighten valuable contributions by different practice on the base of qualitative and quantitative researches, especially mix approach.

In this respect, I would like to thank to editorial board, reviewers and the researchers for their valuable contributions to the journal and this issue.

Prof. Dr. Aytekin İŞMAN
Editor in Chief

It is a great pleasure for me as an editor of The Online Journal of New Horizons in Education (TOJNED) to publish current issue of 2012. I would like to thank to all authors and associate editors for their contributions to the current issue of TOJNED that selected papers reflect the journal developments and contributions by their rich research process. On behalf of the editorial team of Turkish Online Journal of New Horizons in Education (TOJNED), we will welcome to share your original and valuable researchers. All authors can submit their manuscripts to tojnedjournal@gmail.com for the following issues.

Prof. Dr. Cem BİROL
Edior

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A History of Multicultural Education in the USA: Origins, Approaches, and Misconceptions

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ABSTRACT

Multicultural education has been an important element of the curriculum in the USA, especially since the second half of the twentieth century. However, there is no common consensus on its meaning and aims among the scholars of multicultural education. This study aims to provide readers with some major scholars' important but different analysis of multicultural education in the USA, with respect to the origins of and approaches to multicultural education. Even though various misconceptions about multicultural education thwart its development, its historical progress suggests that multicultural education has expanded its scope in accordance with the common understanding of equality and social justice, which suggests that multicultural education is to be an essential part of education system in pluralistic societies.

Keywords: *Multicultural, Misconceptions*

INTRODUCTION

Culture, in a broad sense, provides human beings with various ways in which every individual finds possible means to feel, believe, think, and act. Elements of culture allow individuals to understand others' behaviors and allow them to predict how to interact in particular situations since culture has such specific characteristics as being learned and shared. These characteristics of culture highlight the importance of education by which the idea of community life and common interest of a group of people are ensured. Culture needs to be learned refers to the idea that no one comes into the world with a notion of culture, yet he/she acquires cultural patterns of the society he/she lives in, throughout his/her life from the beginning. Cultural patterns of a group of people are learned by an individual through observations of the behaviors of others surrounding the individual and interactions of the individual with other members of the group. Consequently, culture gains the characteristic of being shared since the patterns of a specific culture provide a common set of beliefs for each member of a particular culture. Therefore, culture is something that neither can be found in an individual nor is merely outside of an individual. Yet, it is the individual development that arises from one's interactions with other members of the society, participation in social activities, internalization of common values, and formation of personal conceptions of the good in general.

If it is culture that develops individuals' ways of thinking, influences their sentiments, and determines how they interact with others, then it is to be concluded that culture provides people with a perspective through which they assess the world. Also, if it is education, not only formal but also informal, that instills the patterns of and values attached to a specific culture, then educators are to attach significant meaning to cultural elements of educational theories and their implications. It may be easy to discuss and determine how educators can integrate cultural elements into educational theories and their implications concerning homogenous societies. However, it may become more complex when discussing cultural elements of pluralistic societies and its relation to education. A pluralistic society differs from a homogenous one in a way in which a pluralistic society comprises, promotes, and provides various reasonable ways to lead people's lives. Pluralistic structures of a society consist of various worldviews within

the sense of a plurality of conceptions of the good that are constructed throughout the experiences of members of distinct groups of people.

Cultural pluralism, within a democratic sense, assumes that different political, religious, or ethnic groups can equally exist within a single society. Also, it demands that political, economic, social, and educational opportunities are equally provided for each cultural group. It is not an issue in this study to discuss and promote an insight into how political, economic, and social institutions, principles and criteria, and power relations are to be established and to be functioning in a pluralistic society. Nor is it discussed how educational goods are to be distributed among the members of pluralistic societies. Instead, the idea of cultural pluralism and its relation to education, that is, multicultural education within the perspective developed in the West, particularly in the USA shall be discussed. To do so, the roots of, the characteristics of, and approaches to multicultural education provided by different scholars are examined, while some objections to and misconceptions about multicultural education are provided. Overall, it is assumed that analyzing origins, development, and importance of multicultural education in the progress and advancements of a pluralistic society may provide how multicultural education is important for education and society in general, especially in pluralistic societies.

MULTICULTURAL EDUCATION IN THE USA

In a broad perspective, multiculturalism in education may be defined as a movement toward providing equal educational opportunities for everyone from different cultural, ethnic, or religious backgrounds. However, it is not easy to identify and define multicultural education in a more specific structure. According to Levinson (2009), multicultural education is a “conceptual mess” (p. 428) since different thinkers have attached various values and meanings to the concept, which are not clarified by or derived from multicultural education itself. Different thinkers have attempted to clarify the historical development of multicultural education with its clear definition and educational concerns. However, since each thinker conceptualizes multicultural education from a different perspective and tries to divide its development into distinct historical phases but focusing on different issues that has been raised by multicultural education movement, the whole picture about multicultural education has become somehow complex and confusing for those who want to understand the multicultural education movement. For this reason, to examine various thinkers’ ideas and discussions about the roots and development of multicultural education may be helpful.

Origins of multicultural education. Payne and Welsh (2008) argue that multicultural education takes its roots from the culmination of the struggles of human beings in human history, from Hammurabi Code to Magna Carta, the British Bill of Rights, philosophers such as Locke and Montesquieu, Universal Declaration of Human Rights, and various reform movements in different countries, such as Russia and China. The authors also argue that multicultural education occurred in the U.S. in 1960s because of the fact that it is a natural outgrowth of the democratization process started with the creation of a democracy, a democratic union (Payne and Welsh, 2008). Gollnick (2008) argues that multicultural education is not a new concept in education in the USA, but is a new name for some educational concepts that have been discussed since the 1940s, such as intergroup and intercultural education. Furthermore, Gollnick (2008) discusses that during the 1960s, while such ideas were abandoned as intergroup education, a new emphasis on racial and ethnic differences emerged by which education programs in black and other ethnic studies were demanded. Banks (2008) too emphasizes the historical roots of multicultural education in the USA. According to Banks (2008) leaders of the civil rights movement, who struggled with discrimination and racism through advocating freedom and democracy, embraced the ideals of American democracy stated in such developments as Declaration of Independence, the Constitution, and the Bill of Rights. In general, it may be concluded that multicultural education originated as a response to gradually increasing cultural diversity and became a distinct part of civil rights movement in the second half of the twentieth century in the USA (Sleeter, 1996; Dhillon and Halstead, 2003). Moreover, as discussed by Banks (2010), considering the fact that the USA has been experiencing the largest immigration from various countries around the world since the beginning of the twentieth century and that the population percentage of minorities is expected to reach half of the whole society by 2050, multicultural education seems more likely to become an essential issue in educational theory and practice.

Development and characteristics of multicultural education. Fullinwider (2003) provides an account of the roots of multicultural education and of its being institutionalized as follows. He claims that the movement of multicultural education in the USA came into existence with the confluence of three educational movements

(Fullinwider, 2003). One of the three was the integration of African-American students into school during the 1960s and 1970s. Within this integration period, since minority students in general performed lower than their fellows after desegregation, various ideas about the difference between majority and minority students' educations emerged. For example, according to Fullinwider (2003), while some educators were trying to project the failure of schools' being unprepared for different norms onto students simply by labeling them as deficient, some other educators were arguing that schools and teachers need to be prepared for differences and to learn how to teach different students with various cultural backgrounds efficiently. Another contribution to multicultural education was occurred within the same period out of the tension between cultural assimilation and cultural pluralism (Fullinwider, 2003). The last contributing movement, according to Fullinwider (2003) occurred with the idea that minority students' underachievement is related to their differences in linguistic and class backgrounds because they come to school with a language other than English. As a result, this movement brought bilingualism into the educational discussions in order to improve minority students' academic success. Fullinwider (2003) discusses that these three fundamental streams became united in a single movement and gained a distinct definition in the 1970s which later became institutionalized in the curriculum in the 1980s.

In the 1980s, for example, Hollins (2008) discusses about what the next step is in the development of multicultural education. Hollins (2008) argues that since learning theories lead curriculum development, instruction, and teacher education, multicultural education itself needs a learning theory in order to survive. Such theory, according to Hollins (2008), must clarify whether learning is to be culture-free or/and culture-specific and must provide general principles based upon the relationship between culture and learning. Similarly and during the same period, Gollnick (2008) analyzes the ideas of those who argue that multicultural education in the curriculum and school settings is more than recognition of and promoting cultural diversity within the following five points: Multicultural education values (1) cultural diversity, (2) human rights and respect for human dignity, (3) alternative life choices, (4) social justice and equal opportunity for all, and (5) equity distribution of power among members of all ethnic groups. Banks (2004), however, examines the development and evolution of multicultural education within four distinct phases in the history of multicultural education as follows. The first phase begins with close attention to the history of minority groups. Thinkers in this phase were interested in including ethnic studies into curriculum focusing on the history and culture of ethnic minorities. In the second phase, educational attention was toward the needs of minority students in order to provide educational equality for all. With the expansion of the understanding of multiculturalism and multicultural education, the third phase emerged in which such groups as women and disabled people, rather than only ethnic groups, demanded equal representation in the curriculum and school structure. The last phase focuses on theory, research, and practice in multicultural education based on race, class, and gender. As Payne and Welsh (2008) argue, multicultural education has extended its scope from the field of education to a broader sense. Multicultural education is no longer only an approach focuses only on educational practices and equal educational opportunities for all students, but also is an approach that aims to contribute the progress and advancement of the whole society.

Rios and Stanton (2011) analyze the seven characteristics of multicultural education outlined by Nieto and Bode as follows. Multicultural education is (1) an antiracist approach that focuses on racist and discriminatory problems in order not to accuse anyone but to provide hope for biased-free society. Multicultural education is to be recognized as elements of the curriculum as reading and writing since it is (2) basic education. Therefore, since it is basic education, multicultural education is (3) important for all students. Also, it is a dynamic (4) process that evaluates and revises its educational materials and program in accordance with the dynamic nature of multicultural social structure. Multicultural education is (5) pervasive. Schools that recognize these principles require multicultural education at every level of their curriculum, reflects multicultural characteristics in physical aspects of schools too, and multicultural education eventually becomes a way of thinking rather than a segregated program. The last two characteristics of multicultural education are (6) social justice oriented and (7) critical pedagogy. For the two authors, multicultural education is not in favor of status quo. Instead, it promotes students' development in taking action in social changes. Multicultural education encourages students and communities to realize, share, and overcome social difficulties and injustices. Thus, Nieto and Bode's (as cited in Rios and Stanton, 2011) approach to multicultural education consisting of these seven characteristics view multicultural education as a basic education for all students which reflects pluralistic elements of society at every level and which is responsible for social advancements toward justice. Their discussion stresses the importance of adopting multicultural education as a basic part of the curriculum.

Approaches to multicultural education. The concern that centers multicultural education among the basic elements of curriculum has occurred in different ways focusing on diverse aims in the USA. According to Banks (1994), four approaches have evolved since the 1960s in order to integrate ethnic content into the curriculum. (1) The contributions approach, according to Banks, offers to add ethnic heroes into the curriculum while the mainstream curricular values and aims remain the same in its structure. This approach has limited characteristics since it only

promotes teaching some cultural events and heroes of minority groups. Yet, it does not help examining the social difficulties and ways to eliminate racism, poverty, or oppressions. It restricts the study of cultures within, for example, celebrating birthdays of some important characters of minority groups such as Martin Luther King Jr. or celebrating African American History week. In this approach, students do not comprehend the whole view of cultural diversity in and its meaning for society. Another approach identified by Banks (1994) is (2) the ethnic additive approach which is applied by the addition of a chapter, book, or course to the curriculum without changing any aims and structures of the curriculum. The most salient limit of this approach, according to Banks (1994), is the fact that the cultural aspects of minority groups are added to the curriculum by the mainstream writers, which does not help restructuring the curriculum because the subjects for study are determined by the mainstream-centric criteria. Thus, it does not help students to view society from the different perspectives of distinct cultural groups. (3) The transformation approach, different from the prior two, promotes students' understanding of social concepts, issues, and struggles from different cultural groups' standpoints. For example, while studying the American Revolution in the history of the U.S., says Banks (1994), this approach provides students with the different views of Anglo Revolutionaries, the Anglo Loyalists, African Americans, the British, and Indians in order to help them comprehend the whole event in the history. The main point in studying such topics, according to Banks, is not to stress how different groups contributed to the mainstream society and culture of the U.S., yet is to emphasize how the common culture and society of the U.S. originated from the interactions and contributions of various racial, ethnic, cultural, and religious groups. Last, (4) the decision-making and social action approach can be seen as a further step of the prior one. This approach, while including all the aspects of the prior, promotes and encourages students to make decisions and take actions while studying a concept, issue, or problem. For example, focusing on a problem such as how to overcome prejudices in school requires students to gather data, to analyze and synthesize values, knowledge, and beliefs, to hypothesize possible actions, and to decide how and what to do in order to accomplish desired ends. Thus, the main aim of this approach is to develop and improve students' critical thinking and decision making skills and to provide them with a sense of political efficacy and social responsibility.

As another and an earlier example, Gibson (2008) distinguishes and analyzes four different approaches to multicultural education in the USA by which multicultural education is invoked (1) to provide culturally different students with equal educational opportunities, (2) to teach students to understand the concept of culture, value differences, and acquire individuals' rights to be different, (3) to maintain and extend cultural pluralism, and (4) to create successful and competent individuals in two different cultures. Then she discusses the fifth approach and argues that the first four approaches restrict the concept of culture into ethnic definitions that continue to lead to unintentional stereotyping. What she argues is that members of a particular ethnic group may hold different sets of values even though there may be a culture that is shared by all members of an ethic group. In other words, members of an ethnic group may share various sets of cultural values that enable them participate in common societal activities. Therefore, for her, similarities as well as differences can be found within both minority groups and the whole society that consists of those minority groups. She argues that similarities among different groups may provide an insight to overcome dichotomies between mainstream and minority cultures. Simply, Gibson's view of multicultural education aims to provide all students with an insight that the culture of a pluralistic society consists of multiple-sub-cultures and with skills that enable them to function in various sub-cultures of the whole society.

