

## The Use of Web 2.0 Tools in Mother-tongue Instruction: Teachers' Experiences

Üzeyir Süğümlü<sup>1\*</sup>, Serkan Aslan<sup>2</sup>

<sup>1</sup>Faculty of Education, Ordu University, Ordu, Turkey

<sup>2</sup>Faculty of Education, Suleyman Demirel University, Isparta, Turkey

**Corresponding author:** Üzeyir Süğümlü, E-mail: u.sugumlu@gmail.com

### ARTICLE INFO

#### Article history

Received: August 21, 2021

Accepted: January 09, 2022

Published: January 31, 2022

Volume: 10 Issue: 1

Conflicts of interest: None

Funding: None

Publication Note: A part of this research was presented as an oral presentation at the 8<sup>th</sup> International Eurasian Educational Research Congress. (07-10/07/2021, Aksaray, Turkey).

### ABSTRACT

Technological tools have affected education just as all areas of life. Especially nowadays, technological tools are highly utilized in the effective regulation of the teaching-learning process. Web 2.0 tools are included among these technological tools. Web 2.0 tools are used in mother-tongue instruction as well as in all disciplines. This study is an attempt to examine the experiences of teachers who use Web 2.0 tools in mother-tongue instruction. We used the phenomenological design, which is one of the qualitative research designs, in our study. We considered the criterion sampling method in determining the participants. As the data collection tool, we administered an interview form to the teachers. Since we could not hold face-to-face meetings during the COVID-19 Pandemic, we used online platforms to interview the participants. Content analysis was used to analyze the data. We analyzed our data through the MAXQDA qualitative data analysis program and presented the results in figures. One of the notable results of our study was that mother-tongue teachers used numerous and different Web 2.0 tools in mother-tongue instruction. Another significant result of our study was that Web 2.0 tools used by teachers made a major contribution to the development of reading, writing, listening, and speaking skills. In addition, we concluded that the use of Web 2.0 tools in mother-tongue instruction had various contributions to both students and teachers.

**Key words:** Mother-tongue instruction, Instructional technologies, Technology literacy, Web 2.0 tools, Phenomenological design

### INTRODUCTION

Today, rapid changes in technology have affected human life, and technology has become indispensable for individuals. Therefore, technological tools have gained a seat in every aspect of our daily life. Technological advances have started to influence all systems that concern human beings. These technological developments have the potential to make a lasting impact on education. In particular, educational scientists have developed technology-based teaching and learning approaches in harmony with technological developments. Web 2.0 tools occupy a significant position among these approaches. This may arise from the fact that individuals frequently use Web 2.0 tools in their daily lives.

Web 2.0 technologies may enable participants to perform several different applications such as challenging the existing status, responding to the questions and telling alternate tales (Buffington, 2008, p. 307). Moreover, these technologies allow the participants to access information more quickly and economically, to create and share new content, and to get instant feedback. In addition, they can learn with their own learning pace when necessary thanks to technology (Yaylak, 2021). Studies conducted on the use of these tools

in education by means of Web 2.0 tools have increased in recent years (Almalı, 2020; Batıbay, 2019; Çelik, 2021; Gün, 2015; Medina & Hurtado, 2017; Tıraşoğlu, 2019; Yıldırım, 2020). Today, raising students with the 21<sup>st</sup> century skills has become a hot topic. In this vein, it is essential that digital technologies be integrated into the teaching-learning process for developing these skills (Aslan, 2021). One of the digital technologies, Web 2.0 tools should be used effectively in learning environments so as to enable Z generation children who grow up with digital technology to learn easily and to ensure permanent learning. In fact, the most distinctive features of Z generation, defined as digital natives by Prensky (2001), are that they make digital technologies a part of their lives, and that they frequently use Web 2.0 tools in their daily lives. Therefore, Web 2.0 tools are used in all disciplines during the teaching-learning process today.

Web 2.0 tools are used in mother-tongue instruction just as in all disciplines. Mother-tongue instruction covers the development of students' listening, reading, writing, and speaking skills. Web 2.0 tools can be used effectively to develop these skills. The development of language skills and mental skills will also contribute to the development of

students' skills in other fields (such as science, social studies, and mathematics). Likewise, the use of Web 2.0 tools in mother-tongue instruction will play a key role in developing students who possess technology literacy. Over and above, Turkish Language Curriculum is used for mother-tongue instruction in Turkey. Web 2.0 tools can be functional and appropriate tools in this curriculum so as to have digital and learning-to-learn competencies acquired (Ministry of National Education [MoNE], 2019). Thusly, it is indispensable for mother-tongue teachers in Turkey to use Web 2.0 tools in teaching Turkish. In addition, we used Web 2.0 tools in mother-tongue instruction during our teaching years. We determined and observed on the spot that the use of Web 2.0 tools in mother-tongue instruction holds numerous benefits. We inclined our ears to the statements of mother-tongue teachers about the effectiveness of Web 2.0 tools in maintaining a qualified distance education during the COVID-19 Pandemic process. The relevant literature covers a limited number of studies on examining the use of Web 2.0 tools in mother-tongue instruction in Turkey, which is the reason for carrying out such a study.

The results of our study are expected to shed light onto mother-tongue teachers working at different countries; furthermore, the results will guide which Web 2.0 tools should be used in the development of basic language skills. In this regard, we believe that our study results will contribute to both national and international literature. This study is expected to give feedback to the mother-tongue teachers, preservice teachers, faculty members, and curriculum development experts. Our research results will guide mother-tongue teachers in terms of making use of Web 2.0 tools at the service of language skills during the teaching-learning process. Faculty members will be able to have preservice teachers gain experience in using Web 2.0 tools in mother-tongue instruction. Curriculum development experts will also include Web 2.0 tools for the development of language skills in mother-tongue instruction curricula along with our study results. Based upon these reasons, our study attempts to make an in-depth examination regarding the mother-tongue teachers' experiences in the use of Web 2.0 tools during mother-tongue instruction process. In service of this aim, answers to the following research questions were sought:

1. Which Web 2.0 tools are used in mother-tongue instruction?
2. In which language skills are Web 2.0 tools used?
3. What is the contribution of Web 2.0 tools to mother-tongue instruction?
4. What is the contribution of Web 2.0 tools to the mother-tongue teachers' occupational development?
5. What are the problems experienced in the use of Web 2.0 tools in mother-tongue instruction and the recommendations provided for the solution of these problems?

### **Conceptual framework**

#### *Mother-tongue instruction*

Mother-tongue is defined as the product of the environment in which the child lives and the social environment to which he or she belongs (Sever, 2004). In another definition,

mother-tongue is described as one's arterial language, parent language that has been learnt first from his mother and home environment (Thyab, 2016). As can be understood from this definition, mother-tongue instruction first starts in the family. In schools, on the other hand, individuals gain knowledge and skills about their mother-tongue in a planned and programmed way.

Ofori et al. (2015, p. 81) implied that mother-tongue helps children gain high level creativity and high level sensitivity. In this respect, all countries attach importance to mother-tongue instruction and prepare mother-tongue curricula to provide individuals with knowledge and skills about their own mother-tongue. In Turkey, mother-tongue teaching is carried out with the Turkish Language Curriculum (MoNE, 2019). The curriculum depicts that mother-tongue instruction is based on listening/watching, reading, writing, and speaking skills (MoNE, 2019). These skills play a significant role in students' lives. The development of these skills contributes to the individuals' achievement in other disciplines.

The goals of mother-tongue instruction are enabling individuals to establish good communication, providing them with the knowledge and skills of their mother-tongue, improving their thinking skills, ensuring their socialization, and contributing to their personality and professional development (Onan, 2013; Sever, 2004). From this point of view, mother-tongue instruction has an undisputable role in one's life. For this reason, it has become an important issue to teach mother-tongue by employing technological teaching-learning approaches in a qualified way. Because the studies being conducted nowadays reveal that teaching environments in which the implementation of technological tools and teaching-learning approaches is guaranteed contribute greatly to the students' cognitive and affective development (Almalı, 2020; Batıbay, 2019; Ciaramella, 2017). The use of Web 2.0 tools will make a huge contribution to the development of basic language skills in terms of teaching the language that takes place in the whole life of the individual, namely mother-tongue. The related literature covers some studies demonstrating that Web 2.0 tools used in the teaching environment improve students' language skills (Batıbay, 2019; Gün, 2015; Medina & Hurtado, 2017; Tıraşoğlu, 2019).

