ACADEMIC JOURNALS
expand your knowledge

Educational Research and Reviews

Full Length Research Paper

Evaluation of Turkish teacher candidates' perception of note taking concept

Hüseyin Özçakmak* and Okan Sarigöz

Department of Turkish Language Education, Education Faculty, Hatay Mustafa Kemal University, Turkey.

Note taking is individual's recording of the attraction grabbing, unknown or newly learned knowledge in brief notes so as to remember afterwards. Note taking nowadays is no longer a routine action for students but viewed as a skill. In fact, students do not take note of all the word being taught in classes but record the knowledge in short notes, sometimes even shortening the words in a way understandable to them. The purpose of this study is to determine Turkish Language Teaching Department students' perception of note taking concept. The sample of the research is composed of 163 teacher candidates' of Hatay Mustafa Kemal University in 1st, 2nd, 3rd or 4th grade of Turkish Language Teaching Department from 2017-2018 education year. The method of the research was chosen as descriptive phenomenologic pattern as one of qualitative research patterns. In the research, 301 opinions of 32 themes were gathered related to writing down important information, writing down the knowledge that should not be forgotten, writing down as one can make sense of, writing shortly, writing down so one can review later and writing down the useful parts. As a result of the research it was found that teacher candidates mostly confuse note taking and summarizing concepts, candidates mostly take notes in occasions of seminars, symposiums, and conferences, most themes of the note taking were developed by 1st grade students, most opinions were stated by 3rd grade students, female teacher candidates were more interested and sensitive in note taking compared to male candidates.

Key words: Note taking, recording, perception, Turkish teacher candidates.

INTRODUCTION

Notes are the recall writings for the individual to remember the learned information later. Note taking is individual's recording of the unknown or attention grabbing subjects while learning in brief parts. According to Hebert et al. (2014), note taking takes place when the people who feel inadequate in terms of knowledge come across new information; they record this information in brief notes.

Despite many differences in the literature, the common view on all points is that note taking is not an easy skill. Note taking action requires simultaneity and achieving cognitively difficult processes. The person taking note

*Corresponding author. E-mail: huseyinozcakmak@gmail.com.

must comprehend the content, detect whether the content is worth for note taking and restructure the content in a short way (Mueller and Oppenheimer, 2016).

Note taking is a widely used method of university students during the lectures, even considered a skill. İt mostly can be thought as learning the knowledge of the lecture or preserving the information (Teng, 2011). Note taking in classes and reviewing the notes afterwards develops remembering the subjects in short and long terms and helps alleviate forgetfulness by forming permanent patterns in one's mind (Eades and Moore, 2007). The actual value of note taking is the reviewing part rather than recording process (Luo et al., 2018). Even though empirical studies verify the efficiency of note taking and reviewing the taken notes, this does not indicate that university students can improve their academic success only by taking notes in the lectures. Discussions of in-class note taking action's effect on academic performance is not only focused on difference between taking or not taking notes or reviewing or not reviewing the taken notes. There are other factors such as focusing on the class, motivation, note taking amount, note taking quality, existence in the class level, teacher's knowledge of the field that are impacting academic performance and success (Chen, 2013).

Although recent developments of the technology sign presentation of course content in wider information technologies, note taking still remains important until the day (Cortez, 2010). Because a study by Bohay et al. (2011) shows that presenting the knowledge to the students in form of video creates very little difference in their performances. However, note taking forms a bond between the student and course material. Students who cannot form a bond with the material taught, mostly cannot take efficient notes in verbal presentations and do not develop good note taking skills (Eades and Moore, 2007). This situation shows that we have to think twice about students' development of note taking skills. The question to be answered is, whether the students should take random notes or effective notes. Considering the fact that students take notes beginning from primary school until university, effective note taking by capturing the knowledge is mostly left to the responsibility of the student (Cortez, 2010). The state influencing students' success positively or negatively, mostly depend on the quality of notes taken by the students (Moos, 2009). Taking good and quality notes develops students' listening and writing abilities as well as helping keeping the knowledge in memory for long terms, reinforcing memorization, articulating the learned knowledge in different expressions (Cortez, 2010).