Sleeter and Grant (as cited in Rios and Stanton, 2011) also outline different approaches to multicultural education as follows. The business as usual approach focuses on learning based on the values of mainstream culture and standardization in which students of non-dominant groups are underrepresented especially in advanced courses. Teaching the exceptional and culturally different approach aims to assimilate non-mainstream group students into the mainstream culture through special intensive courses within support programs such as English fluency, written literacy, and Euro-American history and values. This approach views non-mainstream group students as deficient and requires assimilation in order for them to succeed. Different from these two, the human relations approach recognizes the non-dominant cultural group and values their diverse values and experiences. This approach aims to promote tolerance, effective communication, and acceptance not only in the school but also in the larger society. Also, it focuses on the roles of diverse cultural groups' contributions to the larger society. The single-group studies approach, however, while focusing on a single cultural group and its common historical and cultural characteristics that define the identity of the group, assumes that students realize the equally deep and valuable characteristics of other cultural groups. Yet, since this approach provides a specific course focus on a single culture in an elective course, it is less likely that this approach reaches all students to help them develop such deep understandings. In the multicultural education approach, however, traditional academic concepts are addressed from various perspectives by focusing on diversity, cultural pluralism, and multiple perspectives. What is notable in this approach is that structure, assessment, and curriculum development processes are open to community members who want to participate. The last approach outlined by the two authors is named as multicultural social justice education. This approach not only embraces the principles of recognizing and respecting differences, but also promotes cultural pluralism, social change, and justice as central elements. Educational practices in this approach focus on justice-oriented topics such as racism and

oppressions. Students are assumed to develop skills in analyzing social problems, developing possible solutions to the problems, and participating in social discussions in democratic ways.

Beyond the categorical classifications mentioned above, Levinson (2009) examines concerns about multicultural education and identifies different perspectives to multicultural education within the works of three distinct groups, which are political and educational philosophers, multicultural educational theorists, and educational policy makers and practitioners. Briefly, for different philosophers within the first group, multicultural education (1) is used to respond to minority groups' claims about preserving their group cultures, (2) is invoked to support students' development of autonomy through providing them with different values and promoting their own conceptions of the good, and (3) is applied to promote the civic good through focusing on such values as tolerance, respect, open-mindedness, civic reasonableness, and civic equality. The second group advocates multicultural education to promote (1) societal transformation and reconstruction by which racism, discriminations, and social prejudices are eliminated and (2) equal educational opportunity for all students. The last group uses multicultural education (1) to increase the self-esteem of students of minority groups, (2) to help students see themselves in the curriculum, and (3) to enable students to be integrated into a multicultural world by promoting their skills in working in a global economy.

While Levinson (2009) differentiates distinct approaches to multicultural education based on differences in theoretical and practical perspectives of various thinkers, Dhillon and Halstead (2003) outline various concerns held about multicultural education within different strands. According to them, multicultural education consists of a wide range of educational issues, such as political, social, moral, cultural, and religious. Dhillon and Halstead (2003) argue that one strand examines the concept of culture itself at three levels in which culture (1) is invoked to describe the fundamental beliefs and values of a group, (2) refers to the group's traditions, customs, and patterns of behavior, and (3) implies the activities or achievements valued by the group. Another strand consists of political theorists' and philosophers' discussions over multiculturalism. Dhillon and Halstead (2003), for example, place Kymlicka's ideas about public recognition of ethnic minority cultures into this strand. Concerns within this strand focuses mainly on the role of the state, power relations between cultural groups, and implications of such concerns to the development of multicultural education. One other strand is distinguished from others by its concern about the rights of minority groups to preserve and transmit their beliefs and values to the next generation throughout education. Another distinct strand focuses on the right to make fundamental decisions about the education of children, for instance, parents' right to educate their children in their own culture and religion, children's right to develop their own understandings of culture independent of their parents' constraints, and the role of the state to protect such rights. Briefly, Dhillon and Halstead (2003) distinguish educational concerns about cultural differences and the role of culture in education by examining such fundamental concepts of multicultural education as culture, power, pluralism, and rights.

Taking a liberal vision of multicultural education as an example provides an insight into how political and educational philosophers conceptualize multicultural education and define their approaches. Dhillon and Halstead (2003) claim that a liberal vision of multicultural education takes its roots from the tension between similarities and differences. They argue that more emphasis on similarities may lead to cultural insensitivity and oppression, while more emphasis on differences may cause stereotyping, separation, and social rejection. A liberal perspective on multicultural education, however, is built upon two fundamental values, liberty and equality. In accordance with these two values, multicultural education emphasizes two basic principles, which are "respect for difference" and "equal need of all children for education for life in a pluralist society" (Dhillon and Halstead, 2003, p. 151). On the one hand, the prior principle leads educators to respond to students' cultural values and beliefs, such as religious belief, cultural identities, and linguistic diversity. The latter, on the other hand, stresses the idea that regardless of their cultural differences, all children equally need to develop basic principles and values, such as tolerance, mutual respect, and cross-cultural understanding in order to live in a pluralistic society. To help students develop such values and principles, a liberal vision of a multicultural curriculum reflects the cultural diversity of students, emphasizes how to live and interact with others, encourages them to engage in others' cultures, critically analyzes the available conceptions of the good way of life, encourages students to develop their own understanding of the good, and provides them with an insight of how people equally and freely live in a democratic pluralistic society. According to Koppelman (2011) an analysis of goals and aims of multicultural education suggest five major student outcomes, which also show the role of a liberal vision in the development of multicultural education. Koppelman (2011) argues that students are to (1) understand themselves as unique and respect others' uniqueness, (2) learn the cultural richness of their society, (3) reduce biases and prejudices by engaging in cross-cultural communication, (4) become critical thinkers and able to analyze and resolve the social problems in their society, and (5) embrace social justice for the wellbeing of the whole society.

However, a liberal vision of multicultural education in general is criticized by proponents of different approaches. While critics on the left argue against a liberal vision of multicultural education, arguing that it does not pay enough attention to power-structures in a society and thus cannot understand the roots of cultural oppressions,

racism, and inequalities, critics on the right argue that what is highly needed from education is to provide students with a high level of literacy in the dominant culture in order for them to succeed in a competitive job market, which cannot be ensured by multicultural education (Koppelman, 2011). Religious fundamentalists, however, criticize a liberal vision of multicultural education for rejecting their right to determine the good way of life for children (Koppelman, 2011). Beyond these criticisms, however, a liberal vision of multicultural education in general embraces cultural diversity, rejects domination of any culture over others, and respects individuals' understanding of the good way of life.

Misconceptions about multicultural education. Banks (2008) identifies three misconceptions about the meaning and aims of multicultural education. One of the most challenging and damaging misconception, according to Banks (2008), is the idea that multicultural education is for others, such as African Americans, Latinos, the poor, and women. Similarly, Rios and Stanton (2011) classify three myths and misconceptions about multicultural education. According to them, one myth is that multicultural education is only for non-dominant group students. Banks (2008) argues that understanding multicultural education as the study of the others marginalizes and prevents it from becoming a part of mainstream educational reform. According to him, only if multicultural education is seen essential for all students, then multicultural education is more likely to become institutionalized in schools at every level. According to Rios and Stanton (2011), since multicultural education enables students to develop positive human relation skills and to effectively communicate with others, it is to be seen for all rather than for some. Democracy, the authors argue, requires citizens who are aware of the whole picture of their society, understand its problems, and actively participate in democratic processes of resolving social difficulties. In this respect, since multicultural education helps students acquire the skills that democracy demands, it is to be placed in schools targeting all students (Rios and Stanton, 2011).

Another misconception, according to Banks (2008), is the idea that multicultural education is against the West and Western civilization. Similarly, another myth classified by Rios and Stanton (2011) claims that multicultural education tends to replace core American knowledge and that it stresses the necessity of common cultural knowledge. Also, some thinkers believe that multicultural education routes against the democratic ideals of the West and, different from a multicultural curriculum, needs to have Western-centric curriculum (Banks, 2008). Some thinkers especially during the 1970s, for example, argued that while education is seen as the tool for cultural transmission, schools are understood as institutionalized mechanisms for enculturating different cultures into a national one (Gollnick, 2008). Banks (2008), as a response to this misconception, argues that multicultural education is in fact a thoroughly Western movement emerged out of Civil Rights movement based on Western ideals such as freedom, equality, and justice. Banks (2008) further asserts that most of the thinkers of color in multicultural education are Western.

One other criticism against multicultural education, which is another misconception according to Banks (2008), is opponents' claim that multicultural education is harmful for the unity of the nation and it will divide the nation. Some thinkers argue that multicultural education is causing polarization and separation between ethnic groups and a return to the melting-pot approach may overcome the consequences of multicultural education (Payne and Welsh, 2008). According to Banks (2008), although the USA is politically one nation, it is socially divided along racial, sexual, and class lines, which also is gradually widening. However, says Banks (2008), multicultural education is invoked, rather than to disunite, unify the deeply divided nation, that is the USA. For this end, multicultural education promotes negotiation and discussion among the nation's diverse groups and it aims reconstruction of social structure through the equal participation of diverse groups within the nation. Some others saw both melting pot and cultural pluralism, according to Hollins (2008), aiming at one ideal, that is, the development of a single American culture throughout directing social change to an increasing national unity. The basic belief lying under this misconception is that if all members of American society share the same culture, speak the same language, and embrace the same values, then everyone can be connected and defined as Americans. However, according to Rios and Stanton (2011), multicultural education aims to expand the knowledge of the nation in order to provide students with contemporary issues, higher level of critical thinking, and effective communication skills that enable them to be competitive in contemporary diverse and global social structure.

Another myth about multicultural education analyzed by Rios and Stanton (2011) is the idea that multicultural education is more about political correctness and about helping minority students feel good rather than helping all students to learn academic skills. Rios and Stanton (2011) argue against the myth that multicultural education is more rigorous that traditional teaching approaches because it requires, for not only students but also teachers, a lifelong learning that provides them with new notions of worldviews. In addition, the authors argue that multicultural education enhances students' academic achievements since it promotes students' communication and critical thinking skills that contribute to their abilities to comprehend rigorous content (Rios and Stanton, 2011). Accordingly, students who see themselves in the curriculum and thus who develop a stronger sense of self, perform better, attend higher education institutions, and effectively engage in civic practices (Rios and Stanton, 2011). According to Rios and

Stanton (2011), multicultural education is not just about helping students feel better, but it is about enhancing students both academic and social knowledge and skills. Therefore, since multicultural education provides students with such skills as critical thinking, deep understanding, and intellectual discussion, it helps students easily comprehend different but all subjects of the curriculum, which also signifies the importance and necessity of multicultural education.

CONCLUDING THOUGHTS

It is not an easy task to fit multiculturalism and multicultural education into a single definition. Levinson (2009) argues that multiplicity of meanings and concepts attached to multicultural education is a result of the work on multicultural education done by various thinkers who are not interested in reading each other's work. As Sleeter and Grant (2008) mention multicultural education refers to different meanings for different thinkers. Thus, neither multiculturalism nor multicultural education has a single definition since there is no consensus on these concepts among the scholars of multicultural education. Yet, there are some characteristics of multicultural education that identify its origin, progress, concerns, and aims. Multicultural education has a historical character that it takes its roots from different movements aimed at providing equality and justice for every member of society. It may be said that multicultural education came to existence as a result of cumulative human experiences that lead societies to more democratic and egalitarian structures. In the USA, even though it traditionally takes its roots from the period of the Declaration of Independence, it distinctly emerged from the Civil Rights movement in the second half of the twentieth century. Since that period, it has shown considerable progress toward a more justice-oriented movement.

In early phases, multicultural education used to be concerned with specific minority groups' educational opportunities. However, the horizon of multicultural education has been gradually expanded from ethnic orientation to a broader perspective including women, disability groups, sexually oriented groups, and different social classes. An analysis of the historical development of approaches to multicultural education signifies that focus of approaches to multicultural education have been moving from a single group culture based perspective to a broader sense in which the whole society is seen as a wholeness of various sub-cultures or unity in diversity. It also, stresses that as the targeted groups of the approaches have broadened, the issues and concerns of multicultural education have also expanded. For example, while early approaches to multicultural education focused only on recognition of other cultures, most recent approaches concentrated on extensive issues such as equal participation, justice, social reconstruction, power relations, and rights of individuals as well as parents and the state.

Different approaches to multicultural education developed throughout its history signify that the target populations of multicultural education as well as its desired outcomes have expanded along with the definition, understanding, and implications of multicultural education. As discussed, there is a clear progress in the scope of multicultural education which originated with the focus on a segregated group of students and has continued targeting all students. Also, multicultural education has expanded its aims from recognition of others' cultures to providing equal and free participation in a democratic society. Although there was an understanding that multicultural education is for some students, it aims to favor all students rather than only those who are classified as minority students. As Banks (2008) argues, a major goal of multicultural education is to provide not only some but all students with required skills, knowledge, and attitudes to function not only within their own cultures but within and across other cultures. To reach these ends, most multicultural education theorists understand the major goal of multicultural education is to restructure schools, colleges, and universities in a way that they enable students to acquire needed skills and values to become well suited to ethnically, racially, and culturally diverse societies (Banks, 2008).

However, some misconceptions about multicultural education have raised inappropriate concerns about the education and the unity of pluralistic societies. Briefly, misconceptions about multicultural education may be summarized as follows. Multicultural education is (1) for others or minority groups only, (2) against Western civilization and values, (3) harmful for the unity of society, and (4) not good enough to develop skills into students in order for them to be academically and professionally competitive. Obviously, misconceptions about multicultural education thwart its positive development. However, from the clarifications of thinkers mentioned above, it is possible to draw a general conclusion that multicultural education embraces cultural differences and pluralism, aims social reconstruction, values linguistic diversity, respects human rights, and provides equal opportunity in education, which is much broader than simply an ethnic based approach to inequalities. As shown, multicultural education is for all students in order to develop their skills for appropriately functioning in democratic societies. In fact, multicultural education is to be seen as a part of a notion that there is a progressive social change as an outcome of cumulative human endeavor to establish a more democratic and just society based on fundamental principles such as equality, freedom, and justice. It may be concluded that multicultural education has shown a historical progress toward a more egalitarian educational movement aiming at social reconstruction and justice.

In the final analysis, multicultural education is necessarily to take its appropriate place in the curriculum in order to develop required members of pluralistic democratic societies. Multicultural education is to be seen as a necessary component of curriculum. As Banks (2008) discusses, multicultural education (1) enriches a nation and enables its citizens to realize and resolve personal and social problems, (2) provides citizens with experiencing other cultures, and (3) promotes them to benefit from total human experience. Banks (2008) emphasizes that a person fully understands his/her own culture only if he/she can view his/her own culture from others' cultures perspectives. He argues that those who perceive the world only from their own cultural perspectives are missing important parts of human experience and are capsulated by their own culture (Banks, 2008). Education is not to develop such capsulated individuals for contemporary democracies. What is to be among the aims of education is to help individuals become self-aware, responsible, participant, and rational members who analyze and evaluate social issues from critical perspectives and who tend to arrive at consensual agreements with others who hold different world views. To make this possible, multicultural education is to be an essential element of curriculum at every level of education system, especially in pluralistic societies.

