Analysing the Relationship between Medical Students' Level of Information Literacy and Online Information Search Strategies (The Example of Hacettepe University)

Tıp Fakültesi Öğrencilerinin Bilgi Okuryazarlık Düzeyleri ile Çevrimiçi Bilgi Arama Stratejileri Arasındaki İlişkinin İncelenmesi (Hacettepe Üniversitesi Örneği)

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Anahtar Sözcükler:
Bilgi okuryazarlığı, bilgi arama stratejileri, sağlık profesyoneli adayları

Keywords:
information literacy, information search strategies, healthcare professional candidates.

Gönderilme Tarihi
*Submitted:*12.03.2019
Kabul Tarihi
Accepted: 26.05.2019

ABSTRACT:

Aim: The aim of this study was to analyse the relationship between medical students' level of information literacy and the development level of their strategies to search information online according to various variables, and thus to determine the possible relation between them.

Methods: The research design of this study was survey model. The working group of the study was composed of medical students who were at their first, second and third year at Hacettepe University, Faculty of Medicine during the academic year of 2017-2018. The data of the study were collected from 462 volunteer students electronically. The data were gathered by means of using "Personal Information Form," "Online Information Search Strategies Inventory," "Scale of Information Literacy" and "Students' Opinions Form." The quantitative data of the study were analysed with SPSS 22. The qualitative data were analysed according to the themes and sub-themes that had been prepared by the researchers.

Künye: Sezer B, Akçay B. Analysing the Relationship between Medical Students' Level of Information Literacy and Online Information Search Strategies (The Example of Hacettepe University). Tıp Eğitimi Dünyası. 2019;18(56):66-80

Results and Conclusion: It was found that students' self-efficacy perception level about information literacy and the development level of their strategies to search information online were both medium, and that there was a positive relation between them at a medium level. On the other hand, students that were studying at the first year and with have high grade were found to have significantly higher levels of information literacy and online search strategies development than the students studying at the other two years. This difference is thought to result from the fact that during the academic year when the study was carried out, students studying at the first year received a sub-module of 'Information Literacy' within the framework of the programme called 'Faculty of Medicine – I am Learning to be a Physician.' The qualitative data show that students decide on keywords before they start to do research online, choose a suitable database, evaluate the conformity of the gathered information with their own goal, resort to peer support and make a comparison with their foreknowledge.

ÖZET:

Amaç: *Bu araştırmanın amacı, tıp fakültesi öğrencilerinin bilgi okuryazarlık düzeyleri ile çevrimiçi bilgi arama stratejileri gelişmişlik düzeylerinin çeşitli değişkenler açısından incelenerek, aralarındaki olası bir ilişkinin belirlenmesidir.*

Yöntem: *Araştırmada tarama deseni kullanılmıştır. Araştırmanın çalışma grubunu Hacettepe Üniversitesi Tıp Fakültesinde 2017-2018 eğitim-öğretim yılında Dönem 1, 2 ve 3'de öğrenim görmekte olan öğrenciler oluşturmuştur. Gönüllü olarak katılım gösteren 462 öğrenci ile gerçekleştirilen bu araştırmanın verileri elektronik olarak toplanmıştır. Veriler, "Kişisel Bilgi Formu", "Çevrimiçi Bilgi Arama Stratejileri Envanteri", "Bilgi Okuryazarlığı Ölçeği" ve "Öğrenci Görüşlerini Belirleme Formu" ile toplanmıştır. Nicel veriler, Sosyal Bilimler İçin İstatistik Programı (SPSS) 22.0 kullanılarak analiz edilmiştir. Nitel veriler ise, araştırmacılar tarafından oluşturulan tema ve alt temalara göre analiz edilmiştir.*

Bulgular ve Sonuç: *Araştırma sonucunda öğrencilerin hem bilgi okuryazarlığı yeterlik algı düzeylerinin hem de çevrimiçi bilgi arama stratejileri gelişmişlik düzeylerinin orta düzeyde olduğu, bu iki değişken arasında orta düzeyde ve pozitif yönde bir ilişki olduğu belirlenmiştir. Araştırmada dönem 1 öğrencilerinin ve akademik başarısı yüksek olan öğrencilerin hem bilgi okuryazarlığı hem de çevrimiçi bilgi arama stratejileri düzeylerinin diğer iki döneme göre ve akademik başarısı düşük olan öğrencilere göre daha yüksek olduğu bulunmuştur. Dönem 1'de öğrenim gören öğrencilerin diğer sınıftaki öğrencilere göre daha yüksek düzeyde yeterlik algısına sahip olmaları, dönem 1 de araştırmanın gerçekleştiği zaman aralığında başlatılan, Hekimliği Öğreniyorum programında yer alan Bilgi Okuryazarlığı alt modülünden kaynaklı olduğu düşünülmektedir. Nitel veriler, öğrencilerin çevrimiçi arama yapmaya başlamadan önce anahtar kelimeler belirlediklerini, uygun veri tabanını seçtiklerini, ulaşılan bilgiyi amaçlarıyla uyumunu değerlendirdiklerini, akran desteğine başvurduklarını ve önbilgileriyle karşılaştırdıklarını göstermektedir.*

