

Başvuru Tarihi: 05.05.2017 **Received Date:** 05.05.2017

Yayına Kabul Tarihi: 16.06.2017 **Accepted Date:** 16.06.2017

Yayınlanma Tarihi: 31.07.2017 **Published Date:** 31.07.2017

'Interpersonal Interaction Process for Distance Learners: An Example from Turkey in Line With the Concepts of Digital Natives and Digital Immigrants' başlıklı makale, İstanbul Üniversitesi Bilimsel Araştırma Projeleri (BAP) Birimi tarafından BEK-2016-22522 proje numarası ile desteklenmiştir.



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INTERPERSONAL INTERACTION PROCESS FOR DISTANCE LEARNERS: AN EXAMPLE FROM TURKEY IN LINE WITH THE CONCEPTS OF DIGITAL NATIVES AND DIGITAL IMMIGRANTS¹

Abstract

Within the scope of the study, a focus group interview was conducted with the 8 distance education students who can be defined as digital natives and 8 distance education students who can be defined as digital immigrants. Students were chosen from different departments in Istanbul University's Faculty of Open and Distance Education. Among the important questions that asked as a part of the study are what communication tools they prefer to communicate with all stakeholders under the distance education system, what kind of problems they experience in the communication process and what their expectations are regarding the communication practices. In conclusion, it is determined that there are some differences in communication habits between digital native and digital immigrant students. It is revealed that such differences are able to reflect on their learning practices. While digital natives expected to enjoy more interaction opportunities on the formal educational software through the social networks, digital immigrants expected some initiatives for collaborative studies. Technical problems are important factors that adversely affect the learning activities for both groups.

Keywords: Interpersonal Communication, Distance Education, Interaction, Digital Native, Digital Immigrant.

UZAKTAN ÖĞRENENLER İÇİN KİŞİLERARASI ETKİLEŞİM SÜRECİ: DİJİTAL YERLİ VE DİJİTAL GÖÇMEN KAVRAMLARI KAPSAMINDA TÜRKİYE'DEN BİR ÖRNEK

Öz

Çalışma kapsamında, İstanbul Üniversitesi Uzaktan Eğitim Fakültesi'nde öğrenim gören, farklı bölümlerden 8 dijital yerli olarak tanımlanabilecek uzaktan yüksek öğretim öğrencisi ve 8 dijital göçmen olarak tanımlanabilecek uzaktan yüksek öğretim öğrencisi ile odak grup görüşmesi gerçekleştirilmiştir. Öğrencilere, uzaktan eğitim sistemi dahilinde tüm paydaşlarla hangi iletişim araçlarıyla iletişim kurmayı tercih ettikleri, iletişim sürecinde yaşadıkları sorunların ve beklentilerinin neler olduğuna yönelik sorular sorulmuştur. Sonuç olarak, dijital yerli ve dijital göçmen öğrencilerin iletişim kurma süreçlerinde farklılıklar olduğu ortaya konmuş ve bu farklılıkların, onların öğrenme süreçlerine de yansıdığı tespit edilmiştir. Dijital yerli olarak tanımlanan öğrenciler, kurumsal dijital öğrenme ortamları üzerinde sosyal ağlar aracılığıyla daha çok etkileşim beklentisi içinde iken, dijital göçmenler sistem üzerindeki uygulamalar aracılığıyla grup çalışmasına yönelik girişimlerin güçlendirilmesini talep etmektedir. Teknik sorunlar, her iki grubun öğrenme faaliyetlerini olumsuz yönde etkileyen faktörlerdir.

Anahtar Kelimeler: Kişilerarası İletişim, Uzaktan Eğitim, Etkileşim, Dijital Yerli, Dijital Göçmen.

¹ Bu makale, 19 Kasım 2016'da "Sydney 4. Uluslararası "Business, Economics, Social Science & Humanities-BESSH-2016" konferansında sözlü bildiri olarak sunulmuştur.

This manuscript was presented as an oral presentation on November 19, 2016 at the Sydney 4th International Conference on "Business, Economics, Social Science & Humanities- BESSH-2016".

Introduction

Daily-life habits have changed through the medium of new communication technologies. These technologies have transformed many things in our social life including the way of communication, business, and above all education. Technological developments have affected the traditional teaching and learning processes to an exceeding extent. Distance education provides many chances for people and organizations. Price advantage, independence from of time and space, suitability for learners of all ages, democratization of education, and high level interaction ability are some of the most important gains. However, individuals can face some difficulties in the process of distance education due to distance communication barriers. Social, physical, psychological and technical aspects of such barriers affect learners on different levels. Age factor is important determinant in terms of technology usage. Basically, each person has their own way to learn. Different learning styles lead to different content offers in distance education. Therefore, distance education method is a constructive approach. However, one should remember that if any learner would like to take advantage of distance education in an effective manner, he/she needs to have some skills on an Internet-based online learning environment. Digital natives have an edge over digital immigrants in terms of technology. However, it is known that one and only variable to learn is not technological efficiency.