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An Analysis of Turkish Pre-Service Physics Teachers' Discussions of Learning Objectives of Secondary School Physics Programme of Study

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ABSTRACT

This study focuses on the perceptions of pre-service physics teachers about the learning objectives of the secondary school physics programme of study. Data were collected from pre-service physics teachers attending a compulsory course named Instructional Planning and Evaluation in Secondary Education. Pre-service teachers' online discussions as contributions to the preparation of an assignment for the course comprised the data for the study. Results showed that pre-service teachers had difficulty in identifying and deciding level according the Bloom's taxonomy of higher order learning objectives whereas they easily identified learning objectives from knowledge, comprehension and application levels. Keywords: physics programme, learning objectives, Bloom's hierarchical model

Key words: *community engagement, business executives, strategic planning, laddering technique, hierarchical value map*

INTRODUCTION

The Turkish Secondary School Physics Programme of Study (PoS) has obvious differences compared to the previous ones, such as having a holistic design, the inclusion of new topics, and clearly stated learning objectives rather than a list of topics for each grade level (MEB, 2007). Clearly stated learning objectives are perhaps the most important difference which would directly influence the practice of teachers. Teachers' understanding of these is very important for the proper implementation of the programme of study. Obviously, pre-service teachers also have make sense of what these objectives are conveying. This paper focuses on pre-service teachers' understanding of learning objectives included in the Physics PoS. Misunderstood PoS may lead PSTs to utilize improper instructional methods, materials and media, which, in turn, may lead to learning difficulties and problems in other areas. This importance led us to investigate PSTs' perceptions about PoS. In this study, we have analysed the process with which PST get familiar with the learning objectives of the PoS.

The same learning objective might be perceived differently by different students and teachers, which would then affect their lessons (Taylor & Maguire, 1967). To minimise the number of misunderstood and/or unperceived objectives, a study to reveal PSTs' perceptions of and difficulties in understanding the learning objectives seems quite significant. Carré and Carter (1990) had prepared a nationwide survey in UK about teachers' perceptions to revise their core curriculum. Although curriculum developers in Turkey had done surveys too before the starting to write the curriculum; it was done to understand teachers' needs and suggestions. We do not have the knowledge of whether the learning objectives were perceived by the teachers as intended by the developers or not has been studied. Understanding PSTs' perceptions of the learning objectives is as important as understanding teachers' perceptions of the learning objectives, since we, as teacher educators, still have time to remedy any discrepancy in their perceptions and the intended learning objectives. (Berkheimer & Lott, 1984). Moreover, in-service teachers complain about their tight schedule, therefore not having enough time for scrutinizing the learning objectives (Tochon & Munby, 1993). Therefore, more chances can be given for PSTs to investigate the learning objectives in depth. Considering the fact that one of the compulsory courses in secondary science and mathematics education departments is to provide prospective teachers with the knowledge and skills related to curriculum and learning objectives, and the above

discussions, it is only reasonable to focus on pre-service teachers and reveal possible difficulties in their attempts to understand the learning objectives. For this reason, this study set out to answer the following research question: What are pre-service physics teachers' difficulties in analysing the learning objectives in secondary school physics programme of study?

THE STUDY

Fourteen PSTs attending a compulsory course entitled Instructional Planning and Evaluation in Secondary Education in their 3rd year of study participated in the study. As part of the course requirements, they were assigned a task in which they were required to analyse the learning objectives in the Physics PoS. Four groups (of which 2 of them consisted of 4 PSTs and 2 of them consisted of 3 PSTs) were formed so that each grade level (9-12) was given to a different group. Groups were instructed to examine all the learning objectives for their grade level in order to identify the level as per Bloom's Taxonomy. Their examination of the learning objectives were based on Mager's ABCD format (Mager, 1962). In order for the course instructor and the teaching assistant to follow, contribute when necessary to the discussions, PSTs were asked to use Google Groups as the medium for all their communication related to the assignment. To encourage the use of this medium and their participation, they were told that they would be assessed based on their productive activity on Google Groups. Using Google Groups allowed individual students to be more flexible in contributing to group work; such that whenever and wherever they were they could contribute to the task. Moreover, being able to see what other groups were discussing also provided individual groups immediate feedback and motivation to work on the task. Data collection was through the Google Groups and main source of data was each individual pre-service teacher's comments, suggestions, arguments, questions, etc., presented in group discussions during the preparation of the assignment.

RESULTS AND DISCUSSIONS

In our analysis, we have examined all the contributions made by the PSTs which were relevant to the purpose of the task. There were a total of 753 comments, under 52 separate topics sent by the participants. Of these comments, approximately 30% were discussions about the objectives from the cognitive domain of Bloom's taxonomy. Remaining comments were about other course requirements such as lesson planning, test construction, etc. For some of the objectives, PSTs spent quite a long 'time' (as represented by the number of comments) trying to decide whether the objective is at the 'analysis' or 'synthesis' level. Based on the comments, it appears that 'application' level was the easiest to identify. Most of the objectives, as perceived by the PSTs seemed to be from the 'comprehension' level. Table 1 presents the distribution of levels of learning objectives from the cognitive domain.

Table 1. The distribution of learning objectives according to cognitive levels in secondary school physics programme of study.

Grade Level	9th						10th					11th						12th							Total
Unit / Sub-Domain	1	2	3	4	5	6	1	2	3	4	5	1	2	3	4	5	6	1	2	3	4	5	6	7	
Knowledge	1	2	1	-	1	1	1	-	1	-	-	1	1	-	2	-	1	-	-	2	-	2		-	17
Comprehension	13	12	5	6	1	4	4	9	4	5	-	5	11	6	9	4	9	7	6	7	8	17	6	6	164
Application	2	-	2	6	1	1	1	4	4	-	7	3	6	4	8	3	-	4	3	4	19	1	2	-	85
Analysis	-	1	-	2	1	2	1	1	1	-	3	-	-	2	-	1	1	-	-	-	2	3	2	-	23
Synthesis	-	-	-	-	2	1	-	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	5
Evaluate	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	3	-	1	-	8

In analysing the learning objectives of the Physics PoS, they used Mager's ABCD format (Audience, Behaviour, Condition, Degree). However, since the level of an objective is related with the skill or knowledge to be attained, which is reflected in the verb, PSTs focused mostly on the verbs during discussions. As part of the course reading assignments, the PSTs were given a list of illustrative verbs obtained from Linn and Gronlund (1995). However, since these verbs were in English but the learning objectives of the physics education programme are in Turkish, they firstly translated the objectives into English and then compared the verbs against the list to decide the level of the objectives, which is a problematic process due to the PSTs' level of English proficiency. That is, sometimes translations were literal only, missing the meaning or their English translation of the verb was not present in the given illustrative verbs list. In addition to focusing their discussion on the verb, they also examined the nature of topic to give evidence for the level of objectives.

Discussions of the objectives started with identifying the level, without giving any reasons. However, PSTs later

gave reasons why they thought a particular objective was at certain cognitive level. As the units were distributed between the group members, the person who prepared the unit was, as one would expect, the dominant character in the discussion, which means that the other group members' contribution was limited in length. Nevertheless, they did discuss on many objectives and an agreement was reached.

It was noticed that the part of the learning objectives given in the brackets–referring to the skill objectives–were never used to decide the level of that objective from the cognitive domain. Although that part may include some information about the level of objectives, they never used it. Similar to the PSTs' not paying attention was also obserbed by Schibeci (1981), who stated that most teachers do not focus on attitude objectives, even when they believe that attitude objectives are not valueless.

CONCLUSIONS

In this study, we set out to investigate pre-service physics teachers' difficulties in analysing the learning objectives of the Physics PoS. Distribution of perceived levels of the learning objectives given in Table 1 reflects the structure of Bloom's hierarchical model, according to which the higher levels include the previous one(s) (Bloom, 1956). It appears, therefore, that maximum number of learning objectives must be at *Knowledge* level. However, contemporary view of education shies away from the memorisation and put emphasis on comprehension. In this regard, one would expect comprehension level to consist most of the objectives, which was observed in the categorisation of the participants of this study. We must note that the categorisation of the pre-service physics teachers do not necessarily reflect the categorisation of experts in the field. Further research can investigate this aspect.

Even though the above conclusion may suggest that PSTs did not have any difficulty in identifying the levels of learning objectives, we found that they occasionally faced a difficult quandary. Deciding whether an objective is at analysis, synthesis or evaluation level was a difficult one for PSTs. The reason for PSTs to have such difficulties may be similar to the ones that resulted in the recent revision of the Bloom's Taxonomy. Krathwohl (2002) having also renamed some of the levels, changed the order of synthesis with evaluation.

Apart from having difficulty in identifying levels of learning objectives, PSTs did not have any difficulties in their analyses of the objectives regarding the *Condition* and *Degree* of the learning objectives. They realized some of the objectives contained conditions, while others did not. They also recognized that none of the objectives contained degree information.

Despite the fact that we did not intend to investigate the influence of the medium on PSTs involvement in and enjoyment from the assigned task, we deem it necessary to mention how positive an experience using Google Groups provided for the participants. While complaining about the time they spent on the task, they acknowledged that they learned a lot and enjoyed it. This in itself is a very useful outcome. It is apparent that the medium of communication allowed PSTs' to interact flexibly with each other without time or place constraints.

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Problems Faced By Information Technology Teachers in Schools at High School Level and Solutions to Such Problems

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ABSTRACT

In the century that we live in, information has become one of the resources that are being produced, changing hands and being consumed rapidly. In the present time, in order to be able to move ahead as a society, proper education is required to be provided in our schools. In the general sense, there is a consensus that information and communication technologies are beneficial as a basic requirement of the era the education and that they should be used. The purpose of this study is to identify the problems of information technology teachers working in the schools in the TRNC, which result from institutions and individuals and to conduct studies in order to suggest alternative ways for the solution of those problems. In conclusion, it has been identified that the leading problem among all those faced by teachers with respect to the use of information technologies in the TRNC is lack of technical infrastructure.

Keywords: *Problems, Technology Teachers, Schools*

INTRODUCTION

The period of time that we live in is called the information age or the digital age, which is formed by information and derivatives thereof. In the century that we live in, information has become one of the resources that are being produced, changing hands and being consumed rapidly. One of the dynamics that direct social changes is information. Information is regarded as a means of power and sovereignty, a significant resource and also as capital possessed by developed societies (Toffler, 2008)

In the present time, in order to be able to move ahead as a society, proper education is required to be provided in our schools. It is imperative to improve the quality of education in order to be able to provide it properly. Technology has become one of the significant determinants of quality. Yet, qualitative education cannot be effectuated without qualified teachers. (Toffler, 2008)

The information society denotes a type of society where the ability to produce, access and use information has developed and such information has been transformed into technology and thus institutional transformation of the society has been maintained (Toffler and Toffler, 1996; Toffler, 2008). Computers, data banks and the Internet occupy a significant place in the production, storage and sharing of information. Information has become a commodity accessed and consumed rapidly at the international level by exceeding the boundaries of time and space. The production of information is continuously increasing incrementally. In brief information produced in various scientific fields cause certain changes in the lives of human beings, societies, establishments and school (Akıncı and Seferoğlu, 2009; UNESCO, 2002, Toffler and Toffler, 1996, Toffler, 2008).

As a result of those changes, the world that we exist on is living the age of technology. Societies are being shaped according to their capacities of producing information and the information economy that is formed in

connection therewith is continuously evolving. Producing information and transforming it to technology is eased and a lifestyle without technology cannot be envisaged. Along with the advancement of technology, education has become one of the most important factors in the flourishing and development of societies. Educational institutions undergo changes continuously in line with their relationship with information and technology. Depending on the information technologies used, the development can clearly be seen in qualitative and quantitative terms (Seferoğlu, 2009).

Parallel to such global developments, problems associated with information technologies used in educational institutions in the TRNC, namely the problems encountered in schools where information technology teachers are employed as a result of the researches and examinations as well as solutions to those problems should be analyzed.

In the general sense, there is a consensus that information and communication technologies are beneficial as a basic requisite of the time and education and that they should be used. However, it is not easy to find consensus on implementation as in the case of each novelty. While novelties are integrated into the present system, problems arise naturally. Those problems may result from legal regulations and also institutional and/or individualistic problems may give rise to delays or hitches in putting those novelties into practice.

Especially in the last 15 years, computers have begun to be used to regulate educational services so that those will meet individual needs, to provide educational services more effectively and productively and to create a school environment which is at a contemporary level (Usun, 2000). Since in the present time it has become obligatory to make education acquire a scientific and technological quality, the use of information technologies in schools emerge as an indispensible necessity. As an example, a 100-dollar laptop project led by Nicholas Negroponte was launched in order to introduce information technologies to under-developed countries, which was made public in the World Economic Forum, held in Davos in 2005. This initiative led by Negroponte, the head of the Massachusetts Institute of Technology (MIT) Media Laboratory in the USA, which later on caused a public debate by the action of “One Laptop per Child” (OLPC) aimed at providing laptops for zero dollars is noteworthy as it shows us how indispensible computers are in the modern system of education. As long as education polices do not rely on scientific principles in terms of their overall structures and do not make use of advanced technology, it is not possible for them to respond to social and individual needs (Alkan, 1986)

In the information age that we are in, the growing need of individuals to learning has led to an increase in the applications required to enhance the efficiency of the education process in schools. In parallel to that, there are significant global projects directed at providing more favourable conditions for education in schools and developing and using tools that can be of use during teaching (Seferoğlu and Akbıyık, 2009)

Information technology teachers have duties and responsibilities in various areas. They are faced with diverse problems as they assume additional duties and responsibilities needed by the school administration as well as other teachers beside their own. It appears that information technology teachers are required to deal both with the education of students and the maintenance of the computer laboratory and also with the responsibilities given by the administration as per their identified duties (Seferoğlu, 2001). Therefore, information technology teachers have various problems educationally, administratively, technically and individualistically. Kıyıcı and Kabakçı (2006) have, in their researches where they have analyzed the problems experienced by the information technology teachers during their initial years, categorized such problems as problems in educational, administrative, technical and individual areas. In the area of education are found problems associated with issues like the curriculum, course hours and textbooks, planning and assessment, methods and techniques, classroom management, participation in the classroom and the success of the students. In the area of administration, however are problems associated with issues like job description conflicts with school administration as well as upper level management, number of teachers, personal benefits and institutional operation. In the interviews made with teachers during the research, problems have been identified with respect to issues like architectural suitability of classrooms where technical computer training is being provided in the TRNC, tools, technical support, Internet access and information infrastructure and it has been ascertained that problems encountered by teachers individually include time management, stress, lack of adaptation and motivation.

Transferring information technology to educational environments becomes more and more important every passing day. It appears that efficient use of information technologies in education depends on its integration with course programmes and environments of learning (Plomp, Anderson and Kontogiannopoulou-Polydorides, 1996)

In the research made by Hızal (1989), it is seen that teachers give support to computer-assisted education. Also, teachers have delivered opinions that computer-assisted teaching applications should be extended. The fact that most of the teachers have stated that they would like to have computers in this research is an indicator of the positive approach towards the computer and accordingly information technologies.

It is known that in the context of “educational reform” that was made in 2005 by the TRNC Ministry of Education, the issue of expanding the computer assisted teaching applications for teachers and managers is given

importance. Studies made indicate that teachers are working devotedly in extending the new technologies (Hızal, 1989; UNESCO, 2002). When the recent researches that were carried out in educational sciences are considered, it is understood that the researches in question have focused on information technology, which exists in the context of information technologies. That the computer is the basic element in the formation of all other IT practices is given as a reason therefor. For instance, computers play an important role in promoting the interactive video and network systems. Other systems' requiring additional equipment however, brings with it additional costs.