Note taking facilitates better understanding of the students since it makes active participation in the class possible with materials. Also, notes taken by students can be used as clues for better remembering (Bohay et al., 2011). Note taking is a learning skill that is efffective both during the class and after the class. It is important for students to utilize taken notes to express themselves or the subject (Dündar, 2015). In cases where notes are not taken related to newly learned knowledge, remembering the knowledge at a later time gets harder. Thus, according to Bohay et al. (2011), there is a gap between the performance of the individuals just after taking notes and a week later. Testing the performances after a week, remembering skill impairs.

Note taking generally consists of two dimensions, namely *recording* and *archiving*. Recording is the dimension which aims to prevent forgetting the shared or read knowledge momentarily. Archiving is dimension that includes keeping the notes in order to be utilized afterwards, operating on them and summarizing. In other words, recording is related to note taking while archving is related to summarization. These dimensions are made up of consequent higher level skills.

By the development of technology in recent years, note taking has been transformed. The first stage of note taking, that is recording, has moved to a higher level. There has been changes in note taking methods of students in classes. It is possible to observe students taking pictures of the boards rather than writing on a notebook with a pencil in classical method. Notes can also be taken by many softwares set up on phones or computers. There are some advantages of digital notes with respect to classical pencil-notebook notes. The most prominent advantages are that, notes do not cover much space, can be shared with e-mail and information technology programmes any time, and has recalling function for cases deemed important.

The programmes such as EndNote, EverNote, to-do list, SimpleNote, even though they have differences, can realize the function of note taking everywhere. Computers offer advantage on note taking process. Besides the researchers who argue that note taking by computers is more beneficial than those taken by pencils and notebooks (Sim, 2013), there are some studies defending the idea that note taking by pencils help student raise their grades in cases where operations should be carried abstractly (Aragón-Mendizábal et al., 2016), and that notes taken by laptops hurts students ability to process and reconstruct the knowledge therefore learning (Mueller and Oppenheimer, 2014).

Although notes taken with note taking apps are easier and more accurate, when requirements of note taking skill are not satisfied, learning experiences may be adversely affected. Therefore while choosing note taking apps, there should be special care on drawing for student to make cognitive participation in note taking process, reformation, summarization, and emphasis in apps (Stacy and Cain, 2015).

The question that arises is that, if digital note taking apps have many advantages, why then are classical note taking methods needed at all? The answer to this

Table 1. Demographic information of the participants

Grade level	Gender		Total	
	Female	Male	f	%
1st grade	25	27	52	32
2nd grade	27	14	41	25
3rd grade	26	19	45	28
4th grade	14	11	25	15
Total	**92**	**71**	**163**	**100**
	56%	**44%**	**100%**	

question is that, note taking apps are not being widely used as of this moment. On the other hand, note taking is not only recording but also writing the knowledge in clear, comprehendable sentences with no time passing. Because as the time passes, abbreviations used might be forgotten and integrity of knowledge might be harmed.

On the other hand, borrowing the notes taken by other students or copying the notes taken well are alternative study methods preferred by students. Hence, according to the study conducted by Kim et al. (2009), an important part (68%) of university students admit taking their study notes from their friends. It was found that reviewing the notes increased the success rate (Kiewra, 1987). However, in a study again made by Kiewra et al. (1991), it was observed that those who reviewed their own notes were more successful than those who do not review at all and those who review other's notes. Notes are personal. Notes taken by someone else is suitable with the mind form of that person. Knowledge deemed important-unimportant and causes such as formerly knowing would have impact on quality of note taking.