Internet environment, which is an important variable in distance education, offers usage variety thanks to its multiple options for students. The distance communication feature of distance education system may put pressure to remove or reduce the enforcing relation between a teacher and a learner inherently as many critical philosophers state. The absence of a physical classroom environment and the opportunity of independence from time and space communication can be supportive on learners; thus, they can share their opinions in a liberal fashion. Expectations of learners have varied in parallel with bountiful learning instruments and this situation can boost the motivation of digital immigrants. Distance education systems are learning-teaching methods of today and the future.

However, it should not be forgotten that, even while in face-to-face communication, the transactional distance perception can affect the dimensions of the interaction between the learner and the teacher, many technical and subjective factors may cause different perceptions on learning process for learners who have a generation gap among them. For this reason, solely strengthening of interaction utilities does not mean that the benefits of the educational process will be equally consumed by all.

It is considered that the interpersonal communication habits of learners on distance education tools can reveal some clues about learning styles of learners. Determining the differences between expectations of digital natives and digital immigrants is one of the most important purposes of this study. Thus, the question of whether or not the concepts of digital native and digital immigrant are only about the technological efficiency has been raised.

The Concepts of Digital Native, Digital Immigrant

Several concepts have been used to describe the generational gap in terms of technology. The people calling digital natives by Prensky have been described as “Net generation” (Tapscott, 1998, 2008; Oblinger & Oblinger, 2005) and “Millenials” (Strauss & Howe, 1992, 1997; Howe & Strauss, 2000). Some researchers, who study on new technologies and education, state that there is a new population emerging from young people born after the time when digital technologies began to be embedded in social life sometime in the 1980s (Palfrey & Gasser, 2008; Tapscott, 2008). Prensky (2001, 2) claimed that the students have changed radically. Today’s students are no longer the people that the educational system was designed to teach.

This new generation has a natural tendency and high skill levels while they make use of new technologies. As a justification about this view, these young people have grown up with computers and the Internet. Prensky claims (2009) that digital tools extend and enhance our cognitive capabilities in a number of ways. Enhancing memory via electronic storage and data

flow, providing correct decision-making methods, the possibility of performing more complex analyses than we could unaided are some of them. All of these possibilities are provided via laptops, online databases, three-dimensional virtual simulations, online collaboration tools, PDAs, and a range of other context-specific tools.

The age range of the people who are called the new generation has changed. While Tapscott (1998) starts the new generation with extreme precision in January 1977 and ends it with a further generational shift into Generation Next in December 1997, Prensky (2001) has not specified any date range to define the new generation. However, the idea of the digital natives suggests that digital natives manifest themselves after the year 1980. So, the people born before the year 1980 are 'digital immigrants'. Oblinger (2003, 38) has claimed that Millennials were born in or after the year 1982. Millennials show different characteristics and differ from the people who are just a few years older. They claim that few years make a significant difference in young people's attitudes.

Prensky (2001) asserts with reference to Dr. Bruce D. Berry's opinion that different kinds of experiences lead to different brain structures and the brain of new generation students has physically changed. He explains this change on the basis of the use of technology. He defines the generational gap with the concepts of 'digital natives' and 'digital immigrants'. Digital natives are 'native speakers' of the digital language of computers, video games and the Internet. They are used to receiving information really fast. They like to relate processes and multi-task. Digital immigrants were born before the widespread adoption of digital technology. So, they have difficulty in adapting to the new technologies. This problem can reflect on their learning and teaching skills through new technologies. They have difficulty in understanding new skills about technology and modern students.

As is seen from the views of researchers, being a digital native or a digital immigrant has been explained with technological transformation experienced by the people of the world and their ages/generation. If we associate the concept of traditional literacy with the concept of digital immigrants, we can define the concept of digital native as the competence of digital literacy.

After conceptualizing of Prensky, numerous researches have been conducted on this subject. One of the most important empirical studies surveyed on 2120 undergraduate students in Australia in 2008 revealed that people who have same characteristics on the technology adoption show different tendencies. While established technologies such as mobile phones and e-mail did not affect the outcome, advanced and cutting-edge technologies have led to lack of homogeneity. Researchers conclude that the widespread revision of curricula to accommodate the so-called Digital Natives does not seem assuring since they cannot assume that being a member of the Net Generation is synonymous with knowing how to employ technology strategically to optimize learning experience at university settings (Kennedy et al. 2008, 10).