#### *Web 2.0 technological tools*

Web 2.0 is a concept that has emerged in parallel with the development of internet technology, and that it displays diverse, interactive, and collaborative aspects of the internet. Web 2.0 refers to the second generation web pages that facilitate communication, provide secure information and collaboration on the Internet (Alexander, 2006). They are web technologies or programs that have emerged with the aim of directing individuals to share information, participate and cooperate in the "web" environment (Kapp & O' Driscoll, 2010). New generation internet technologies called Web 2.0 tools offer opportunities such as communication, interaction, information sharing and easy access to information, collaborative content creation, content storage and sharing, evaluation, and visualization in a simplicity that can be easily done by participants at all levels (Ajjan & Hartshorne, 2008). The

relevant literature presents a variety of Web 2.0 tools such as Wiki, podcast, blog, social networks, skype, QR code, game-based Web 2.0 tools, image, audio, and video editors, cloud storage and sharing tools, survey services, animation, and simulation tools (Dudeney & Hockly, 2007; Kazancı & Donmez, 2013).

Due to the fact that the Z generation is intertwined with technology, the significance of Web 2.0 tools in educational areas has gradually increased. There is an increase in the number of studies conducted on the use of Web 2.0 tools in the field of education (Chaiyo & Nokham, 2017; Çetin, 2020; Ustimenko, 2019; Uysal, 2020). New technological systems and tools are spreading rapidly in direct proportion to the development of educational technology, and they are used for the benefit of educational activities (Joo & Chol, 2002). The facilities such as collaborative work, access to information, social interaction, and feedback offered by Web 2.0-based environments has allowed their use in the field of education (McLoughlin & Lee, 2007). Web 2.0 tools make more students active in the teaching-learning process. Clements and Boyle (2018) concluded that Web 2.0 applications offer learning environments that engage students to be collaborative, sharing, and active beyond traditional learning environments. Today, when technology has made great progress, the use of Web 2.0 tools in education has also become a significant issue. Studies revealed the advantages of using Web 2.0 tools in the teaching environment. Upon analyzing the literature, the following contributions of Web 2.0 tools are provided (Armstrong & Franklin, 2008; Enonbun, 2010; Grosseck, 2009):

1. Ensures students' active participation in the lesson.
2. Easy access to Web 2.0 based environments, classes being open to everyone, prevent the environment from being a single class and students being a limited group. In this way, students from different cultures, with different values and interests come together and they have a global perspective.
3. Increases students' motivation.
4. Suitable for social and constructivist learning. Web 2.0-based environments are those where both social and information are reproduced and structured.
5. The learning environment is open to learners 24/7. The learner can access content anytime and anywhere with an internet connection, so s/he learns whenever s/he feels ready to learn.
6. Provides easy and fast access to information regardless of time and place.
7. A wide variety of Web 2.0 applications can be integrated into learning-teaching activities.

It is assumed that the use of Web 2.0 tools in the lessons is fruitful. The use of Web 2.0 tools in mother-tongue instruction will have a major contribution to the students. The basic language skills such as reading, speaking, writing, and listening that will affect the whole life of the individual are developed in mother-tongue instruction. As mentioned above, these skills play a significant role in students' achievement in other disciplines as well. Therefore, it is of utmost paramount to use digital tools in accordance with the requirements of the age in mother-tongue instruction. We

believe that the use of Web 2.0 tools, which are frequently used by individuals, in mother-tongue instruction will contribute to the development of their language skills and will ensure permanent learning.

## METHOD

### Research Design

Our study covers an in-depth determination of the mother-tongue teachers' experiences regarding Web 2.0 tools in Turkey. We organized our study in accordance with the phenomenological design, one of the qualitative research designs. The phenomenological design is a research design preferred by the researcher(s) to reveal the shared meanings of several individuals' lived experiences about a phenomenon or concept (Creswell & Poth, 2018). This design reveals what the participants' experiences about the research phenomenon are and how they make sense of these experiences (Giorgi, 2006). Therefore, we preferred the phenomenological design as we attempted to analyze the mother-tongue teachers' views and their experiences on Web 2.0 tools.

### Participants

The participants of our study consisted of 20 Turkish teachers working at secondary schools affiliated to the Ministry of National Education during the spring semester of the 2020-2021 academic year. One of the non-probabilistic sampling methods, the criterion-sampling method was used for the determination of the participants. The basic understanding in criterion sampling is to study and review the phenomena and situations that meet the criterion or criteria predisposed by the researchers (Keser-Özmantar, 2018). This sampling method provides in-depth information in line with the purpose of the study (Yazar & Keskin, 2020). We determined the criterion for mother-tongue teachers to use at least one Web 2.0 tool in their lessons. The reason for identifying this criterion was to obtain healthy and in-depth results based upon the purpose of the study. The participants were coded as TT1, TT2, TT3,..., TT20. Table 1 depicts detailed information regarding the participants.

Table 1 displays that 13 of the participants were female and 7 were male; 8 of them had 0-9 years of occupational experience, 10 had 10-19 years, 1 had 20-29 years and 1 had 30 years and over experience; 12 of the participants had bachelor's degree and 8 of whom had master's degree; 5 of them work in rural areas/villages, 3 in the district center and 12 in the province/metropolitan center.

### Data Collection Tool

We used a semi-structured interview form in our study. The interview is frequently used as a data collection tool in phenomenological research. We used semi-structured interviews. This type of interview not only guarantees the researcher(s) to prepare the questions in advance, but it also gives the opportunity to ask different questions during the interview in addition to these questions. In this regard, this

**Table 1.** Information regarding the participants

Teacher	Gender	Occupational Experience (Years)	Educational Background	Task Site
TT1	Female	10-19	Bachelor	Province/metropolitan center
TT2	Female	10-19	Bachelor	District center
TT3	Female	10-19	Master	Countryside/village
TT4	Female	10-19	Bachelor	Province/metropolitan center
TT5	Female	30 >	Bachelor	Province/metropolitan center
TT6	Female	20-29	Bachelor	District center
TT7	Female	10-19	Master	Province/metropolitan center
TT8	Female	0-9	Bachelor	District center
TT9	Male	10-19	Bachelor	Countryside/village
TT10	Female	10-19	Bachelor	Countryside/village
TT11	Female	0-9	Bachelor	Province/metropolitan center
TT12	Male	10-19	Master	Countryside/village
TT13	Female	0-9	Bachelor	Countryside/village
TT14	Male	0-9	Bachelor	District center
TT15	Male	10-19	Master	Province/metropolitan center
TT16	Male	0-9	Bachelor	Province/metropolitan center
TT17	Male	10-19	Master	Province/metropolitan center
TT18	Female	0-9	Master	Province/metropolitan center
TT19	Male	0-9	Master	Province/metropolitan center
TT20	Female	0-9	Master	Province/metropolitan center

type of interview is quite flexible (Gürbüz & Şahin, 2018). Therefore, we used this type of interview in our study. We conducted a literature review prior to preparing the interview form. Afterward, we created a pool of questions related to the purpose of our study. We prepared the draft of the interview form by eliminating and combining the questions in the pool. In order to ensure the validity of the semi-structured interview form, we sent the form to 5 field experts and requested them to evaluate each question as “appropriate”, “corrected”, and inappropriate”. The experts considered all the questions as “appropriate”. Then, we sent the semi-structured interview form to five mother-tongue teachers within the scope of reliability studies. We asked them to read and answer the questions. The pilot study suggested no problem in terms of the clarity of the questions, and hence, we finalized the interview form and started the actual application. The semi-structured interview form included questions related to Web 2.0 tools used in mother-tongue instruction, language skills using Web 2.0 tools, the contribution of Web 2.0 tools to mother-tongue instruction, the role of Web 2.0 tools in the occupational development of mother-tongue teachers, the problems emerging in the use of Web 2.0 tools in mother-tongue instruction and recommendations developed for these problems.

### Data Collection

Before initiating the interviews, we informed the participants about the purpose of our study. In addition, we also enlightened them about the flexibility for expressing their own views along with the existing questions. We offered

options for the methods of conducting the interviews to the mother-tongue teachers. We held online meetings through use of the tools such as Zoom, Skype, and Google Meet during data collection since face-to-face meetings were risky during the COVID-19 Pandemic process. However, some participants postulated to document their opinions in writing, so we prepared the questions on Google form and enabled these participants to express their opinions in writing. We paid great attention to the voluntary participation and thus, we took the decision of the ethics committee for our study (Committee Name: Ordu University Rectorate Social and Human Sciences Research Ethics Committee, Date: 28/04/2021, Issue: 2021-87). We prepared the transcripts of the views in order to ensure the reliability of data collection, and we reposted these transcripts to the teachers. The teachers confirmed the computerized versions of their responses. The data collection lasted for two months.

