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The Effect of Special Education Teachers' Knowledge Sharing on Innovative Work Behaviors

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Abstract

The dynamic and ever-changing structure of the special education field and the developmental needs of children with special needs make knowledge sharing important for special education teachers. The current study aims to examine the effect of the knowledge-sharing process on the innovative work behavior of special education teachers in private education institutions. This study employed a descriptive research model which is one of the quantitative research models. A total of 244 special education teachers, 75 male, and 169 females, were included in the study. The findings of the study show that the mean scores of the Innovative Work Behavior Scale and the Knowledge Sharing Scale do not differ significantly according to the gender of the teachers, the educational status of the teachers, and the type of the teachers' institution. On the other hand, the average score of innovative work behavior idea generation and implementation sub-dimension differs significantly according to the seniority of the teachers. In other words, in the idea generation and implementation sub-dimension, the average score of teachers with 11-15 years of professional seniority was found to be significantly higher than the average of teachers with 0-5 years of professional seniority.

Keywords: knowledge sharing, innovative work behavior, private education institutions, special education

Özel Eğitim Öğretmenlerinin Bilgi Paylaşımlarının Yenilikçi İş Davranışlarına Etkisinin İncelenmesi

Öz

Özel eğitim alanının dinamik ve sürekli değişen yapısı ile özel gereksinimli çocukların gelişimsel gereksinimleri, özel eğitim öğretmenleri için bilgi paylaşımını önemli hale getirmektedir. Bu araştırmada özel eğitim kurumlarında bilgi paylaşım sürecinin özel eğitim öğretmenlerinin yenilikçi iş davranışına etkisinin incelenmesi amaçlanmıştır. Araştırmada nicel araştırma modellerinden betimsel araştırma modeli kullanılmıştır. Araştırmaya, 75 Erkek ve 169 Kadın olmak üzere toplam 244 özel eğitim öğretmeni dahil olmuştur. Araştırmanın bulguları Yenilikçi İş Davranışı Ölçeği ve Bilgi Paylaşımı Ölçeği puan ortalamalarının öğretmenlerin cinsiyetlerine, öğretmenlerin öğrenim durumlarına ve öğretmenlerin kurum türüne göre anlamlı olarak farklılaşmadığını göstermektedir. Buna karşın yenilikçi iş davranışı fikir üretme ve uygulama alt boyutu puan ortalamasının öğretmenlerin kıdemlerine göre anlamlı olarak farklılaştığı bulunmuştur. Diğer bir deyişle fikri üretme ve uygulama alt boyutunda, 11-15 yıl arası mesleki kıdeme sahip öğretmenlerin puan ortalaması 0-5 yıl arası mesleki kıdeme sahip öğretmenlerin puan ortalamasından anlamlı olarak yüksek olduğu sonucu bulunmuştur. Bulgular, araştırma amacı çerçevesinde tartışılmış olup ileri araştırmalara ve özel eğitim öğretmenlerine yönelik önerilerde bulunulmuştur.

Anahtar kelimeler: bilgi paylaşımı, yenilikçi iş davranışı, özel eğitim kurumları, özel eğitim

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INTRODUCTION

Knowledge has been a concept that has been perceived as "power" throughout history, since knowledge has settled based on life, knowledge is created with values, efficiency, and innovation (Güçlü and Sotirofski, 2006). Knowledge, both as a value and as a power, is one of the most important arguments that transform our lives. For this reason, the production of knowledge as a value and power is very important for the development and strengthening of the society we live in. Knowledge production can be defined as taking new information from other sources and adapting it to the social environment (eg, the institution in which it works) and using it (Nonaka & Takeuchi, 2019).

Sharing knowledge and experience is one of the most important phenomena for institutions, and sharing knowledge and experience has an important role in the formation and continuation of corporate culture. Moreover, effective knowledge-sharing helps institutions to manage their decision-making processes in a healthier way (Işık, 2018). In this context, sharing knowledge and experience among employees in an institution and transforming them into Innovative Work Behaviors has critical importance (Kim & Lee, 2013). Knowledge and expression sharing by employees in a workplace are seen as a prerequisite for innovative work behavior. For this prerequisite behavior to occur, it is necessary to make practices and arrangements for the development and maintenance of individual and collective knowledge sharing within the institution. The primary goal of Innovative Work Behavior is to ensure that new ideas emerge willingly in institutions. In this way, employees can adapt to the requirements of the job by developing ideas, encouraging and improving them, and can update themselves and their institutions at the same time (Bos-Nehles et al., 2017; Ceylan & Özbal, 2005).