INTRODUCTION

The traditional methods of attaining information have been replaced by self-managed and self-disciplined strategic learning methods that are more effective than the previous ones. This has also changed the roles of students that used to learn as a passive listener. In line with these changes, students should stop being a receptor who takes in the ready information passively, and

be in the mood to be active during the learning process, take responsibility, do research, explore and question (1). This necessity has generally transformed the perception of accepting textbooks as the basic source of information, and has made it an obligation to make effective use of various sources of information that maintain a richer experience and interaction. As is known, education is not limited to the walls of schools. Instead, education is a lifelong process that goes on in line with the individual's needs. This also changes the social structure and makes it a necessity for individuals to question their skills (2). Two of these skills are developing information literacy and strategies to search information online.

Literature

A qualified physician can be described as a physician who is aware of the need for information, knows the ways to reach information, learns the information that she/he reaches by making sense of it, has the ability to produce new information by using the information that she/he has previously reached, and manages to use the information that she/he has produced for problem-solving. As a result of the changes that have been occurring in the society, it is suggested for medical training to include implementations designed for information literacy, critical reading/thinking and evidence-based medical terms that will all help students to decide what to learn, to learn alone, evaluate evidences, cooperate and assess how much she/he has learnt.

An information literate person knows when to search for information that goes beyond his/her current information, how to ask question in order to reach the useful information and where to look for the information (3). She/He can structure the process of searching information to reach the best information that meets the needs in various different resources and ways. She/He can evaluate the accuracy, suitability, validity and neutrality of the information, and she/he can accept or reject the newly-reached information. She/He can structure the newly-reached information and integrate it into his/her current information, and thus she/he can use it during the processes of decision-making, problem-solving and critical thinking (4). She/He can make use of the results that she/he has reached recently in order to produce new ideas and develop new discourses. During this process, individuals are expected to develop their qualities related to the five headings given below (5):

Knowing the information needed: What is needed to be known? What kind of information is needed for this? What is the amount of information needed?

Accessing the information needed: What is the best way to obtain information? Are proper concepts used in accessing information? Which searching systems or information sources will be used in accessing information?

Evaluating the information accessed: Is the information source reliable? Are there any other comments or point of views? How will the new information change the existing information?

Using the evaluated information: What is the best way to present the information? Is the best information presentation format chosen to reflect the message? Do the citations from sources assist the argued ideas?

Accepting ethical and legal regulations in using information: Is there permission to use the materials? What are the subjects related to censorship? Do universities have a policy in obtaining, using and spreading information?

In the light of the information given above, it is important for individuals to develop correct strategies to search for information. These strategies consist of the ability to manage all the variables to be used during this process (factors that affect the process) in a goal-oriented and systematic way (6). As the technology is developing day by day, the behaviour of searching for information mostly takes place on the Internet. Online Information Search Strategies (OISS) can be described as the path to manage all the variables that are used to search for information online in a goal-oriented and systematic way. This concept, which was first pronounced in 2000s (7), has turned out to be a very significant phenomenon today. Chevalier, Dommes and Marquié have concluded in their research that users pass through three cognitive processes during information search (8). These processes can be listed as below: (a) Planning: Creating the first inquiry according to the problem status, (b) Evaluation: Establishing a relation between the problem and the information that one reaches online and (c) Control: Changing the search strategy if the relation in the previous stage is not at an expected level.

