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# Fluent Reading Skills of Learners of Turkish as A Foreign Language

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This study utilized a "sequential descriptive pattern", one of the mixed method designs with a view to (doing what? Please state the aim here). The qualitative data were collected through the analysis of the participants' oral reading voice recordings. Data on oral reading prosody were collected using the "Prosodic Reading Scale" and the quantitative data on reading speed and accurate reading were collected through the analysis of oral reading recordings. Whilst Spearman's rank correlation coefficient was utilized to determine the relationship between the data that did not distribute normally, Pearson's correlation coefficient was employed to test the relationship between the data that distributed normally. Analysis results indicated a negative, low-level, and significant relationship between the participants' oral reading errors and reading comprehension skills. While there was a positive, weak, and nonsignificant relationship between prosodic reading scores and reading comprehension skills in the A1-level, there was a positive, low-level, and significant relationship in the C1 level. It was found that oral reading speed, prosody, and oral reading errors did not predict fluent reading skills in the A1 level, and the model established was significant, but the dependent variables did not predict reading comprehension skill in the A2 level. In B1 and C1 levels, the regression model established in both levels were significant, and the rank of importance of the variables on oral reading comprehension was found as oral reading speed and oral reading errors.

## Introduction

While reading, individuals are very active both physiologically and cognitively. Reading occurs as a result of the individual's establishing a relationship between his prior knowledge and what he reads and reconstructing them in his mind. Reading is the recognition, interpretation, and physical vocalization of codes in printed and written materials (Akyol, 2006). In order to fully realize the act of reading, the sounds of the target language; It is aimed to gain and develop decoding skills in the target language by teaching the alphabet well. Because decoding is an important stage for learning to read (Adams, 2011), but it is not enough on its own. Individuals need to be able to read easily and spontaneously, and beyond

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coding words, they need to bring these words together in meaningful sequences (Schreiber, 1980). Word recognition and discrimination skills are seen as the basis of fluent reading (Dündar & Akyol, 2014). According to Başaran (2013), first of all, word recognition and reading speed should be developed for fluent reading. Reading speed develops or regresses depending on the ability of individuals to distinguish the symbols of sounds, namely letters. The development of word recognition skills ensures correct reading, which ensures that the reading speed is at an understandable level. Accurate reading and reading speed are essential skills for fluency in reading. Prosody and comprehension are skills that develop on these two skills (Keskin, Baştuğ & Akyol, 2013).

In order for individuals to have fluent reading skills in the target language, first of all, their phonological awareness should be developed. After the correct reading skills of the students are developed, their infrastructures for the reading comprehension skills are developed. Neglecting these skills causes students to not go beyond voicing the letters they see without understanding. For the realization of reading, that is, understanding, many sub-skills need to be put to work together. However, those who read in a foreign language have many disadvantages compared to native speakers of that language. While native speakers can perform cognitive processes such as guessing from previous information, making connections with the new learned topic, more easily, even unconsciously, there are many factors that prevent this situation in foreign languages. The weak short-term memory of the target language prevents instant recalls. For this reason, the information believed to have been learned before is easily forgotten, and cognitive processes such as information transitions, estimation, and merging cannot be applied, making the process slower, more difficult, and troublesome. Structural features, vocabulary, and phonological differences of the native language of individuals directly affect not only reading skills but also other language skills (Yorio, 1971).

Specifically, for reading skills, many components must be employed at the same time in order for all language skills to be automated. Logan (1997) defines automation as a practice that, at first glance, requires less effort, is effortless, autonomous and without much awareness or awareness. Fuchs, Fuchs, Hosp, and Jenkins (2001) refer to the fact that individuals translate the text into spoken language in the fluent reading process, and they compare oral reading fluency *to a "complex orchestra"*. This complexity fits perfectly with the simultaneous coordination of many sub-skills. The harmony between these sub-skills ensures fluency in reading.

While there are many studies examining fluent reading with various dimensions in mother tongue teaching (Başaran, 2013; Baştuğ & Akyol, 2012; Duran & Sezgin, 2012; Keskin, Baştuğ & Akyol, 2013; Yıldız, 2013) is an area that has not been studied yet in teaching Turkish as a foreign language. However, research on prosody and pronunciation skills, which are sub-dimensions of fluent reading, has increased in recent years (Akbulut, 2021; Çelebi, 2017; Tekin, 2020; Uçar, 2021). The starting point of this research is that there is no study in which fluent reading is examined in all its dimensions from basic to advanced level in teaching Turkish as a foreign language. However, it has been proven by research that fluent reading and word recognition skills have a positive contribution to reading comprehension in a foreign language (Gorsuch & Taguchi, 2008; Pae & Sevcık, 2011; Verhoeven, 2000). It is very difficult, laborious, and time-consuming for a student learning Turkish as a foreign language to acquire all these skills and competencies compared to native speakers. The problem statements of the research are given below.

(1) What are the common pronunciation mistakes of those who learn Turkish as a foreign language?
(2) How is the relationship between reading aloud errors and reading comprehension levels of learners of Turkish as a foreign language?
(3) How is the relationship between reading aloud speed and reading comprehension level of learners of Turkish as a foreign language?
(4) From what level do those who learn Turkish as a foreign language learn to read aloud in accordance with their prosody?
(5) How is the relationship between the skills of students learning Turkish as a foreign language and their reading comprehension skills?
(6) Do different levels of reading aloud speed, pronoun and reading aloud error scores predict participants' fluent reading skills?

## Method

### *Research design*

The study was carried out in accordance with mixed research designs. Mixed methods research is the use of qualitative and quantitative methods together in the data collection and analysis processes in order to better and deeply understand the research problem in a study (Cresswel & Plano Clark, 2007). "Explanatory sequential design", one of the mixed method designs, was used. In the explanatory sequential mixed design, first quantitative data and then qualitative data are collected. Quantitative data provides an overview of the scope of the research. In order to explain the resulting general picture in more detail, qualitative data are collected in the context of the data that emerged in the previous quantitative stage (Creswell & Plano Clark, 2007). The research design is shown in Figure-1.