Therefore, it appears that the other information technologies except computers have started to be used in educational institutions recently and are seen fewer in number. Reduction in the costs of equipment due to technological advancements has led to the use of such products and consequently resulted in focusing on the computers as the initial information technology that entered schools.

Especially, young teachers' positive perspective towards the information technology and their use of computers in education are amongst positive developments (Seferoğlu, 2001). In order to use the IT actively in education, teachers are required to be provided both on-the job training and pre-service training and those trainings should periodically be re-provided to the teachers in parallel to the developments. In order to use the information technology for educational purposes, necessary infrastructure should be provided by the experts and be brought into the teaching-learning environments.

In Seferoğlu' study (2001) on the expectations of class teachers, it has been stated that there is a clear need of reform in education system for tackling with difficulties and overcoming problems and trainings should be organized for the teacher's personal and professional development.

In general, similar results have been obtained in the studies that specifically focused on the information technology teachers. As stated above, according to the study of Kıyıcı and Kabakçı (2006), problems that "Teachers of Computer and IT" face have been identified as mostly staffing and secondarily job descriptions in the area of administration; mostly class management and secondarily course plan preparation in the area of teaching. Personal problems however, are identified to be orientation problems.

In Deryakulu's study (2005), it has been found out that the computer science teachers go through a process of exhaustion in the early years of their careers and they especially are faced with serious problems because of their concern for personal failure. It has been found that the level of emotional exhaustion of male computer science teachers or their level of becoming desensitized is higher than the female teachers. It has been found that the aforementioned level is higher in teachers of secondary education in comparison to those of primary education and also higher among computer science teachers who work in official state schools.

Kaçmaz (2002) found that the levels of knowledge and computer usage of teachers who give computer science lessons in secondary education vary with seniority and that primary factors affecting computer science education are lack of management and equipment (computer), specifications of equipment, trained personnel support, school management - family cooperation, student motivation, financial means, resistance to novelties and difficulty of learning. An important ascertainment has been that computer usage levels of teachers who give computer science lessons in secondary education show a parallelism with their knowledge levels.

That teaching is becoming complicated every passing day and that the information to be provided in education has increased have led to using computers as a tool for qualified education. Studies made reveal that the problems that are faced by IT teachers of educational institutions are similar with those in secondary education and there is a need of sharing gained experiences in this field. Because, fast developments in science and technology in our age affect society and educational systems as well as the economic system. Technology plays an important role in developing the educational progress. Therefore, societies are required to follow and adapt to new technologic developments and most importantly should become in a position of developing those new technologies. In the age of information technology that we live in, there is a need for people who do not memorize the information but who are able to access and use information and think productively.

The aim of this study is to define problems of IT teachers who work in schools in the TRNC that result from institutions and individuals and to take action for suggesting alternative ways to overcome those problems. In this study, it has been sought to identify what kind of problems IT teachers in TRNC are faced with. Solving those problems duly is important for our society. For, the IT teachers are the pioneer group who introduce information technologies, which has become the symbol of developing technology to our IT students and provide them with the necessary education. Therefore, the role of IT teachers in the education system is rather important. In order for IT teachers to fulfil their responsibilities in the most productive way and provide continuation of studies, it is required that the problems in educational institutions be analyzed and solved. In this research to be carried out as based thereon, defining the problems of IT teachers that they face while performing their duties forms the main purpose of this study. That the number of such works is few in number in the TRNC is increasing the importance of the project. This project

aims to become a guide for other future studies.

METHODOLOGY

In order to obtain results in the scope of the study, the triplet of observation, interview and questionnaire technique has been used as the data collection method. The population of the research is the schools in the TRNC where information technology lessons are taught. Observation was made for three class hours in a class of each of the schools that form the research population. In observation, an open-ended technique has been used. Based on the outputs obtained from the observation, semi-structured interview questions were designed. Interviews were made with one manager and at least one teacher from each school. Total number of interviews conducted is 41. To support the results of the study, a questionnaire survey was conducted with the students.

Schools in which the interviews were made are as follows; Girne Anafartalar Lisesi (High School), Lapta Yavuzlar Lisesi (High School), 19 Mayıs TMK (High School), Gazimağusa Meslek Lisesi (Vocational School), Gazimağusa TMK (High School), Namık Kemal Lisesi (High School), Gazimağusa Ticaret Lisesi (Business High School), Canbulat Ortaokulu (Secondary School), Çanakkale Ortaokulu (Secondary School), Bülent Ecevit Anadolu Lisesi (High School), Lefkoşa TMK (High School), 20 Temmuz Fen Lisesi (Science High School), Sedat Simavi Endüstri Meslek Lisesi (Business High School), Demokrasi Ortaokulu (Secondary School), Erenköy Lisesi (High School), Atatürk Meslek Lisesi (Business High School), Şehit Hüseyin Ruso Ortaokulu (Secondary School).

The results of the observation made in the scope of the study were recorded in to the observation form. In addition to the information like date, place, time, the name of the course, the name of the school, the subjects of that particular day; the environment and the means of IT technology used were also recorded into the observation form. The observation activity took place between November 2010 and February 2011. Observed events, facts and behaviours were entered one-to-one into forms and subjective observation and comments of the researcher were recorded in a separate document.

Results obtained from the outputs of analyzed observation forms were categorized and each question was designed so as to be represented by a code in the interview question form. The interview work was carried out in March 2011. Answers given to questions were analyzed under themes and while findings were being submitted those themes were used to make the reader understand (Yıldırım & Şimşek, 2005).

The questionnaire used in the research was detailed and prepared as based on the findings obtained from the semi-structured interview. The pilot test of the questionnaire survey was conducted on 10 students and necessary corrections were made in relevant questions. The questionnaire survey on the other hand, was conducted in April 2011 by stratified random sampling with the participation of 35 students from Güzelyurt, 40 students from Girne and 20 students from Magosa region, whose schools were divided into regions according to the quota. The questionnaire was prepared in accordance with the literature review and comprised 17 questions. The introduction part of the questionnaire contained a summary on the work carried out and a written briefing about the purpose of the questionnaire survey. The questions were prepared as close-ended considering the use of mass media in education (television, Internet, computer, radio, etc.), their effects on students, their relationship with daily life and the attitude of families.

In the light of the notes taken during the interviews with teachers, problems will be found out and views and suggestions related to the subject matter have been conveyed within the study. Each of the participants interviewed was given the abbreviated name of a school as well as a code number (e.g. 19 Mayıs Türk Maarif Koleji, 19 Mayıs TMK; Gazi Mağusa Meslek Lisesi, GMML; 20 Temmuz Fen Lisesi, 20 TFL etc.). An example of how the code was applied is the 19 Mayıs TMKögt (2) code used for the teacher number 2 who participated in the interview in 19 Mayıs Türk Maarif Koleji.

DATA COLLECTION AND ANALYSIS

In the research where semi-structured interview techniques were used, it was aimed to receive the views of information technology teachers about the problems they had regarding the use of information technologies. First of all, in order to establish communication with teachers more easily, introductory questions like whether the teachers like their job or not, how many hours they taught and at which fields they had training were asked. In the following questions, the teachers were inquired about their general views on information technologies, the equipment used in the lessons and the problems they had with regard to information technologies. The place of the subject matter in the curriculum, its situation in terms of the education reform and whether school administrations contribute to the subject matter or not were also inquired. Moreover, the teachers were asked the number of years they have been

teaching to analyze whether there is any difference between young teachers and those who have been teaching for a longer time. The comprehensibility and reliability of the questions were asked to the specialists and pilot tests were carried out with five people.

FINDINGS AND RESULTS

As a result of the interviews with teachers, one of the most important and striking points was the relation between regions and questions. To begin with the regions; although there are information technologies in Mağusa and Karpaz (Erenköy) regions, the existing technology cannot be used adequately due to lack of technical infrastructure. According to the statements of the teachers who teach in the region, lack of infrastructure is not the only problem. Especially, "The students who come from villages have problems using the Internet" (GMMLögt 2). Moreover, in the opinion of GMMLögt (2), the use of information technologies has reflected on the education reform partially. GMMLögt (2), who points out to the fact that computers are not being used much except computer lessons as the reason to that, states that problems of infrastructure should be resolved for the education reform to be implemented fully and that the number of computers per student should be distributed proportionately. One other problem has been identified as lack of sufficient number of computer laboratories and the school administrations' failing to give the desired support due to budgetary problems although they act in good faith. As GMMLögt (2) puts it: "Teachers have to improve themselves because information technologies are being renewed every day and keeping up with the time is only possible by continuous self-improvement". In other words, GMMLögt(2) indicates how important it is for teachers who teach on information technologies to follow the advancements constantly at a time where information technologies are constantly changing and evolving.

At the interview made in Erenköy Lisesi, ELögt (1) stated that "the desired level cannot be achieved due to the budget problems even though the school administration supports the use of information technologies". In other words, according to ELögt (1), although the school administration supports the use of information technology, due to the budget problems present in the area of education and in schools, the technology cannot be used as intended. ELögt (1), who have stated that the education reform supports the use of information technology, but that it is not at the required level yet mentioned that another problem is the high turnover of teachers in Erenköy Lisesi.

The most important problem in 19 Mayıs Türk Maarif Koleji (GTMK), Anafartalar Lisesi (AL) and Lapta Yavuzlar Lisesi (LYL), which are schools from the Girne region was conveyed as the difference between the existing number of computers and the number of students. Besides, one other problem which is that computer usage is only limited to computer lessons results from the education system in the TRNC and the elimination of those problems can only be possible by means of incentives to be made by the Ministry of Education both with regard to the budget and also by its encouraging new teachers about the use of information technologies.

In GTMK, a school at Girne region, however, the teachers interviewed have stated that even though the school administration tries to support teachers about information technologies, due to the economic obstacles, the intended results could not been reached. The insufficiency of the education reform is striking as another problem mentioned. Again in GTMK, just like the schools in Mağusa region, the difference between the number of students and the number of computers was mentioned as another problem. GTMKögt (1) stated that "due to crowded classrooms, the information technologies cannot be used in the desired scale", when his view was asked. Moreover, according to GTMKögt (2) who stated his views about the issue, "the classrooms are very crowded and there are 20 computers for 36 students." Besides, it was emphasized that technical issues are dealt with by computer teachers and there should be a computer coordinator in charge of maintenance and repair. Another issue that drew attention in the interviews made was that the use of information technologies has come to foreground mostly at computer lessons yet computer usage should be encouraged in other lessons as well.

At Anafartalar Lisesi (AL) in Girne region, the importance of the need for technical support was emphasized and the difference between the ratio of computers used and the number of students was noted. As ALögt(3) stated at the interview, the need for a technical staff member to deal with technical problems is striking as another factor. It has also been emphasized in the interviews made that the school administration fails to give support to teachers both in respect of technical support and also of information technology applications. It was stated that the education reform support the use of information technology and yet the expected progress has not been attained.

In the interviews made at 20 Temmuz Fen Lisesi (20TFL), it was stated that computers are being used both in lessons and in administrative departments and that the use of information technology has always been supported by the school administration. According the 20 TFLögt(1), "there are problems resulting from the structure of the lab and the crowdedness of classrooms" and in order to sort those out, "the lab may be designed in a more practical way and changes may be made in the number of students". In response to a question about education reform, 20 TFLögt(1) stated that the education reform is encouraging the use of information technologies.

One of the results of the interviews is the assertion that the most important problem faced by the information technology teachers is the number of students. The number of computers and this number's not corresponding with the number of students cause the productivity in education to decrease perforce, consequent to which the use of information technology moves away from its target and fails to be of benefit sufficiently. Crowded classrooms that come up as a problem beyond the will of schools may be resolved by an education planning to be conducted by the Ministry of Education. Similarly, the infrastructure and staffing shortcomings (e.g. using computer science teachers for technical support) that exist beyond the will of schools must be identified by the Ministry of Education and steps should be taken to resolve the problem, if applicable.

Another fact that emerged in the light of interviews conducted is that although the educational reform done has gone down well with teachers to a large extent, it is inadequate. The lack of infrastructure in education is distinguished as a cause of this.

The most important development which can be seen as positive is that, as the study points out, many schools and their administrators are positive about the use of information technologies. However, there still are shortcomings in practice because of the reasons mentioned above. Another important point is that, even though teachers think positively about the use of information technologies, some differences are noticed during the stage of use because of the 'generation gap'. What's meant from generation gap is the teachers that begin working in the field of education newly. The teachers, which have been in the field of education for long years, are more "incompetent" about the use of information technologies, in comparison to younger teachers who began working newly. It is well possible to overcome this problem by the Ministry of Education's organizing in-service training courses constantly.

CONCLUSIONS AND RECOMMENDATIONS

In conclusion, the lack of technical infrastructure constitutes the leading problem teachers face concerning the use of information technologies in the TRNC. What's meant by technical infrastructure is not only the number and technology of computers, but also the current problems of schools. The number of classes constitutes the biggest impediment behind the proper use of information technologies; hence the expected efficiency in education cannot be obtained from the use of information technologies. Similar problems are also indicated in other studies done outside the TRNC. (Akıncı ve Seferoğlu, 2010; Seferoğlu ve Akbıyık, 2009; Hızal 1989; Okinaka 1991; Akkoyunlu ve Orhan, 2003; Nagaran, 1989; Tandoğan, 1998; Yalın 2002). Although the problems existing in the past are partly resolved due to the educational reform made, the educational reform is far from the reaching the desired point because of both the budget and the other reasons mentioned above.

As a positive development, this study found that the school administrations take information technologies seriously and support teachers about this issue. However, it must be stated that this matter should receive more consideration if the positive works done are expected to be fully efficient. The Ministry of Education should make investments on ever-changing information technologies more seriously. As Seferoğlu and Akbıyık (2009) stated, "firstly it is needed to enhance the knowledge of teachers and also environments where they may make use of the skills they gained should be provided to them". The existing communication process between the Ministry of Education, teachers and school managers is important. However, for the solution of both financial problems and problems between administrations and teachers, which are caused by the use of communication and information technologies, the Ministry of Education's share from the budget should be increased and also the communication between the ministry, schools, teachers and students must be healthy and sound.

As a result of the interviews conducted, it has been found out that information technologies are used in computer lessons without any problems, but underutilized in other lessons. For example, using the information technologies in foreign language teaching would provide great benefits both for students and teachers. With the awareness that one of the key points of catching the era is being able to keep up with it, the education budget should be increased, in-service training courses should continuously be organized to convey information related to the matter and the teachers' improving themselves about the use of information technologies should be rendered a requirement by such courses.