Today, innovation is of great importance for institutions to represent themselves effectively and to contribute to social development, and it is a reality accepted by everyone. Researchers highlight that one of the important indicators that enable an institution to be successful is the innovative behavior of its employees (Yuan & Woodman, 2010). Innovative behavior is defined as the behavior shown in different stages such as producing a new idea, acting collectively, cooperating, and implementing (De Jong & Den Hartog, 2007). In this context, innovative work behavior can be considered as a multi-element structure that includes all behaviors based on improvement and development, in which all employees in the workplace can contribute to corporate development.

There are five main components/indicators of innovative work behavior including (a) creativity, (b) idea generation, idea support, idea realization, and idea implementation (c) organization manager/leader, (d) colleagues or workgroup working in the same organization, (e) equipment, facilities and time (Ulusal ve Yüreğir, 2022). Innovative work behavior is closely related to employees' creativity and idea-generation processes. Therefore, creativity should be seen as the first step of the innovation process (De Jong & Den Hartog, 2007). One of the most important factors that can affect creativity is the individual's inner interest in the task (Çapraz et al., 2014; Yuan & Woodman, 2010). One of the institutional variables that significantly affect innovative behaviors is the director or leader of the institution. The leader has a strong influence on the innovative behavior of the employees (Yukl, 2010). Another variable that affects idea generation within an organization is colleagues or workgroup members in the work environment (Scott & Bruce, 1994). The relations and cooperation of the employees within the institution support the formation of the accepted behavior and attitude climate, in other words, the formation of the corporate culture. Opportunities to support institutional innovation and development should be sought in the production of innovative ideas in an institution, and solutions should be produced by determining the performance differences of the employees (De Jong & Den Hartog, 2007). Innovativeness can be supported and sustained by sharing knowledge and experience in an organization and learning that supports the professional development of employees.

Innovation is an important fact and value for many professions and employers, as well as an extremely important approach for the teaching profession and educational institutions, which are dynamic structures in terms of innovation and development. It is necessary to say that educational institutions, whose raw material is information, are at the forefront of institutions that need to keep up with this information age we live in and that train human resources. Today, the need for more flexible and sustainable learning environments and different teaching methods and techniques is increasing due to changing living conditions. Professional skills and competencies required by teachers (e.g., skills in differentiated instruction, technological competencies, critical thinking and problem-solving skills, communication and collaboration skills, cultural competencies, and continuous professional development) are also changing in today's schools, where needs differ according to individuals and groups based on institutional goals, existing resources do not always solve problems, standards are not always effective, and change is rapid (Töre, 2019).

One of the educational institutions where the needs differ is the educational institutions where special education services are provided. The developmental needs and characteristics of groups with special needs benefiting from special education services also differentiate the professional needs of teachers working in this field. The roles and responsibilities of special education teachers require working and collaborating with different disciplines, considering the developmental needs and characteristics of children with special needs. The multidimensional developmental needs of children with special needs have led to a lot of research in this area and to the emergence of many different methods, strategies, and models in this context. Interdisciplinary cooperation should be made to meet the developmental needs of children with special needs and scientifically based practices should be used by teachers in educational interventions (Snyder et al., 2003).

Many challenges require special education teachers to generate and implement innovative ideas. One of them is the development and successful implementation of individualized education programs (IEP). According to the literature, successful implementation of IEPs depends on teachers' sharing their knowledge and expertise on this subject, working in collaboration with other teachers or experts, and sharing their knowledge and experiences with pre-service teachers to create pre-service gains (Winn & Blanton, 2005). Successful outcomes of educational interventions for children with special needs depend on collaboration (Anderson, 2008; Winn & Blanton, 2005), effective teachers engage in professional conversations rather than isolate themselves (Darling-Hammond & Richardson, 2009) and collaboration is better than other teachers' practices (Darling-Hammond, 2006). Many variables require special education teachers, such as IEPs, to cooperate, produce innovative ideas, and produce solutions to problems related to the system or students. Research emphasizes the importance of special education teachers' ability to find creative solutions to the challenges they face (Scruggs & Mastropieri, 2015) and the significance of collaboration (Friend & Cook, 1992).

Special education is the field in which theoretical and practice-based change is experienced the most in the education sector and where there is an effort to find solutions to many problems. For this reason, it is inevitable for special education teachers working in the field of special education to support their professional development based on theory and practice, to cooperate with their colleagues and other disciplines to serve their students better, to produce effective solutions to problems and to take action to solve problems. For special education teachers to be successful in the field of special education, which is in an extremely dynamic and intense change process, they need to adopt an innovative approach and produce, support, and implement innovative ideas in the face of problems in this direction. For this reason, special education teachers need to constantly renew their knowledge and find solutions to the problems they experience. It should be noted that special education environments have a very dynamic structure in this respect. This dynamic structure naturally forces special education teachers to change their educational practices. On the other hand, new human resources are constantly included in the field and up-to-date information needs to be shared with these candidates. This study aims to examine the impact of knowledge sharing on teachers' innovative work behaviors in special education institutions, thereby supporting teachers' professional development and ensuring that students receive better education. Additionally, it can guide educational administrators and policymakers in developing strategies that encourage innovation. In this way, more effective and innovative teaching practices in the field of special education will be promoted.