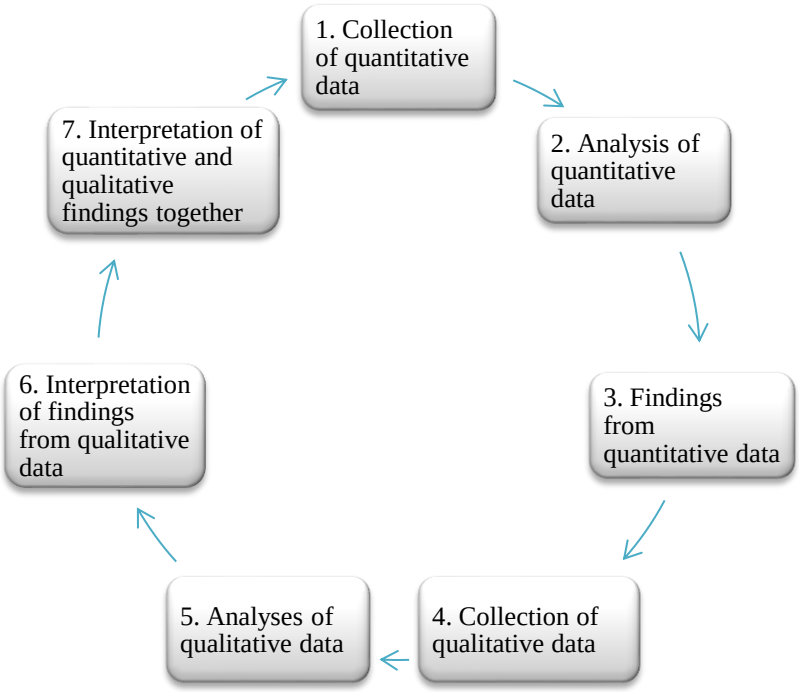


Figure 1. The process of the research

### *Data Collection Process*

*Quantitative Stage*

This phase of the research is descriptive as it reveals a situation that exists in the current situation but needs to be investigated. *"Descriptive studies describe a given situation as precisely and carefully as possible* (Büyüköztürk, Çakmak, Akgün, Karadeniz, & Demirel, 2008). Data on reading aloud, reading speed, reading errors and reading comprehension skills of the study group were collected and analyzed. *Multiple linear regression* analysis was used to determine the effect of multiple variables on an independent variable. All these analyses were made with the help of SPSS 21.0 package program and the level of significance was taken as .05.

*Qualitative Stage*

In the research process, it was aimed to examine the reasons for the differences in fluent reading skills of the study group through qualitative data. The qualitative data of the research were recorded with a voice recorder by asking the participants to read aloud the reading texts appropriate to their level. The audio recordings were analyzed in accordance with the pre-determined audio reading and pronunciation errors by the researchers.

### *Participants*

The study group was determined according to a wide variety of sampling from purposive sampling methods. A wide variety of samples *states that "identifying different situations that are similar within themselves and conducting the study on these situations"* (Büyüköztürk, et al., 2008). For this purpose, in the study group of the research, students with the same age level and learning purpose, different gender and mother tongue were studied. The study group consisted of the same participants at various levels (A1, A2, B1, B2 and C1) starting from the A1 level. Demographic characteristics of the study group are given in Table 1.

Table 1. Demographic characteristics of the study group

| Nationality | Gender | | Mother tongue/ Native language | N |
|---|---|---|---|---|
| | Male | Woman | | |
| Iraq | 2 | 1 | Arabic | 3 |
| Mongolian | 1 | 1 | Mongolian | 2 |
| Egypt | 1 | - | Arabic | 1 |
| Jordan | 1 | - | Arabic | 1 |
| Afghanistan | 3 | - | Persian | 3 |
| Iranian | 1 | - | Persian | 1 |
| Kirghiz | - | 1 | Kyrgyz | 1 |
| Palestine | - | 2 | Arabic | 2 |
| Tajikistan | 1 | - | Tajik | 1 |
| South Sudan | 2 | - | English/ Dinka | 2 |
| Serbia | - | 1 | Serbian | 1 |
| Liberia | 1 | - | English | 1 |
| Uganda | 1 | - | English/ Luganian | 1 |
| Kenya | 1 | - | English/ Swahili | 1 |
| Congo | 3 | - | French/ Kingwana | 3 |

| | | | | |
|---|---|---|---|---|
| Chad | 2 | - | French/ Maba | 2 |
| Madagascar | 1 | - | French/ Malagasy | 1 |
| East Turkestan | 1 | - | Chinese/Turkish | 1 |
| Bangladesh | 1 | - | Bengali | 1 |
| Turkmenistan | - | 1 | Turkmen | 1 |
| Total | 23 | **7** | | 30 |

According to Table 1, the study group consisted of 3 Iraqis, 2 Mongols, 1 Egyptian, 3 Afghan, 1 Persian, 1 Kyrgyz, 2 Palestinians, 1 Tajik, 2 South Sudanese, 1 Serbian, 1 Liberian, 1 Ugandan, 1 Kenyan, 3 Congolese, it is seen that it consists of 2 Chadian, 1 Malagasy, 1 Chinese, 1 Bangladeshi, 1 Turkmen students. The mother tongues of the students constituting the study group are Arabic for 7 students, Mongolian for 2 students, Persian for 4 students, English for 5 students, French for 6 students, Chinese for 1 student, and Kyrgyz, Tajik, Bengali and Turkmen for other students, respectively. When the study group is examined in terms of mother tongue, it is seen that students from South Sudan, Liberia, Uganda, Kenya, Congo, Chad, Madagascar, and East Turkistan are bilingual. The mother tongue of these students is *Dinka, Swahili, Lugan, Kingwana, Maba, Malagasy and Turkish,* which they learned from their own families and used in informal settings. The main languages that bilingual students learn to study and be academically successful are *English, French, and Chinese.* Therefore, the languages of the students are shown together as mother tongue and mother tongue.