### Data Analysis

We used categorical content analysis, one of the qualitative data analysis methods, in our study. At first, the data is coded in the application of categorical analysis, categories are created and organized, and in the final stage, the findings are defined and interpreted (Robson, 2017). We transferred the data to the MAXQDA 20 qualitative data analysis program and performed the analysis via this program. Within the framework of content analysis, we initially made the coding independently, and then we brought these codes together to create themes and sub-themes. Silverman (2010) emphasized the need for seeking compatibility between

coders. The researcher suggests that the coders convince each other in case of disagreement. After coding process, we examined the compatibility between the codes. We convinced each other for the codes that were incompatible. Besides, we included verbatim statements for codes to ensure the reliability of data analysis. Hence, we focused on ensuring validity and reliability (Güler et al., 2013). Further, we presented the codes and themes to two participants of our study. In this way, we tried to ensure validity and reliability by obtaining participant confirmation (Güçlü, 2019). We performed data analysis as a single-case model (coded sections) and code matrix scanner for the themes of Web 2.0 tools used in mother-tongue instruction and the contribution of Web 2.0 tools to mother-tongue instruction, and a code-subcode-segments model for the themes regarding the use of Web 2.0 tools in language skills teaching, the role of Web 2.0 tools in the occupational development of mother-tongue teachers, the problems experienced in the use of Web 2.0 tools and the recommendations provided for the solution of these problems. We presented the findings through the visuals we obtained from the program. We also included the frequency of each code in the images. The thick or thin lines between the theme and the codes in the images indicate the density/rareness of the teacher's expressions in the relevant code. We presented the symbols used in the images and their meanings in Table 2.



















### Ethical Measures Taken Within the Scope of the Research

We complied with ethical issues during the research process. We paid attention to the participation of the teachers in accordance with the principle of voluntariness. Before the interview form was administered to the mother-tongue teachers, we provided information about the purpose of the study and ensured the participants' consent to participate in our study. We obtained informed consent from the participants (Demirkasimoglu, 2020). We stated that they would not be harmed in any way within the scope of the study, and that their names would not be used. We also conformed to the principles of privacy and anonymity. We assigned codes to the participants so that their identities would not be understood. We also kept the province where the study was conducted confidential in our report (Çelik, 2018; Güçlü, 2019; Hammersley & Traianou, 2012).

### FINDINGS

Within the framework of the research questions, we presented the findings related to Web 2.0 tools used in mother-tongue instruction, the use of Web 2.0 tools in teaching language skills, the contribution of Web 2.0 tools to mother-tongue instruction, the role of Web 2.0 tools in the mother-tongue teachers' occupational development, the problems encountered in the use of Web 2.0 tools and recommendations provided for the solution of these problems.

**Table 2.** Symbols and their meanings used in the qualitative data analysis

Symbol	Meaning	Explanation
	Theme	Web 2.0 tools used in mother-tongue instruction
	Code	The code of the theme of web 2.0 tools used in mother-tongue instruction
	Theme	Language skills using Web 2.0 tools
	Code	The code of language skills theme using Web 2.0 tools
	Teacher	The teacher who has a statement in the codes of the language skills theme using Web 2.0 tools
	Theme	The contribution of Web 2.0 tools to mother-tongue instruction
	Code	The code related to the contribution of Web 2.0 tools to mother-tongue instruction theme
	Teacher	The teacher who has a statement in the codes of the contribution of Web 2.0 tools to mother-tongue instruction theme
	Theme	The role of web 2.0 tools in the occupational development of mother-tongue teachers
	Code	The code related to the role of web 2.0 tools in the occupational development of mother-tongue teachers theme
	Teacher	The teacher who has a statement in the codes of the role of web 2.0 tools in the occupational development of mother-tongue teachers theme
	Theme	The theme regarding the problems faced in the use of Web 2.0 tools and recommendations provided for the solution of these problems.
	Sub-Theme	Problems experienced in the use of Web 2.0 tools sub-theme
	Code	The code of the sub-theme regarding the problems experienced in the use of Web 2.0 tools
	Teacher	The teacher who has a statement in the codes of the sub-theme regarding the problems experienced in the use of Web 2.0 tools
	Sub-Theme	Sub-theme related to recommendations provided for solving the problems experienced in the use of Web 2.0 tools
	Code	The code of the sub-theme related to recommendations provided for solving the problems experienced in the use of Web 2.0 tools
	Teacher	The teacher who has a statement in the codes of the sub-theme related to recommendations provided for solving the problems experienced in the use of Web 2.0 tools

**1<sup>st</sup> Theme: The Most Used Web 2.0 Tool in Mother-Tongue Instruction: Kahoot**

Figure 1 depicts the codes that emerged under the theme of Web 2.0 tools used in mother-tongue instruction and the frequency of these codes.

As is seen in Figure 1, mother-tongue teachers used Kahoot, Edpuzzle, Storyjumper, Zumpad, Crossword, Wordwall, Pixton, Canva, Answergarden, Padlet, Linoit, Mentimeter, Meetingwords, Popplet, Wordart, Blogger, Quizizz, Whiteboard, Book Creator, Wonderwall, Charter Kid, Chatterpix, Prezi, Pawtoon, Edmodo, Socrative, Storyboard, Quizlet, Quizmaker, Emaze, Tagul, LearningAps, Plickersm, and Poll Everywhere Web 2.0 tools in Turkish lessons. Mother-tongue teachers used 34 different Web 2.0 tools in Turkish lessons, and they mostly preferred Kahoot (f = 15), Canva (f = 9), and Storyjumper (f = 9) as Web 2.0 tools.

The following excerpts suggest some teachers' views on Web 2.0 tools used in mother-tongue instruction:

- Kahoot is one of the Web 2.0 tools I mostly use. (TT13)*
- Canva is the Web 2.0 tool that I know and use best. I mostly use this tool. (TT4)*
- I use the Storyjumper tool especially for telling tales. Students also enjoy using it. (TT8)*
- I mostly use the Prezi app in my classes. (TT9)*
- I use the Quizlet Web 2.0 tool in teaching vocabulary, which is in the reading skill. Students do not block on the words they learned when I use this tool. (TT15)*

**2<sup>nd</sup> Theme: The Use of Web 2.0 Tools in Teaching Language Skills: Reading Skill**

The codes that emerged in the theme of language skills using Web 2.0 tools, the frequency of these codes and mother-tongue teachers whose statements are present in the codes are depicted in Figure 2.

Figure 2 shows the emerging codes as speaking skill (f = 5), listening/watching skill (f = 5), writing skill (f = 7), reading skill (f = 10) and four basic language skills (f = 5) under the language skills theme in which Web 2.0 tools are used. Mother-tongue teachers mostly used Web 2.0 tools in teaching reading and writing skills. Besides, Web 2.0 tools were used to teach four basic language skills.

The views of some teachers stating that they used Web 2.0 tools in the development of reading skill are presented as follows:

- I use Kahoot and Socrative tools very effectively in question-answer applications for reading comprehension, IN finding story elements within the text and in grammar activities. (TT11)*
- I use it to develop reading comprehension skill. The Web 2.0 tools I use include reading texts. I prepare questions for these reading texts. In this way, I improve my students' reading comprehension skill. (TT14)*

The following statements demonstrate the views of several teachers using Web 2.0 tools for improving writing skill:

- I use tools such as Pawtoon with an animation to describe oneself, his/her city, school and environment in writing skill. (TT11)*
- I prepare and implement activities for writing skills via the Poll Everywhere tool. In this way, I improve my students' writing skill. (TT12)*

The views of those who use Web 2.0 tools in the development of speaking skill are presented below:

- I have my students prepare questions through Emaze and respond to these questions. I use it to improve their speaking skill. (TT15)*
- I use Web 2 tools more in teaching speaking skill in my class. To exemplify, I write a quotation by means of the Web 2 tool and I ask my students what they understand from this quotation. I also prepare a speaking topic on Web 2 tools and my students talk about it in class. (TT19)*

