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Research Paper

Information Literacy Skills of Social Work Students

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ABSTRACT

In information society, the individuals have to constantly renew their knowledge to develop their information and skills so as to perform their work better. In order to be able to achieve this, the individual must be information literate to access to information and know how to apply this information. Within this context, concepts of information skills and value are important in professional practice for social workers who can work in many institutions. As social works include a wide range of workplaces from child care and development to elderly care, social workers must be equipped with background knowledge and have the capability to hold this knowledge. The aim of this research is to examine information literacy of the students in the Social Work department of Kocaeli University, Faculty of Health Sciences in 2017-2018 academic year in terms of various variables. Students' levels of information literacy have been analyzed by gender, sources of information research and software they use to process the data and present it. It has been found out that the students are information literate at good level and they mostly use internet to search for information. Also, it has been understood that information literacy levels of girls are better compared to boys, those who use institutions and experts as resources of information researches, and benefit from scientific databases and libraries have better literacy levels than those of ones who do not. When students' level of information literacy are examined according to how often they use the software developed to process and present the data, it is concluded that level of information literacy increases as programmes such as word processor, number processing, photo editing, presentation, film or sound and video process are used more. In order to improve students' skills of information literacy, practical training programmes prepared by libraries can be organized regarding how to access to academic databases, resources in the libraries, the right information in these resources and how to assess these findings, how to benefit from different institutions and experts or a course called "Information literacy" can be included in the curriculums. Moreover, within the scope of this course, instructors should raise awareness of students about how they will access to the data regarding the subjects and apply it, how they will make use of scientific databases.

Keywords: *social work students, information literacy, information technology, sources of information*

INTRODUCTION

In information society, flow rate of information has risen and with the change of its way of use, it has also started to alter lifestyle of societies owing to opportunities offered by recent technology. Individuals have to constantly renew their knowledge in order to improve their information and skills so as to perform their work better. As the skills required by professions and job description gradually change, institutions have started to find it more important to know how to reach to information and use it for tracking today and planning for the future. To achieve these goals, there is a need for the information and therefore individuals who are information literate.

Information literacy was first described as "training people for the application of information resources to their work" by Paul Zurkowski in 1974 and he wrote that individuals need to learn techniques and skills for using a wide range of information tools and creating solutions based on information. However, according to Association of College and Research Libraries (ACRL), information literacy is the set of integrated abilities encompassing the reflective discovery of information, the understanding of how information is produced and valued, and the use of information in creating new knowledge and participating ethically in communities of learning (American Library Association, 2016).

Kurbanoğlu (2010) proposed that information literacy is not only a concept limited to information skills and field of education, it is also related to every phase of life (personal, professional, social, cultural) and composed of numerous factors from democracy to lifelong learning. Information literacy is a skill which everyone

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should have. Characteristics of the individuals who have skill of information literacy are described by Doyle (1994:3) as follows:

- Recognizes that accurate and complete information is the basis for intelligent decision making
- Recognizes the need for information
- Formulates questions based on information needs
- Identifies potential sources of information
- Develops successful search strategies
- Accesses sources of information including computer-based and other technologies
- Evaluates information
- Organizes information for practical application
- Integrates new information into an existing body of knowledge
- Uses information in critical thinking and problem solving

According to Eisenberg and Johnson (2002), to solve a problem and meet information needs effectively and efficiently, information literacy process requires a set of competencies with 6 stages. These are: a) task definition, b) information seeking strategies, c) location and access, d) use of information, e) synthesis, f)evaluation. The individuals who encounter too much amount of information in today's internet environment should have these skills to be able to distinguish correct, reliable and current information. The higher level of individuals' information literacy is, the more capability to evaluate the information accurately they have.

Within this context, concepts of knowledge, skills and value are important in professional practice for social workers who can work in many institutions. Graduates of social work departments have a wide range of work such as child welfare, elderly care, medicine, psychiatry, criminality, disability, poverty, education and family. Social work aims at protecting human rights and contributing to experience them, along with developing resources required to protect human rights, contributing to securing social justice, supporting each person to have individual autonomy and leading them (Philosophical Society of Turkey, 2017). Social worker must be equipped with background knowledge and have the capability to hold this information. Further, he/she should know that this profession requires an instruction based on universal rules and it should depend on scientific evidences in the application of job, experience, professional autonomy and ethical bases of the job (Philosophical Society of Turkey, 2017).