### *Data Collection Techniques and Tools*

*Quantitative data collection tools*

*Developing Reading Comprehension Tests:* In order to determine the oral reading fluency of learners of Turkish as a foreign language, texts suitable for A1, A2, B1, B2 and C1 levels were selected according to the opinions of two field experts from the stories in Karaeloğlu's (2011) *Speed reading with comprehension for children* book. The texts were examined in terms of elements such as grammar, vocabulary, sentence length, and the grammatical structures, sentences and words that were above the students' level in the texts were intervened in accordance with the level of the students. Before the implementation, the texts were presented to the opinions of the field experts and the texts were finalized in line with the corrections made. Finally, reading comprehension questions about the texts adapted to the students' levels were prepared. The prepared reading comprehension tests were presented to the expert opinion again and their final form was decided. In order to ensure the validity and reliability of the reading comprehension tests prepared by the researcher, two reading comprehension tests based on two texts were prepared for each level.

*Equivalent forms method,* which is one of the reliability determination types, was used. Equivalent form reliability is explained by the correlation between test scores obtained by applying two equivalent forms to a group at the same time or at two different times. (Büyüköztürk, 2012). In order to benefit from equivalent form reliability, two separate texts and reading comprehension questions based on the texts were prepared for each level by the researcher. Pearson correlation coefficients were calculated on the data obtained by applying the tests prepared for the levels to the study group in the last week of the relevant level. Tests with a correlation coefficient of .60 and above were considered reliable (Loewenthal, 2004; Nunnally 1978). When the data obtained as a result of the applications were analyzed, the

Cronbach alpha correlation coefficients of the tests were .61 for the A1 level; .63 for A2 level; .66 for B1 level; It was calculated as .87 for B2 level and .60 for C1 level. These data show that the developed reading comprehension tests are reliable and can be used for research.

*Prosodic Reading Scale*: *The Prosodic Reading Scale consists of the dimensions of* speed, punctuation, intonation, emphasis, sound characteristics, reading rhythm, emotion, meaning unit (grouping) and automatic word recognition in oral reading and a total of 15 items. The items of the scale developed in Likert type are scored between 0-4. '0' *Never observed;* '1' *Few observed;* '2' *Occasionally observed;* '3' *means Often observed* and '4' *Always observed.* The maximum score that can be obtained from the scale is 60. Students who get 50% of the total score are considered prosody sufficient. During the development of the scale, it was tried to score the records of 356 students (Keskin et al., 2013). There was no difference in the scores made by two different researchers. The content validity of the scale was provided by expert opinion. KMO = .97 and Barlett's analysis (p=.00; <.01) were calculated to ensure the construct validity of the scale.

### *Qualitative Data Collection Technique and Tool*

Document analysis technique was used to collect qualitative data. Document analysis includes the analysis of written materials containing information about the case or cases that are aimed to be investigated. Documents can be used with other research methods as well as they can create the entire data set of a research on their own.

*Read Aloud Recordings:* In order for the voice recordings to be clear and understandable, a voice recorder with sufficient internal memory, battery-operated, easy to carry and not visible when hidden, was purchased during the research. Voice recording has been preferred for the purpose of obtaining, storing and storing data securely. At the same time, using a tape recorder *"beyond increasing accuracy, it allows the researcher to listen more carefully to what the participant is saying."* (Patton, 2014).

Aloud readings of the participants were carried out in a separate, isolated room, as it required the recording environment to be quiet and undisturbed. The environment where the audio recording will be taken was checked before the participants came, and all necessary precautions were taken to ensure a healthy recording. For this purpose, the voice recorder was placed in a place where the participants could not see them to make them feel more comfortable. After the voice recorder was properly placed, it was tested to determine the intelligibility of the voice recording. After this stage, the voice readings of the participants were recorded.

### *Data Analysis*

*Analysis of Quantitative Data*

Correlation analysis was used to determine the relationship between two variables. Correlation is *"an analysis technique to determine the severity of the relationship or dependence between two variables"* (Altunışık, Coşkun, Bayraktaroğlu, & Yıldırım, 2010). Various types of correlation are used to measure the relationship between variables. The most commonly used ones are *Pearson Correlation Coefficient* and *Sperman Rank Correlation Coefficient.*

*The Pearson Correlation Coefficient is one of the* parametric tests. In order to apply this

correlation technique, the data to be used in the research should show a normal distribution (Altunışık et al., 2010). *The Sperman Rank Correlation Coefficient* is a non-parametric correlation calculation technique that does not show normal distribution and is applied in small samples (Karagöz, 2010). In the study, firstly, it was determined whether the data were normally distributed or not. As a result, the correlation technique to be used was decided based on the findings. The findings regarding the normality of the data are given in Table 2.