It is no doubt that one can learn/teach how to develop OISS. It is stated that the main factors that affect this process are (a) Metacognitive awareness, (b) Perception of self-efficacy, (c) Perception of conformity to the setting, (d) Technology literacy and (e) Level of foreknowledge on the topic to be researched (9).When the information given above is considered, reaching the right information among the vast pool of medical knowledge in a short time requires to be information literate and to develop OISS, that is accompanied by today's technological developments, at the same time. This study aims at analysing the level of information literacy of students studying at Hacettepe University, Faculty of Medicine and their development level of OISS according to various variables, and finding out the relation between them, if there is. In this direction, the sub-problems stated below are tried to be answered:

1) What is students' development level of OISS and their perception level of information literacy? Do obtained scores display a statistically significant difference according to the variables of;

a.) Gender and
b.) What grade the students are?

2) Is there a statistically significant difference between students' scores of Information Literacy Scale and OISS Inventory?

3) What are students' opinions about how they make use of their own information literacy skills during the process of online information search?

Methods

Research Model

General survey model was used in this research. In this context, the goal was to find out students' level of information literacy efficacy level and their level of developing OISS.

Study Group

The study group of the research is composed of first-, second- and third-year medical students studying at Hacettepe University, Faculty of Medicine during the academic year of 2017-2018. 462 volunteer students could be reached among 1494 students. The working group of the study can be seen in the table 1.

Table 1. Demographics of participants

Gender	N	%
Female	210	45.4
Male	252	54.6

Data Collection Tools

First of all, 'Scale of Information Literacy (IL)' that was developed by Adıgüzel (2011) was used in the study (10). The Scale of Information Literacy is composed of 29 items and 4 factors (Defining Information Needs, Access to Information, Use of Information, Ethical and Legal Settings in Use of Information) in total. At the end of validity and reliability analysis carried out by the researcher, it was concluded that this scale was a valid and reliable data collection tool. In this study, the cronbach alfa co-efficient was found to be .83 for the whole scale. The maximum score can be 145 while the minimum score is 29 in this five-point likert scale (1= Strongly disagree, .., 5= Strongly agree).

Another data collection tool in the study was 'OISS Inventory' that was developed by Tsai (2009) and adapted into Turkish culture by Aşkar and Mazman (11). OISS Inventory is composed of 25 items and 7 factors, which are 'disorientation, evaluation, purposeful thinking, selecting main ideas, trial and error, control, problem-solving'. The items included in the inventory are scored in six-point likert type while the responses range from "1= Not true for me at all" and "6= Totally true for me". Internal consistency coefficient (Cronbach's alpha coefficient) was found to be .91 for the whole inventory while the factors that compose the inventory have internal consistency coefficient changing between .61 and .77. The minimum score to get is 25 while the maximum score to get is 150 in the inventory. Getting a high score in the inventory means having advanced online information search strategies (11).

Another data collection tool that was used in the study was ''Students' Opinions' Form' that was developed by the researchers in order to identify students' opinions about how they make use of information literacy indicators during the process of online information search. The first version of the form was broached to three experts in the field of educational technology, and the form was given its final version after receiving feedback. 35 students which were randomly selected among the participants were given the Interview Form. Students' states of having the qualities of an information literate person at the stages of 'information awareness, reaching information, evaluating information, making use of information and considering ethical/legal principles' determined by ACRL (2010) during the process of online information search were evaluated by considering their responses to this form (5).

Data Analysis

SPSS 22 was used to analyse quantitative data. The data set that was concluded to display a normal distribution (Shapiro-Wilks Normality test was used) was analysed using t-test, ANOVA and the Pearson correlation method.

A descriptive analysis method was used in the study as the components of information literacy, which are information awareness, reaching information, evaluating information, making use of information and considering ethical/legal principles, were addressed as a theme. Content analysis was used as codes were created by the researcher after analysing the data obtained from the students. During the analysis, the obtained data were studied in detail, they were categorized and thus draft codes were created. The strategies followed by the students before, during and after online information search were

developed as sub-themes.

Descriptive analysis and content analysis were used at the same time in order to analyse the data that were gathered through open-ended questions. The data obtained in the study were coded by the researchers, and then the data were re-coded by a second coder for the reliability of the study. The reliability of the coding was obtained by means of dividing the number of common codes given by the two coders by the total number of codes. The reliability percentage of coding was found to be %92. The frequency numbers included in the some related tables show the number of codes, not the students.