A survey was conducted on e-learning students at five universities in England. Students were chosen among the freshmen studying a range of theoretical and applied subjects. They were described as a net generation or digital natives. Researchers tried to explore age-related differences amongst the freshmen. While some of these students made little use of some technologies, the others made extensive use of new technologies. Often, the use of new technology was in ways that did not fully correspond with the expectations that arise from the theses on the net generation and digital natives. This research reveals that while there are strong age-related variations amongst the students, it is difficult to describe young first-year students born after 1983 as a single generation. These students are not homogenous in use and appreciation of new technologies and there are significant variations amongst students that remain within the net generation age band (Jones et. al., 2010, 722).

A study conducted to explore how students make use of digital technologies for learning and socialization shows that the students made use of a limited range of mainly established technologies. The use of collaborative knowledge creation tools, virtual worlds, and social

networking sites was low. The use of technology has given varying results depending on disciplines and generations. Digital natives and students of a technical discipline made use of more technology tools when compared to the digital immigrants and students of a non-technical discipline. The study did not point to any evidence to support the popular claim that young people adopt radically different learning styles. The habits of students and the teaching mindsets of lecturers are more effective than the other determining variables (Margaryan & Littlejohn & Vojt, 2011, 429).

“The use of technologies for learning should not only be based on a student’s preferences and current practices, but on a profound insight into what the educational value of these technologies is and how they improve the process and the outcomes of learning” (Margaryan & Littlejohn & Vojt, 2011, 439).

The results of a study related to digital skills and social media usage shows that men and more educated young people with higher levels of digital skills and called ‘digital natives’ were not homogeneous groups. It is revealed that digital skills did not provide insight into the frequency of Facebook usage. Furthermore, Facebook was used by poorly-educated young people more frequently. While more educated and skillful individuals tended to use Facebook for informational and mobilizing purposes, socio-demographic factors and skills did not make a difference in Facebook usage for social purposes (Correa, 2016, 1095). A study over Twitter usage revealed that digital natives suffer from more social pressure to use Twitter and find it easier but less useful than digital immigrants do (Metallo & Agrifoglio, 2015).

Another study seeking to find out how digital natives and digital immigrants respond differently to interactivity online shows that the control and communication dimensions of perceived interactivity lead to more positive attitudes and the adoption intentions for digital natives, but this is not stable for immigrants. Digital natives responded more favorably when they are provided with opportunities for active involvement in a dialogue with the web site (Kirk et. al. 2015).

When all these researches are put into perspective even to the extent to identify some specific differences between digital natives and digital immigrants, it is clear that there are no groups with certain and homogeneous characteristics.

A study seeking an answer to the question of whether digital natives are better learners or not revealed that digital natives should not focus solely on technical skills and usage. It is because people have several perception structures that affect them (Kolikant, 2010). On the other hand, Prensky holds out to argue the effectiveness of digital competence and propounds the concept of digital wisdom.

Prensky (2009), based on the concept of digitalization and wisdom, put forward the concept of digital wisdom. He claims that as technology becomes more sophisticated, decision-making processes and the ability to solve complex problems will improve. The human mind cannot remember everything as detailed and voluminous data are quickly lost. In some ways, this is good in that it forces us to be selective, but it also limits our analytical capacity. Digital technology stores everything we need and helps us to solve complex structures. Despite many opposing views, Prensky says that the digital technology makes us smarter. If we enhance our digital capability and improve habits, we can be wiser than ever before.

Distance Education and Interpersonal Communication

Distance education practices require a well-structured communication process. Education in a traditional sense offers many options about face-to-face interaction inherently. However, distance education needs some tools and applications for interpersonal communication among users and the design of such tools is important at least as tools.

There is a significant difference between distance education and distance learning concepts. Distance education is a system run by an educational institution or organization. These organizations have major responsibilities. As for the distance learning, it is what students do and,

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therefore students are the ones with responsibilities regarding their learning process. Education and learning are not the same concepts (Berge, Z. L., 2013, 376). In this regard, the current study includes a sample of distance education components.

Internet-based distance education offers colleges and universities at a low-cost and with flexible options to expand into global markets (Casey, 2008). Today, a great deal of universities around the world delivers their curriculum to students through distance education faculties or centers. However, distance education system requires a different type of pedagogy and technological skills from the traditional educational systems.

Although distance education method offers a significant contribution to the education system, Berge (2013, 376-377) sorts some of the important types of distance education barriers. These are cognitive distance, contextual distance, cultural distance, emotional distance, language distance, pedagogical distance, physical distance, psychological distance, social distance, technical distance, and temporal distance. These communication barriers lead to some difficulties in communication.