The most significant reason for this research was the observations of the researcher during the lecture. Another state as important as recording and archiving in the note taking, is pace of note taking being close to pace of speech. In this sense, trying to write down all the knowledge being spoken or read might be tiresome. Writing down everything is not possible and also preventing student's focus on the lecture. In classroom observations, researcher took notice of some students trying to write down everything, this situation brought up the question of how students perceive note taking and what they think about it.

Students' most used technique during the lecture is note taking, so as to study later. However, about this technique that is largely used from primary school to university, there is no course being taught in Turkey. Even though it is the most frequently used skill, having no learning experience on how to take notes effectively might lead students to take notes in ways understandable to them. Further, some students confuse note taking with summarization, and perceive note taking as writing down

the knowledge the way it was told with no abbreviations and shortening. Therefore, in this research, note taking perception of teacher candidates were examined.

Research objectives

The purpose of this study is to determine teacher candidates' perception of note taking concept, and to evaluate determined perceptions based on variables of gender, grade and demographic variables.

MATERIALS AND METHODS

Research model

The method used in the research was descriptive phenomenology, which is among the qualitative research patterns. Phenomenology means understading the core or main idea of the subject. Even though phenomenologic studies do not reveal exact and generalizable results as per the nature of qualitative research methods, they provide the chance to analyze the event in depth (Tavşanli and Akaydin, 2017: 59). Phenomenolgy forms a suitable basis for the research subjects that are not entirely distant from us but we are not fully capable of comprehending (Yildirim and Şimşek, 2013: 78). Note taking skill has not been totally comprehended although it is used from primary school until university. Therefore, in our phenomenology based study, the meanings that were assigned to note taking concept by university students studying Turkish Teaching Department was analyzed.

Study group

In this research, from 2017-2018 education year in Turkis Teaching Department, Education Faculty, Hatay Mustafa Kemal University, 163 students from 1st, 2nd, 3rd and 4th grades participated. Convenience sampling method was utilized, which is among purposeful sampling methods. Convenience sampling is the selection of sample from people that are volunteers and, suitable for research and easy to Access (Gravetter and Forzano, 2012). Therefore, it provides pace and practicality to the researcher. Demographic information of the participants is stated in Table 1.

On examining Table 1, it can be seen that 56% of (92 persons) participants are female while 44% (71 persons) are male teacher candidates. In terms of grade level, 32% study in 1st grade (52

persons), 25% study in 2nd grade (41 persons), 28% study in 3rd grade (45 persons), and 15% study in 4th grade (25 persons).

Collection and analysis of the data

Research was initiated with the purpose of revealing note taking perception of students. The data of the research was obtained by asking the students the question of "What does note taking mean, in your opininon?". Content analysis was utilized to analyze the responses of students. It is the act of bringing together, reconstructing and arranging the similar data under certain concepts or themes (Yildirim and Şimşek, 2013: 259).

Blank pages were given to students to write down their opinions with no restrictions or timelines. Volunteering was considered in the research, and applications were only carried out with those willing to participate. The application was completed in four class hours. No explanation was made on note taking concept in order not to disturb the perception of students; also, students were asked not to consult each other during the process. Students were labeled with codes to prevent mistaking the given answers and make the gender and grade level analyses easier. While stating direct quotes to mention the views of students, these codes were used. For instance, opinion of fifth student was abbreviated as (S5).

Code assigning began with 1st grade students and ended with 4th grade students. The qualitative analysis process that began with the first paper of 1st grade students were restarted as new themes appeared. This loop was perpetuated until the paper of the last student was reviewed in this sense and all themes were scrutinized from the top until the bottom three times in order to hinder the loss of data.

Examining detailed content analysis on responses of students, themes towards,

(i) Note taking perception,
(ii) Note taking methods, and
(iii) Note taking source were produced.

Papers of students were arranged with respect to gender and grade level variables. Response of female students were gathered and analyzed at first; thereafter, responses of male students were investigated and transferred to Excel tables. This operation was performed for grade level variable, and data from 1st, 2nd, 3rd and 4th grades were recorded in different columns.