Findings

Descriptive Findings Related to Students' Scores of OISS Inventory and the Scale of Information Literacy

In line with the first sub-problem of the study, descriptive statistics related to students'

Table 2. Descriptive statistics

Scales	Number of Questions	Lowest Score	Highest Score	$\bar{x}$	Sd	$\bar{x}$/k*
IL						
Defining Information Needs	8	8.00	40.00	29.80	4.90	3.72
Access to Information	11	11.00	55.00	41.80	6.10	3.80
Use of Information	5	5.00	25.00	19.03	3.19	3.81
Ethical and Legal Settings in Use of Information	5	5.00	25.00	18.75	3.17	3.75
Whole Scale	**29**	**29.00**	**145.00**	**109.38**	**15.28**	**3.77**
OISS						
Disorientation	4	6.00	24.00	18.37	4.30	4.59
Evaluation	4	4.00	24.00	17.98	4.27	4.50
Purposeful thinking	4	4.00	24.00	18.05	4.25	4.51
Trial and error	3	3.00	18.00	13.99	3.43	4.66
Selecting main ideas	3	3.00	18.00	13.89	3.36	4.63
Control	4	4.00	24.00	17.84	4.32	4.46
Problem solving	3	5.00	18.00	13.47	2.99	4.49
Whole Scale	**25**	**45.00**	**150.00**	**113.59**	**20.33**	**4.54**

*k= item number

information literacy self-efficacy perception level and OISS development level are given in Table 2. As is seen in Table 2, mean of total scores that students obtained in OISS Inventory is 113.59 (4.54 out of 6.00) while mean of total scores that they obtained in the Scale of Information Literacy is 109.38 (3.77 out of 5.00). In this context, students' level of online information search strategies is of medium level, which can be interpreted as the necessity to improve these strategies. Likewise, students' information literacy efficacy awareness was found to be of medium level.

Findings According to the Variable of Gender

In accordance with the first sub-problem of the research, the t test was applied to determine if the difference between average scores in terms of genders was significant or not. Results were presented in Table 3.

Table 3. T-test results

Gender	N	Dimensions	$\bar{x}$	Sd	t	p
IL						
Female	210	Defining Information Needs	30.00	4.88	1.02	.308
Male	252		29.57	4.92		
Female	210	Access to Information	42.08	6.26	1.15	.251
Male	252		41.49	6.04		
Female	210	Use of Information	19.33	3.10	2.26	.024*
Male	252		18.71	3.29		
Female	210	Ethical and Legal Settings in Use of Information	19.10	3.20	2.70	.007*
Male	252		18.37	3.12		
OISS						
Female	210	Disorientation	16.05	4.58	4.02	.00*
Male	252		20.16	4.16		
Female	210	Evaluation	17.89	4.15	3.15	.25
Male	252		17.98	4.50		
Female	210	Purposeful thinking	17.33	3.98	2.36	.42
Male	252		18.02	4.52		
Female	210	Trial and error	13.66	3.49	2.70	.30
Male	252		13.80	3.41		
Female	210	Selecting main ideas	13.58	3.56	1.45	.28
Male	252		13.77	3.25		
Female	210	Control	19.02	4.63	2.94	.00*
Male	252		15.89	4.26		
Female	210	Problem solving	11.36	2.88	3.94	.00*
Male	252		15.49	3.15		

As is seen in the table given above that shows the sub-factors of both IL and OISS that change according to the variable of gender; it can be said that there is a statistically significant difference between female and male students while the difference is in favour of female students in the sub-factors of making use of information and ethical and legal settings in use of information for the IL and male students in the sub-factors of disorientation and problem-solving, and female students in the sub-factor of control for OISS.

Findings According to the Variable of Class Level

In accordance with this, one-way analysis variance was carried out to determine if the difference is significant in average scores related to the class levels variable. Results were presented in Table 4.

As seen in Table 4, it is indicated that the average scores on the information literacy competence skills and OISS of students show difference in all sub-dimensions in terms of class levels ($p<.05$). According to Turkey HSD test analysis results, this significant difference in the average scores of students' results from the difference between first, second and third year students' scores in favor of first year students.

Findings Related to the Correlation between

Table 4. One-way analysis of variance results

Dimensions	Class Level	N	$\bar{x}$	Sd	F	p	Variables with significant differences
IL							
Defining Information Needs	1st (A)	140	32,54	5,37	5,135	.006*	A-B, A-C
	2nd (B)	147	28,06	4,60			
	3rd (C)	175	29,28	4,81			
Access to Information	1st (A)	140	44,58	6,01	3,440	.016*	A-B, A-C
	2nd (B)	147	40,03	5,81			
	3rd (C)	175	41,29	6,50			
Use of Information	1st (A)	140	21,66	3,20	6,036	.002*	A-B, A-C
	2nd (B)	147	17,53	3,14			
	3rd (C)	175	18,26	3,15			
Ethical and Legal Settings	1st (A)	140	21,27	3,22	9,557	.000*	A-B,A-C