Social Work Speciality is a highly hard profession of which information necessity is substantial in deciding and application. It requires to have the competency of basic research and lifelong learning. Moreover, social workers should be in contact with others from different fields such as lawyers, trainers, security forces, health services. Due to the fact that today unreal and make-up news have increased, the cases have been twisted or presented incorrectly, it is important to obtain verifiable, recent, accessible and easy transmittable information from different resources.

Bausman and Ward (2016) state that information literacy is substantial for lifelong learning and has a key role in the practice of social work in an ethic way, also that information literacy and social work interact with so many methodologies and fields of applications such as treatment planning and case management; development and assessment of services and curricula; organisational management and leadership; disbursement of aids; organisation of community; global social work and research as well as evidence-based practice models. Thus, social workers should both constantly keep their professional knowledge up-to-date and continue academically improving in order to be a good information literate.

Silfen and Zgoda (2008) establish that graduate social work students need a library course that emphasizes the necessity of high quality researches and an instruction regarding how to use academic databases. Bausman and Ward (2016) conclude that information literacy classes are not enough for social work students although their skills of information literacy is not adequate at graduate level, and some worries exist about inclusion of information literacy in curricula, besides they present that there is not a literature concerning about needs for contextualized information literacy specific to practitioners across social work fields of practice. However, Bingham, Wirjapranata and Chinnery (2016) conclude from their study that to be effective practitioners, social workers should be aware of the importance of researches particularly about how to develop their professional knowledge and practices, and propose that creating research-practice relation will contribute to improvement of competent practitioners and enhance welfare of social work counselees.

Innovations in information technologies affect what kind of information is collected, how it is collected, presented and transmitted in Social Work field as well as in all fields of profession (Brutsman and Bernnard, 2007). As information and communication technologies that ease implementation of information literacy's process stages develop, access to information has started to be mostly via electronical sources (computer, internet, smart phone, tv etc.). Today computer literacy has become a part even prerequisite of information literacy, because computer technologies are used for storage, usage, transmission, share of and access to

information (Kurbanoglu, 2010). Computer, network, media, visual and library literacy are concepts associated to information literacy and information literacy is has a characteristic affecting and supporting all other kinds of literacy (Kurbanoglu, 2010). Information can be acquired from many different resources. Sources being used to search for information (library, academic databases, internet, source people, schools, official and private institutions) and software developed for processing and presenting data influence level of information literacy.

When the literature is viewed, it is observed that the number of studies on information literacy of social work students is few, but skill of information literacy has been researched more among groups of teachers and teacher candidates, while it is hardly investigated in field of social work. Lifestyles and problems of people differ in parallel with their society that change constantly depending on technology. It is substantial for social workers to be excellent information literate to follow this change and find solution to problems encountered. So, it is necessary to find out what should be done for improving skills and level of information literacy of social work students who are future social workers. The objective of this research is to determine and examine information literacy level of students studying in the Social Work department of Kocaeli University, Faculty of Health Sciences in terms of different variables. The differences between information literacy levels of students have been studied according to:

a) gender,
b) sources of information research they use,
c) frequency of using the software applied to process and present data,
d) use of academic databases.

METHOD

Research Model

This study which aimed to determine information literacy level of students in the Social work department was conducted through descriptive survey model, one of general survey models, and variance of dependent variable was analyzed in terms of independent variables.

Study Sample

The sample group of this study was composed of 125 students (age average=20,11 sd=2,4) studying in the Social Work department of Kocaeli University, Faculty of Health Sciences in 2017-2018 academic year. The findings related to demographic characteristics of the students participated in the research are given in Table 1. According to the Table, majority of participants (64 %) were female, most of them (83,2%) had a computer and smart phone (96%) and 46,4% of the students used their smart phones and computers for 4-6 hours, 29,6% of them used for 1-3 hours and 24% of them used for 7 hours and over in average. Further, it was concluded that all of the students used internet as source of information search, 46,4% of them used scientific databases, 30,4% of them used libraries, 22,4% of them benefited from schools, official and private institutions, and finally, 18,4%of them consulted to resource people.