The universities which provide distance education should offer some services to support the students such as pre-enrollment services, academic advising, learning resources, counseling, social assistance, technical assistance, and financial aid. If the universities would not provide such services, they might be concerned about their educational life. The most important elements of online services are carefully-designed information, communication, interaction, and transaction capabilities (Collins, G. R. & Van Hoof, H. B. 2001, 5). High levels of interaction can solve lacking of social cues and provide successful circles for distance education. It also offers a positive attitude and greater satisfaction for students (Desai et al. 2009, 328).

Berger (1999) states that the web-based distance education practices could make students anxious and less motivated unless they are presented with context clues or a common experience base by instructors. Distance education practices force educational institutions to rethink over their programs and course offerings. Distance education has room for improvement consistently and it always has had uncharted territories.

A research conducted by Boling and others shows that to provide a sense of community with a constructive feedback and open forthcoming communications as well as recognizing membership and sense of friendship, cohesion, and satisfaction among learners are the major challenges for institutions and instructors. Two-way interaction is a critical feature of any educational process (Boling et al. 2012, 123).

Interaction in distance education has been one of the most important considerations since early times of distance education literature. For this reason, distance education practices should be designed to facilitate interaction. The outputs of design should involve the target audience and their expectations.

Moore and Kearsley (1996) lay emphasis on the interaction in distance education and they define three major interaction flows (see more, Moore, 1989). This flow processes between learner-learner, learner-instructor and learner-content. Students share information, knowledge, thoughts or ideas regarding course content among one another. The learner-instructor interaction consists of two-way communication between an instructor of a course and learners. Learner-content interaction is about the process of technological aspect of the course contents and students.

“When student-to-student interaction becomes truly collaborative and learners work together to help each other learn, the benefits of interactivity may be largest” (Abrami et al. 2011, 92).

A relation between interaction types and students' satisfaction was determined in a study conducted on undergraduate and graduate students. While learner-content interaction was the strongest predictor of student satisfaction, learner-instructor interaction was the second strongest predictor that significantly contributed to student satisfaction. The learner-learner

interaction did not have any strong effect on students' satisfaction (Kuo et al. 2013, 30-31). This result shows that experts, instructors, engineering designers and content producers have to overemphasize on design of online contents.

In order to be able to evaluate the distance learning process with all its components, it is useful to refer to the concept of transactional distance, which is both influencing factor and ordinary results of the interaction process. Moore and Kearsley (2011) defined transactional distance as a gap related to communication and being understood arising from the geographical distance between teacher and students. It is clear that transactional distance is not only a physical distance between the student and the teacher. Physical distance in distance education is also an issue that can lead to psychological and communicative gaps between the teacher and the student. As a result of transactional distance, failures may occur between teachers and students about misunderstanding and establishing a dialogue. In other words, "transactional distance is a continuous rather rather than a discrete variable, a relative rather than an absolute term" (Moore, 1993, 22-23).

According to Moore and Kearsley (2011), the components of transactional distance are dialogue, structure, and autonomy. Whilst dialogue refers two-way interactions between learner and teacher, structure refers to the structure of the programs offered to the students in distance education. Factors including the structure are flexibility or stiffness extent of courses, organization, curriculum, guidelines, technology and evaluation elements. As long as the structure is not efficient and flexible, the transactional distance will increase. The concept of autonomy of learners was introduced by Rogers (1969). Rogers noted that learners can make their own learning plans by themselves. They can determine and access the necessary learning resources and assess their own learning activities.

There are some researches over the fact that interpersonal communication plays a significant role on confidence building in distance education (Smith, 2008; Keyton, 2000; Handy, 1995). Lack of confidence in distance education components may decrease students' satisfaction and educational performance during online instruction. Online learning inherently requires a greater responsibility for learners (Moore & Kearsley, 1996). It is because an instructor's role in distance education has transformed due to the expectations of learners. Instructors lead forth to students such as mentors, coordinators, facilitators (Hardy & Bower, 2004; Smolin & Lawless, 2003).

Interpersonal communication and trust are of capital importance in our daily life and it serves us with many functions. People shape and nurture their self-concepts, make decisions about their lives, share information with others, and express ideas and innermost feelings through communication. Some of the most important interpersonal communication motives are control, nurturance, dependence, detachment-affiliation, deference, mistrust, submissiveness, recognition, abasement, and sociability (Rubin et al. 1998, 602-603). The relationship of members from different cultures may result in a potential case of mistrust, opportunism and conflict. Cultural adaptation between members is an important point to solve problems (Chang et al. 2014, 1330-1331).

Trust among group members has been suggested as an important part of small group studies in online classes. As group members enhance the interpersonal relation, they put more trust in each other. However, researches point to complicated results. A study explored how students' perceptions of the importance of interpersonal relationships in online groups affect their perceptions of trust and experiences within the group. A survey was conducted on 137 students. Their experiences within the group were investigated. The participants did not find interpersonal relationships necessary in trust development. The student gender and type were important factors in determining the type of experiences that students had within their online groups. Men were reported to have more negative experiences than women, and the distance education students sought relationships with group members more than on-campus students (Wade et al., 2011).