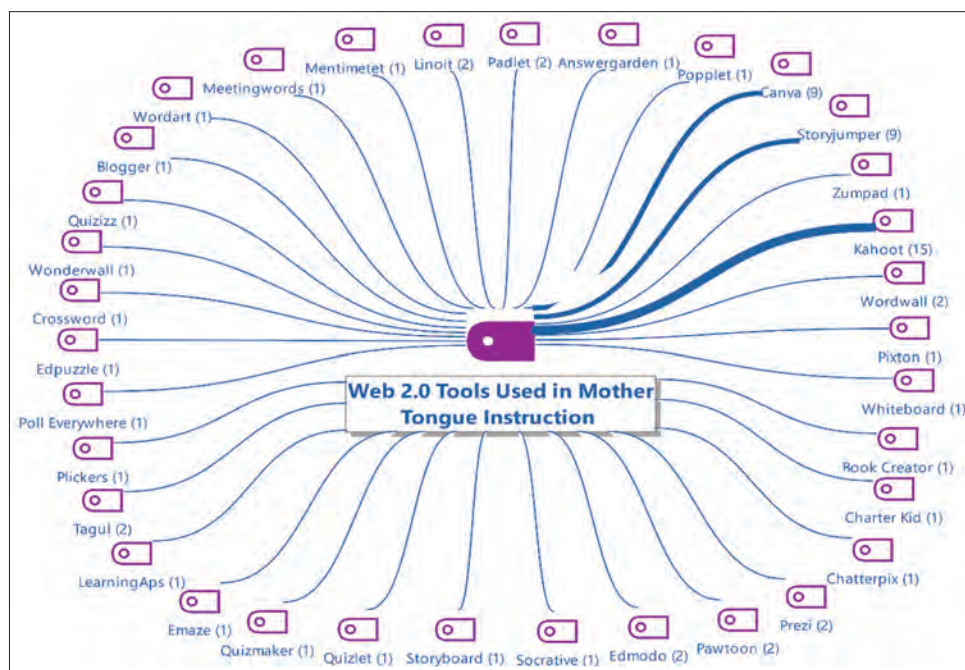
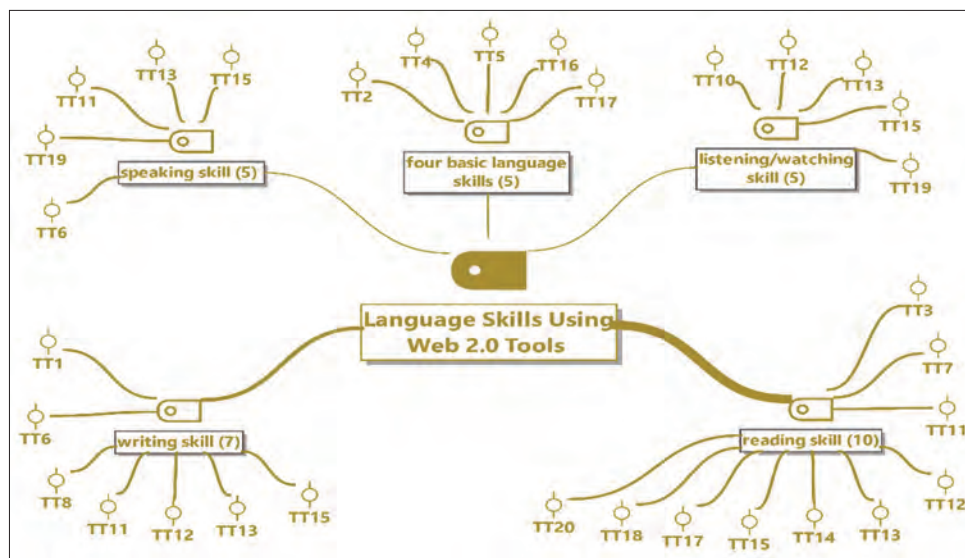


Figure 1. Web 2.0 tools used in mother-tongue instruction (single-case model)



**Figure 2.** Language skills using Web 2.0 tools (code-subcode-segments model)

The views of those using Web 2.0 tools in the development of listening/watching skills are suggested below:

*I use it in teaching listening texts. I have my students listen to the texts that I have prepared through Web 2.0 tools in my classes and ask questions about these texts. (TT10)*  
*I use it for the learning outcome of s/he answers questions about what s/he listens/watches. After listening to the texts, I ask questions about this text. (TT13).*

The following excerpts refer to some teachers' views on Web 2.0 tools used in improving four basic language skills:

*I use Web 2.0 tools to teach appropriate topics in all language skills. I prepare activities through use of Web 2 tools in order to have students acquire such skills as writing, speaking, reading and listening. I use these tools to develop all language skills as far as I can. (TT16)*  
*Web 2.0 tools are suitable for all language skills. I also use them according to the subject in teaching all language skills. (TT17)*

### 3<sup>rd</sup> Theme: The Contribution of Web 2.0 Tools to Mother-Tongue Instruction: Interest in the Lesson

Figure 3 illustrates the emerging codes under the theme of the contribution of Web 2.0 tools to mother-tongue instruction and their frequencies.

As observed in Figure 3, the theme of the contribution of Web 2.0 tools to mother-tongue instruction were identified to include codes such as raising interest in the lesson ( $f=13$ ), increasing academic achievement ( $f=13$ ), displaying a positive attitude towards the lesson and the teacher ( $f=11$ ), making learning fun ( $f=10$ ), increasing class participation ( $f=8$ ), providing permanent learning ( $f=7$ ), increasing motivation to learn ( $f=6$ ), supporting the development of skills ( $f=4$ ), increasing the functionality of the lesson ( $f=4$ ), ensuring the concentration on the lesson ( $f=4$ ), being useful in measurement and evaluation ( $f=2$ ), creating diversity in the education process (2), enhancing knowledge production and sharing ( $f=2$ ), arousing a sense of curiosity ( $f=1$ ), providing collaborative learning ( $f=1$ ), giving feedback to students ( $f=1$ ), being useful in distance education ( $f=1$ ), providing the effective use of

technology ( $f=1$ ), offering self-learning opportunities ( $f=1$ ), prolonging the duration of the focus on the lesson ( $f=1$ ), increasing self-confidence ( $f=1$ ) and creating teacher-student interaction ( $f=1$ ). Web 2.0 tools were determined to have 22 different contributions to mother-tongue instruction. Mother-tongue teachers stated that Web 2.0 tools contributed to mother-tongue instruction mostly in terms of increasing interest in the lesson, displaying a positive attitude towards the lesson and the teacher, making learning fun, increasing class participation, providing permanent learning and increasing motivation to learn. Some of the mother-tongue teachers' views are shown as such.

*It is absolutely remarkable to use Web 2.0 tools in learning environments. Students' interest in the course increases thanks to Web 2.0 tools. (TT15)*

*The Web 2.0 tools I use constantly increase students' achievement. (TT19).*

*Students have a positive attitude towards the lesson and me in the lessons with Web 2.0 tools. (TT9)*

*When I use Web 2.0 tools, students have a more positive attitude towards me and the lesson compared to the previous lessons. (TT2)*

*I observe that my students show active participation in the lessons when I use these tools. (TT12)*

### 4<sup>th</sup> Theme: The Role of Using Web 2.0 Tools in Occupational Development: Digital Skill

The emerging codes in relation to the theme of the role of Web 2.0 tools in the mother-tongue teachers' occupational development, their frequencies and the statements of mother-tongue teachers are shown in Figure 4.

Figure 4 indicates that the emerging codes were found as digital skill ( $f=6$ ), self-development ( $f=5$ ), activity diversity ( $f=4$ ), updating and renewing information ( $f=3$ ), fun and efficient teaching ( $f=2$ ), keeping up with the age ( $f=2$ ), variety of assessment ( $f=1$ ), effective use of time ( $f=1$ ), occupational motivation ( $f=1$ ), occupational self-confidence ( $f=1$ ) and occupational creativity ( $f=1$ ) under the theme of the role of Web 2.0 tools in the occupational development of mother-tongue