Table 2. Information on the normality distribution of the data

| | skewness | skew error | z_skewness | kurtosis | kurtosis error | z_ kurtosis |
|---|---|---|---|---|---|---|
| A1 reading | .104 | .427 | .243 | 1.032 | .833 | 1.240 |
| A2 reading | 1.261 | .427 | 2.955 | 1.036 | .833 | 1.244 |
| B1 reading | .264 | .427 | .619 | 1.113 | .833 | 1.337 |
| B2 reading | .964 | .427 | 2.257 | .371 | .833 | 0.604 |
| C1 reading | .312 | .427 | .730 | .530 | .833 | 0.604 |
| A1 speed | .948 | .427 | 2.220 | 1.330 | .833 | 1.598 |
| A2 speed | .615 | .427 | 1.441 | .407 | .833 | 0.489 |
| B1 speed | .073 | .427 | .170 | 1.079 | .833 | 1.296 |
| B2 speed | 1.733 | .427 | 4.059 | 4.236 | .833 | 5.087 |
| C1 speed | .682 | .427 | 1.597 | .706 | .833 | 0.848 |
| A1 error | .948 | .427 | 2.220 | 1.330 | .833 | 1.598 |
| A2 error | .615 | .427 | 1.441 | -.407 | .833 | -0.489 |
| B1 error | -.073 | .427 | -.170 | -1.079 | .833 | -1.296 |
| B2 error | 1.733 | .427 | 4.059 | 4.236 | .833 | 5.087 |
| C1 error | .682 | .427 | 1.597 | -.706 | .833 | -0.848 |
| A1 prosody | 2.836 | .427 | 6.644 | 7.684 | .833 | 9.227 |
| A2 prosody | 1.847 | .427 | 4.327 | 3.000 | .833 | 3.602 |
| B1 prosody | 1.413 | .427 | 3.310 | 1.103 | .833 | 1.325 |
| B2 prosody | .252 | .427 | .591 | 1.206 | .833 | 1.448 |
| C1 prosody | .162 | .427 | .379 | .758 | .833 | 0.910 |

Field (2009) states that when one of the skewness and kurtosis z-scores is greater than 1.96, the data do not show a normal distribution at the 0.05 level. Based on this information, A2 reading, B2 reading from the research data; A1 speed, B2 speed; It is concluded that the data of A1 error, B2 error and A1, A2, B1 do not show normal distribution. Therefore, the relationship between these data was determined by the *Sperman Rank Correlation Coefficient, one of the correlation analysis techniques.* Since skewness and kurtosis values of other variables show normal distribution at the level of 0.05, *Pearson correlation coefficient, one of the correlation analysis techniques, was used to determine the relationship between these data*.

After the normal distribution conditions and correlations of the variables subject to the research were determined, the appropriate variables were tested with regression analysis. Regression analysis is *"two or more variables that are related to each other as a dependent variable and the others as independent variables, and the relationship between them is*

*explained with a mathematical equation"* (Büyüköztürk, 2017). There should be a significant relationship between the variables to be regressed. In addition, independent variables *"must be continuously variable and show normal distribution"* (Büyüköztürk, 2017). Based on the normality status of the dependent and independent variables and the correlation results, the variables suitable for the regression analysis were determined. By testing these variables with regression analysis, the predictive levels of fluent reading skills of those learning Turkish as a foreign language were determined.

*Analysis of Qualitative Data*

The data obtained from the audio recordings of the participants who created the documents at the qualitative stage were analyzed in accordance with the content analysis technique in terms of predetermined reading errors and pronunciation errors. Content analysis is defined as a systematic, iterable technique in which some words of a text are summarized into smaller categories with coding based on certain rules. It is a technique in which inferences are made for the objective and systematic recognition of certain features of a message. Frequency and percentage are generally used in the interpretation of the data obtained as a result of content analysis (Büyüköztürk et al., 2017). Content analysis is analyzed in four stages. These stages are:

(1) Data Coding,
(2) Finding themes,
(3) Organizing and defining data according to codes and themes,
(4) Interpretation of the findings.

The audio reading recordings of the participants were listened to by two field experts and processed separately into *the scale of reading aloud errors.* Afterwards, two field experts came together and the sameness of the mistakes they committed on the scales was checked. In cases where two field experts agree on aloud reading errors, but in some words, there are more than one reading errors, for example, both the addition (-n) and the replacement (-a>-e) in the word "*sasin", these errors should be processed into two different categories.* Apart from this, it was seen that the reading errors based on vowels and consonants in words were determined the same in both field experts.

The data obtained from the pronunciation errors of the participants were evaluated by coding in two different categories as reading errors in vowels and consonants. Each of the participants was coded as "K1, K2…" in order to code the mistakes made and to monitor them until the end of the research. These codes were used in the processing and monitoring of data about the same student until the end of the study. The reading and pronunciation errors made were examined in depth according to the nationality and mother tongue variables of the participants. Finally, the quantitative and qualitative findings were interpreted together, and the findings related to the development of fluent reading skills of the participants were revealed.

## Results

### *Findings related to the first sub-problem*

Pronunciation errors made by all students were determined according to independent variables such as mother tongue and nationality of those who learn Turkish as a foreign

language. In the resolution of this sub-problem, the audio recordings of the study group were analyzed by content analysis technique. Findings related to this are given in Table 3.

Table 3. Common pronunciation mistakes made by learners of Turkish as a foreign language

| Native language | Mispronounced sounds | |
|---|---|---|
| | famous voices | consonant sounds |
| Arabic | a, e, i, i, o, ö, u, ü | c, ç, g, ğ, j, k |
| French | a, e, i, i, ö, u, ü | c, ç, g, ğ, h, t, ş, v, t, z |
| English | a, e, i, i, o, ö, u, ü | c, ç, g, ğ, h, l, r, t, ş, v, t, z |
| Persian | a, e, i, i, o, ö, u, ü | ç, g, ğ, p, k |
| Mongolian | e, i, u, ö, ü | ğ |
| bengali | he, o, u, ü | c, ç, ş |
| Bosnian | e, o, o, ü | - |
| Uigur | e, i, i | - |
| Tajik | e, i, ö, u, ü | g, ğ |
| Kyrgyz | - | p |

According to Table 3, all vowel sounds can be pronounced incorrectly in teaching Turkish as a foreign language. The incorrect pronunciation of all vowel sounds shows that it is necessary to give importance to teaching the correct pronunciation of these sounds starting from the A1 level. Mispronounced common consonants are *c, ç, g, ğ, h, j, k, l, r, ş, t, v, z.* The closeness of these sounds with the similar sounds in the students' mother tongue and orthographically causes the students to make incorrect pronunciations.

### *Findings related to the second sub-problem*

In solving this sub-problem, the frequencies of reading aloud errors obtained from the analysis of reading aloud recordings and the scores obtained from the reading comprehension tests were used. Correlation analysis was used to determine the relationship between variables. Findings related to this are given in Table 4.