In general, even though face-to-face education shows stronger satisfaction indications on students in comparison with distance education, the answer of which education system is the best to effectively learn for students may change according to a student's learning style and individual differences (Allen et al. 2002). From this point of view, content producers, instructors and engineering designers should set up a system considering all learning styles and differences among students. An effective distance learning design would have to combine the traditional and the new perspectives with blended options successfully.

Buckley and others improved the Approaches and Study Skills Inventory for Students (ASSIST) survey tool (as cited in Entwistle & Ramsden, 1983) to find the relationships between a student's approach to study, conceptions of learning and judgments about the value of networked technologies. Within the scope of this research, 144 freshmen completed the 52-items from the survey tool. A series of focus group interviews were put to use to assess attitudes towards the use of networked technologies as a part of a blended curriculum. The results show that significant positive associations between deep learning and strategic approaches to study and a student's perceptions of information and communication technologies usage, as well as negative associations with a surface approach. Some of the important findings of this study were that the majority of students were aware of their own study approaches and strategies and the students managed to be independent learners based on their own strategies and they were keen on expressing themselves in a vibrant environment. Researchers suggest that blended technologies are offered for students to help their learning needs (Buckley et al. 2010).

Blended education models in higher education especially in North America and Europe have reached a tipping point. Finding a class deprived of any digital technology is almost impossible. Developing countries have various distance education models that generally have been put into effect in post-secondary schools. Distance education models also promote the development of professional skills (Venkatesh et al. 2013, 6).

Social media networks such as Facebook, Twitter, Skype, Youtube etc. and mobile devices are changing the way we communicate. Podcasts, videocasts and blogs have become integrated into the all above-mentioned medium and they are used in our daily lives and business. These new communication ways have some significant advantages as well as barriers that reduce communication. All these facts are valid for distance education platforms. Innovation in communication will determine the future of distance education (Berge, Z. L., 2013, 374). Today, social networks and communication options of these applications are the most preferred tools by students in distance education. So much so that such sites and applications are daily habits of the students and they are also indispensable for distance education. Students generally prefer such social networks in a way to engage with formal educational software via hyperlinks or innovative modules.

The educational software, which is a knowledge tool, is a main component for learning process. Instructional design of educational software maximizes the effectiveness, efficiency and appeal of instruction and other learning experiences. Strong instructional design covers the effective knowledge tools and allows for integrated content tools (Abrami et al. 2011).

Purpose and Importance

Education has been the most important fact since the early times of mankind. Education is also a communication process. In particular, communication practices become more important when it comes to distance education processes. The design of communication tools is a determining factor. While face-to-face communication can be conducted as a way of improvisation, distance communication practices require some technological proficiency and purposive design. Education provided at an innovative web-based setting has been incorporated into technology. Therefore, the connection of people with technology may affect the quality and effectiveness of education. There are some theories about technology usage as a part of digital

natives and digital immigrants. Technological competencies between digital natives and digital immigrants lead to different results on learning proficiency of distance education students.

Based on this significance, the purpose of the study is to determine the problems, expectations and communication preferences in educational process of distance education students.

Research Questions

Some questions should be raised to gain insight into the communication habits, expectations and differences of digital natives and digital immigrants in their distance education period.

- What communication tools do they prefer to communicate with all stakeholders in distance education system?
- What kind of problems do they experience in the communication process?
- What are their expectations regarding the communication practices?

Method

The study was conducted through a technique of focus group interview as a part of a qualitative research method. The Qualitative Research Council of the Advertising Research Foundation (1985, 8-9) recommends eight to ten participants per focus group to take advantage of group dynamics while maintaining the control that comes with smaller groups. Although some focus group experts prefer twelve participants, the larger size, while doable, slows the pace of the focus group discussion. This can cause participants to lose interest since it takes longer to share their opinions.

Within the scope of this study, a focus group interview was carried out with 16 students who study in Istanbul University from various majors. All students were selected taking into account their ages following a pre-test. In particular, the students who studied in a higher grade than the freshman were preferred. 8 students as digital natives (born after 1980) and 8 students as digital immigrants (born before 1980) were selected for the interview. The age ranges of the students are 19-24, 25-32, 35-40, and 42-51. There are 4 students in each age group.

2 of the participants study in the Department of Radio TV and Film, 2 students from the Department of Journalism, 2 from the Department of Public Relations and Publicity, 2 from the Department of Labour Economics and Industrial Relations, 2 from the Department of Economics, 2 from the Department of Public Finance, 1 from the Department of Turkish Language and Literature, 1 from the Department of Business, 1 from the Department of Econometrics, and 1 from the Department of Computer and Instructional Technologies.