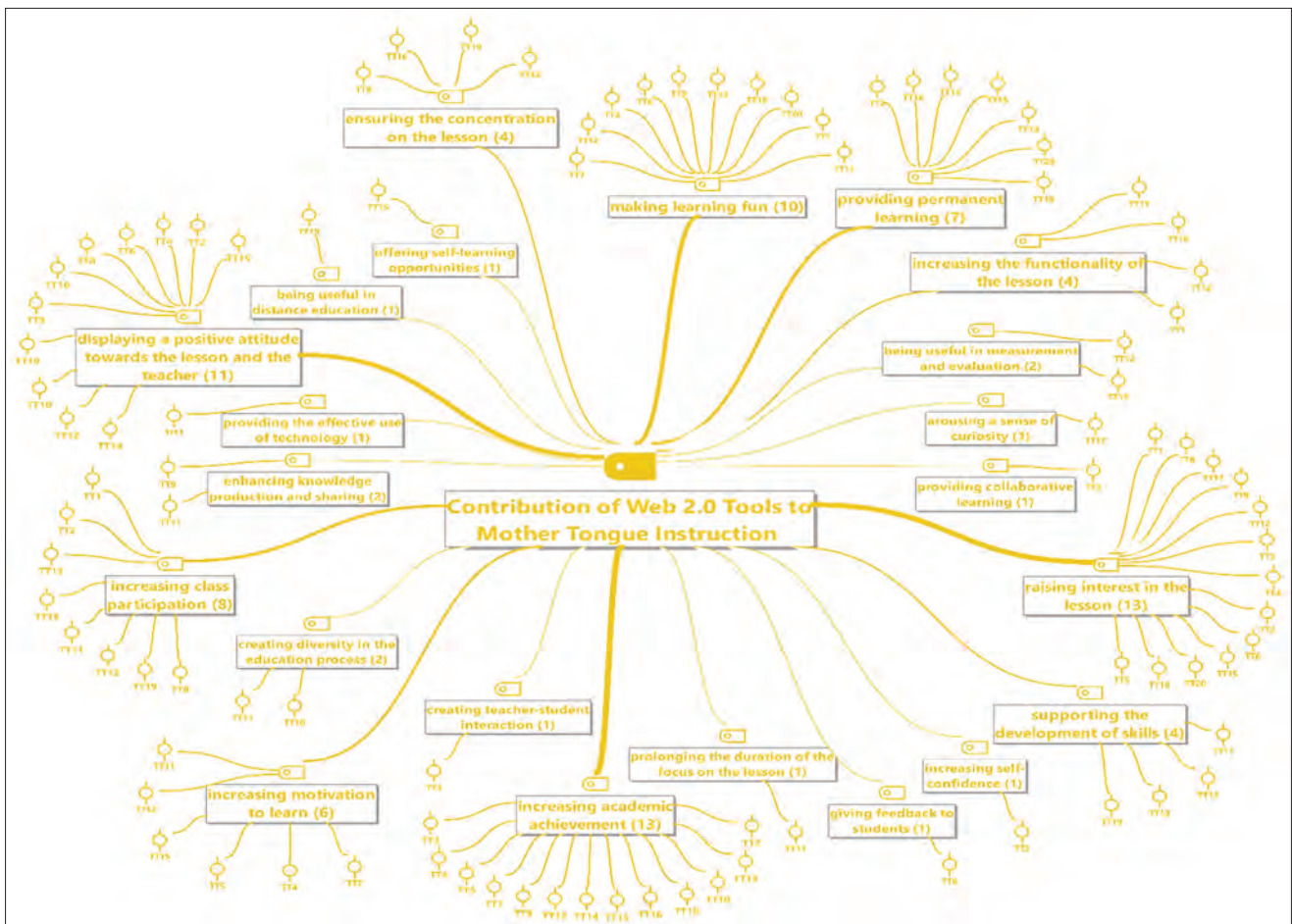


Figure 3. Contribution of Web 2.0 tools to mother-tongue instruction (code-subcode-segments model)

teachers. Web 2.0 tools were identified to have 11 different contributions to the mother-tongue teachers' occupational development. Mother-tongue teachers pinpointed that Web 2.0 tools had the utmost role in digital skill, self-development, providing activity diversity, updating and renewing information. Besides, Web 2.0 tools also contribute to the mother-tongue teachers' affective elements such as occupational motivation, occupational creativity, and occupational self-confidence. The statements of some teachers implying their improvement in terms of their digital skills are presented below:

*I improve myself technologically and my digital knowledge is increasing. Previously, I could not use technological tools, I was hesitant. However, I noticed that my ability to use technology improved by using Web 2.0 tools in my lessons. When I encounter different digital programs, I can use them immediately and integrate them into my lessons. (TT8)*

*I increase my ability to use digital technologies thanks to Web 2.0 tools. (TT3)*

Mother-tongue teachers stressed that the use of Web 2.0 tools in the lessons contributed their occupational development. Some of the teachers' views on that point are shown as following:

*I find the opportunity to improve myself thanks to Web 2.0 tools. (TT16)*

*Using these tools in mother-tongue teaching help me to prepare more professional presentations and to improve my teaching methods. (TT19)*

The participants outlined that the use of Web 2.0 tools in the lessons ensures the diversity of activities in the teaching-learning process, which has a great contribution. Some teachers' views are as following:

*These tools allow me to use the different kinds of activities I could do in the lesson. Hence, I both improve myself and my lesson is free from any monotonous pattern. (TT7)*

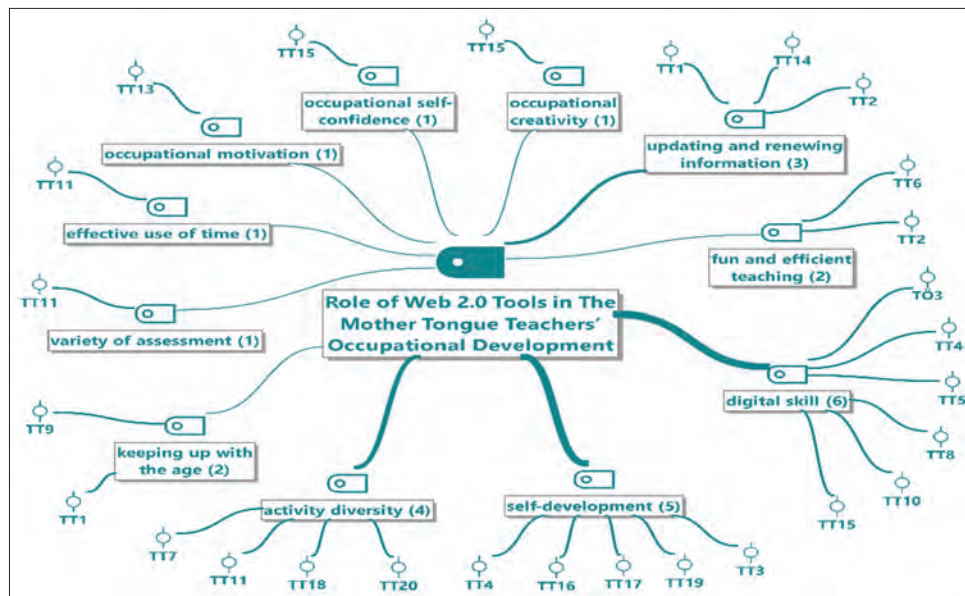
*Web 2.0 tools create a wider field of activity for us. It enables us to organize different activities related to the learning outcomes in the curriculum. This has a significant impact on our occupational development. (TT20)*

### 5<sup>th</sup> Theme: Problems Experienced in the Use of Web 2.0 Tools and Recommendations Provided for the Solution of these Problems: Inaccessibility to Technological Tools-School's Infrastructure Should be Improved

The emerging codes in relation to the theme of the problems experienced in the use of Web 2.0 tools and the recommendations provided for the solution of these problems, their frequencies and the statements of mother-tongue teachers are depicted in Figure 5.

According to Figure 5, the emerging codes under the sub-theme of the problems experienced in the use of Web 2.0 tools were noted as the lack of Turkish language support (f=4), inaccessibility to technological tools (f=4), paid tools





**Figure 4.** The role of web 2.0 tools in the mother-tongue teachers' occupational development (code-subcode-segments model)

(f=2), teachers' lack of knowledge (f=2), difficulty in applying in crowded classrooms (f=1), limited internet access in the classroom (f=1), students' lack of sufficient knowledge (f=1), improper audio files (f=1), banning the use of smartphones at school (f=1), usage problems of smart boards (f=1), insufficient content (f=1), tiring use (f=1), request for membership (f=1) and requirement for preliminary preparation (f=1). Mother-tongue teachers indicated 14 different problems experienced in the use of Web 2.0 tools in mother-tongue instruction. The most faced problems were determined as the lack of Turkish language support in Web 2.0 tools and the inaccessibility of technological tools by students. Here are some of the teachers' views about the problems encountered in using Web 2.0 tools:

*The lack of Turkish language support for some tools creates a problem in the use of Web 2.0 tools. (TT1)*

*Some students cannot use these tools as they do not have a computer at home. (TT15)*

*I have trouble with internet access while using these tools in the classroom. (TT6)*

*Using Web 2.0 tools in crowded classrooms is difficult. (TT17)*

Finally, Figure 5 displays the emerging codes gathering under the sub-theme of recommendations provided for the solution of the problems experienced in the use of Web 2.0 tools as improving the infrastructure of the school (f=3), providing tablet and computer support to students (f=3), providing Turkish language support (f=2), informing teachers (f=2), informing students (f=2), providing in-service training for administrators (f=1), making audio files available (f=1), presenting ready-made content (f=1). Mother-tongue teachers developed 8 different recommendations for the solution of the problems experienced in the use of Web 2.0 tools. Teachers mostly mentioned such recommendations as improving the infrastructure of the school so that teachers and students can use Web 2.0 tools at school, and providing

students with tablet and computer support for using Web 2.0 tools. Some teachers' recommendations are given below:

*The internet and technology infrastructure of the school should definitely be improved. I think I will be able to use Web 2.0 tools better in my lessons. (TT12)*