Table 4. The relationship between reading aloud errors and reading comprehension skills of the study group

| Variables | Level | | Reading errors | Reading Comprehension |
|---|---|---|---|---|
| Read Errors | A1 | r | 1 | -.308 |
| | | p | | .097 |
| | | N | 30 | 30 |
| Read Errors | A2 | r | 1 | .-485 |
| | | p | | .007* |
| | | N | 30 | 30 |
| Read Errors | B1 | r | 1 | -.423 |
| | | p | | .020* |
| | | N | 30 | 30 |
| Read Errors | B2 | r | 1 | -.117 |
| | | p | | .538 |
| | | N | 30 | 30 |
| Read Errors | C1 | r | 1 | -.380 |
| | | p | | .038* |
| | | N | 30 | 30 |

*p<.05 significant relationship; ** r= 0-.30 *weak*, .30-.50 *low* , .50-.70 *medium* , .70 and above *high* correlation (+/-).

According to Table 4, there is a negative, weak and insignificant relationship between reading aloud errors and reading comprehension skills of students at A1 level; A negative, low and

significant relationship at the A2 level; A negative, low and significant relationship at B1 level; It was determined that there was a negative, low and non-significant relationship at B2 level and a negative, low and significant relationship between reading aloud errors and reading comprehension skills at C1 level.

***Findings related to the third sub-problem***

In solving this problem, the reading speeds obtained from the audio reading recordings of the students and the scores obtained from the reading comprehension tests were used. The findings regarding the relationship between the two variables by using the correlation technique in the analysis of the data are given in Table 5.

Table 5. The relationship between the reading speed of the study group and their reading comprehension skills.

| Variables | Level | | Reading Speed | Reading Comprehension |
|---|---|---|---|---|
| Read speed | A1 | r | 1 | .364 |
| | | p | | .048* |
| | | N | 30 | 30 |
| Read speed | A2 | r | 1 | .415 |
| | | p | | .023* |
| | | N | 30 | 30 |
| Read speed | B1 | r | 1 | .500 |
| | | p | | .005* |
| | | N | 30 | 30 |
| Read speed | B2 | r | 1 | .114 |
| | | p | | .550 |
| | | N | 30 | 30 |
| Read speed | C1 | r | 1 | .478 |
| | | p | | .008* |
| | | N | 30 | 30 |

*p<.05 significant relationship; ** r= 0-.30 *weak*, .30-.50 *low* , .50-.70 *medium* , .70 and above *high* correlation (+/-).

According to Table 5, there is a positive, low, and significant relationship between A1 level students' reading speed and their reading comprehension skills. There is a low, positive, and significant relationship between A2 level students' reading aloud speed and their reading comprehension skills. Accordingly, basic level reading speed is a factor affecting reading comprehension skills in teaching Turkish to foreigners. When the B1 level data of the study group were analyzed, it was determined that there was a positive, moderate and significant relationship between oral reading speeds and reading comprehension skills at B1 level. Reading speed is an important variable that affects the Turkish comprehension skills of B1 level foreign students. There is a positive, weak and non-significant relationship between the oral reading speed of B2 level students learning Turkish as a foreign language and their reading comprehension skills. According to this finding, reading speed is not an important variable that affects Turkish reading comprehension at B2 level. The fact that the quality of education at B2 level is more academic than other levels and the length of the texts in the textbooks is longer than the texts in the previous levels are thought to be effective in the emergence of this result. When the data on the reading speed and reading comprehension levels of C1 level students were analyzed, it was determined that there was a positive, low, and significant relationship between the two variables. This finding shows that the reading speed of foreigners learning Turkish at C1 level is a variable that affects their reading comprehension skills.

***Findings related to the fourth sub-problem***

In solving this problem, the data obtained from the Prosodic Reading Scale was used. These data were analyzed with the descriptive technique, one of the descriptive analysis techniques, in the SPSS 21.0 program, and the findings are given in Table 6.

Table 6. Procedural reading skills of the study group

| Level | N | Lowest | Highest | $\overline{X}$ | S |
|---|---|---|---|---|---|
| A1 | 30 | .00 | 4.00 | .433 | 1.19 |
| A2 | 30 | .00 | 4.00 | .666 | 1.05 |
| B1 | 30 | .00 | 11.00 | 2.83 | 2.33 |
| B2 | 30 | 2.00 | 49.00 | 25.13 | 14.78 |
| C1 | 30 | 5.00 | 40.00 | 26.66 | 8.80 |

The table is examined, it is seen that the study group does not have prosodic reading skills at A1( $\overline{X}$ =.43) and A2 ( $\overline{X}$ =.66) levels. When the arithmetic mean scores of the students for B1 level prose reading skills are examined, it is seen that there is an increase compared to A1 and A2 levels. However, the prose reading skills of the students are still insufficient ( $\overline{X}$ =2.83). Although there is a significant increase in the prosodic reading skills of B2 level students learning Turkish as a foreign language, their prosodic reading levels are not at the desired level ( $\overline{X}$ =25.13). When the C1 level prosodic reading scores of the study group are examined, it is seen that the students' prosodic reading skills at C1 level are also insufficient ( $\overline{X}$ =26.66). These findings reveal that those who learn Turkish as a foreign language cannot acquire the prosody reading skill in the teaching process.

***Findings related to the fifth sub-problem***

In solving this problem, the *correlation* technique was used to determine the relationship between the two variables. Findings related to this are given in Table 7.