Table 1. Demographic characteristics of students participated in the research

Gender	**N**	**%**	**Using frequency of computer and smart phone**	**N**	**%**
Female	80	64	1-3 hours	37	29,6
Male	45	36	4-6 hours	58	46,4
Does she/he have computer?			7 hours and over	30	24
Yes	104	83,2	**Resources of information research**	**N**	**%**
No	21	16,8	Library	38	30,4
Does she/he have smart phone?	**N**	**%**	Internet	125	100
Yes	120	96	Resource people	23	18,4
No	5	4	School, official and private institutions	28	22,4
			Scientific databases	58	46,4

Data Collection Tools and Analysis

In the research, demographic data were obtained from students and "Information Literacy" scale developed by Adıgüzel (2011) was adopted. In the research conducted by Adıgüzel, Cronbach's Alpha reliability coefficient was found as .928 and KMO coefficient was .850. This study's Cronbach's Alpha reliability coefficient was found as .897. As Alpha coefficient is $0.80 \leq \alpha \leq 1.00$, reliability of the scale can be said to be excellent. The questionnaire included 29 items and 4 sub dimensions under the titles of "Defining information need", "Access to information", "Use of information" and "Ethical and legal settings in use of information". The scale is 5 likert type and choices are ranked and rated as every time (5), almost every time (4), occasionally (3), almost never (2) and never (1). The minimum score that can be get from the scale is 29 and the maximum score is 145. When degree range of responses to scale items was supposed to be equal, the highest value was subtracted from the lowest value and divided to degree number. The number of this range is 4/5=0.8 and shown in Table 2. There are 8 items (the lowest score 8, the highest score 40) in factor of defining information need, 11 items (the lowest score 11, the highest score 55) in factor of access to information, 5 items (the lowest score 5, the highest score 25) in use of

information and ethical and legal settings in use of information factors.

Table 2. Limits of score distribution related to research scale

Choices	Limits
Everytime (5)	4.20-5.00
Almost every time (4)	3.40-4.19
Occasionally (3)	2.60-3.39
Almost never (2)	1.80-2.59
Never (1)	1.00-1.79

SPSS 20 programme, descriptive statistics, frequency analysis, t and Anova tests were used for data analysis. Also, average, standard deviation, independent t-test, one-way analysis of variance, Bonferroni and LSD tests for data having homogeneous distribution and Dunnet test for those not having homogeneous distribution were used during data analysis. Levene test was applied to see whether the difference between group variances was statistically significant. That the test statistic is bigger than .05 means group variances are homogeneous. In Anova and t tests significance level was assumed as 0.05. In order to explain the strength of the relationship between dependent and independent variables in these tests and to indicate whether the difference between groups of the study is important, effect size was calculated, too. Effect size ranges introduced by Cohen's for t test in dependent groups are interpreted as 0.2: small, 0.5: medium and 0.8: large (Özsoy and Özsoy, 2013). Effect size shows how much of total variance in variable is explained during variance analysis and is given a value between 0.00 and 0.01. The eta-squared values at .01, .06 and .14 levels are described as small, medium and large effect size.

FINDINGS

Data collected via "Information Literacy" were analyzed in accordance with the research questions. Findings related to the information literacy of the students studying in the social work department are presented below.

Table 3. Levels of information literacy skills of social work students

Level of Information Literacy	**N**	**X**	**Ss**
Average	125	3,68	0,509
Defining information need	125	3,52	0,591
Access to information	125	3,74	0,550
Use of information	125	3,58	0,709
Ethical and legal settings in use of information	125	3,97	0,681

Descriptive statistics of items in the scale applied to students for determining levels of information literacy skills of social work students were calculated and obtained findings are presented in Table 3. As it is understood from the Table, the students generally think that they almost every time fulfil the skills required by information literacy within the scope of sub dimensions. This finding shows us that information literacy level of social work students is good.