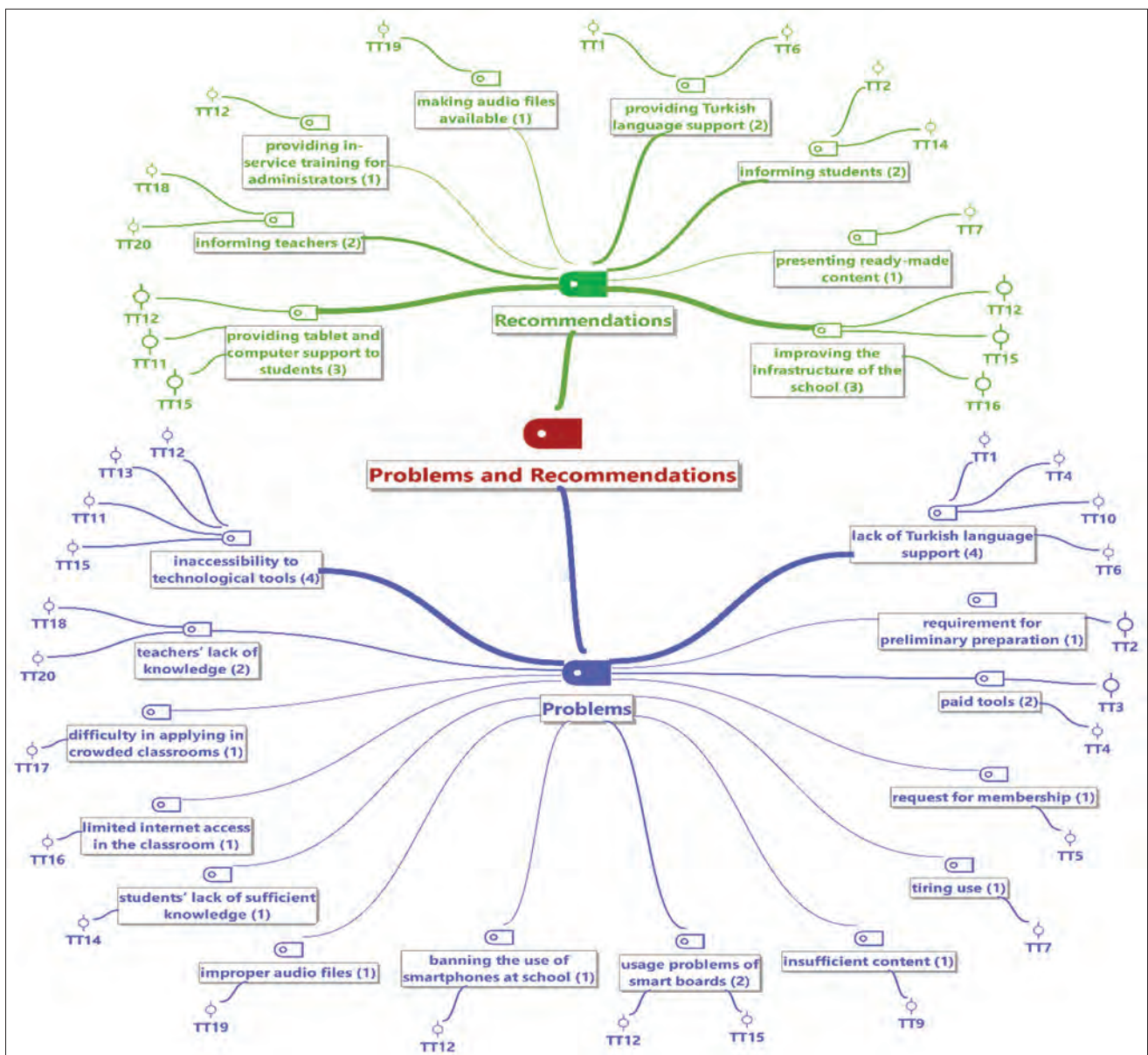
*It would be good to provide students with tools such as computers and tablets. (TT15)*

*Having a Turkish language option in Web 2.0 tools makes it easier for students. (TT6)*

*Students need preliminary information about Web 2.0 tools. Some students experience difficulty using it. (TT14)*

## DISCUSSION

Our study mainly attempted to make an in-depth examination regarding the mother-tongue teachers' views on Web 2.0 tools they used in their lessons. Based upon the first research question, we examined the Web 2.0 tools that teachers used in mother-tongue instruction. The teachers stated 34 different Web 2.0 tools that they used in teaching their mother-tongue. We regarded this result as quite significant. The use of different Web 2.0 tools in mother-tongue instruction may improve students' basic language skills along with their digital and technology literacy. Hence, individuals with 21<sup>st</sup> century skills, which is one of the main objectives of today's education, can be raised. Besides, this result may be considered as an indicator that the participants are digital and technology literates. In fact, the use of 34 different Web 2.0 tools by integrating them into mother-tongue instruction may serve as proof. The majority of the teachers implied that Web 2.0 tools such as Kahoot, Canva, and Storyjumper are used in mother-tongue instruction. Kahoot is a fun and free learning environment that dramatizes learning. Fun games can be created on any subject determined by the teacher. Kahoot application involves measurement tools such as multiple-choice questions, surveys, and true/false items (Tıraşoğlu, 2019).



**Figure 5.** Problems experienced in the use of Web 2.0 tools and recommendations provided for the solution of these problems (code-subcode-segments model)

Canva is a web 2.0 tool used to prepare posters, banners, business cards, and so forth. You can create poster banners, invitations, and similar designs with templates, backgrounds, clip art, effects, and your own documents saved in Canva (Çenesiz, 2020). Storyjumper can be used as an e-book and digital story preparation platform. In this Web 2.0 tool, audio texts can be prepared by using various visuals. Teachers may be using these Web 2.0 tools especially for the development of basic language skills. In the study conducted by Keleş (2019), social studies teachers indicated that they used different Web 2.0 tools in their lessons. It may be wise to mention that teachers from different branches use Web 2.0 tools in their lessons on conditions that they are familiar with and they have knowledge about these tools.

In the second research question, we tried to determine which language skills the participants used to improve their mother-tongue by using Web 2.0 tools. The analysis results suggested that mother-tongue teachers used Web 2.0 tools

in speaking skills, listening/watching skills, writing skills, reading skills, and four basic language skills, which is one of the notable results of our study. Mother-tongue instruction requires the development of listening, speaking, reading, and writing skills. In this vein, teachers' use of Web 2.0 tools to improve all basic language skills may contribute to the qualified development of these language skills. The teachers accentuated that they mostly used Web 2.0 tools in teaching reading and writing skills. Reading and writing skills are among the most difficult skills to develop in mother-tongue instruction (Gün, 2015). During the years when we were teaching, we observed that our students had difficulties in reading comprehension and writing skills. Therefore, we organized various activities based upon Web 2.0 tools to improve our students' reading and writing skills in our lessons. In fact, the participants of our study stated that they used Web 2.0 tools particularly to improve reading comprehension and writing skills, which signifies the most significant

indicator of how difficult these skills are to be developed. The use of Web 2.0 tools by teachers to develop these skills will greatly contribute to students' reading comprehension and writing skills. These two skills also play a key role in students' achievement in other disciplines. In this respect, the use of Web 2.0 tools in the development of reading comprehension and writing skills in mother-tongue instruction may contribute to the achievement of students in other lessons. The relevant literature refers to the results indicating that Web 2.0 tools improve students' reading and writing skills (Dere et al., 2016). The results of this study are in conjunction with those of our study. Gün (2015) concluded that the use of Skype, one of the Web 2.0 tools, improved students' speaking skills. This result is parallel to our study.

Our study also investigated the contributions of the use of Web 2.0 tools in mother-tongue instruction. Mother-tongue teachers stated that Web 2.0 tools contributed to mother-tongue instruction in terms of increasing interest in the lesson, increasing academic achievement, displaying a positive attitude towards the lesson and the teacher, making learning fun, increasing class participation, providing permanent learning, and increasing motivation to learn, supporting the development of skills, increasing the functionality of the lesson, ensuring the concentration on the lesson, being useful in measurement and evaluation, creating diversity in the education process, enhancing knowledge production and sharing, arousing a sense of curiosity, providing collaborative learning, giving feedback to students, being useful in distance education, providing the effective use of technology, offering self-learning opportunities, prolonging the duration of the focus on the lesson, increasing self-confidence and creating teacher-student interaction. This result of our study is also critical. The use of Web 2.0 tools in mother-tongue instruction may be said to contribute a lot. The majority of the teachers noted that the use of Web 2.0 tools in mother-tongue instruction increased the students' academic achievement and motivation, and attracted their attention. Thus, it may be emphasized that the use of Web 2.0 tools in mother-tongue instruction plays a significant role in the students' mental and affective development. Motivation is a far-reaching variable during the teaching-learning process. Johns (2015) specified that students with high motivation are more successful than those with low motivation. This paved the way for the fact that students' academic achievement will increase as Web 2.0 tools increase their motivation. Teachers' views also favor this interpretation. Numerous studies in the national and international literature concluded that Web 2.0 tools increase students' motivation, interest, and academic achievement (Batibay, 2019; Ciaramella, 2017; Cenesiz, 2020; McLoughlin & Lee, 2010; Medina & Hurtado, 2017; O'Reilly, 2007; Yerzhanova & Maketova, 2018; Zarzyeka-Piskorz, 2016).