Table 7. Findings related to prosodic reading and reading comprehension skills of the study group

| Variables | Level | | Prosodic Reading | Reading Comprehension |
|---|---|---|---|---|
| Prosodic Reading | A1 | r | 1 | .002 |
| | | p | | .990 |
| | | N | 30 | 30 |
| Prosodic Reading | A2 | r | 1 | .111 |
| | | p | | .561 |
| | | N | 30 | 30 |
| Prosodic Reading | B1 | r | 1 | .226 |
| | | p | | .231 |
| | | N | 30 | 30 |
| Prosodic Reading | B2 | r | 1 | -.045 |
| | | p | | .814 |
| | | N | 30 | 30 |
| Prosodic Reading | C1 | r | 1 | .133 |
| | | p | | .482 |
| | | N | 30 | 30 |

*p<.05 significant relationship; ** r= 0-.30 weak, .30-.50 low , .50-.70 medium , .70 and above high correlation (+/-).

According to Table 7, there is a positive, weak, and non-significant relationship between

prosodic reading skills and reading comprehension skills at the A1 level of learners of Turkish as a foreign language; It has been determined that there is a positive, weak and non-significant relationship between prose reading skills at level 22 and reading comprehension skills. When B1 level prosodic reading scores and reading comprehension skill scores are compared, there is a positive, weak, and insignificant relationship. relationship has been determined. At the C1 level, it was determined that there was a positive, low and non-significant relationship between the students' prosodic reading skills and their reading comprehension skills. According to the findings, it is not a variable that affects the prosodic reading skills and reading comprehension skills of those who learn Turkish as a foreign language.

***Findings related to the sixth sub-problem***

In order to perform regression analysis, the data should show normal distribution and there should be a significant correlation between the variables. For this reason, regression analysis was performed between dependent variables and independent variables that had a significant relationship between them. Since the fluent reading skills of the students were examined separately at each level, the regression analysis was also performed between the scores of the independent variable and dependent variables at each level. Since the data obtained at B2 level did not show normal distribution and there was no significant relationship between the variables, regression analysis could not be performed. The results of the regression analysis for the A1, A2, B1 and C1 rates are given below.

Table 8. Multiple Regression Analysis Results regarding the prediction of A1 level variables of the study group.

| Variables | B | Standard Error | β | t | p |
|---|---|---|---|---|---|
| **Constant** | 4.75 | 1,097 | - | 4.335 | .000 |
| **Reading Speed** | .028 | .018 | .300 | 1,574 | .127 |
| **Prosody** | -.004 | .367 | -.002 | -.011 | .991 |
| R=.300<br>F=1.336 | $R^2$=.090<br>p=.280 | | | | |

Table 8 is examined, it is concluded that reading speed and reading aloud at A1 level are not important predictors of reading comprehension skills. At the same time, it was determined that the model established between these three variables was not significant (F=1.336; p>.05).

Table 9. Multiple Regression Analysis Results for the prediction of A2 level variables of the study group

| Variables | B | Standard Error | β | t | p |
|---|---|---|---|---|---|
| **Constant** | 7,737 | 1,599 | - | 4.839 | .000 |
| **Reading errors** | -.044 | .037 | -.285 | -1,169 | .253 |
| **Reading speed** | .018 | .018 | .249 | 1,020 | .317 |
| R= .496<br>F = 4.407 | $R^2$= .246<br>p= .022* | | | | |

*p<.05=significant

According to Table 9, the model established with the variable of reading comprehension at the A2 level, reading aloud errors and reading speed variables is significant (F=4.407; p<.05).

However, when the results of the analysis are examined, it is seen that the variables of reading errors and speed are not a significant predictor of reading comprehension skills. Reading errors and speed variables give a moderate, significant relationship with reading comprehension skill scores (R=.496). Together, these two variables explain approximately 25% of the total variance in reading comprehension of those learning Turkish as a foreign language at the A2 level. When standardized regression coefficients (β) are examined, the order of importance on A2 level reading comprehension skill is reading errors and reading speed.

Table 10. Multiple Regression Analysis Results regarding the prediction of B1 level variables of the study group

| Variables | B | Standard Error | β | t | p |
|---|---|---|---|---|---|
| **Constant** | 6.049 | 1,700 | - | 3,558 | .001 |
| **Reading errors** | -.029 | .031 | -.194 | -.948 | .351 |
| **Reading speed** | .036 | .019 | .384 | 1,875 | .072 |
| R= .523<br>F = 5.088 | $R^2$= .274<br>p= .013* | | | | |

*p<.05=significant

According to Table 10, it is seen that there is a moderate and significant relationship between the reading comprehension variable at B1 level and the variables of reading errors and reading speed aloud (R=.523; p<.05). Together, these two variables explain approximately 27% of the total variance in reading comprehension of those learning Turkish as a foreign language at B1 level. When the standardized regression coefficients (β) are examined, the order of importance on the B1 level reading comprehension skill is reading aloud speed and reading aloud errors.

Table 11. Multiple Regression Analysis Results regarding the prediction of C1 level variables of the study group.

| Variables | B | Standard Error | β | t | p |
|---|---|---|---|---|---|
| **Constant** | 5,646 | 1.651 | - | 3.420 | .002 |
| **Reading errors** | -.043 | .038 | .227 | -1.158 | .257 |
| **Reading speed** | .037 | .020 | .355 | 1,813 | .081 |
| R= .515<br>F = 4.860 | $R^2$= .265<br>p= .016* | | | | |

*p<.05=significant

When Table 11 is examined, it is seen that the variable of reading comprehension at the C1 level and the variables of reading aloud errors and reading speed have a moderate and significant relationship (R=.515; p<.05). Together, these two variables explain approximately 27% of the total variance in reading comprehension of those learning Turkish as a foreign language at the C1 level. When standardized regression coefficients (β) are examined, the order of importance on C1 level reading comprehension skill is reading aloud speed and reading aloud errors.