Validity and reliability

To ensure internal validity of the research, making use of literature analysis, processes of studies that were similar in topic to the present study were examined. The resulting themes were formed such that relevant ones were encompassed while irrelevant themes were ignored, data were controlled in this sense three times. To ensure external validity of the research, processes of the study were described in methods, model, study group and data analysis headings. Validity was attempted to be improved by stating the quotes from student opinions. It is very important for the persuasion of the study to state views of participants.

A solid method of reliability in qualitative study is "convenience between coders". The same set of data coded by two experts makes the definitons sharper. Whether coders produced similar codes for the data set or not, forms the basis of the technique (Miles and Huberman, 1994). Convenience between coders were utilized to promote reliability in our study. In coding made with an expert of Turkish Education, convenience rate was 91%. This rate states the reliability of data used in the research.

FINDINGS

According to Table 2, 301 opinions were acquired from 163 students under 32 themes. So, the student candidates mostly stated the perceptions of "Writing down the important information" (f=91), "Writing down the information that should not be forgotten" (f=57), "Writing as one understands"(f=29), "Writing briefly" (f=28), "Writing so as to review later"(f=11) and "Writing the useful knowledge" (f=11).

Investigating the stated opininons, it could be seen that almost a third of teacher candidates regard note taking as writing down the important information. Some teacher candidates view note taking as a skill functioning during reading: "Note taking is underlining the parts of a text we deem important and writing it down on a different paper" (S73). Note taking is also thought as a skill applied during studying: "Writing down the important parts while studying"(S86). Moreover, a teacher candidate stated that note taking is differentiating: "Note taking is distingusihing, Instead of memorizing all the parts of a structure, it is writing down the key aspects" (S28). Similarly, a teacher candidate emphasizes that note taking has to do with choosing: "Note taking is a skill requiring selective listening" (S99). One teacher candidate articulated a more extensive view: "It is writing down the important knowledge stated verbally, visually or in written form" (S81). Therefore, note taking is not only performed with writing but with many materials.

In addition to this, the second most stated opinion (18.9%) of teacher candidates is that note taking prevents forgetfulness. This view is explained by a teacher candidate as follows: "Notes are taken to prevent forgetting" (S100). On the other hand, 9.6% of candidates express note taking as writing as one understands. A view of this opinion says "Writing what was understood from the speech" (S141).

There is the opinion of note taking as an act of shortening. One of the teacher candidates describes this as "Shortening the whole nature knowledge in clear and comprehensive way" (S40) while another teacher candidate states his opinion as follows "Writing what is being listened in abbreviated forms" (S158). This opinion also emphasizes the importance of source of knowledge.

Besides being a skill that concerns the moment, note taking gives individuals advantage for future reviews. Because another function of note taking is archiving, this issue is mentioned by teacher candidates as follows: "It is organization of the knowledge in a suitable way to review later" (S136). There are some teacher candidates who argue that note taking is useful (f=11). A teacher candidate states his opinion on that as follows: "Note taking is selecting and writing down useful information" (S2).

Examining Table 2, it was seen that 3.3% of the candidates confuse note taking with summarization. Note

Table 2. Note taking perception of teacher candidates.

Note taking perception	f	%
It is writing down important information.	91	30.2
It is writing down the information that should not be forgotten.	57	18.9
It is writing as one understands.	29	9.6
It is writing briefly.	28	9.3
It is writing so as to review later.	11	3.7
It is writing useful knowledge.	11	3.7
It is summarization	10	3.3
It is writing on notebook with keywords.	9	3.0
It is writing down everyting being told.	7	2.3
It is writing down the necessary stuff.	7	2.3
It is writing the knowledge presented.	7	2.3
It is writing the information to be successful.	4	1.3
It is the grade given by the teacher.	3	1.0
It is recording the information for the exam.	3	1.0
It is transferring the course content to notebook.	3	1.0
It is a studying method.	3	1.0
It is arranging the knowledge.	2	0.7
It is writing down the opinion.	2	0.7
Others	14	4.7
Total	**301**	100.0

taking is creating momentary records, rather than writing. In other words, writing the important information briefly matters in note taking, instead of long sentences. "Note taking is summarization of a text in compherensive ways" (S127). However, there are some candidates stating that note taking is "less general than summarization" (S69), who can differentiate note taking and summarization. "Note taking occurs during listening while summarization takes place after note taking" (S147).