We also examined how the use of Web 2.0 tools in mother-tongue instruction contributed to the teachers' occupational development. Mother-tongue teachers stressed that Web 2.0 tools had significant roles in their professional development in terms of digital skill, self-development, activity diversity, updating and renewing information, fun and efficient teaching, keeping up with the age, variety of assessment, effective

use of time, occupational motivation, occupational self-confidence, and occupational creativity. Mother-tongue teachers pinpointed that Web 2.0 tools had the utmost role in gaining digital skill, self-development, providing activity diversity, updating and renewing information. Besides, Web 2.0 tools also contribute to the mother-tongue teachers' affective elements such as occupational motivation, occupational creativity, and occupational self-confidence. Our study results suggested that the use of Web 2.0 tools in mother-tongue instruction contributes to both students and teachers' occupational development. The use of Web 2.0 tools in lessons have great contributions to teachers in terms of facilitating teaching by structuring learning, alternative assessment and course management, effective communication with students through remarkable practices, and organizing different activities (Çopur, 2020; Uysal, 2020). These results of our study are consistent with those of the related literature.

We also identified the problems that mother-tongue teachers encountered while using Web 2.0 tools in their lessons. Mother-tongue teachers were identified to experience various problems such as the lack of Turkish language support, inaccessibility to technological tools, paid tools, teachers' lack of knowledge, difficulty in applying in crowded classrooms, limited internet access in the classroom, students' lack of sufficient knowledge, improper audio files, banning the use of smartphones at school, usage problems of smart boards, insufficient content, tiring use, request for membership and requirement for preliminary preparation. The most faced problems were determined as the lack of Turkish language support in Web 2.0 tools and the inaccessibility of technological tools by students. These problems are within the limitations of web-based teaching. Driscoll (1998) and Hannum (2001) implied that web-mediated teaching has limitations such as requiring time and money, requiring significant technical infrastructure, and lack of face-to-face interaction. The problems faced by teachers in the use of Web 2.0 tools in mother-tongue instruction overlap with the literature. In the study conducted by Keleş (2019), teachers remarked that they had problems during the use of Web 2.0 tools due to the lack of sufficient infrastructure and lack of internet connection. In another study carried out by Şener (2019), teachers put forward that they mostly encounter the lack of sufficient digital content and access problems while using Web 2.0 tools in lessons.

In conclusion, we examined the recommendations provided by teachers related to the use of Web 2.0 tools in mother-tongue instruction. Mother-tongue teachers developed recommendations such as improving the infrastructure of the school, providing tablet and computer support for students, providing Turkish language support, informing teachers, informing students, providing in-service training for administrators, making audio files available, and presenting ready-made content. Teachers mostly mentioned such recommendations as improving the infrastructure of the school so that teachers and students can use Web 2.0 tools at school, and providing students with tablet and computer support for using Web 2.0 tools. The participants of our study developed concrete recommendations for the problems they experienced. In this regard, this result is of capital importance

since teachers who will use Web 2.0 tools in mother-tongue instruction can use these tools effectively and efficiently in their lessons by taking the necessary precautions within the framework of these recommendations.

## CONCLUSION

We assume that the results of our study are significant and will contribute greatly to the national and international literature. One of the remarkable results of our study was that teachers used different and various Web 2.0 tools in mother-tongue instruction. Another fundamental result of our study was that mother-tongue teachers used Web 2.0 tools to develop listening/watching, reading, speaking, and writing basic language skills and that these tools improve these skills. They stated that the use of Web 2.0 tools in their lessons made a great contribution to both themselves and their students. These results indicate that teachers' technological literacy has improved and that they have trained their students as technology literates. The use of multiple Web 2.0 tools by mother-tongue teachers will enable students to have 21<sup>st</sup> century skills. In this way, individuals who can keep up with the requirements of the age may be raised. Teachers also stated that they encountered some problems while using Web 2.0 tools in their lessons. Various recommendations were provided for these problems. Mother-tongue teachers working in different countries can use Web 2.0 tools effectively and efficiently in their lessons by considering the above-mentioned problems and recommendations. In this respect, the result of this study will cast light upon mother-tongue teachers in different countries and those who endeavor to use Web 2.0 tools in their lessons.

## Recommendations

Based upon the results of our study, we provided the following recommendations:

1. The mother-tongue teachers expressed the benefits of using Web 2.0 tools in mother-tongue instruction. Based on this result, it would be very beneficial to organize mother-tongue curricula for the use of Web 2.0 tools.
2. The mother-tongue teachers stated that the use of Web 2.0 tools in their lessons greatly contributed to their occupational development. It would be very useful to provide teachers with in-service training on the effective use of Web 2.0 tools in teaching mother-tongue.
3. The teachers also emphasized that they encountered various problems while using Web 2.0 tools in their lessons. It is recommended that the ministries of education take the necessary measures to eliminate these problems.
4. The mother-tongue teachers noted that the use of Web 2.0 tools in their lessons had an effect on the students' attitudes, motivations, and academic achievement. It is advised to carry out studies through the use of different research models in order to analyze the effects of Web 2.0 tools on students' attitudes, motivation, and academic achievement in mother-tongue instruction.

## Limitations of the Study

Our study deployed the phenomenological design, which is one of the qualitative research designs. The phenomenological design requires an in-depth examination of the participants' views. We tried to ask the mother-tongue teachers' views regarding the Web 2.0 tools they used in their lessons. However, we were unable to hold face-to-face meetings due to the COVID-19 Pandemic. This can be considered as a limitation of our study as more effective results are obtained in face-to-face meetings. We also deem this situation as a limitation of our study.

## REFERENCES

- Ajjan, H., & Hartshorne, R. (2008). Investigating faculty decisions to adopt Web 2.0 technologies: Theory and empirical tests. *The Internet and Higher Education*, 11(2), 71-80.
- Alexander, B. (2006). *Web 2.0: A new wave of innovation for teaching and learning?* <https://members.educause.edu/bryan-alexander> Erişim Tarihi: 15.05.2021.
- Almalı, H. (2020). *Sosyal bilgiler eğitiminde coğrafya konularının web 2.0 teknolojileri kullanılarak öğretiminin öğrencilerin akademik başarı ve tutumlarına etkisi* (Yayımlanmamış yüksek lisans tezi). Sivas Cumhuriyet Üniversitesi, Sivas.
- Armstrong, J., & Franklin, T. (2008). *A review of current and developing international practice in the use of social networking (web 2.0) in higher education*. Retrieved on 10.06.2021 from <http://franklinconsulting.co.uk/LinkedDocuments/the%20use%20of%20social%20networking%20in%20HE.pdf>
- Aslan, S. (2021). Analysis of digital literacy self-efficacy levels of pre-service teachers. *International Journal of Technology in Education (IJTE)*, 4(1), 57-67.
- Batıbay, E. (2019). *Web 2.0 uygulamalarının Türkçe dersinde motivasyona ve başarıya etkisi: kahoot örneği* (Yayımlanmamış yüksek lisans tezi). Hacettepe Üniversitesi, Ankara.
- Buffington, M. L. (2008). Creating and consuming Web 2.0 in art education. *Computers in the Schools*, 25(3-4), 303-313.
- Chaiyo Y., & Nokham, R. (2017). *The effect of kahoot, quizizz and google forms on the student's perception in the classrooms response system*. Uluslararası Dijital Sanatlar, Medya ve Teknoloji Konferansı (ICDAMT), Chiang Mai, 178-182.
- Ciaramella, K. E. (2017). *The effects of Kahoot! On vocabulary acquisition and retention of students with learning disabilities and other health impairments*. Rowan University, Rowan Digital Works.
- Clements, J.A., & Boyle, R. (2018). Compulsive technology use: Compulsive use of mobile applications. *Computers in Human Behavior*, 87, 34-48.
- Creswell, J.W., & Poth, C.N. (2018). *Qualitative inquiry and research design: Choosing among five approaches*. SAGE.
- Çelik, T. (2020). Examination of sample course design studies performed by pre-service social studies teachers by