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Science and Technology Teachers' Opinions Regarding the Usage of Zoos in Science Teaching

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ABSTRACT

In this study it was aimed to investigate the science and technology teachers'opinions regarding using zoos which are one of the out of school learning environments, as an educational resource in science teaching. For this purpose, a qualitative data was obtained by semi-structured interviews in order to resolve the problem. Study group which was selected with purposeful sampling strategy was composed 36 science and technology teachers who works in Gölcük which is a district in the province of Kocaeli. The study was conducted in 2011-2012 academic year. In this study as a data collection instrument, semi-structured interviews were conducted with teachers in order to obtain their conceptions regarding the current status of zoos in science teaching. For analysis of data collected through semi-structured interviews, content analysis technique was used. As a result of interviews conducted with teachers, it was emerged teachers can bennefit from zoos in education and training activities that are related to science and technology course curriculum. Meanwhile, they have stated the contribution of zoos to education by emphasizing the positive effects of zoos on students 'cognitive and affective characteristics. The results of this study in which science and technology teachers' opinions were evaluated, presented findings regarding the usage of zoos as an educational resourse to promote science teaching in Turkey and contributed to the literature.

Keywords: *Zoo, Teachers'Opinions, Out Of School Learning, Science Teaching*

INTRODUCTION

Necessities of societies, becoming more complex due to the advancement of industrialization and technology day-by-day, have increased. Apprenticeships and similar trainings used the old system could not be sufficient to prevent this confusion. Thus; a concept called "modern school" was created, containing of people specialized in certain areas, providing education in an organized and systematic manner under the supervision of the government (Eskicumalı, 2005). However; an individual is in interaction with his/her environment as of the day he/she is born. As a result of this interaction, various learnings occur automatically within life itself (Laçin Şimşek, 2011). Consequently; learning is not only a process carried out within school limits by students and teachers under a certain program. This way, the concept of informal education was created, meaning the total of all activities that the individuals experience throughout their lives without planning (Gerber, Marek and Cavallo, 2001). Therefore, to bring up individuals with certain qualities, informal education must be mentioned as much as formal education (Balkan Kıyıcı and Atabek Yiğit, 2010).

Today, especially because information and technology are concepts that renovate and improve themselves everyday; Science and Technology education is essentially important among the training and education activities for bringing up the individuals required by societies (Tan and Temiz, 2003). In this frame; it is very important to bring up

individuals, who follow scientific and technologic developments, who understand the natural world, who use science against the problems he/she faces, who carry-out scientific processes and thus have the ability to structure information, who value the society and environment he/she lives in, and who is literate in science and technology (MEB, 2005). To achieve these goals; although formal education is carried out in a programmed manner inside classrooms, informal education is also used next to it. This way; learning environment is taken out of the traditional classroom environment, the attention of the student is drawn and the attitude of the students towards the lesson is changed by creating curiosity, by having them face real world problems and having them gain new experiences on their own. So, as in the basic philosophy of constructivist approach; students construct the learning process at their own paces, in accordance with their own learning style, in a manner to facilitate their learning, and by using their sense organs (Winston, 1995 akt. Dori and Tal, 1998; Melber and Abraham, 1999). This way; with the teaching and learning activities at institutions and environments performed outside the physical boundaries of the school building in parallel with the educational program, the individual interacts with the concepts and objects in science topics and has full and meaningful learnings (Ramey-Gassert, 1997, Hannu, 1993). In the frame of these aims; usage of out-of-school learning environments such as science educations zoos, museums, botanic gardens, planetariums, science centers increase everyday and gets the attention of science educators (Smith, McLaughlin and Tunnicliffe, 1998).

Many social areas around the individual can be named as out-of-school learning environments. At this point; zoos are the most important sources, whose educational values are increasing every day, regarding the topics related to animals covered in Science and Technology Lessons. Zoos are pleasant and entertaining exhibition areas; where animals and their natural habitats are shown, that bring people and animals face to face, that create changes in the existing information and attitudes of people (Falk, Reinhard, Vernon, Bronnenkant, Heimlich and Deans, 2007). Using zoos in a planned and programmed manner in educational activities in line with the aimed acquisitions of the lesson will allow students to improve various skills in cognitive, affective and psychomotor areas (Randler, Baumgärtner, Eisele and Kienzle, 2007). In such environments, students solidify the knowledge they get in science and technology lessons in an abstract and oral method, use various sense organs and different learning styles, and learn the events and facts in science by “doing and living” (Laçin Şimşek, 2011). At the same time; science topics delivered at zoos, being different from formal education environments, draw the interest and attention of students, and affect their attitudes towards the lesson and species (Lukas and Ross, 2005; Randler, Baumgärtner, Eisele and Kienzle, 2007). In addition to these; their interaction with peers and active participations during such activities will affect their communicative and social skills and confidence (Pace and Tesi, 2004). Activities with participations to be organized at zoos will improve various psychomotor skills of students. Therefore; the amount and importance of these learning environments among training-education activities increase day-by-day. This makes it necessary for teachers to be aware of the zoos, as being one of the out-of-school learning environments, and the effect of these environments to learning. Finding out the problems faced by teachers, who are the conductors of such activities, and their opinions for removing these problems, will reveal how teachers perceive zoos as out-of-school learning environments. At the same time, although zoos are often seen to be used for science education as out-of-school learning environments in developed countries, they are not used in science education at the desired level in Turkey. Studies in Turkey, related to out-of-school learning environments, generally include museums, science centers and nature educations. Extensive studies that define the position and importance of zoos are rarely seen in the literature. Due to these reasons, this study aims to put forward the opinions of Science and Technology teachers, regarding zoos as out-of-school learning environments.

METHOD

This research is a qualitative study made for acquiring the opinions of Science and Technology teachers, regarding usage of zoos as out-of-school learning environments in educational processes, through semi-structured interview technique.

STUDY GROUP

Research study group consists of 36 science and technology teachers (24 Women and 12 Men), who carry out science and technology lessons in Gölcük county of Kocaeli province during 2011-2012 educational year. To select this group, purposive sampling method was used. The reason is that purposive sampling allows detailed and in-depth studies of groups rich in terms of knowledge (Yıldırım and Şimşek, 2011). The study was carried out with teachers working in Gölcük because this county is a center near many institutions that can be regarded as out-of-school learning environments.

DATA COLLECTING TOOL

Regarding the usage of zoos in science education, semi-structured interviews with science and technology teachers were used as data collecting tools in this study. The interview is the data collection technique through verbal communication for a certain purpose (Büyüköztürk, Kılıç Çakmak, Akgün, Karadeniz and Demirel, 2008). Among them, the interviews can be examined based on classifications of interview purpose, interview participant number, the person desired to be interviewed and finally, the strictness of the interview rules (Karasar, 2007). Among interview types, semi-structured interview technique was used to create an answer for the problem in research.

While preparing the semi-structured interview forms for this research, relevant literature was also scanned. After scanning, first, the topics were defined in the second stage, and a pool of articles was created to include the questions related to these topics. At the third stage; appropriate semi-structured interview questions were chosen, drafts were created, and expert (3 Science Educators) opinions were taken. Necessary corrections were made and incomplete sections were organized. In this context; interview forms related to zoos, consisting of 7 questions, were prepared for Science and Technology teachers. Interviews were recorded by voice recorders in accordance with consents from teachers, and analyzed later.

DATA ANALYSIS

In the Research, content analysis was made to analyze the data acquired from interviews with teachers. The purpose in content analysis is to arrange, conceptualize, and interpret under a certain concept and theme topic the data that are similar and related among the gathered data. The data with content analysis are gathered in 4 stages (Yıldırım and Şimşek, 2011). At data coding stage; the data written down and organized by the researcher are divided into meaningful sections and researchers try to find out what each section means conceptually. Created sections are defined by codes (Creswell, 2003). At theme finding stage; because classification of the data acquired from codes is not sufficient, it is necessary to find themes that can gather these codes under certain categories (Şencan, 2005). At the stage of organizing the data according to codes and themes; coded and themed data are organized and brought to a format and language that the reader can understand. In the stage of interpreting the findings; various assumptions are made from acquired findings and data are given meanings by establishing certain relations (Yıldırım and Şimşek, 2011).

Regarding the usage of zoos in science education; first, 50 to 60 minute semi-structured interviews were made with science and technology teachers. Then, records of these interviews were listened by the researcher one by one, and each word uttered by the participants have been transformed into written documents exactly as the same. First, codes were defined for these gathered data; then, themes were created grouping similar codes under same titles, and necessary arrangements and definitions were made. Finally; presented findings were interpreted by researchers.

FINDINGS

The findings from the interviews with teachers are given in this chapter.

Table 1 gives the teacher opinions for the research question "What do you think about zoos?", which had been asked to teachers during the interviews.

Table 1. Opinions of Teachers about Zoos

Data Source	Theme	Code	Teachers	Frequency (f)	Percentage (%)
on Zoos	Learning	Permanent Learning	T1	1	1.30
		Learning by Using the 5 Senses	T1, T3, T19, T22, T32, T36, T13	7	9.09
		Students need to see	T5, T10, T17, T22, T24, T25, T33, T35, T36	9	11.69
	Characteristics of the Environment	Open to Public	T2	1	1.30
		Containing animal species	T7, T12, T14, T16, T31	5	6.49
		Educating	T21	1	1.30
		Entertaining	T4, T16, T34	3	3.90
		Contains animals we haven't seen before	T1, T6, T10, T16, T27, T28, T29, T34	8	10.39
	Influences to Students	Love for Humans-Animals	T3, T11, T35	3	3.90
		Point of Views	T15	1	1.30
		General Culture	T14	1	1.30
		Making Observations	T3	1	1.30
		Curiosity	T6	1	1.30
				1	1.30
	Contribution to Science and Technology Lesson	The Topic of Reproduction, Growth and Development in Animals	T1, T3, T11	3	3.90
		Ecosystem	T12	1	1.30
		Habitats	T12, T13, T22, T24, T30, T32, T36	7	9.09
		Assists Science Lesson	T23, T36	2	2.60
		Characteristics of Animals	T15, T20, T32	3	3.90
		Cycle of Life	T26, T30	2	2.60
	Purpose of Going	to See Different Animals	T2, T4, T8, T20, T31	5	6.49
		to Gain Knowledge about Animals	T9, T13, T14, T36	4	5.19
		to See Animals in-Flesh	T15, T22, T32, T36	4	5.19
		to Know Animals	T16	1	1.30
		to See All Animals	T18, T21	2	2.60
		to Learn about Animals We Do Not Know	T27	1	1.30
Total				**77***	**100**

*Frequency of teacher statements

Examination of teacher statements in Table 1 reveals that teachers generally relate zoos with the characteristics of the zoos environment. Although characteristics of zoos come forward at first in teachers' statements; in some of the opinions, connections were made between zoos and topics in science and technology lessons. Despite this, the dimension related to learning was not highlighted in teachers' statements.

Some direct quotes from teacher interviews;

"….It is an educative place…."(T21)

"… but they are kept apart a little, at least to see; it is very necessary for them to closely see their habitats."(T22)

Table 2 gives the teacher opinions for the research question "**Can there be a relationship between zoos and Science & Technology lessons?**", which had been asked to teachers during the interviews.

Table 2. Opinions of Teachers Concerning Relationship between Zoos and Science & Technology Lessons

Data Source	Theme	Code	Teachers	Frequency (f)	Percentage (%)
Link between Zoos and Science & Technology Lessons	Topics and Units of Science and Technology Lesson	Reproduction Manners	T3, T4, T6, T7, T13, T14, T17, T19, T20, T22, T30	11	12.5
		Habitat	T5, T7	2	2.27
		Ecosystem	T7, T12, T17, T29, T34	5	5.68
		Reproduction and Growth in Plants	T6, T34	2	2.27
		Food Pyramid	T20, T25, T33, T34	4	4.55
		Classification of Species	T25, T32, T35	3	3.41
		Species and Life	T28	1	1.14
		Cycles of Materials	T34	1	1.14
		Adaptation	T30	1	1.14
		Baby Care	T3, T11, T14	3	3.41
		Cycle of Life	T3	1	1.14
		Reproduction, Growth and Development in Animals	T3, T5, T6, T7, T9, T10, T12, T13, T17, T18, T19, T22, T27, T31, T33	15	17.05
		Species and the World	T1	1	1.14
		Vertebrates	T13, T15	2	2.27
		Physical Characteristics of Animals	T7	1	1.14
		Animal Species	T9, T26	2	2.27
		Natural Habitats of Animals	T26, T30, T35	3	3.41
		Anatomic Structures	T35	1	1.14
		Feeding	T15, T21, T25, T35	4	4.55
	Assistance to Science and Technology Lesson	about Species	T2	1	1.14
		about Biology	T5, T23, T26	3	3.41
		about Natural Science	T16	1	1.14
		Assists Learning about Animals	T4, T5, T8	3	3.41
		about Science and Technology Program	T1, T24, T29	3	3.41
		Learning by Seeing	T3, T4, T9, T11, T12, T13, T15, T19, T22, T23, T26, T32	12	13.64
		Providing Ready Environment for Science	T2, T36	2	2.27
Total				**88***	**100**

*Frequency of teacher statements

Examination of teacher statements in Table 2 reveals that most teachers relate zoos with Topics and Units of Science and Technology Lesson. Teacher statements show that they usually list the science and technology lesson units and topics, which are related to educational activities that can be carried out at zoos.

Some direct quotes from teacher interviews;

"Of course, because we have units in science program related to species and the world…"(T1)

"Yes, of course, science is a branch engaged in both living and non-living things. And I think that on the living things part, zoos are environments fully ready for science..." (T2)

Table 3 gives the teacher opinions for the research question "Why do you think that a zoo is an out-of-school learning environment in Science & Technology lessons?", which had been asked to teachers during the interviews.

Table 3. Opinions of Teachers Concerning Zoo being an Out-of-School Learning Environment

Data Source	Theme	Code	Teachers	Frequency (f)	Percentage (%)
Zoo being an Out-of-School Learning Environment	Assists the Lesson	Related to the Topics in the Lesson	T2, T3	2	2.35
		Provides Opportunity to Observe Relations between Species	T2, T16, T23, T25	4	4.71
		Can be Associated to Units Related to Animals	T4, T9, T11, T12, T13, T16, T18, T20, T22, T23, T24, T24, T25, T27, T31, T32, T33, T34, T35, T36	21	24.71
		Provides Opportunity to Establish Relations with Daily Life	T5	1	1.18
		Aims of Science Lesson	T10, T31, T32, T33	4	4.71
		Assists Science Lesson	T16, T20, T23, T28, T35	5	5.88
		Solidifies Abstract Information	T27, T29	2	2.35
		Knowledge Reinforcement	T35	1	1.18
	Provides Change in Students	Provides Perspective	T1	1	1.18
		Love for Animals	T1	1	1.18
		General Culture	T1, T17, T33	3	3.53
		Seeing animals that they have not seen before	T1, T20, T22	3	3.53
		Feeding Animals	T1	1	1.18
		Observation Skill	T2, T3, T9, T19, T20	5	5.88
		Prevents Forgetting	T9	1	1.18
		Curiosity	T10, T15	2	2.35
	Learning	Learning by Using the 5 Senses	T6, T12, T14, T15, T16, T17, T18, T20, T27, T29	10	11.76
		Learning by Doing and Living	T8, T9, T19	3	3.53
		One-on-One Learning	T9	1	1.18
		Easy Learning	T18	1	1.18
		Permanent Learning	T34	1	1.18
		Giving Meaning to the Unit	T13,T35	2	2.36
		Being Closely Involved with Animals	T4	1	1.18
	Characteristics of the Environment	Presence of Living Things	T7, T23	2	2.35
		Presence of Various Animal Species	T9, T14, T22	3	3.53
		Artificial Ecosystem	T29	1	1.18
		Educational Environment	T28, T36	2	2.35
		Environment Ready for Science	T2	1	1.18
Total				**85***	**100**

*Frequency of teacher statements

Examination of teacher statements in Table 3 reveals that almost half of the teachers see zoos as an out-of-school learning environment that would assist the lessons of Science & Technology. Also; they have stated that it is an out-of-school learning environment in terms of assisting students' learning, influencing their cognitive and affective levels as well as the characteristics of the environment.