Students' Scores of OISS and IL

In line with the second sub-problem of the study, the results of correlation analysis carried out in order to find out if there is a statistically significant relation between the scores obtained in OISS Inventory and Scale of Information Literacy are given in Table 5.

in Use of Information	2nd (B)	147	17,02	3,07			
	3rd (C)	175	18,42	3,07			
Whole Scale	1st (A)	137	114,05	15,76	7,472	.001*	A-B,B-C
	2nd (B)	247	105,65	14,20			
	3rd (C)	167	110,26	15,84			
OISS							
Disorientation	1st (A)	140	20,54	3,47	4,194	.006*	A-B, A-C
	2nd (B)	147	17,06	3,52			
	3rd (C)	175	17,51	3,11			
Evaluation	1st (A)	140	19,58	3,01	4,410	.016*	A-B, A-C
	2nd (B)	147	17,03	3,59			
	3rd (C)	175	17,33	6,40			
Purposeful thinking	1st (A)	140	21,66	3,20	7,032	.002*	A-B, A-C
	2nd (B)	147	16,53	3,14			
	3rd (C)	175	16,96	3,15			
Trial and error	1st (A)	140	16,27	3,22	7,507	.000*	A-B,A-C
	2nd (B)	147	13,02	3,07			
	3rd (C)	175	12,68	3,07			

	2nd (B)	147	13,02	2,57			
	3rd (C)	175	12,38	2,74			
Control	1st (A)	140	21,27	3,22	6,247	.000*	A-B,A-C
	2nd (B)	147	17,02	3,07			
	3rd (C)	175	18,42	3,07			
Problem solving	1st (A)	140	15,25	2,52	5,317	.000*	A-B,A-C
	2nd (B)	147	12,01	2,82			
	3rd (C)	175	13,13	3,02			
Whole Scale	1st (A)	140	112,05	15,76	7,472	.000*	A-B,A-C
	2nd (B)	147	106,65	14,20			
	3rd (C)	175	111,26	15,84			

Table 5. The results of correlation analysis

		Disorientation	Evaluation	Purposeful thinking	Trial and error	Selecting main ideas	Control	Problem solving	**OISS**
Defining Information Needs	r	.18	.65*	.58*	.54*	.52	.59*	.74*	.67**
Access to Information	r	.68*	.58*	.48	.49	.60*	.57*	.58	.59*
Use of Information	r	.25	.71**	.42	.68**	.72**	.63*	.72**	.62*
Ethical and Legal Settings in Use of Information	r	.19	.49	.32	.32	.30	.69*	.35	.63*
IL	r	.29	.63**	.46*	.51*	.62*	.62*	.65**	.68*

*p<.05 **p<.01

As is seen in Table 5, there is a statistically significant positive relation between Scale of Information Literacy and OISS Inventory at a medium level (r=.68, p<.05). Similarly, it was found out that there is a statistically significant medium-level positive relation between the sub-factors of OISS Inventory, which are 'evaluation, purposeful thinking, trial and error, selecting main ideas, control and problem-solving' and sub-factors of Scale of Information Literacy. On the other hand, there is a low-level relation between OISS Inventory's sub-factor of disorientation and indicators of information literacy (except of Access to Information sub-factor, r=.68, p<.05).

Findings Related to Students' Opinions about How They Make Use of Information Literacy Indicators in the Process of Online Information Search

This section includes findings on how students make use of the indicators of information literacy during the process of online information search.

Table 6. Students' Opinions

Themes	Sub-themes	f	%
Defining Information Needs	Designating the scope of research	26	32.5
	Deciding on keywords	22	27.5
	Deciding on search strategies	19	23.7
	Deciding on the database to do research on	13	16.3
Access to Information	Saving the information that has been reached	17	34.7
	Examining the information that has been reached in detail	13	26.5
	Checking the references of the information that has been reached	11	22.4
	Checking the references of the information that has been reached	8	16.4
Evaluate of Information	Checking the conformity between the information that has been reached and the goal of research	22	33.8
	Comparing the pieces of information that have been reached	18	27.7
	Comparing the information that has been reached with the foreknowledge	16	24.6
	Resorting to peer support	9	13.9
Use of Information	Writing a response report for research questions	11	32.3
	Sharing with the peers	9	26.4
	Checking the functionality in real life	8	23.5
	Checking the necessity for exams	6	17.8
Ethical and Legal Settings in Use of Information	Checking the resources	13	34.2
	Citing	12	31.5
	Getting permission from the writer	8	21.0
	Questioning copyright	5	13.3

The data were analysed according to the themes and sub-themes suggested by ACRL (2010) and created by the researchers. The frequency and percentage values of the sub-themes (the highest four sub-themes) are given in tables. The students were distributed forms during focus group interview, their answers were received through open-ended questions (For example: What kind of a plan do you design for a piece of information that you are going to search before you start to do online research?) and the answers were sorted out.