Some teacher candidates put forth different opinions on note taking. A particular teacher candidate moves beyond classical pencil-notebook note taking perception and describe it as "verbal recording" (S162). Another candidate defined note taking as "transforming sound to writing" (S137).

On the other hand, there are some candidates who are not aware of what note taking is. According to them, note taking is "writing down whatever the lecturer says" (S94). Some teacher candidates stated opinions on the method of note taking. To them, "note taking can be in writing as well as pictures, and drawing." (S113).

According to Table 3, examining the teacher candidates' note taking methods, note taking concept is mostly understood as "note taking in listening" (61%); this is followed by "note taking in reading" (31.4%) and "note taking in watching-seeing" (7.5%). Owing to the interviews with teacher candidates after the application, the reason for this can be explained as teacher

candidates' perception of note taking as being a class-related activity. Table 4 is supportive of this opininon.

Reviewing the data from Table 4, in terms of sources of note taking, it can be seen that notes were mostly taken in lectures (55.4%), speeches (12%) and conferences (8.4%). In terms of note taking from reading, the fact that only 1 person stated note taking from reading was far from the expectations.

In Table 5, most themes on note taking were produced by 1st grade students (f=21) while most opinions of themes were stated by 3rd graders (f=105). In terms of opinions per teacher candidates, 3rd graders were more successful than others (x=2.33) by arithmetic averages. In terms of opinions per themes in note taking, lowest arithmetic average belonged to 2nd graders (x=1.41).

According to Table 6, teacher candidates' perception of first four themes show similarities for different grade levels. According to that, the ranking of note taking definitons for 1st and 4th grade students and for 2nd and 3rd grade students are the same. However, in terms of 5th theme, different opinions are ranked. This distribution for 1st graders is "writing down the given information", for 2nd graders "writing necessary information", for 3rd graders "writing to review later" and for 4th graders "writing down with keywords".

Investigating Table 7, it was found that female teacher candidates were more interested and sensitive on note taking about both produced themes (f=24) and produced

Table 3. Teacher Candidate's perception of note taking methods.

Note taking method	f	%
From what is listened	97	61.0
From what is read	50	31.4
From what is seen	12	7.5
Total	**159**	**100.0**

Table 4. Teacher candidates' perception of note taking source.

Source of note taking	f	%
Lecture	46	55.4
Speech	10	12.0
Conference	7	8.4
Observation	6	7.2
Mind	5	6.0
Symposium	2	2.4
Seminar	2	2.4
Internet	1	1.2
Meeting	1	1.2
Book	1	1.2
Presentation	1	1.2
Panel	1	1.2
Total	83	100.0

Table 5. Distributions of produced theme and opinions on grade levels.

Grade level	Number of teacher candidates	Number of themes	Number of opinions	Opinion per teacher candidate
1st grade	52	21	88	1.69
2nd grade	41	12	58	1.41
3rd grade	45	16	105	2.33
4th grade	25	13	50	2.00
Total	**163**	**62**	**301**	**1.85**

opinions (f=185) with respect to male teacher candidates. In terms of opinions per teacher candidate, it was seen that female teacher candidates were stating more and better opinions (x=2.01) than male teacher candidates. Evaluating Table 7 as a whole, it can be stated that female students are more efficient than males on note taking in terms of themes and opinions.

Examining Table 8, it can be observed that gender distribution of teacher candidates' note taking perception is the same for four themes and differ in fifth theme. The last theme accepted as "writing useful information" by females was perceived as "writing to review later" by male students. Moreover, top 5 opinions stated mostly by females and males, represent 68.1% of females' opinion (126/185×100) and 80.2% of males' opinion (93/116×100).