Table 4. T-test results of information literacy skills of students based on gender

Based on gender	**Gender**	**N**	**X**	**Ss**	**t**	**P**	**Effect size**
Total score	Female	80	107,98	14,92	2,53	.020	0,44
	Male	45	101,47	14,69			
Defining information need	Female	80	28,13	4,99	0,586	.559	0,11
	Male	45	27,60	4,47			
Access to information	Female	80	37,93	5,64	1,979	.050	0,37
	Male	45	35,87	5,47			
Use of information	Female	80	18,06	3,65	1,380	.017	0,26
	Male	45	17,13	3,54			
Ethical and legal settings in use of information	Female	80	20,58	2,96	3,495	.001	0,68
	Male	45	18,13	4,13			

T-test analyses of information literacy skills of students based on gender are shown in Table 4. According to Table 4, there is a significant difference between information literacy skills of female and male students studying in the department of social work (t=2,53; p<.05). Information literacy score of female students engaged in the study is $\overline{X}$=107,98, while that of male students is $\overline{X}$=101,47. However, effect size in this analysis is as Cohen's d=0,44 and gender has a medium level effect size for these skills. When the sub dimensions are examined based on gender, any difference is not observed in sub dimension of defining information need, but there is a significant difference in favour of female in other sub dimensions and the results are as follows : access to information (t=1,979, p<=.05, female=37,93 and male=35,87), use of information (t=1,38; p<.05, female=18,06 and male=17,13), ethical and legal settings in use of information (t=3,495; p<.01, female=20,58 and male=18,13). Effect size in sub dimension of access to information is as Cohen's d=0,37 and medium level, in use of information effect size is found as Cohen's d=0,26 and medium level, and it is Cohen's d=0,68 with large level in sub dimension of ethical and legal settings in use of information. The reason for this is supposed to be that females are more careful while researching and evaluating the

information, and they behave more sensitive to particularly ethical issues.

Table 5. T-test analyses of information literacy skills based on students' use of academic databases

Use of academic databases		N	X
Total score	Yes	58	109,29
	No	65	102,03
Defining information need	Yes	58	28,98
	No	65	26,88
Access to information	Yes	58	38,91
	No	65	35,58
Use of information	Yes	58	18,31
	No	65	17,17
Ethical and legal settings in use of information	Yes	58	19,86
	No	65	19,46

T-test analyses of information literacy skills based on students' use of academic databases are given in Table 5. As it is concluded from the table, there is a significant difference (t=2,72; p<.01) between information literacy skills of students studying in the department of social work and using academic databases. Information literacy score of students using academic databases is $\overline{X}$ =109,29, while that of who did not use is $\overline{X}$=102,03. Effect size is Cohen's d=0,46 and medium level. When the sub dimension are examined based on use of academic databases, a significant difference is observed in favour of those who used databases in sub dimension of defining information need (t=2,48, p<.05; X= 28,98 for users and X=26,88 for nonusers) and access to information (t=3,39, p<=.01; X=38,91 for users and X=35,58 for nonusers), but there is not any difference in other sub dimensions. Effect sizes for sub dimensions are interpreted as follows: Cohen's d=0,45 and medium level for defining information need, Cohen's d=0,61 and large level for access to information, Cohen's d=0,32 and medium level for use of information, and Cohen's d=0,11 and small level for ethical and legal settings in use of information. Use of academic databases is substantial to have access to basic information resources, actual and updated information, and it enables the researcher to find the information needed as soon as possible. These results show us that use of academic databases is a significant predictor of information literacy level and students review the literature more consciously during research.

Table 6. T-test analyses of information literacy skills based on students' use of libraries

Use of library		N	X	S.s.	t	p	Effect size
Total score	Yes	38	109,97	16,22	2,155	,033	0,41
	No	87	103,74	14,28			
Defining information need	Yes	38	28,68	5,62	1,154	,251	0,21
	No	87	27,61	4,39			
Access to information	Yes	38	38,18	5,84	1,313	,192	0,25
	No	87	36,75	5,53			
Use of information	Yes	38	18,92	3,51	2,481	,014	0,48
	No	87	17,21	3,57			
Ethical and legal settings in use of information	Yes	38	20,74	3,12	2,163	,032	0,44
	No	87	19,24	3,73			