The interviews with the participants were carried out on September 2, 2016 in the official premises for the Faculty of Communication, Istanbul University. The participants were divided into 2 groups as digital natives and digital immigrants. The interviews for each 8-person groups were conducted for 1 hour without any break.

Findings

The questions posed within the scope of the focus group interview were prepared in a semi-structural fashion. The interviews were performed by way of 'note-taking', 'information form' and 'voice recorder' accompanied by a moderator and a reporter. The data acquired during the interviews were processed by Krueger's (1994) 'Focus Group Information Form'.

The participants were noted down of the codes ranging from DN1 to DN8 (Digital Natives) and DI1 to DI8 (Digital Immigrants). At the same time, they were divided into categories in accordance with their majors.

DRTF refers to the Department of Radio TV and Film, DJ refers to the Department of Journalism, DPRP refers to the Department of Public Relations and Publicity, DLEIR refers to

the Department of Labour Economics and Industrial Relations, DE refers to the Department of Economics, DPF refers to the Department of Public Finance, DTLL refers to the Department of Turkish Language and Literature, DB refers to the Department of Business, DECS refers to the Department of Econometrics, DCIT refers to the Department of Computer and Instructional Technologies.

The questions posed were as follows:

Q1: What communication tools would you prefer to communicate with all stakeholders (students, instructors and administrative units) as a part of a distance education system?

Q2: What communication tools would strengthen the interpersonal communication opportunities in a distance education system?

Q3: When you communicate with the stakeholder groups, for what stakeholder group do you need the interpersonal communication opportunities most?

Q4: What kind of problems do you experience in the communication and course process?

Q5: What are your expectations regarding the communication practices?

In a focus group study, the issues concentrated by most of the participants and given answers were processed and analyzed in consideration of ‘the frequency of words and phrases’. The data set is shown below:

Table 1. The Focus Group Interview Data Set

The date of focus group:			September 2, 2016	
The place of focus group:			Istanbul/ I.U. Faculty of Communication	
Number of participants / Description:			16 – I.U. Distance Education Students	
Codes of Questions	Codes of Departments	Codes of Participants	View (All answers)	Focus Points
Q1	DKIF, DI, DPRP, DLKIE, DE, DPF, DTLL, DECS	DN1, DN2, DN3, DN4, DN5, DN6, DN7, DN8	1)with the classmates via Facebook and other social platforms, with the instructors via Facebook and E-mail, with the administrative units via message board and telephone 2)with the classmates via Facebook and Twitter, with the instructors via Facebook, E-mail, WhatsApp, with the administrative units via message board and telephone 3)with the classmates via telephone and WhatsApp groups, with the instructors via E-mail, with the administrative units via telephone 4)with the classmates via Facebook and other social platforms, with the instructors via Facebook and E-mail, with the administrative units via message board and Twitter	With classmates: Facebook WhatsApp Social Platforms With instructors: E-mail Facebook Telephone/WhatsApp With administrative units: Message board Telephone Twitter

			<p>5)with the classmates via Facebook and other social platforms, with the instructors via Facebook and E-mail, with the administrative units via message board and telephone</p> <p>6)with the classmates via WhatsApp groups, telephone, with the instructors via E-mail, with the administrative units via message board and telephone</p> <p>7)with the classmates via WhatsApp groups and Twitter, with the instructors via E-mail, with the administrative units via message board and telephone</p> <p>8)with the classmates via WhatsApp groups, with the instructors via E-mail and telephone, with the administrative units via message board</p>	
	DKTF, DI, DPRP, DB, DLKIR, DE, DPF, DE, DCIT	DI1, DE2, DE3, DI4, DE5, DE6, DI7, DE	<p>1)with the classmates via WhatsApp groups and Facebook, with the instructors via E-mail, with the administrative units via telephone</p> <p>2)with the classmates via Facebook, with the instructors via E-mail, with the administrative units via telephone</p> <p>3)with the classmates via Facebook, with the instructors via E-mail and telephone, with the administrative units via telephone and rarely message board</p> <p>4)with the classmates via WhatsApp groups and Facebook, with the instructors via E-mail, with the administrative units via telephone</p> <p>5)with the classmates via WhatsApp groups, with the instructors via telephone, with the administrative units via telephone</p> <p>6)with the classmates via WhatsApp groups and Facebook, with the instructors via E-mail, with the administrative units via telephone</p> <p>7)with the classmates via WhatsApp groups, with the instructors via E-mail, with the administrative units via telephone</p> <p>8)with the classmates via WhatsApp groups and other social networks, with the instructors via E-mail, with the administrative units via telephone</p>	<p>With classmates: WhatsApp groups Facebook Social Networks</p> <p>With instructors: E-mail Telephone</p> <p>With administrative units: Telephone Message Boards</p>
Q2	DKTF, DI, DPRP, DB, DLKIR, DE, DPF, DTLI, DECS	DN1, DN2, DN3, DN4, DN5, DN6, DN7, DNE	<p>1)a highly interactive software that integrates all social networks</p> <p>2)Facebook, Twitter and WhatsApp groups</p> <p>3)a chance to communicate with an entire class live</p>	<p>Social networks WhatsApp groups Interactive software</p>