DISCUSSION

At the end of the study, 301 opinions under 32 themes were gathered from 163 teacher candidates. The most widely stated opinions are "writing down important information" (f=91), "writing down the information that

Table 6. Teacher candidates' note taking perceptions' state with grade levels.

Themes (First 5 themes)	1st grade	2nd grade	3rd grade	4th grade
	f	f	f	f
Writing important knowledge	23	23	29	16
Writing the knowledge that should not be forgotten	16	9	23	9
Writing as one can understand	8	7	8	6
Writing in short forms	7	7	9	5
Writing the given information	4	-	-	-
Writing necessary information		3	-	-
Writing to review later			7	-
Writing down with keywords				3
Total	**58**	**49**	**76**	**39**
Total number of themes	**21**	**12**	**16**	**13**

Table 7. Distribution of produced themes and opinions with gender.

Gender	Number of teacher candidates	Number of themes	Number of opinions	Opinion per teacher candidate
Female	92	24	185	2.01
Male	71	18	116	1.63
Total	163	42	301	1.85

Table 8. State of teacher candidates' note taking perception depending on gender

Themes (First 5 themes)	Females	Males
	f	f
Writing down important information	53	38
Writing information that should not be forgotten	37	20
Writing as one can understand	14	15
Writing in short form	12	16
Writing useful information	10	–
Writing to review later	–	4
Total	**126**	**93**

should not be forgotten" (f=57), "writing as one can understand" (f=28), "writing to review later" (f=11) and "writing useful information" (f=11). Considering all of the statements, it was found that opinions of the first five themes constitute three-fourth of the entire opinions. Also, about a third of teacher candidates perceived note taking as "writing useful information".

In a study conducted by İpek (2018) in a State University on English noticing significant ideas and Teaching Department, similarities were observed with our study in terms of results. According to that study, students described note taking as process of writing important words, noticing significant ideas and using symbols and abbreviations. According to the study conducted by Teng (2011) with EFL students to define note taking strategies of students, note taking was mostly described as "writing as much as possible during the lectures" by students. This idea was followed by views of "recalling the lectures to be successful in exams" and "examining the knowledge lectured by instructor through the clues". The research of Teng shows similarities to our study in "writing useful information" and "writing to review later" concepts but differs in "writing as much as possible" theme. Because, even though technically it is possible to

write down everything during the lecture, it may cause troubles in achieving comprehension. Also, in the research of Teng (2011), the fact that participants stated that "I wish I had better note taking skills" opinion shows that participants highly regard note taking.

In the study on teachers and students by Guasch and Costello (2002), interpretation of middle school teachers and students on note taking, in-class performances of students, class notes of students and conceptualization of the process by teachers were taken into consideration. According to the findings of the research, middle school teachers and students defined note taking as "a useful study technique to personalize the knowledge". Other results showed that student notes were inefficient and inadequate, and most teachers were only telling students how to take notes. In comparison to our study, the research by Guasch and Costello (2002) shows similarty in the theme of "writing as one can understand".

In the study conducted by Brown (2005), it was found that students mostly used notes to "prepare for the exams", they find them "beneficial for learning" and they "write down in their own words". Besides, it was found that students were not willing to arrange the notes they had written. The study of Brown (2005) shows similarities to our study in "writing as one can understand" and "writing useful information" themes. However, it differs from our study on theme of "preparing for the exams". This theme is among the least stated ideas (f=3) in our research.

The study carried out by Islam (2017) on university students, it was determined that students took notes with the purpose of "recording the information for later learning" and "using the notes taken during the course as a clue to remember". This study is similar to our study in terms of "writing to review later ".