However, in contrary to these opinions, 4 teachers (T17,T21,T26,T30) expressed that there are setbacks to use zoos in a widespread manner as out-of-school learning environments, such as their not being suitable for second tap education programs, not being parallel to education programs and their being artificial environments.

Some direct quotes from teacher interviews;

"It can be done, it definitely can be done. It can be done; because they are directly involved with animals, as I said before, when they visit zoos they get an idea about animals, explore the lifestyle of animals, they will be aware of where they live, what they eat for example."(T4)

"…they will see different species, as in the variety of species maybe, but other than that…. I mean, our curriculum is not very parallel…not very parallel."(T26)

Table 4 gives the teacher opinions for the research question "Have you organized any visits to a zoo under the trip programs of your school? If you have, did you face any problems during such visits?", which had been asked to teachers during the interviews.

As a result of the interviews, it has been established that only 2 teachers have organized a visit, and 4 teachers are at planning stage. Other teachers said that they haven't organized or planned any visits.

Table 4. Opinions of Teachers, who Planned Zoo Visits, about Facing Problems

Data Source	Theme	Code	Teachers	Frequency (f)	Percentage (%)
Status of Facing Problems in Zoo Visits	No Problems	We did not have any problems	T8	1	16.67
		School Management Supported	T29	1	16.67
	Indefinite	At Planning Stage	T13, T19, T20, T23	4	66.67
Total				6*	100

*Frequency of teacher statements

In Table 4, examination of the statements of teachers, who organized visits, reveals that most teachers define the problems they faced during the visits they organized as indefinite. When we look at the statements; we see that a trip to a zoo is at planning stage and therefore, a clear opinion cannot be given about the problem status. 2 teachers, who have organized trips said that they did not have any problems.

Table 5 gives the teacher opinions for the research question "What are your reasons not to organize any trips to a zoo under the trip programs of your school?", which had been asked to teachers during the interviews.

Table 5. Opinions of Teachers not to Organize any Trips to a Zoo

Data Source	Theme	Code	Teachers	Frequency (f)	Percentage (%)
Reasons for not Organizing any Trips to a Zoo	Teacher	Organization Problems	T3, T5, T24, T35	4	8.00
		Responsibility	T4, T36	2	4.00
		Efforts to Catch-up with Curriculum	T22	1	2.00
		Being a New Assignee	T25, T34	2	4.00
		Using Documentaries	T2	1	2.00
		Not Knowing about Out-of-School Learning Environments	T14	1	2.00
	Science and Technology Program	Planned to be Later in the Program	T12	1	2.00
		Being out of Lesson Purposes	T26	1	2.00
		Not Being Necessary for 2nd Level	T17	1	2.00
	Transportation	Supply of Vehicle	T1, T9	2	4.00
		Road Safety	T1, T36	2	4.00
		Environment's Distance	T3, T9, T15	3	6.00
	Financial	Entrance Fees	T4	1	2.00
		Economic Reasons	T15, T24, T28, T30	4	8.00
	Parents	Lack of Attendance	T1, T28	2	4.00
		Reluctance	T4, T6	2	4.00
	Official Correspondences	Permit Problems	T4, T9, T24, T28, T36	5	10.00
	Ministry	Examination System	T7	1	2.00
	Students	Lack of Attendance	T35	1	2.00
	Previously Done	In Club Studies	T16, T22	2	4.00
		With Trip-Observation Branch	T11, T18, T27, T31, T32, T33	6	12.00
		At First Level	T5, T10, T21, T33, T36	5	10.00
Total				**50***	**100**

*Frequency of teacher statements

Examination of teacher statements in Table 5 reveals that teachers usually associate their not organizing a zoo trip to such trip's having been made previously. Other than that, we see that the prominent reasons are caused by teachers, students, program and parents as well as transportation, official correspondences, financial problems.

Some direct quotes from teacher interviews;

"We did not plan it in the second level but in the first level, they all go."(T5)

"I planned and we went. There were no problems. I mean we had no problems."(T8)

"I did not plan it. It is a bit of problematic situation and I was just recently assigned."(T25)

Table 6 gives the teacher opinions for the research question "Do you think that a trip to a zoo affect the academic success of students? Why?", which had been asked to teachers during the interviews.

Table 6. Opinions of Teachers on Zoos' Effect on the Academic Success of Students When Used as an Out-of-School Learning Environment

Data Source	Theme	Code	Teachers	Frequency (f)	Percentage (%)
Zoos' Effect on the Academic Success of Students When Used as an Out-of-School Learning Environment	Learning	Permanent Learning	T5, T22, T31	3	5.26
		Learning by Doing and Living	T2, T5	2	3.51
		Learning by Using the 5 Senses	T1, T31	2	3.51
		Effective Learning	T19, T34	2	3.51
		Giving Meaning to Science	T3, T4	2	3.51
		Increasing Knowledge Level	T6, T9, T11, T12, T13, T18, T23, T24, T26, T28, T36	12	21.05
	Supporting	Understanding the Topics	T13	1	1.75
		Solidifies Abstract Information	T1, T27	1	1.75
		Future Scientific Studies	T19	1	1.75
		Preference of Profession	T7, T15, T20, T35, T36	5	8.77
		For Meeting Expectancies	T28	1	1.75
		Prevents Forgetting	T9, T22	2	3.51
	Affective Level	Love for the Lesson	T14, T16, T36	3	5.26
		Attitude towards the Lesson	T16	1	1.75
		Love for Animals	T8, T16, T24, T35, T36	5	8.77
		Interest for Animals	T8, T27	2	3.51
		Increases Interest for the Lesson	T16, T17, T35, T36	4	7.02
		Curiosity	T2, T11, T27	3	5.26
	Skills	Making Inferences	T4	1	1.75
		Having a Different Point of View	T32	1	1.75
		Increasing Creativity	T5	1	1.75
		Practice	T34	1	1.75
Total				**57***	**100**

*Frequency of teacher statements

Examination of teacher statements in Table 6 reveals that teachers generally relate the changes in academic success by using zoos among out-of-school learning environment, with learning. Also, the other majority of teacher statements express that the changes in academic success students are associated with students' affective characteristics.

Some direct quotes from teacher interviews;

> "Of course it has a great effect again. As I said before, under constructive education, it can make them fully learn by experiencing, seeing, by asking right at the moment as maybe 'why', 'what is this for'."(T2)

> "It is very important how the evaluation is made; for academic success, the child will have an effective learning. And because he/she had an effective learning from there, it will definitely increase success …" (T19)

Table 7 gives the teacher opinions for the research question "**Do you think that a trip to a zoo affect the attitude of students towards science? Why?**", which had been asked to teachers during the interviews.

Table 7. Opinions of Teachers on Zoos' Effect on the Concern of Students towards Science When Used as an Out-of-School Learning Environment

Data Source	Theme	Code	Teachers	Frequency (f)	Percentage (%)
Zoos' Effect on the Concern of Students towards Science When Used as an Out-of-School Learning Environment	Learning	Makes Them Understand the Topic	T4, T12, T13, T16, T20, T24	6	10.00
		One-on-One Learning	T18	1	1.67
		Learning by Using the 5 Senses	T1, T5, T6, T22, T33, T35	6	10.00
	Supporting	Solidifies Abstract Information	T1, T15, T18, T24, T26, T35	6	10.00
		Provides Opportunity to Establish Relations with Daily Life	T2	1	1.67
		Knowledge Reinforcement	T16	1	1.67
		Understanding that Science is not Difficult	T1, T2, T3, T13, T22, T26, T36	7	11.67
		Increases Motivation	T8, T14	2	3.33
	Affective Level	Increases Interest for the Lesson	T9, T16, T17, T20, T28	6	10.00
		Developing Positive Attitude towards the Lesson	T20, T31	2	3.33
		Decrease in Fear Against Science	T7, T12, T17, T19, T26	5	8.33
		Love for the Lesson	T10, T11, T28, T31, T32, T33	6	10.00
		Love for Animals	T24	1	1.67
		Making the Lesson Fun	T23	1	1.67
		Tasting the Feeling of Success	T4, T16, T27, T28	4	6.67
		Student's Being Comfortable	T12	1	1.67
		Curiosity	T5, T19, T23, T28	4	6.67
Total				**60***	**100**

*Frequency of teacher statements

Examination of teacher statements in Table 7 reveals that teachers generally relate zoos' effect on the concern of students towards science, when used as an out-of-school learning environment, with students' affective levels. Teacher statements show that using zoos will affect students' affective characteristics and cause changes in concern/anxiety levels against science.

Some direct quotes from teacher interviews;

> "Of course, it will absolutely affect when their anxiety is like that. When they have the thought of 'I can do it', the children will definitely do it…"(T16)

CONCLUSION, DISCUSSION AND SUGGESTIONS

Science and technology teachers stated their general opinions on zoos among out-of-school learning environments by making explanations about the characteristics of the environment (35.07%), its contribution to science and technology lesson (23.39%), purpose of going to these environments (22.07%), learnings at out-of-school learning environments (10.39%), and their influences on students (9.10%). In this context; teacher opinions focused first on the characteristics of the environment, and then the effects over learning. The reason for this may be that some teachers do not see zoos as out-of-school learning environments, perceive these environments as cruising and entertainment locations, and have a need to define this environment. As a matter of fact, in the study of Tofield, Coll, Vyle and Bolstad (2003); zoo visitors most commonly define their aims for visiting as having fun and a good time but most of them also state that zoos have a role in educational activities. Although teachers first focus on characteristics of the environment, at the same time, they stated that such environments can assist students' learning and the lesson by being associated with science and technology topics and units. Examination of teacher statements in this aspect reveals that most teachers relate zoos with Science and Technology Lesson.

Zoos' relation with science and technology lesson has been associated with their relation to Science and Technology lesson's topics and units (71.62%), their assistance to Science and Technology lesson (19.32%) and their relation with science (9.10%). Supporting the teachers' opinions, Ramey-Gassert's (1997) research states that; science learning environments provide a rich learning source to teachers, and make students achieve the aims of science education programs of schools. Andrew, Maggie and Sarah (2010) expressed that the events carried out by considering the lesson's acquisitions in such environments in a planned and programmed manner are effective educational activities. In this scope, regarding zoos' being out-of-school learning environments, it is seen that teachers mention its assistance to the lesson (47.07%), dimension of learning (21.19%), changes in students (20.01%) and the characteristics of the environment (11.77%). In this context, teachers said that under the purposes of Science and Technology lesson; zoos can help the progress of the lesson, and at the same time, influence students' cognitive and affective characteristics. When we look at teachers' opinions as zoos not being out-of-school learning environments; we see that they mention science and technology program (84.72%) and characteristics of the environment (14.29%). The reason for this may be that teachers might think that sixth graders cannot achieve the aimed learnings at zoos. Primary school first level educational program is seen more appropriate for events at zoos and zoos visits are made at these class levels. Despite this, it is seen that the very few teachers, who organized trips to zoos stated that these trips had no problems and some of the teachers are at the planning stage of such trips. Therefore; when teacher statements on zoo trip planning are examined; it is seen that the majority does not plan a trip to zoos. In this context, most teachers state the reason of their not organizing trips to zoos as such trips having been done before (26.00%). Other reasons for not organizing trips are listed as; teacher (22.00%), transportation (14.00%), official correspondences (10.00%), costs (10.00%), parents (8.00%), program (6.00%), the Ministry (2.00%) and students (2.00%). in parallel with the above teacher opinions, Kenny (2009) emphasized that; such environments have various benefits but the decision for utilizing them must be made by considering the facts such as transportation and high costs .

Almost all of the teachers expressed that students' academic success will change positively by using zoos as one of the out-of-school learning environments. The reasons for this effect are; learning in rich learning environments (47.08%), reinforcing existing learnings by supporting formal education activities with out-of-school learning environments (19.28%), and such environments' improving students' scientific processing skills (8.76%) and various affective characteristics (31.57%) (Randler, Baumgartner, Eisele and Kienzle, 2007).

Almost all of the teachers expressed that students' anxiety levels against the lesson will change positively by using zoos as one of the out-of-school learning environments. The reasons for this effect are defined as; its inclusion of learnings related to Science and Technology lesson (21.67%), its assistance to the execution of this lesson (28.34%) and its effect on students' affective characteristics (50.01%). In this scope; it has been stated that activities conducted at zoos show that Science and Technology lesson is not a difficult lesson as perceived by students, and that this lesson can be carried outside the classroom at a different learning environment in an entertaining and interesting way, and that these activities may cause to reduce the levels of anxiety towards science. In similar studies, it has been stated that "science topics delivered at zoos, being different from formal education environments, draw the interest and attention of students, and affect their attitudes towards the lesson and species" (Lukas and Ross, 2005; Randler, Baumgärtner, Eisele and Kienzle, 2007). The Literature covers studies stating that various affective characteristics are affected positively at out-of-school learning environments according to teachers' opinions (Ramey-Gassert, 1997; Braund and Reiss, 2006; Paris, Yambor and Packard, 1998; Falk and Adelman, 2003).

As stated in this study and in other studies in the literature; we see that teachers, students and parents generally perceive the purposes of zoo trips as entertainment and cruising. In order to change such perceptions; the visits to be made must be planned beforehand by being associated with the curriculum and performed as trips with

educational purposes under the lesson.

The position and importance among educational activities of using zoos as a support to formal education has been established in the study by being supported with teacher opinions. Although Science and Technology teachers are aware of using zoos by associating them with science and technology curriculum topics in science education; they expressed many reasons for not organizing zoo trips, being done before and problems caused by teacher qualities as being the major reasons. The teachers, who are the conductors of such activities, see zoos as an out-of-school learning environment if problems defined in matters related to animals are overcome. Although teachers see zoos as an out-of-school learning environments, we see that they do not plan zoo trips to support formal education. As a result; teachers expressed that they can utilize zoos as out-of-school learning environments under science and technology topics, which are included in educational activities, that zoos did/will positively affect students' various cognitive and affective characteristics, and that they can contribute to education. Results acquired by this study, in which Science and Technology teachers' opinions are assessed, make a contribution to the literature by showing the position and importance of zoos in Turkey. In addition to this study, similar interviews can be made with teachers about different out-of-school learning environments. Also, long-term extensive studies similar to this one can be made at different age groups, different class levels, different topics and lessons, questioning the effects of out-of-school learning environments over students.