As is seen in the table 6, students can narrow down information search strategies in line with their goals, choose a suitable database, compare the pieces of information they reach with each other, check their accuracy through various mechanisms and consider several ethical/legal issues.

Discussion and Conclusion

It was found out at the end of the study that students' level of information literacy and their development level of online information search strategies were at medium level. On the other hand, students that were studying at the first year were found to have significantly higher levels of information literacy and online search strategies development than the students studying at the other two years. This difference is thought to result from the fact that during the academic year when the study was carried out, students studying at the first year received a sub-module of 'Information Literacy' within the framework of the programme called 'Faculty of Medicine – I am Learning to be a Physician.' One of the most interesting findings is that when online information search is in question, students feel sufficient the most about the strategy of control whereas they feel insufficient the most about developing a strategy for problem solving. In line with these findings, suggestions to develop OISS can also be taught in addition to Information Literacy. Hill and Hannafin (1997) arranged a process to teach students online information search strategies, and they concluded that the factors that affected online information search were (a) Metacognitive awareness, (b) Perception of conformity to the setting, (c) Self-efficacy perception, (d) System Knowledge and Experience, (e) Foreknowledge about the topic. In line with this information, it can be useful to update curriculum (12).

The students, who have developed strategy about searching/reaching information at a low level that can be accepted to be novice, are reported to spend too much time on computer, cannot reach information in a short time, need an external control, but put a great effort to go on searching (13). On the other hand, the individuals that fall into the category of knowledgeable are self-oriented, can make use of advanced search strategies and are able to solve problems effectively (8).

While there are a lot of studies (14,15,16) which have concluded that gender is a determinant factor in using the Internet, Munusamy and Ismail (2009) believe that gender in itself is not a natural variable affecting online information search strategies alone (17). In this study, when the Scale of Information Literacy is in question, female students had better results in two sub-dimensions (use of information, ethical and legal settings in use of information) whereas male students had better results in three sub-dimensions (disorientation, control, problem-solving) when OISS development level is in question. This can be studied in detail in the following researches and the impact of gender can be observed through follow-up studies.

Students' level of information literacy perception display a statistically significant difference according to the variables of class level and academic achievement. It was found out that there was a statistically significant difference between students' development level of online information search strategy and the variables of class level and academic achievement. It was concluded that there was not a statistically significant difference between students' information literacy level and online information search strategies development level and the variables of gender and the frequency of using the Internet. Having said that, it was concluded at the end of the study that there was a positive and medium-level difference that was statistically significant between students' level of information literacy and online information search strategies level. As a matter of fact, during the process called "The Big6 information literacy process" which requires students to define their goal to search for information, to look for information, to make use of it, and to combine the related and reliable pieces of information, the importance of using information search strategies is also underlined (18). Big6 is a six-step (determining the task, information search strategies, locating and access, using information, synthesis, evaluation) information literacy model that has been designed to help learners determine a topic of their own interest, learn the topic and teach the topic to others (18). In this context, it can be claimed that online information search strategies might be affected by individuals' level of information literacy. And information literacy is composed of skills that are obtained through formal and informal education. The literature shows that people's experiences throughout their university education have an important impact on their skills of information literacy (19,20,21). Likewise, in this study, it can be stated that the students' level of information literacy and their OISS development level are high as a result of the Sub-Module of Information Literacy rendered during the first year.

Qualitative data show that students decide on keywords before they start to do online information search, choose a suitable database, evaluate the conformity of the newly-reached information with their aims, resort to peer support and compare the newly-reached information with their preliminary information. In line with the results of this study, it is believed that increasing students' level of information literacy would be helpful for developing online information search strategies. It has been found out that four-hour compulsory course of information literacy given during the first year at Faculty of Medicine increases students' level of self-efficacy perception. At the same time, web-based training modules can be designed for all students studying at all faculties in order to help them attain information literacy and online information search strategies. The following studies can make use of various methods such as screencast and log data records in order to examine students' behaviours during the information search process.

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