- using digital technologies. *Turkish Online Journal of Distance Education*, 22(1), 209-228. DOI: 10.17718/tojde.849910
- Çelik, Z. (2018). Bilimsel araştırmalarda mahremiyet, gizlilik ve etik. M. Öztürk (Ed.). *Sosyal bilimlerde etik sorunlar içinde* (s. 29-50). Nobel Yayıncılık.
- Çenesiz, M. (2020). *Web 2.0 araçlarının ortaöğretim 10. sınıf coğrafya dersinde (topoğrafya ve kayaçlar) akademik başarı ve tutuma etkisi* (Yayımlanmamış yüksek lisans tezi). Afyon Kocatepe Üniversitesi. Afyonkarahisar.
- Çetin, H.S. (2020). *Web 2.0 değerlendirme araçlarının ilkokulda etkililiğine ilişkin öğretmen ve öğrenci görüşleri* (Yayımlanmamış yüksek lisans tezi). Muğla Sıtkı Koçman Üniversitesi, Muğla.
- Çopur, K.D. (2020). *Algoritmik düşünme öğretimi sürecinde web 2.0 araçlarının kullanımı* (Yayımlanmamış yüksek lisans tezi). Erciyes Üniversitesi, Kayseri.
- Demirkasımoğlu, N. (2020). Bilimsel araştırma ve yayın etiği. N. Cemaloğlu (Ed.). *Bilimsel araştırma teknikleri ve etik içinde* (s. 257-280). Pegem Akademi Yayıncılık.
- Dere, E., Yücel, Ü., & Yalçınalp, S. (2016). İlköğretim öğrencilerinin eğitsel bir çevrimiçi sosyal öğrenme ortamı olan edmodo'ya ilişkin görüşleri. *Elementary Education Online*, 15(3), 804-819.
- Driscoll, M. (2002). *Web-based training*. San Francisco: Jossey-Bass/Pfeiffer.
- Dudeny, G., & Nicky, H. (2007). *How to teach English with technology*. Pearson Longman.
- Enonbun, O. (2010). Constructivism and web 2.0 in the emerging learning era: A global perspective. *Journal of Strategic Innovation and Sustainability*, 6(4), 16 – 25.
- Giorgi, A. (2006). Concerning variations in the application of the phenomenological method. *The Humanistic Psychologist*, 34(4), 305-319.
- Grosbeck, G. (2009). To use or not to use web 2.0 in higher education. *Procedia Social and Behavioral Sciences*, 1, 478.
- Güçlü, İ. (2019). *Sosyal bilimlerde nitel araştırma yöntemleri*. Nobel Yayıncılık.
- Güler, A., Halıcıoğlu, M.B., & Taşğın, S. (2013). *Sosyal bilimlerde nitel araştırma yöntemleri*. Seçkin Yayıncılık.
- Gün, S. (2015). *Yabancı dil olarak Türkçenin öğretiminde web 2.0 sesli ve görüntülü görüşme uygulamalarının (skype) konuşma becerisine etkisi*. Yayımlanmamış yüksek lisans tezi. Çanakkale 18 Mart Üniversitesi, Çanakkale.
- Gürbüz, S., & Şahin, F. (2018). *Sosyal bilimlerde araştırma yöntemleri*. Seçkin Yayıncılık.
- Hammersley, M. & Traianou, A. (2012). *Ethics in qualitative research: controversies and contexts*. SAGE.
- Hannum, W. (2001). Web-based training: Advantages and limitations. In Badrul H.K. (Ed.). *Web-based training* (pp. 13-20). Educational Technology Publications.
- Johns, K. (2015). Engaging and assessing students with technology: A review of kahoot!. *Policy and Practice*, 81(4), 89-91
- Joo, Y, J.B., & Chol, H.J. (2002); Self-efficacy for self-regulated learning, academic self-efficacy and internet self-efficacy in Web based instruction. *ETR&D*, 48(2), 5-17.
- Kapp, K.M., & O'Driscoll (2010). *Learning in 3d- adding a new dimension to enterprise learning and collaboration*. Willey.
- Keleş, H. (2019). *Sosyal bilgiler öğretmenlerinin teknopedagogik alan bilgisi yeterlilikleri ve web 2.0 teknolojileri hakkında görüşlerinin incelenmesi* (Yayımlanmamış yüksek lisans tezi). Aksaray Üniversitesi, Aksaray.
- Keser-Özmantar, Z. (2018). Örnekleme yöntemleri ve örnekleme süreci. K. Beycioğlu, N. Özer & Y. Kondakçı (Ed.). *Eğitim yönetiminde araştırma*. Pegem Akademi Yayıncılık.
- McLoughlin, C., & Lee, M.J.W. (2007). Social software and participatory learning: Pedagogical choices with technology affordances in the Web 2.0 era. *International Journal of Learning Technology*, 3(1), 87-107.
- Medina, E.G.L., & Hurtado, C.P.R. (2017). Kahoot! A digital tool for learning vocabulary in a language classroom. *Revista Publicando*, 12(1), 441-449.
- MEB. (2019). *Türkçe dersi öğretim programı (ilkokul ve ortaokul 1, 2, 3, 4, 5, 6, 7 ve 8. sınıflar)*. Talim ve Terbiye Kurulu Başkanlığı.
- Oforu, V. T., Mahama, S., Vandyck, E., Kumador, D.K., & Toku, N. (2015). Mother tongue usage in Ghanaian Pre-Schools: Perceptions of parents and teachers. *Journal of Education and Practice*, 6(34), 81-87.
- Onan, B. (2013). Türkçenin ana dili olarak öğretiminde karşılaşılan sorunlar ve çözüm önerileri. A. Güzel & H. Karatay (Ed.). *Türkçe öğretimi el kitabı içinde* (s. 107- 131). Pegem Akademi Yayıncılık.
- O'Reilly, T. (2007). What is Web 2.0? Design patterns and business models for the next generation of software. *Communications & Strategies*, 1(3), 17-37.
- Preksy, M. (2001). Digital natives, digital immigrants. *On the Horizon*, 9(5), 1–6.
- Sever, S. (2004). *Türkçe öğretimi ve tam öğrenme*. Anı Yayıncılık.
- Silverman, D. (2010). *Doing qualitative research*. Sage.
- Şener, F. (2019). *Teknopedagogik eğitim kapsamında Türkçe öğretmenlerinin web 2.0 araçlarını kullanma durumları* (Yayımlanmamış yüksek lisans tezi). Çanakkale 18 Mart Üniversitesi, Çanakkale.
- Tıraşoğlu, C. (2019). *Yabancılar Türkçe öğretiminde söz varlığını geliştirmeye yönelik web 2.0 araçları: kahoot! örneği* (Yayımlanmamış yüksek lisans tezi). Akdeniz Üniversitesi, Antalya.
- Thyab, R. A. (2016). Mother-tongue interference in the acquisition of English articles by L1 Arabic students. *Journal of Education and Practice*, 7(3), 1-4.
- Ustimenko, O. M. (2019). The mobile tool “Plickers” for interactive testing and formative assessment in the foreign language classroom. *Иноземни Мови*, 99(3), 59–64.
- Uysal, M. Z. (2020). *İlkokul 4. sınıfların bilimleri dersinde web 2.0 animasyon araçları kullanımının çeşitli değişkenlere etkisi* (Yayımlanmamış yüksek lisans tezi). Niğde Ömer Halisdemir Üniversitesi, Niğde.
- Yaylak, E. (2020). Çocuk üniversitelerinde medya okuryazarlığı. Kılınç, M. & Kösterelioğlu, İ. *Türkiye’de çocuk üniversiteleri içinde*, (124-143). Pegem Akademi Yayıncılık.
- Yazar, T., & Keskin, İ. (2020). Nitel araştırmalarda örneklem. B. Oral & A. Çoban (Ed.). *Kuramdan uygulamaya eğitimde araştırma yöntemleri*. Pegem Akademi Yayıncılık.

- Yerzhanova, G., & Maketova, M. (2018). Efficient ways of using information and communication technology service learningapps.org at geography lessons. *Қарағанды Университетінің Хабаршысы*, 1(89), 82-88.
- Yıldırım, İ. (2020). *7. sınıf ışıĝın madde ile etkileşimi ünitesinde web 2.0 araçlarının kullanılmasının öğrencilerinde akademik başarılarına, teknoloji ile kendi kendine öğrenme düzeylerine ve fene yönelik tutumlarına etkisinin incelenmesi*. Yayımlanmamış yüksek lisans tezi. Kocaeli Üniversitesi, Kocaeli.
- Zarzycka-Piskorz, E. (2016). Kahoot it or not? Can games be motivating in learning grammar? *Teaching English with Technology*, 16(3), 17-36.