			<p>4)a new software that integrates all social networks 5)video chat tools and social networks 6)hyperlinks offered by instructors 7)Facebook, Twitter and other social networks 8)WhatsApp groups</p>	
	DKIF, DI, DPRP, DLHR, DFE, DCIT	DI1, DI2, DI3, DI4, DI5, DI6, DI7, DI8	<p>1)Contact (E-mail) groups and WhatsApp groups 2)Skype video-conferencing groups, Facebook and interactive live lesson 3)Facebook and WhatsApp groups 4)a new software that integrates all social networks 5)WhatsApp groups 6)WhatsApp groups and Facebook 7)Facebook groups 8)All social networks</p>	<p>Chat groups Social networks</p>
Q3	DKIF, DI, DPRP, DLHR, DFE, DTLI, DECS	DN1, DN2, DN3, DN4, DN5, DN6, DN7, DN8	<p>1)Classmates 2)Classmates 3)Instructors 4)Instructors 5)Instructors 6) Instructors 7)Classmates 8)Instructors</p>	<p>Instructors Classmates</p>
	DKIF, DI, DPRP, DLHR, DFE, DCIT	DI1, DI2, DI3, DI4, DI5, DI6, DI7, DI8	<p>1)Classmates 2)Classmates 3)Classmates 4)Instructors 5)Instructors 6)Classmates 7)Classmates 8)Classmates</p>	<p>Classmates Instructors</p>
Q4	DKIF, DI, DPRP, DLHR, DFE, DTLI, DECS	DN1, DN2, DN3, DN4, DN5, DN6, DN7, DN8	<p>1)The lack of visual communication means 2) Technological inefficiency of the instructors 3)The lack of interaction officially 4)Technical inefficiency on educational software 5)Technical problems on educational software 6)The ordinary of the course content and the lack of interaction 7)Technological inefficiency of the instructors 8)The lack of audio-visual factors of course contents</p>	<p>Lack of interaction The ordinary of course contents Instructors</p>
	DKIF, DI, DPRP, DLHR, DFE, DCIT	DI1, DI2, DI3, DI4, DI5, DI6, DI7, DI8	<p>1)Individual habits of the classmates 2)Insufficient content presentation in the technological sense 3) Instructors do not encourage the students for teamwork. 4)The lack of interaction between classmates 5)Technical problems on educational software 6)Insufficient content presentation by instructors 7)The lack of interaction between classmates</p>	<p>The lack of interaction between classmates Insufficient contents Technical problems</p>

			8)The lack of audio-visual factors of course contents	
	DKTF, DI, DPRP, DLKR, DPE, DCT	DI1, DI2, DI3, DI4, DI5, DI6, DI7, DI8	1)Individual habits of the classmates 2)Insufficient content presentation in the technological sense 3) Instructors do not encourage the students for teamwork. 4)The lack of interaction between classmates 5)Technical problems on educational software 6)Insufficient content presentation by instructors 7)The lack of interaction between classmates 8)Technological inefficiency of the instructors	The lack of interaction between classmates Insufficient contents Technical problems
Q5	DKTF, DI, DPRP, DLKR, DPE, DTL, DECS	DI1, DI2, DI3, DI4, DI5, DI6, DI7, DI8	1)All social networks should be integrated into the official educational software 2)All stakeholder should be encouraged to use social networks 3) Audio-visual contents should be enhanced 4)All social networks should be integrated to the official educational software and instructors should be trained about use of technology 5)Technical problems should be fixed 6)More options should be offered about visual contents 7)Instructors should be integrated into the social networks and virtual working groups 8)Instructors should be more effective about content production	Social networks usage Rich contents
	DKTF, DI, DPRP, DLKR, DPE, DCT	DI1, DI2, DI3, DI4, DI5, DI6, DI7, DI8	1)All stakeholders should care to participate in the entire online processes 2)More options should be offered about audio-visual contents 3)The classmates should be willing to cooperate on teamwork 4) Technical problems should be fixed and more options should be offered to communicate with instructors apart from course time 5)Technical problems should be fixed on software and interactive means should be enhanced 6)More options should be offered about audio-visual contents 7)Interaction and interactive tools between classmates should be increased 8)All technical problems should be fixed and in particular technological efficiency of instructors should be enhanced	Team work and high interactive activities Rich contents

According to the data acquired as a result of the focus group interviews, it was determined that the tools preferred by participants to communicate varied by stakeholders. Both digital natives and digital immigrants preferred social networks in particular Facebook to communicate with their classmates. It was concluded that the digital immigrants tended to use WhatsApp groups more than natives. While digital natives tended to communicate with instructors via E-mail, Facebook, and Telephone, digital immigrants preferred to communicate via only E-mail and Telephone. Digital natives stated that they preferred to communicate with administrative units such as the registrar's office via a message board within the settlement center as a first choice ranking before Telephone and Twitter. Digital immigrants preferred to communicate with administrative units via telephone as a first choice ranking before the message board.