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The Analysis of Ict Skill Levels of Foreign Language Instructors Working At Universities

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ABSTRACT

This study was carried out in order to determine the ICT skill levels of the lecturers working at the foreign languages schools of the universities. The data collection tool of study was the ICT4LT (Information and Communications Technology for Language Teachers) developed by Davis (2008). The tool was restructured by the researchers upon receiving comments from the experts, candidate teachers for English and Computer and Instructional Technology. 40 lecturers among the ones employed at 4 different universities in İstanbul participated in the study. The data was examined by age, gender, lecturers' seniority and whether or not they took an ICT course. Moreover, the general average and the average of every sub-factor were calculated. Some suggestions were made according to the results of the study.

Keywords: *ICT, language teaching, computer skills of instructors*

INTRODUCTION

Today, ICT integration is a must for a more permanent and effective instruction. ICT plays an important role in students' gaining skills such as strategy use, problem solution, critical thinking, creativity and life-long learning.

It is regarded that the teachers play the most important part in ensuring students gaining such skills. Thus, teachers have to be informed about ICT and have the skill to use this information during teaching.

DEFINITION OF ICT

ICT, the abbreviation for Information and Communications Technology, is defined as "the science and activity of storing and sending out information by using computer"(Maheshwari, 2002:282). Oxford dictionary defines this term"the study of the use of computers, the Internet, video, and other technology as a subject at school".

A much broader definition of ICT describes it as "equipment such as computers, the Internet, CD-ROMs and other software, radio, television, video and digital cameras". According to the same definition "ICT refers to learning about new technologies and how to make the most effective use of them for personal, pedagogical and administrative purposes" (Kelly and the others, 2004:119).

ICT has become one of the basic elements of the society for almost threee decades because of the rapid developments in this area. It is widely emphasized in the literature that the use of information and communication technologies in education makes both teaching and learning processes effective (e.g. Kumar, 2008:556). Especially, new ICTs differ comparing to older technologies by integrating multiple media into single educational applications, contributing to the information enviroment, offering from rigid scheduling and so on.

As Blurton (1999: 46- 47) emphasizes that four dimensions of new ICTs; integration of multiple media, interactivity, flexibility of use, and connectivity-make it different from previous technologies.

These characteristics of ICT explain why educators try to find powerful new ways to integrate digital ICTs into the curriculum. According to the research conducted by Egbert et al. (2002:118) e-mail, developing lessons, and creating instructional Web pages are among the most frequently used CALL activities of the teachers.

It is clear that the education sector increasingly recognizes the importance of ICT in supporting educational improvement. For example, a study conducted by OFSTED (2002) indicates that ICT has become more than just a teaching tool but has the potential to improve the quality of language learning (OFSTED, 2002). The results of the ICT research conducted by British Educational Communications and Technology Agency (BECTA) are almost consistent with the results of OFSTED. It was stated in the research that even though research looking at ICT usage in relation to modern foreign language is not extensive comparing to the other subjects, the research shows that when ICT is used in foreign language teaching and learning, there are a wide range of positive benefits. Some of the identified key benefits of the use of ICT in modern foreign languages based on the analysis of the research are as follow; a) increase in motivation, enthusiasm and confidence, b) positive association with attainment, c) potential for differentation according to the needs of the learners and so on (BECTA, 2004).

THE ROLE OF ICT IN EDUCATION

It can be easily said that integrating ICT into education provides many opportunities for the learners like increased availability of the materials and improved teaching/learning process and so on. However, there are some key challenges which restrict the possible opportunities provided by the use of ICT. The lack of teachers' ICT skills is seen one of these key challenges to be taken into consideration. Furthermore, a lack of technical and theoretical knowledge creates a barrier especially for language teachers to integrate language learning technology into curriculum (Lee, 2000).

As Kumar (2008:558- 559) states in order to provide an ICT enhanced education, the teachers must be well trained about ICT tools. There are also many studies showing that teachers' ICT capability is an important issue in order to integrate it into curriculum (Pope & Golub, 2000; Albirini, 2006).

Therefore, teacher training programmes or courses which attempt to integrate ICT into preservice teacher education are strongly suggested. Goktas et al. (2009:200- 2002) emphasize the role of effective ICT integration in their study and they present several recommendations for practitioners. According to research results, ICT in-service training for teacher educators should be improved in both quantity and quality, course content should be redesigned to acquire more benefit from ICTs, more ICT-related courses for prospective teachers should be offered and ICT-related courses should be integrated in teaching practice courses in order to encourage ICT integration

As it is stated by Altun (2007: 57) there are three major problems need to be solved in teacher education related to ICT. These are insufficient staff in the area of use of ICT in education, insufficient access to resources and lack of research in this field. Altun also emphasizes the change process in Turkey and suggests that Turkey needs to determine the present situation and Initial Teacher Education has to be developed to integrate ICT by doing empirical research in this field. The research especially identifying the readiness levels of the teachers, lecturers and student teachers has to be conducted.

The rise of technology usage in language teaching has lead a change in the roles of the teachers. Teachers are now not regarded as the source of information but as the facilitators of information. So, language teachers and teacher candidates are expected to have high level of ICT knowledge and ability to use them in their classes. For example, The European Language Profile supported by the European Commission presents items which could be included in a teacher education programme. The items on ICT are given with the explanations in the report as below (Kelly & Grenfell, 2005: 21 -22):

a)Training in information and communication technology for pedagogical use in the classroom: Trainee teachers are taught how to use information and communication technology (ICT) effectively and how to integrate its use into their teaching.

b)Training in information and communication technology for personal planning, organisation and resource discovery: Trainee teachers recognise the value of ICT for organising their own workload and schedules, retrieving and developing resources and archiving documentation.

Similar to the project suggested by the European Commission, the guide published by the National Clearinghouse for English Language Acquisition and Language Instruction Educational Programs (NCELA) provided an overview of the key concepts in terms of teacher education and professional development. According to the guide, as the technology tends to increase engagement, provides a visual or audio component and develops computer literacy for learners, the classes should be designed to make learners gain access to technology. Therefore, teacher

performance criterion for technology is explained as “teachers will be able to identify appropriate technology to support learning” (Ballantyne and the others, 2008: 38).

As ICT is seen as a vital part of professional development of teachers, UNESCO has also determined general teacher competencies in infusing ICT in education. Examples of general teacher competencies are “Understanding why, when, where, and how ICT tools will contribute to learning objectives”, “choosing from among a wide range of ICT tools those that are most appropriate to stimulate students’ learning”, “choosing ICT tools and teaching methods that integrate ICT into the whole curriculum” and “planning a whole learning programme that allows a range of ICT tools and teaching methods to be used, as and when required (UNESCO, 2002: 53- 54).

Even though, it was accepted that the role of technology in education and language learning, the studies conducted to learn how instructors working at university enviroment integrate ICT and what they know about ICT are very limited. A brand new study which focused on technology integration levels of instructors teaching at the different faculties of education revealed that technology implementation levels of the participants are not very high and they do not have enough skills to implement the current technology into their educational settings (Çelik, 2011, 141:163).

Velazquez-Torres (2006:9) conducted interviews with language teachers in order to learn the use of modern technologies in the classroom. It was found in the research that most of the in-service teachers do not use the technology in the classroom as they lacked the skills. Therefore, they felt more comfortable using television or cassette players than multimedia technologies.

AIM OF THE STUDY

The topics discussed above shows the importance of training in teacher education in order to provide ICT enhanced teaching and learning. Because of this reason, besides learning the perceptions and attitudes of the teachers about ICT, their abilities in ICT have to be gathered. In other words, what language teachers are able to do by using the technology and what they are not able to do have to be analyzed. Learning the abilities of teachers in ICT will not only help to design training programs for the teachers but also will give an idea of their classroom practices.

Moreover, identifying teachers’ weaknesses and strenghts in ICT by the help of the study will enable teachers to assess the development of their own ICT skills. With this aim, the study focused on the ICT abilities of foreign language teachers teaching English at the university level. The main aim of this study was to identify language instructors’ strengths and weaknesses in ICT.

METHOD

The study is a descriptive study aiming to determine the status of the lecturers regarding the integration of ICT to learning-teaching process.

A questionnaire was conducted in order to collect data about the demographical features and ICT skills of the participants. The scale ‘ICT4LT (Information and Communications Technology for Language Teachers)’ developed by Davis (2008) was used to measure the ICT skills. A personal details collection form was also used in order to collect information on the demographical features of the participants. SPSS 17.0 package software was used for analyzing the data statistically.

MODEL OF THE RESEARCH

The study was planned and carried out in accordance with the single screening model which is one of the screening models. The single screening model tries to describe the variables regarding the unit and situation such as the relevant event and group separately. This description may be limited to present simple or present continuous tense and also be progressive as a function of the time (Karasar, 2004). The single screening model was selected for this study as it is desired to show whether the ICT skill levels of the objectively selected groups differ as per the variables under this group.

WORKING GROUP

The working group of the study includes the lecturers employed at the schools of foreign languages of four different universities in İstanbul during the school year of 2010 to 2011. All lecturers participating in the study teach English as a second language. All lecturers employed at the universities were chosen for the determination of the

working group; however, those from whom no data was collected, who fell to the complete the scale in full and who were below the average are not included in the study. 42 lecturers in total gave feedback and data analysis was made over 40 applicable scales.

DATA COLLECTION TOOL

ICT4LT (Information and Communications Technology for Language Teachers) project funded by the European Commission which aims to provide Web-based training materials in ICT for teachers of Modern Foreign Languages, including English as a Foreign Language lead the data collection process. In order to get data, the questionnaire designed as a part of the project and compiled by Graham Davies titled "ICT Can Do Lists for Teachers of Foreign Languages for the ICT4LT Website" was used after modification process (Davies, 2008). While the original questionnaire includes 23 applications, the questionnaire used for this study includes 13 applications.

Applications and essential tasks under the heading of each application presented with "can do" list were chosen according to the comments of 10 experts in foreign language teaching, teacher training and ICT fields. Besides, a group of candidate language teachers studying at English language teaching department and a group of candidate teachers studying at ICT department participated in the modification process of the study. Their comments were taken into consideration before designing the latest version of the data collection tool. The statements in the questionnaire which created confusion and had no direct relation with the headings were eliminated.

THE ANALYSIS OF DATA

'x' in the scale means that the participant does not have the skill under the relevant item and is considered as 0. '' sign means that the participant has the skill under the relevant item. It is also used to state relevant skill level.

"0" used for scoring the data means that the skill under the relevant item is not present at all. 1, 2 and 3 mean that the relevant skill is present and shows its level. For instance, "1" means that the skill is at the minimum level and "3" shows that the skill is at a good level.

The comparisons were made by calculating the average of the scores received under the relevant section. t test was used for comparing the averages of ICT skill levels as per gender and receiving or lacking IT education. Moreover, ANOVA test was used for determining whether there is a significant difference between the ages and seniorities and the ICT skills of the lecturers or not.

FINDINGS AND COMMENTS

Demographical details of the participants such as gender, age, title, lecturers' seniority and whether or not they took an ICT course are given with figures and percentage in Table 1 below.

Table 1: Demographic Information

	Gender		Age			Seniority				IT Education	
	Female	Male	Between 20-30	Between 31-40 a	Between 41-50	1-5	6-10	11-15	16-20	Yes	No
Percentage	%65	%35	%37,5	%60	%2,5	%30	%40	%17,5	%12,5	%50	%50
Number	26	14	15	24	1	12	16	7	5	20	20
Total	40			40							

According to Table 1, the participants can be considered as an average group. 65% of the participants (n=26) are women and 35% (n=14) are men. The age distribution suggests that most of the participants (60%) are 31 to 40. Considering in terms of seniority, 40% of the participants (n=16) have been working for 6 to 10 years, 30% (n=12) for 1 to 5 years, 17.5% (n=7) for 11 to 15 years and 12.5% (n=5) for 16 to 20 years. As the table suggests, half of the working group has taken an ICT course and the other half has not.

Table 2: Averages and Overall Average

1	Windows	2.53
2	**Browser**	**2.48**
3	**e-mail software**	**2.45**
4	**Word**	**2.44**
5	**Powerpoint**	**2.12**
6	**Excel**	**1.94**
7	**Anti-virus ve security software**	**1.53**
8	**CD-Roms ve DVDs**	**2.4**
9	**Audio Cds ve DVDs**	**2.21**
10	**İmage editing software**	**1.77**
11	**Audio recording ve editing software**	**1.15**
12	**Video recording ve editing software**	**1.37**
13	**Reference tools: Electronic dictionaries and encyclopedias**	**2.32**
	Overall Average	**2.05**

Table 2 shows the averages of the participants regarding each sub-factor of the ICT skills scale and the general average of the test.

According to Table 2, the highest average of the lecturers in terms of ICT skills is 2.53 for using Windows and the lowest average is 1.15 for using Audio recording and editing software. The use of a Browser, e-mail software, Word, CD-Roms and DVDs, Reference tools: Electronic dictionaries and encyclopedias, Audio Cds and DVDs and Powerpoint follow respectively the use of Windows having the highest average.

The sub-factors below the general average are the use of Excel, Image editing software, Anti-virus and security software, Video recording and editing software and Audio recording and editing software respectively.

The general average is 2.05. It may be suggested from the figure that the ICT skills are generally slightly above the average.

Table 3: Skill Levels Score Regarding Each Sub-Factor

Skill Level	Windows	Browser	e-mail software	Word	Powerpoint	Excel	Anti-virus ve security software	CD-Roms ve DVDs	Audio Cds ve DVDs	İmage editing software	Audio recording ve editing software	Video recording ve editing software	Reference tools
0					**3**	**3**	**9**		**1**	**6**	**12**	**7**	**2**
1	**7**	**7**	**7**	**7**	**8**	**9**	**11**	**9**	**9**	**11**	**13**	**12**	**7**
2	**5**	**6**	**5**	**3**	**7**	**12**	**9**	**4**	**5**	**7**	**5**	**13**	**6**
3	**28**	**27**	**28**	**30**	**22**	**16**	**11**	**26**	**24**	**15**	**8**	**7**	**24**

The skill level as suggested by Table 3 has the following meaning: “0” means that the skill under the relevant sub-factor is not present at all. 1, 2 and 3 mean that the relevant skill is present and shows its level. For instance, “1” means that the skill is at the minimum level and “3” shows that the skill is at a good level.

Table 3 shows that the lecturers have the skills of using Windows, Browser, e-mail software, Word and CD-Rom, DVD-rom at different levels.