## Discussion and Conclusion

When the sound mistakes made by the students whose mother tongue is Arabic at each level are examined during their Turkish education, it is seen that all vowels (a, e, ı, i, o, ö, u,

ü) and consonants *b, c, ç, g, ğ, j it was determined that they made, k, p, y* sounds incorrectly. Among these consonants, *'ç', 'g', 'ğ', 'j', 'p', 'v'* are consonants in Turkish but not in Arabic (İşler, 1996). Participants whose mother tongue is Arabic, especially vowel sounds that are not found in the Arabic alphabet, eg *'ö'* sounds *'o'; the 'ü'* sound is *'u'; 'o'* sound as ' *u'* and *'a'* (ördek<ordek; türlü<turlu; konuk<konak etc.). Özkan (2015) reached similar results in the phonetic errors of students whose mother tongue is Arabic. The *'p' sound,* which is an explosive and double lip consonant in Turkish, is not found in Arabic. From the same type of sounds, there is a common *'b'* sound in both languages. For this reason, these students have difficulties in pronouncing the *'p'* sound or make it sound incorrectly (para>bara etc.). This situation shows that the students transfer the voice in their mother tongue to the target language, thus they make a negative transfer. The *'c'* and *'ç' consonants,* which are lateral oozing and gingival consonants, are two of the sounds that native Arabic speakers have the most difficulty with. Although the *'c'* sound is common in both languages, students sometimes pronounce this sound as *'j'* (sadeje etc.). However, since the *'ç'* sound is not in Arabic, the participants mostly pronounce the *'ç' sound as a 'c'* or *'j'* sound. Because there is no *'ç' sound in* their mother tongue, they prefer the sound closest to this sound in the target language. When the audio reading records of the students whose mother tongue is Arabic were examined, it was determined that the *'g'* and *'ğ'* sounds had difficulties in their pronunciation or were pronounced incorrectly. Although the *'g'* sound is a common sound in both languages, this sound is pronounced as *'c'.* It is thought that the reason for this is that as a result of the *'g'* sound being pronounced as *'c' in some English words and verbs,* students make negative transfers based on this. Aktürk (2016), in his study, found that, as a result of the opinions of the students whose mother tongue is Arabic learning Turkish as a foreign language and the teachers who teach Turkish to these students, the most difficult subjects for the students while learning Turkish are pronunciation, problems such as the inability to distinguish the sounds of *'u'* and *'ü'* determined to come. Similar results were obtained in this study. These data obtained as a result of the research overlap with other research results in the literature (Aktürk, 2016; Alshirah, 2013; Özkan, 2015; Polat, 1988).

The students whose native language was French in the study group had difficulties in 'ç', 'ğ', 'h', 'r', 'ş', 't', 'v' sounds. It is seen that the sounds of explosive and dental-palatal consonant 'ç' and infiltrating tooth-palatal consonant 'ş' in Turkish are not the same in French as in Turkish. From the same kind of sounds, there is an 's' sound in common in both languages. For this reason, students whose mother tongue is French have difficulties in the pronunciation of 'ç' and 'ş' sounds or they pronounce them incorrectly (manço>manco; arkadaşlık>arkadaslık, etc.). The consonants 'ğ', which is one of the penetrating and laryngeal consonants, and 'h', which is one of the penetrating laryngeal consonants, are two of the other sounds that French native speakers have difficulty in pronouncing. Although the 'ğ' sound is also in French, it differs orthographically and phonetically. In an effort to read every sound written in Turkish, students try to pronounce every sound they see as orthographic, ignoring the phonetics of Turkish. Therefore, the pronunciations of the 'ğ' and 'h' sounds are incorrect (kabuğu>kabuhu, sahilde>sayilde). Other sounds that are pronounced incorrectly by native French speakers are 't', 'z', ' v'. However, since the phonological equivalents of these sounds are not the same as in Turkish, the students pronounced these sounds incorrectly (çeşitli>çeşişli, başaramazsın>basaramazzın, yavrusu>yafrusu). In addition, the students had difficulties in the pronunciation of the 'r' sound. This is because in French the 'r' sound is pronounced 'eğ' (şarkı>şağkı). Orthographically, the sounds in both languages differ phonologically. This causes the pronunciation of sounds to be incorrect in the foreign language learning process. Sarıca (2013) states that the pronunciation of French words that start with the laryngeal consonant 'r', which does not exist in Turkish, are difficult and that the frequent use of 'z' and

'ch' (friction front palatal consonants) causes mistakes in the pronunciation of Turkish students learning French. The same is true for students whose mother tongue is French and who learn Turkish as a foreign language. These data obtained as a result of the research overlap with other research results in the literature.

Native English speakers struggled with the sounds *'ç', 'f', 'ğ', 'p', 'r', 'ş', 't', 'v', 'z'.* In Turkish, explosive, and dental-palatal consonants *'ç', 'ğ' from posterior* palatal consonants, and *'ş '* from infiltrating tooth-palatal consonants are shown in different forms in English. Similar to these sounds in Turkish, there are *'c', 'y' and* 's' sounds in English. However, especially the *'ş'* sound, although phonologically present in both languages, differs orthographically. For example, the sound *'ş'* is shown with a dot below the *'s' in Turkish, while it is* in the form of *'sh' in English.* For this reason, students pronounced *' ş '* as *'s' and 's' as 'ş'* in some cases. For this reason, students are inclined to pronounce the closest sound in their mother tongue while pronouncing these sounds in their reading texts or speech. According to Demirezen (2008), Turkish students learning English as a foreign language sometimes pronounce the *'t'* sound incorrectly. The same is true for English-speaking students learning Turkish as a foreign language. Due to the difference in the pronunciation of the *'t'* sound and other consonants in English, it can sound incorrectly in the process of learning Turkish.

Students whose mother tongue is Persian pronounce *'ç', 'ğ', 'k', 'p'* consonants incorrectly. In Turkish, explosive and dental palatal consonant *'ç',* posterior palate *'k'* and explosive double lip consonant *'p'* are common sounds in both languages. However, these sounds were pronounced incorrectly by some students (eg. güçlendi > guclendi). However, since *the 'ğ' sound is not found in Persian, students* prefer to use *'g' sound,* which is the closest sound to this sound. For this reason, in words with *'ğ' in* students' reading or speaking aloud, this sound is read as *'g'.* (Example: diğer>diger, verdiği>verdigi, etc.).