T-test analyses of information literacy skills based on students' use of libraries to search for information are provided in Table 6. According to the table, there is a significant difference between information literacy skills of students studying in the department of social work and using libraries (t=2,15; p<.05). Information literacy score of students using libraries is $\overline{X}$=109,97 and that of not using libraries is $\overline{X}$=103,74. Effect size is Cohen's d=0,41 and medium level. When the sub dimensions are examined based on use of libraries, a significant difference is observed in favour of those who used libraries in sub dimensions of use of information (t=2,48; p<.05; X= 18,92 for users and X=17,21 for nonusers) and ethical and legal settings in use of information (t=2,16, p<=.05; X=20,74 for users and X=19,24 for nonusers), but there is not any difference in other sub dimensions. Effect sizes for sub dimensions are as follows: Cohen's d=0,21 and medium level for defining information need, Cohen's d=0,25 and medium level for access to information, Cohen's d=0,48 and medium level for use of information, and Cohen's d=0,44 and medium level for ethical and legal settings in use of information. The libraries providing access to both earlier and updated resources play key role in searching for, finding, obtaining, applying and transmitting the information. Use of libraries as source of information research affects level of information literacy at medium level and levels of students who use libraries are better than those who do not.

Table 7. t-test analyses of information literacy skills of students based on use of source people

Users of source people		N	x	Ss	t	p	Effect size
Total score	Yes	93	107,74	14,36	2,71	0,008	0,55
	No	31	99,42	16,02			
Defining information need	Yes	93	28,23	4,67	1,10	0,270	0,22
	No	31	27,13	5,23			
Access to information	Yes	93	37,95	5,48	2,68	0,008	0,55
	No	31	34,87	5,69			
Use of information	Yes	93	18,11	3,55	1,92	0,570	0,39
	No	31	16,68	3,74			
Ethical and legal settings in use of information	Yes	93	20,25	3,32	3,10	0,002	0,61
	No	31	18,00	4,01			

Table 8. T-test analyses of information literacy skills based on students' benefiting from school, official or private institution

Users of school, official or private institutions		N	X	S.s	t	p	Effect size
Total score	Yes	28	112,32	15,05	2,728	,007	0,58
	No	97	103,70	14,64			
Defining information need	Yes	28	30,07	5,18	2,742	,007	0,57
	No	97	27,32	4,52			
Access to information	Yes	28	39,36	5,42	2,354	,020	0,51
	No	97	36,56	5,58			
Use of information	Yes	28	18,64	4,08	1,523	,130	0,31
	No	97	17,46	3,46			
Ethical and legal settings in use of information	Yes	28	21,11	2,85	2,394	,018	0,55
	No	97	19,29	3,71			

t-test analyses of information literacy skills of students who benefited from source people such as experts, teachers, friends to search for information are presented in Table 7. According to the table, there is a significant difference between information literacy skills of students studying in the department of social work and consulting to source people (t=2,71; p<.01). Information literacy score of students benefiting from source people is $\overline{X}$=107,74 and that of not using source people is $\overline{X}$=99,42. Effect size is Cohen's d=0,55 and medium level. When the sub dimensions are examined based on use of source people, a significant difference is observed in favour of those who benefited from source people in sub dimensions of access to information (t=2,68, p<.01; X= 37,95 for users and X=34,87 for nonusers) and ethical and legal settings in use of information (t=3,10; p<=.01; X=20,25 for users and X=18 for nonusers), but there is not any difference in other sub dimensions. Effect sizes for sub dimensions are as follows: Cohen's d=0,22 and medium level for defining information need, Cohen's d=0,55 and medium level for access to information, Cohen's d=0,39 and medium level for use of information, and Cohen's d=0,61 and large level for ethical and legal settings in use of information. According to this result, it can be said that information literacy level of those benefiting from source people is higher than those who do not and this affects information literacy at medium level. To consult to experienced people who conducted the same or similar studies before can help to take information and precaution about the problems that can occur during research.

t-test analyses of information literacy skills of students who benefited from school, official or private institutions to find information are demonstrated in Table 8. As the table indicates, there is a significant difference between information literacy skills of students who benefited from school, official or private institutions (t=2,78; p<.01). Information literacy score of students benefiting from school, official or private institutions is $\overline{X}$=112,32 and that of not benefiting from them is $\overline{X}$=103,70. Effect size is Cohen's d=0,58 and medium level. When the sub dimensions are examined based on use of school, official or private institutions, a significant difference is observed in favour of those who benefited from source people in sub dimensions of defining information need (t=2,74; p<.01; X= 30,07 for users and X=27,32 for nonusers), access to information (t=2,35; p<.05; X= 39,36 for users and X=36,56 for nonusers), ethical and legal settings in use of information (t=2,39; p<=.05; X=21,11 for users and X=19,29 for nonusers), but there is not any difference in sub dimension of use of information. Effect sizes for sub dimensions are as follows: Cohen's d=0,57 and medium level for defining information need, Cohen's d=0,51 and medium level for access to information, Cohen's d=0,31 and medium level for use of information, and Cohen's d=0,55 and medium level for ethical and legal settings in use of information. Schools, official and private institutions have their own fields of expertise and reserve different kinds of data. It is important to get the information by using websites of the institutions or directly reach them in terms of doing the research correctly and thoroughly. Better information literacy level of individuals taking advantage of these institutions proves us the availability of people who know what and how to research.