Most of the participants (n=12) told that they do not have the skills of using audio recording and editing

software at all. Most of the participants (n=13) stated that they have the skill in terms of the sub-factor of audio recording and editing software at the lowest level. What most of the participants (n=13) told that they have the skill in terms of the sub-factor of video recording and editing software at a medium level. It was found that most of them (n=30) have the ICT skills at the highest level in terms of Word.

Table 4: ICT Skill Level According to Gender

Gender	N	General Average	Standart Deviation	p
Female	26	2,26	,77757	,793
Male	14	2,50	,75955	

According to Table 4, the general average of the female lecturers in terms of ICT skills is X=2.26 and of male lecturers is X=2.5. The P value (p<,05) suggests that statistically there is not any significant difference regarding the ICT skill levels of female and male lecturers.

Table 5: ICT Skill Level According to IT Education

Situation of IT Education	N	General Average	Standart Deviation	p
Yes	20	2,70	,57124	,274
No	20	2,00	,79472	

As the table suggests, half of the working group has taken an ICT course and the other half has not. According to Table 5, the general point average of the lecturers who have taken an ICT course in terms of ICT skills is X=2.7 and of the lecturers who have not taken an ICT course is X=2.0.

Although there is a difference of 0.7 between these two averages, the P value (p<,05) suggests that statistically there is not any significant difference regarding the ICT skill levels of the lecturers who have or have not taken an ICT course in terms of ICT skills.

Table 6: ICT Skill Level According to Age

Age	N	General Average	Standart Deviation	p
20-30 arası	15	2,26	,88372	,645
31-40 arası	24	2,37	,71094	
41-50 arası	1	3,00		

According to Table 6, the general point average of the lecturers aged 20 to 30 in terms of ICT skills is X=2.26, of the lecturers aged 31 to 40 is X=2.37 and of the lecturers aged 41 to 50 is X=3.00.

The P value (p<,05) suggests that statistically there is not any significant difference between the ICT skill levels and ages of the lecturers.

Table 7: ICT Skill Level According to Seniority

Experience Year	N	General Average	Standart Deviation	p
1-5	12	2,66	,65134	,435
6-10	15	2,26	,70373	
11-15	7	2,14	,89974	
16-20	5	2,40	,89443	

According to Table 7, the general point average of the lecturers with a seniority of 1 to 5 years in terms of ICT skills is X=2.66, of the lecturers with a seniority of 6 to 10 years is X=2.26, of the lecturers with a seniority of 11 to 15

years is X=2.14 and of the lecturers with a seniority of 16 to 20 years is X=2.40.

The P value (p<,05) suggests that statistically there is not any significant difference between the ICT skill levels and seniority of the lecturers.

CONCLUSIONS

The ICT skills examined under 13 sub-factors in this study provide detailed information related to the computer literacy of teachers.

First of all, it was found out from the collected data that the teachers employed at the schools of foreign languages of the universities taking part in the research have high ICT skills regarding Windows. The ICT skills of the lecturers are at the lowest level in terms of audio recording and editing software.

Secondly, the general average of ICT skill levels of the participants is 2.05. Examining the average of every sub-factor suggests that the sub-factors above the general average are those such as e-mail and power point which are used more commonly in daily life. It is assumed that the participants are already familiar with the use of this software.

The skills such as audio recording and editing software and image editing software which are not used frequently attract attention when examining the sub-factors below the general average. These applications have become top items in the agenda in the recent years with the further development of the technology.

Although the lecturers find themselves more competent in terms of ICT skills which are used more commonly, the fact that their skill levels are low in terms of up-to-date matters. This finding shows that they need an ICT course which includes more detailed and up-to-date applications in this regard. Such applications which will be needed by the lecturers especially in teaching languages and ensuring more effective teaching should be used both in pre-service and in service teacher training.

Finally, examination of the frequency distribution of every sub-factor reveals that the sub-factor for which most of the participants told that they do not have any skills at all and again that they have skills at the lowest level is audio recording and editing software as mentioned above. Video recording and editing software is the sub-factor that the participants stated that they have skills at the medium level and word is the sub-factor that they told that they have skills at the highest level.

According to these results, the subjects that will be included in the training program can be selected by taking into consideration the skill levels of the lecturers. It is thought that focusing more on the items in which the lecturers' skills are low will be more useful.

This study which also acts as a needs analysis reveals that an ICT course providing the lecturers with the opportunity to develop themselves in matters regarding which they do not have any skills should be prepared.

In the analysis, no significant difference was observed statistically between the lecturers' ICT skill levels and the age, gender, seniority and whether or not an ICT course was received. It was found out that it is not necessary to prepare different contents that take into consideration such variables for an ICT course planned to be prepared.

It can be suggested that an ICT course to be prepared and implemented according to the foregoing principles will increase the quality of all elements in the teaching process from intra-course applications to the material development.

This study is limited to the data obtained from 40 lecturers. Lecturers employed in different cities and having different demographical features may be included in other studies to be carried out.

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The Influence of the War in Cyprus on Turkish Cypriot Families

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ABSTRACT

In this ethnographic research, Akım Family was used to investigate the influence of the Cyprus conflict on Turkish Cypriot families and to find out about their significant problems and living conditions in those days. Data was collected through the use of ethnographic interviews. Data results reveal that major difficulties were faced at the time of war and the effect of these difficulties on the Cypriot families was great

Keywords: *ethnographic research, Cyprus, war and its influence on Cypriot families*

INTRODUCTION

War is the biggest problem for every country. Since ancient times, the world has witnessed many wars. People who have to endure the unpleasant experience of war are affected in different ways; some are injured physically, some psychologically, some in both ways. For this reason, the researcher aimed to display real war experiences in this research. The researcher is a Turkish Cypriot and to elicit data on Turkish Cypriot families' war experiences, she chose AKIM FAMILY as a sample.

THE STUDY:

The study aimed at investigating the life style of Cypriot families, their experiences, living conditions and major problems at the time of war. Qualitative methodology was employed as it is a research type that has grown out of diverse disciplines (anthropology, sociology, psychology etc.) marked by distinctive interest, theories, issues and research methods. In conducting the study, ethnographic research approach was adopted.

Key definitions:

Ethnographic Research:

Ethnographic research is the most complex of all research methods. A variety of approaches are utilized in an attempt to get as holistic a picture as possible of a particular society, group, institution, setting, or situation. The focus of ethnographic research is to document or portray the everyday experiences of individuals by observing and interviewing them with relevant others. Ethnographic studies use in-depth interviewing and ongoing participant observation of a particular situation. Fraenkel and Wallen (2008) claim that

"It involves establishing rapport in a new community; learning to act so that people go about their business as usual when you show up; and removing yourself everyday from cultural immersion so you can intellectualize what you've learned, put it into perspective, and write about it convincingly. If you are a successful participant observer you will know when to laugh at what your informants think is funny; and when informants laugh at what you say, it

will be because you meant it to be a joke."(p.511) (As cited in Bernard (n.d)).

Society:

"[T]he aggregate of people living together in a more or less ordered community. A particular community of people living in a country or region, and having shared customs, laws, and organizations" (http://www.askoxford.com/concise_oed/society?view=uk)

Community:

"[A] group of people living together in one place. [B] (the community) the people of an area or country considered collectively; society." (http://www.askoxford.com/concise_oed/community?view=uk)

Culture:

In Anthropology culture is described as "the acquired knowledge that people use to interpret experience and to generate behavior" (Spradley and McCurdy 1980)

Population and Sample

AKIM family consists of 5 members: Hayriye (Ülviye) Akım and Salahi Akım and their children: Arzu, Arkın and Arman. Hayriye Akım was born in 1947, Salahi Akım in 1940, Arzu Akım in 1971, Arkın Akım in 1972 and Arman Akım in 1977.

Ethical Issues in Design, Data Collection, and Analysis

In the design of this research, attention was paid to ethical issues in data collection and data analysis procedures. Instead of using names, a number was allocated to each participant to provide confidentiality. During this process, informed consents were important as they included verbal contracts for all of the participants in the research. These contracts were designed to give the participants the opportunity to change their decision on continuing with the study if they wanted to. Thus, within the boundaries of this research, Akim family members were voluntary participants of the study.

DATA COLLECTION AND INSTRUMENTATION

The interview is the most important tool that ethnographers employ to collect data. Through interviews, the researcher can put what he or she has seen, heard or experienced into a larger context. Similarly, in this study, data was collected through the use of interviews.

Ethnographic interview

"An ethnographic interview is a particular kind of speech event. Every culture has many social occasions identified primarily by the kind of talking that takes place;" (Sprad 1979) Ethnographic interview is discovery oriented in that the informant, the participant or the client controls what he wants to share with the interviewer. It is a way for the interviewer to discover, to understand, to learn the subjects' views of their own world. Also, ethnographic interview is an interactive data collection process. It requires spending an extensive amount of time with the participants. To yield better results, it is recommended that the researcher lives with client for about a year- depending on the budget and time allocated for the study- to observe, interview and record the process as it occurs at the location. (Joseph and Reed, 2008)

DATA ANALYSIS

Records on the interviewees' background:

HAYRİYE (ÜLVİYE) AKIM : She is 63 years old. She was born in 1947. She graduated from elementary school. She was able to go to secondary school only for one year because her parents did not allow her to continue. Her parents thought that girls should not go to school because if girls go to school, they can find a husband there. Hayriye Akim's teacher tried to persuade her family. She even offered to pay for her education and all her needs related to her education but her parents wouldn't change their decision. Hayriye Akim got married when she was 23 years old in Limasol. She has 3 children. Two of them are boys and one of them is a girl. They got married in Çamlica in 1970.

SALAHİ AKIM: He was born in 1940. He graduated from elementary school. He can speak Greek and English like his native language. He got married when he was 30 years old. He said that, "I got married late because I wanted to

immigrate to foreign countries. I applied to one company that dealt with migration issues but they did not respond so I gave up because I do not like waiting". He claimed that Ülviye (Hayriye)'s uncle helped to get married with Ülviye.

Records of the interview:

Ülviye Akim talked about her pre-1963 experiences in the following way: "We were coming back from my sister's wedding ceremony, from Kyrenia, I fell asleep on the way and dreamed of one group of military people riding horses coming to our hometown. Their leader was Atatürk. 3 days after this dream, 1963 events started. I remember it was right after the new year. In those days, people could not walk in the streets because Greek Cypriots were checking the roads and were monitoring travelers going from one place to another. Everyone was afraid of going anywhere. Only specific groups of people could travel mainly to go to school or work. Even those going to work were in fear. In 1960s, mujahedeens offered to provide protection for people voluntarily.

In those days, people used different techniques for communicating. Some high-ranking soldiers came from Turkey to Cyprus. Greek Cypriots did not allow Turks to go to Nicosia. Greek Cypriots employed women to work for the police forces. When checking girls or women, they made them strip off all their clothes. In 1974, again we had fearful days. I remember on the Elision (???) day, we were in Larnaca. I was with my 2 children alone for 22 days. Salahi could not come home. He made a small lamp that worked with batteries and for 22 days, I could only use this small lamp. Bullet sounds were heard from everywhere. All Turkish Cypriots were in shelter in Kocatepe. İskele (Larnaca) was occupied. United Nations asked Turkish Cypriots to surrender. Turkish Cypriots who lived in Iskele were asked to assemble in the open air cinema garden. Important people burnt all important papers, documents, and some commanders escaped from Larnaca. I stayed with my children until 1 pm. They were hungry and felt hot under the burning sun. We returned home but I did not want to stay there any more. One guy told us "take your ID and follow me". We went with him.

According to rumours Greek Cypriots were taking people to concentration camps, Again on one of those days, I went downstairs (we were living upstairs) to get water from the tap in the garden. Generally, there was no water but that day it was running. Suddenly, Greek Cypriot soldiers appeared next to me. They asked: anybody upstairs?, I said no, if you don't believe, you can go and check. They believed me and they left but my husband and children were upstairs. Only electricians and bakers were allowed to leave the camp. Others had to stay on the camp for one month. Some congressmen escaped from Larnaca. Some people who got the opportunity crossed to the Northern part. I sent my children to Pile. I tried to go to Pile two times and the second time I could cross the border. My husband's sister helped us to go to Pile. She worked at "Doğanın Sesi Radyosu".

My mother-in-law went to Trikomo. In those days, most of the people who lived in Larnaca migrated to Trikomo. I also went to Trikomo with my children. I found a house in front of my mother-in-law's house. As the house was by the side of the main road, I thought we could get help easily from soldiers if anything bad happened. In this house, there was only one bed and a fridge which did not cool. Some important people asked for Salahi's help because he could speak English, Greek and Turkish. They said "please come with us, when the trouble ends, we will satisfy all your needs." After 5 months (in April 1975) Salahi could come to Trikomo, but those people did not keep their promises. Salahi went to find a house with them but he could not find one.

My family lived in Akrotiri and they moved into a dormitory in Lapta. My husband tried to look for a job. We came from South to North with 10 shilling. We could only buy bread with this money. We did not have any money. I had to sell my bracelets to pay the rent of our house in Larnaca when we were there. We were still paying for the house goods we bought. When we moved to the Northern part, we were really in a very difficult situation. In those days, Turkey helped us to maintain our needs. Food was given to us and my husband sent money to me for the children's medicine. We lived like that for about a year. That period was very different. We shared pains, thoughts and everything we had but now it's not like that.

Salahi Akim joined the conversation saying that he started a radio channel with his friend, Sadi. They named it "Doganın Sesi".(Figure 4). Salahi Akim talked about this experience in the following way: "I could make good equipments and other radio channels like Bayrak wanted me to produce the same kind of tools for them because they couldn't do it. Greek Cypriot had these equipments but Turkish Cypriot didn't. I could produce these. For broadcasting we used car batteries"

As these stories shared by the Akim family show Turkish Cypriots faced a lot of difficulties and serious problems during the war in Cyprus. They lost their houses and some of them lost their lives. In short, they lost their past and could not dream about a future for themselves and their families for a certain period of time.

Limitations of the study:

This study was conducted within a limited time frame. More time was needed to investigate the AKIM FAMILY in more detail. Shortage of information is another limitation of the study. While conducting the interviews, the

researcher did not want to interrupt the interviewees to collect information on other relevant topics.

CONCLUSION

In this ethnographic research, the researcher tried to explore the war experiences of one Cypriot family in year 1974. In this research, significant information was gathered from the interviews held with Hayriye (Ülviye) and Salahi Akım. For future studies, this research can be improved by collecting more information and by making it more comprehensive. Every war is traumatic. It destroys people's lives no matter at what age they are; in wars old and young people die but the most distressing loss is the death of many innocent children.

Figure1.Salahi Akım at 15 years of age.

Figure 2. Salahi Akım and Haluk Gara, the oldest mayor of Trikomo.

Figure 3. Salahi and Hayriye (Ülviye) Akım on their wedding day in 1970.

Figure 4. Salahi Akım while he was working for "Doğanın Sesi Radyosu" in the 1970s.

Figure 5. Salahi Akım with British soldiers

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