The student whose mother tongue is Mongolian made a mistake in the pronunciation of the *'ğ'* sound. Since the *'ğ' sound,* which is an infiltrating and posterior palate consonant in Turkish, is not found in Mongolian, students prefer to use *'g' sound,* which is the closest sound to this sound. For this reason, in words with *'ğ' in* students' reading or speaking aloud, this sound is read as *'g'.* (Example: kuğu>kugu etc.). Although their representations in the Mongolian alphabet differ, there are many common sounds since both languages are from the same language family. This is also true for Turkmen, Kyrgyz, and Uyghur. For this reason, it is considered normal for students whose mother tongue is Mongolian, Turkmen, Kyrgyz, and Uyghur to have little or no sound errors.

The pronunciation errors determined in the first problem of the research were converted into quantitative data, and the relationship between pronunciation errors and reading comprehension scores was examined. As a result of the analysis, it was found that there was a significant and negative relationship between reading aloud errors at A2, B1 and C1 levels and reading comprehension skills at the same levels ($p<.05$). In other words, as reading errors decrease, comprehension increases; Comprehension decreases as errors increase. Findings in terms of reading comprehension skills are an expected situation. Le (2014) states that as the levels increase, the error rate may decrease and reading disorders, namely pronunciation and reading errors, delay comprehension. However, the decrease in errors does not mean that reading comprehension will increase at the same rate. Because, although the ability to read in a foreign language and the ability to read in the mother tongue are seen as the same, this is a wrong idea (Phakiti, 2006). The relationship between reading aloud errors and reading comprehension skills at A1 and B2 levels ($p>.05$) confirms this information.

There is a positive and significant relationship (p<.05) between the oral reading speed and reading comprehension skills of the study group at A1, A2, B1 and C1 levels. While this relationship was low at A1 level (r=.364), it approached to a moderate level at the end of C1 level (r=.478). This change in reading speed is expected, depending on factors such as students' exposure to Turkish, reading time, number of books they read, and increasing vocabulary during the period from the A1 level to the end of the C1 level. Based on these data, it is understood that the reading skill, which consists of perception, comprehension and analysis, automatically employs these listed skills. The results of studies conducted in the mother tongue support this data (Başaran, 2013; Baştuğ & Kaman, 2013). However, reading speed does not always mean that comprehension is high (Rasinski, 2006). Therefore, the aim of reading education courses is not only to increase students' reading speed, but also to ensure that their comprehension develops at the same speed.

It was concluded that there is a non-significant relationship between the other dimension of fluent reading and reading comprehension skills at all levels. Based on this finding, it can be said that pronoun is not an important variable affecting reading comprehension in teaching Turkish as a foreign language. It is thought that the fact that students have not yet learned to read the text in the appropriate tone and rhythm is effective in the emergence of this situation. In addition, the process was not interfered with and no prose reading method was applied in the classroom. Starting from B1 level, students' tendency to read texts or books related to their fields, both in textbooks and in their own reading, has been effective in the emergence of this data. Lems (2004), in his study examining fluent readings of learners of English as a foreign language, concluded that there is no variable that strongly explains reading comprehension.

Reading aloud errors, speed, and full data, which constitute fluent reading, and reading comprehension skills were kept as constant variables, and the predictive levels of reading comprehension skills were determined. Variables were analyzed with multiple regression analysis, and the predictive levels of dependent variables on the independent variable were determined separately for each level. Regression analysis could not be performed on B2 level data only since the data did not show normal distribution and there was no significant relationship between the variables. At A1 level, regression analysis was performed between the variables of reading aloud speed and mass, with the reading comprehension skill being the independent variable. It has been concluded that A1 level oral reading speed and reading face are not significant predictors of reading comprehension skills. It is an expected situation that the reading speed of individuals who have just started to learn Turkish as a foreign language is slow and their readings are not significant enough to affect comprehension. It is more difficult to acquire these skills in a foreign language than in their mother tongue (Özçelik, 2016). Paige, Rupley, Smith, Rasinski, Nichols and Lavell (2017) stated in their research on first, second, and third grade students that the body gradually increases and develops. Because students' language skills develop with factors such as language exposure levels, development of sound awareness, word recognition levels and increase in vocabulary. The data shown in Table 4.31 prove that there is an improvement in foreign language learning from A1 to C1 levels as well.

The obtained data reveal that reading aloud errors and reading aloud speed do not have a significant effect on reading comprehension skills. Lems (2004) argues that when the reading speed drops below a certain rate, it is a critical situation in terms of reading comprehension skills and accordingly comprehension cannot be realized. In addition, Lems (2004) states that reading speed can develop at different levels. In the fourth sub-problem of the study, it was determined that there was a significant relationship between oral reading speed and reading

comprehension at A1, A2, B1 and C1 levels. However, it was revealed as a result of regression analysis that these variables did not have a significant effect on reading comprehension. The fact that the study group is not homogeneous, and the study group consists of a small number of people is also thought to be effective in the emergence of this result. When the literature is examined, it is seen that a similar situation exists in fluent reading studies in teaching Turkish as a mother tongue. Başaran (2013) argues that slow reading may be an indication of a problem in comprehension, but after expressing the necessity of reading at a certain speed for comprehension, further acceleration cannot be an indicator of reading comprehension. The data obtained at the end of the research show similarities with other studies in the literature in this respect.

In order to improve the reading comprehension skills of the students from the basic level, the reading errors should be minimized. This can be achieved by raising the sound-letter awareness. Students' sound-letter awareness should be developed and supported with activities that improve their level of word recognition. Thus, pronunciation problems will be eliminated and prosody, reading speed aloud and most importantly, correct reading skills will be improved. In addition, syllable, word and sentence lengths should be determined in textbooks and supplementary teaching materials, and texts should be created accordingly.

## Note

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