Table 9. ANOVA test results based on frequency of use of software developed for processing and presenting data

Software		N	X	Ss	f	p	Difference	η^2
Word processor	Almost never(2)	34	101,7	15,21				
	Occasionally (3)	30	102,07	15,69	4,275	0,016	4>2	0,065
	Every time(4)	61	109,57	13,94				
Number processing	Never(1)	30	102,03	13,68				
	Almost never(2)	65	104,57	16,05	3,431	0,036	3>1	0,053
	Occasionally (3)	30	111,53	12,98				
Picture processing	Never(1)	24	102,08	13,19				
	Almost never (2)	48	103,60	14,94	6,661	0,000	4>1 4>2	0,14
	Occasionally (3)	28	102,11	14,65			4>3	
	Every time(4)	25	116,88	12,91				
Presentation	Almost never(2)	29	100,45	13,44				
	Occasionally (3)	38	102,45	17,95	5,741	0,004	4>2	0,086
	Every time(4)	58	110,31	12,49				
Film or sound	Never(1)	24	99,46	13,87				
	Almost never (2)	37	101,81	15,63	5,422	0,002	4>1 4>2	0,12
	Occasionally (3)	37	107,57	13,19				
	Every time(4)	27	113,70	14,48				
Video Processing	Never(1)	34	99,82	15,16				
	Almost never (2)	62	104,39	13,53	9,592	0,000	3>2 3>1	0,14
	Occasionally (3)	29	115,10	14,28				

Anova test results based on frequency of use of software developed for processing and presenting data are given in Table 9. According to the table, information literacy levels of those who every time used word processor programmes than those of who almost never use d ($F(2-122)=4,27$; $p<.05$), information literacy levels of those using number processing programmes occasionally are higher than those of who never used them ($F(2-122)=3,43$; $p<.05$), those using picture processing programmes every time have higher levels compared to those who almost never and never used them ($F(3-121)=6,66$; $p<.01$), levels of those using presentation programmes every time are higher than those of who almost never used them ($F(2-122)=5,74$; $p<.01$), levels of those who every time used film or sound programmes are higher than those of who almost never and never used them ($F(3-121)=5,42$; $p<.01$) and those who occasionally used video processing programmes have higher information literacy levels compared to those having almost never and never used them ($F(2-122)=9,59$; $p<.01$). When the effect size was measured, it was found out that use of word processor, presentation, picture processing, film or sound, video processing programmes had a high effect on information literacy, but number processing programme had medium level effect. These findings indicate that information literacy increases in parallel with computer literacy level. There was not any significant difference based on students' class grade, usage frequency of computer and internet.

CONCLUSION AND DISCUSSION

In this study, information literacy levels of students who are future social workers studying in the Social work department of Kocaeli University were determined and examined in terms of various variables. Descriptive survey, one of quantitative research methods, was adopted in the study and "Information Literacy" Scale with 29 items developed by Adıgüzel (2011) was applied. According to research outcomes, students in general reported that they usually performed the skills required by information literacy within the scope of sub dimensions. In the light of this result, information literacy level of social work students can be said to be good. In a study supporting this finding in the literature, Özgür (2016) suggest that information literacy levels of teacher candidates are high. On the other hand, in another study with the same concern, Bellard (2007) found out that information literacy levels of graduate students in social work were not enough to satisfy their needs and they asked for additional instruction about information literacy. However, he claimed that the participation was low in the instruction supplied after the study. Bausman and Ward (2016) suggest that information literacy instruction in social work education is required even at least level. Özel (2016) concluded that undergraduate students did not completely have the qualifications proposed by standards of information literacy; they did not have any problems with basic subjects, but they had difficulties in issues that required more detailed information at advanced level.