It was observed that 3.3% of teacher candidates confuse note taking with summarization in our research. Note taking is creating momentary recording, rather than writing. In other words, during note taking brief writing takes place, rather than writing long sentences. The fact that teacher were just telling students to take notes, students' notes were inadequate and inefficient (Guasch and Costello, 2002), can account for the realities that note taking is perceived as "writing as much as possible during the lecture" by students (Teng, 2011), and note taking and summarization concepts are mistaken. The perceptions of note taking reveal that, unfortunately effective note taking skill was not provided healthily.

There are some candidates expressing different views on note taking in this research. Moving beyond classical pencil-notebook note taking approach, describing note taking as "verbal recording" and defining note taking as "transforming sound to writing" have taken place. Moreover, a teacher candidate who stated that note taking is not "writing whatever the lecturer says" showed that he/she had a correct knowledge on the function of note taking.

Studying the note taking methods of teacher candidates, note taking was mostly perceived as "note taking in listening" (61%), followed by "note taking in reading" (31.4%) and "note taking in watching" (7.5%). This finding is important as it shows that candidates view note taking as a class-based activity. However, note taking is a skill mostly referred to in our daily lives. For instance, we take notes of the materials and recipe of the food in a paper while watching a cooking show on TV.

It is possible to understand that teacher candidates' note taking perceptions are school-related also from the sources they expressed. Investigating the opinions of that, it becomes more clear when teahcer candidates state that they mostly take notes in classes (55.4%), speeches (12.4%) and conferences (8.4%). The fact that only one person expressed taking notes from the book was unexpected in the research. In other words this finding shows that teacher candidates were not fully able to associate reading and note taking.

Analyzing data based on grade levels, it was seen that most themes of note taking were produced by 1st graders (f=21), whereas most opinions were stated by 3rd graders (f=105). Investigating as a whole, in terms of opininos per teacher candidate, 3rd graders were more successful than other grade levels with 2.33 arithmetic average. It was detected that lowest arithmetic average belonged to 2nd graders (x=1.41). In terms of grade level distribution of note taking perceptions, it was observed that all grade levels showed similarities for the first four themes, however differences occur for the fifth theme. According to that, for the 5th theme, 1st graders prefer "writing down the given information", 2nd graders state "writing necessary information", 3rd graders signify "writing to review later" and 4th grader state "writing in keywords".

Evaluating based on gender variable, it was found that female students were more interested than male students in terms of produced theme (f=24) and opinions (f=185). Distribution of note taking perceptions for female and male students were similar for the first 4 themes and varied in the 5th theme. According to that, the 5th was accepted as "writing useful information" by females while it was accepted as "writing to review later" by male students.

SUGGESTIONS

Considering the fact that some teacher candidates confuse note taking and summarization, the difference between note taking and summarization should be taught to candidates. Teachers must develop themselves in the subject of note taking.

Comparing the pace of speech and writing, clearly speech is faster. In this sense, writing down everything

might be a torture for teacher candidates as well as moving attention away from the lecture. Therefore, it should be taught that frequently used skill of note taking is not merely writing every word of the lecturer.

Note taking does not only concern classes. It can be used in every stage of life. Thus, this function of note taking must be conveyed to the teacher candidates, techniques and methods of the note taking should be presented. Besides, teacher candidates should be informed about emerging note taking and recalling programme and applications with the improvement of technology. Hence, note taking with smart phones and tablets by teacher candidates should be made possible.

Teacher candidate who has not learned taking notes adequately cannot be successful with the notes taken. There is not any course on note taking being presented in Turkey. Therefore, about the skill of note taking that is utilized not only in language classes but all of the lectures by teacher candidates, education should be provided.

Even though there are a lot of studies on note taking in the literature, the number of studies that consider note taking and summarization together are limited. By making different researches on the subjects, opinions of teacher candidates should be gathered.

CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

REFERENCES

Aragón-Mendizábal E, Delgado-Casas C, Navarro-Guzmán JI, Menacho-Jiménez I, Romero-Oliva MF (2016). A Comparative Study of Handwriting and Computer Typing in Note-taking by University Students= Análisis comparativo entre escritura manual y electrónica en la toma de apuntes de estudiantes universitarios. Comunicar 24(48):101-107.