For the answers of the question of what communication tools would strengthen the interpersonal communication opportunities in distance education system, digital natives suggested the social networks, WhatsApp and the educational software that integrate all these social communication applications. Digital immigrants suggested the written and audiovisual chat tools of all social networks.

While digital natives, mainly, considered important the opportunities of interpersonal communication with the instructors, digital immigrants stated that they needed opportunities of interpersonal communication with the classmates.

The problems experienced by digital natives in the process of communication and course in distance education were the lack of interaction, the ordinary course contents and inefficacy of instructors in terms of technology. The digital immigrants noted that instead of a general lack of interaction, especially the lack of interaction with classmates, insufficient contents and technical problems were the most important problems they experienced.

Digital natives expected to use the tools such as social networks integrated into formal educational software and richer contents for their educational and communicational efficiency in distance education process. The expectations of digital immigrants were mostly comprised of working in cooperation with the classmates, the tools and the efforts encouraging team works.

It does not seem possible to pinpoint any determinant factor according to the features of departments when it comes to the responses of the participants. The departments which have applied or theoretical, audiovisual or printed characteristics did not have any determinant variation on the responses of participants.

Limitations

This study was carried out in cooperation with the students studying in Istanbul University, which is the oldest university in Turkey, the Faculty of Open and Distance Education. Istanbul University's Faculty of Open and Distance Education incorporates several departments in line with technological infrastructure of international standards. In spite of the fact that the focus group interview paved the way for a depth review on participants, the data obtained are not qualified for generalize. All results of the similar studies should be considered as a guide for generalize.

Discussion and Conclusion

This study was carried out with students studying in various departments of the Faculty of Open and Distance Education at Istanbul University. The students of all ages were in existence in related departments. It was once again tested with this study that the validity of opinions reduced solely to age towards gains of digital natives and digital immigrants thanks to the use of technology may be vary.

While tools used by the students to communicate each other are informal social networks such as Facebook, WhatsApp, Twitter, this situation changes in the ways of communication with the instructors and administrative units. The way of communication with the instructors is furthered via E-mail and Telephone that are viewed as more formal. However, it is concluded that

digital natives put up resistance to communicate with instructors via social networks. The common ground of the two groups is telephone when it comes to communicate with the administrative units. On the other hand, it is found out that digital natives are more willing to use message boards and social networks. Communication is an action taken with a two-way flow, so it is considered that the students are forced to adopt the preferences of administrative authorities and instructors in the matter of communication tools. Digital natives prefer to use formal educational software as integrated into social networks that they are used to. Digital immigrants are more willing to be collaborative - than digital natives. Digital natives put emphasis on the interaction and tend to opt for an individual study. Digital immigrants remark that the collaborative study with the classmates on chat groups is more efficient during learning. While digital natives attach importance to interaction with the instructors, interaction with the classmates is of major importance for digital immigrants. This tendency may be explained with the concern about technology usage of digital immigrants. Such concerns can be eliminated in cooperation.

Within the scope of transactional distance perception, obtained results show that transactional distance components have determinant effects on digital native and digital immigrant groups. While interaction for digital natives is much more important on structure and autonomy components, digital immigrants place much more emphasis on dialogue possibilities. The flexibility, diversity, and richness of contents of the course materials and educational software are emerging as the most important elements in terms of autonomy of digital natives in their learning process. Digital immigrants are able to get more efficiency from course contents if the interpersonal dialogue is strong and varied. This manifests that digital natives' adaptation to technology is much more advanced than digital immigrants. While digital natives have more autonomy in the distance learning process, digital immigrants can become more motivated in the educational process, as long as interpersonal relationships are strong as well as technology.

While digital natives stated that the most important problems in the process of communication and learning are the lack of interactive options and the lack of interaction on the formal educational software, digital immigrants pointed to the lack of interaction with the classmates. The ordinary course content is a problem for both groups. In conclusion, digital natives expected to enjoy more interaction opportunities on the formal educational software through the social networks, digital immigrants expected some initiatives for collaborative studies. Technical problems are important factors that adversely affect the learning activities for both groups.

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