It was determined in the study that, information literacy of female students engaged in the research were better than that of male students. The reason for this is supposed to be that females are more careful while researching and evaluating the information, and they behave more sensitive to particularly ethical issues. In their study concerning about effect of gender on information literacy, Taylor and Dalal (2017) discovered that both genders had difficulty in assessment of information sources, but females evaluated the sources more careful during searching for information and they used libraries more. When the literature was reviewed, it was inferred that in some of researches, information literacy levels of females are better (Önal and Çetin, 2014, Annemiek, Punter, Meelissen, and Glas, 2016), while in some of them those of males seem to be better (Akdağ and Karahan, 2004).

The reference resources of students studying in the social work department are respectively internet, scientific databases, library, school, official and private institutions and source people. Information literacy level of students who used academic databases as source of information research was found to be better. Use of academic databases is substantial to have access to basic information resources, actual and updated information, and it enables the researcher to find the information needed as soon as possible. These results show us that use of academic databases is a significant predictor of information literacy level and students review the literature more consciously during research. Özel (2016) concluded that undergraduate students felt themselves incompetent at the stage of using information access tools such as catalogues, search engines, databases, guides etc. and during developing strategies; nearly half of the students felt themselves inadequate to find what they looked for in written and electronical information sources and they needed additional education in this regard.

The libraries providing access to both earlier and updated resources play key role in searching for, finding, obtaining, applying and transmitting the information. Use of libraries as source of information research affects level of information literacy at medium level and levels of students who use libraries are better than those of students who do not. Though, in this study, the number of students using libraries virtually or physically was very few. So, awareness of the students should be raised about how to benefit from the libraries. Silfen and Zgoda (2008) suggest that social work students need leading of librarians who are able to guide how to perform a well research, thus learning how to access to research-based sources and peer-reviewed articles will encourage the students to carry out evidence-based practices when they are social workers. According to Keten (2012), availability of information access systems and information services that will be designed by librarians will enable the individuals in need of information to use the information effectively, solve the problems they face in a quick and easy way and make proper decisions.

It was determined that information literacy level of those benefiting from source people was higher than that of students who did not benefit and this affected information literacy at medium level. To consult to experienced people who conducted the same or similar studies before can help to take information and precaution about the problems that can occur during research. It was also found out that information literacy level of those who made use of schools, official and private institutions as information research source was higher compared to that of students who did not use and this variable affected information literacy at medium level. An information literate student should have an excellent communication skill involving contact with members of profession and experts, and try to comprehend and interpret the information by discussing with others, subject matter experts or practitioners (Polat, 2005).

Schools, official and private institutions have their own fields of expertise and can reserve different kinds of data. It is important to get the information by using websites of the institutions or directly reach them in terms of doing the research correctly and thoroughly. Better information literacy level of individuals taking advantage of these institutions proves us the availability of people who know what and how to research. Research centres, information centres or/and guidance of expert in library to which a person in need of information will apply to access to information, tools and methods that will be used are important for the beginning of research (Keten, 2012).

According to students' information literacy level based on how often they used the software developed to process and present the data, it was concluded that level of information literacy increased as programmes such as word processor, number processing, photo editing, presentation, film or sound and video process were used more and this affected literacy level at a substantial level. The findings indicate that information literacy increases in parallel with computer literacy level. In one of researches supporting this result, Farillon and his friends (2013) determined through a compilation study that information literacy levels of students who used computer both at home and school advanced as their information about tasks related to information communication technologies increased.

Skill of information literacy involves accession to and selection of information resources by using various criterions as a stage of information research process. Students studying in every field today should have skills of information literacy to be able to properly assess the information they acquire through different channels. In order to improve students' skills of information literacy, practical instruction programmes prepared by libraries can be organized regarding how to access to academic databases, resources in the libraries, the right information in these resources and how to assess these findings, how to benefit from different institutions and experts or a course called "Information literacy" can be included in the curriculums. Additionally, within the scope of this course, instructors should raise awareness of students about how they will access to the information regarding the subjects and apply it, how they will make use of scientific databases.