Bohay M, Blakely DP, Tamplin AK, Radvansky GA (2011). Note taking, review, memory, and comprehension. The American Journal of Psychology 124(1):63-73.

Brown R (2005). Seventh-graders' self-regulatory note-taking from text: Perceptions, preferences, and practices. Literacy Research and Instruction 44(4):1-26.

Chen PH (2013). The effects of college students' in-class and after-class lecture note-taking on academic performance. The Asia-Pacific Education Researcher 22(2):173-180.

Cortez EG (2010). Improving ESL students' note-taking skills. TESL Reporter 43(1):53-55.

Dündar S (2015). Does writing have any effect on mathematics success?. Journal of Education and Training Studies 4(1):1-10.

Eades C, Moore WM (2007). Ideas in practice: Strategic note taking in developmental mathematics. Journal of Developmental Education 31(2):18-26.

Gravetter JF, Forzano LB (2012). Research methods for the behavioral sciences (4th Edition). USA: Linda Schreiber-Ganster.

Guasch T, Castelló M (2002). Aproximación a la enseñanza de la toma de apuntes en la Educación Secundaria Obligatoria: un estudio descriptivo. Infancia y Aprendizaje 25(2):169-181.

Hebert M, Graham S, Rigby-Wills H, Ganson K (2014). Effects of note-taking and extended writing on expository text comprehension: Who benefits?. Learning Disabilities: A Contemporary Journal 12(1):43-68.

Islam FSP (2017). Note-taking of English lessons at tertiary level: a context of Bangladesh. International Journal of Language Education 1(2):1-7.

İpek H (2018). Perceptions of ELT students on their listening and note taking skills. International Online Journal of Education and Teaching 5(1):206-217.

Kiewra KA (1987). Note taking and review: The research and its implications. Instructional Science 16(3):233-249.

Kiewra KA, DuBois NF, Christian D, McShane A, Meyerhoffer M, Roskelley D (1991). Note-taking functions and techniques. Journal of Educational Psychology 83(2):240-245.

Kim K, Turner SA, Pérez-Quiñones MA (2009). Requirements for electronic note taking systems: A field study of note taking in university classrooms. Education and Information Technologies 14(3):255-283.

Luo L, Kiewra KA, Flanigan AE, Peteranetz MS (2018). Laptop versus longhand note taking: effects on lecture notes and achievement. Instructional Science pp. 1-25.

Miles MB, Huberman AM (1994). An Expanded Sourcebook: Qualitative Data Analysis (Second edition). Thousand Oaks, CA: SAGE Publications, Inc.

Moos DC (2009). Note-taking while learning hypermedia: Cognitive and motivational considerations. Computers in Human Behavior 25(5):1120-1128.

Mueller PA, Oppenheimer DM (2014). The pen is mightier than the keyboard: Advantages of longhand over laptop note taking. Psychological Science 25(6):1159-1168.

Mueller PA, Oppenheimer DM (2016). Technology and note-taking in the classroom, boardroom, hospital room, and courtroom. Trends in Neuroscience and Education 5(3):139-145.

Sim KN (2013). The role/importance of personal computers to support learning in higher education. Doctoral Dissertation, University of Otago.

Stacy EM, Cain J (2015). Note-taking and handouts in the digital age. American Journal of Pharmaceutical Education 79(7):1-6.

Tavşanli ÖF, Akaydin BB (2017). Sinif öğretmenlerinin bakiş açisiyla sosyal medya okuryazarliği. Uluslararasi Sosyal Araştirmalar Dergisi 10(48):517-528.

Teng HC (2011). Exploring note-taking strategies of EFL listenerst. Procedia-Social and Behavioral Sciences 15:480-484.

Yildirim A, Şimşek H (2013). Sosyal bilimlerde nitel araştirma yöntemleri. Ankara: Seçkin Yayincilik.