The results obtained from this study were evaluated in accordance with the answers of students to the questionnaire, but another observation and practice based scaling was not applied to determine skill of information literacy. More detailed results can be obtained through a practical study and interview with students. This study was performed with social work students studying in only one university, but it can be compared with the case of students from other universities.

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REFERENCES

Akdağ, M. & Karahan, M. (2004). Examining the information literacy level of undergraduates through a number of variables. *Education and Science, 29*(134), 19-27.

American Library Association/ Association of College and Research Libraries (2016). Framework for information literacy for higher education. Association of College and Research Libraries. http://www.ala.org/acrl/standards/ilframework

Bausman, M. & Ward, S.L. (2016). The Social Work Librarian and Information Literacy Instruction: A Report on a National Survey in the United States. *Behavioral & Social Sciences Librarian 35*(3), 109-122.

Bellard, E.M. (2007). Information literacy needs of nontraditional graduate students in social work. *Research Strategies, 20*(4), 494-505.

Bingham, T. J., Wirjapranata, J., Chinnery, S.A. (2016) "Merging information literacy and evidence-based practice for social work students", *New Library World, 117*(3/4), 201-213

Bruce, C. S. (1994). *Information Literacy Blueprint*. Griffith University, Division of Information Services. (17.03.2004).

Eisenberg, M.B. & Johnson, D. (2002). *Learning and Teaching Information Technology Computer Skills in Context.* Syracuse. New York: ERIC Clearinghouse on Information Resources.

Fraillon, J., Ainley, J., Schulz, W., Friedman, T. & Gebhardt, E. (2013). *Preparing for life in a digital age: The IEA international computer and information literacy study international report*. International Association for the Evaluation of Educational Achievement (IEA). DOI 10.1007/978-3-319-14222-7.

Keten, B. (2012). Bilgi erişim sürecinin problem çözme ve karar verme üzerindeki etkisi: Kuramsal bir çalışma. (Effects of information retrieval process on decision making and problem solving: An emprical study). *Türk Kütüphaneciliği, 26*(3), 476-500.

Kurbanoğlu, S.S. (2010). Information Literacy: A Conceptual Analysis. *Türk Kütüphaneciliği, 24*(4), 723-747.

Önal, N. & Çetin, O. (2014). Examination of pre-service teachers' information literacy in terms of various variables. *Mehmet Akif Ersoy Üniversitesi Eğitim Fakültesi Dergisi, 29*, 1–30.

Özsoy, S. & Özsoy, G. (2013). Effect Size Reporting in Educational Research. *Elementary Education Online, 12*(2), 334-346.

Polat, C. (2005).*Bilgi okuryazarlığı ve üniversiteler*. Prof. Dr. Nilüfer Tuncer'e Armağan. Türk Kütüphaneciler Derneği, pp. 261-277. [Book chapter] http://eprints.rclis.org/8145/1/Nil%C3%BCfer_Tuncer%27e_Armagan.pdf

Silfen, K. & Zgoda, K. (2008). Evidence-Based Practice and Information Literacy in Social Work: An

Assessment of Students' Reference Lists. *Behavioral & Social Sciences Librarian*, *27*(2), 104 -115.

Şahin, F. (2001). Sosyal hizmette güçler perspektifi ve çözüm odaklı mülakat. Aile ve Toplum Eğitim Kültür ve Araştırma Dergisi. Başbakanlık *Aile ve Araştırma Kurumu Yayınları, 1 (4)*, 59-73. http://ailetoplum.aile.gov.tr/data/54293f63369dc32358ee2b2e/ aile_ve_toplum_4_aile_ve_toplum4.pdf

Taylor, A. R. & Dalal, H. (2017). Gender and information literacy: Evaluation of gender differences in a student survey of information sources. *College & Research Libraries, 78*(1), 90-113. DOI:10.5860/crl.78.1.90.

Zurkowski, P. G. (1974). *The information service environment relationships and priorities*. Related Paper No. 5. Natıonal Commission On Libraries and Information Science. https://files.eric.ed.gov/fulltext/ED100391.pdf

Türkiye Felsefe Kurumu Derneği, (2017). *Sosyal Hizmet Uzmanları İçin Etik Kılavuz.* Ankara. http://sosyalhizmetlerdeetik.org/_doc/pcp10_etik_kilavuz.pdf