METHOD

Research Design

In this study, the descriptive research model, one of the quantitative research models, was used. The descriptive research model is generally defined as a quantitative research model that aims to describe and understand a situation or event in detail (Büyüköztürk et al., 2023). A descriptive research model explains the characteristics, behaviors, or attitudes of a population or sample group, objectively explaining a particular event or situation. In this research model, researchers usually use standard tools such as questionnaires, observations, and scales to collect data. This research model is generally used in the study of a new event or situation and aims to describe a situation in detail before testing hypotheses, rather than testing a hypothesis. This model is generally used for research on a new event or situation (Büyüköztürk et al., 2023; Mishra and Alok, 2022).

Working Group

The sample of the research consists of special education teachers working in public and private education institutions in Istanbul and Çanakkale. Before the participants were determined, necessary permissions were obtained from the Çanakkale and Istanbul National Education Directorates for the conduct of the research. After obtaining permission from the relevant institutions, the schools and rehabilitation centers were contacted and the

teachers working in these educational institutions were informed about the research. In these information meetings, an informed consent form was given to the teachers. In determining the participants, the prerequisites were (a) that the teachers were special education teachers, (b) that they had at least five years of experience in the profession, and (c) that they had spent the last five years of their professional career in special education settings. Special education teachers who provided the informed consent form to the researchers and met the prerequisites were included in the study. The first reason why the second and third prerequisites are sought for the participants included in the research is to ensure that they have similar experiences with the education of children with special needs. Secondly, it is to have sufficient professional experience to minimize the lack of experience of being a new teacher and finally to internalize behaviors that reflect the corporate culture such as knowledge sharing and innovative work behaviors. The demographic information of the participants included in the study is shown in Table 1.

Table 1. Demographic Information on Participants

Variable	Introductory Features	n	%
Gender	Man	75	31
	Woman	169	69
School Type	State	159	65
	Private*	85	35
Education Status	Bachelor	201	82
	Postgraduate	43	18
Professional Service Period	5-10 Years	111	45
	11-15 Years	82	34
	16 Years and Above	74	21

*Special Education and Rehabilitation Center: Support education service is provided.

According to Table 1, approximately 70% (n=169) of the participants included in the study are female and 30% are male. 65% of the participants work in public schools (separate educational settings for children with mental retardation and autism), while 35% work in special education and rehabilitation centers. Most of the participants were undergraduate graduates and approximately 20% of them were postgraduate graduates, and almost half of the participants have a professional experience of 5-10 years.

Data Collection Tools

In this study, four data collection tools were used, namely the Participant Information Form, the Informed Voluntary Consent Form, the Innovative Work Behavior Scale, and the Knowledge Sharing Behavior Scale. The Participant Information Form, developed by the researcher, is a form that collects demographic information such as age, gender, and professional seniority of the participants involved in the research. Similarly, the Informed Consent Form developed by the researcher is a written agreement in which it is determined that the teachers involved in the research voluntarily participate.

The Innovative Work Behavior Scale, developed by Janssen (2000), was adapted into Turkish by Töre (2017). The scale consists of 3 sub-dimensions: Idea Generation, Idea Promotion, and Idea Realization, and there are three items in each sub-dimension (Janssen, 2000). In the Turkish version of the scale, there are two sub-dimensions: " Idea Generation and Idea Realization " and " Idea Promotion for ideas". The Cronbach α reliability value of the adapted scale is .87 (Töre, 2017). The score interval coefficient for the arithmetic means of the scale was found to be 0.80. The evaluation range of the arithmetic averages of the scale is “very low” between 1.00-1.80; “low” between 1.81-2.60; “medium” between 2.61-3.40; and between 3.41-4.20 is determined as “high” and 4.21-5.00 as “very high”.

The Knowledge Sharing Behavior Scale was developed by Chennamaneni et al., (2012) and adapted into Turkish by Töre (2017). The scale consists of seven items, and four sub-items of the scale was administered to the participants after the pilot application. The Cronbach α reliability value of the scale is .81. The score interval coefficient for the arithmetic means of the scale was determined as 0.80. The evaluation range of the arithmetic means of the scale is “very low” between 1.00-1.80; “low” between 1.81-2.60; “medium” between 2.61-3.40; between 3.41-4.20 is determined as “high” and 4.21-5.00 as “very high”.

Data Collection Process

Before determining the participants, ethical permission was obtained from the ethics committee of Çanakkale On Sekiz Mart University with the decision dated 03.03.2022 and numbered 05/29, and then the relevant institutions were contacted after obtaining data collection permission from the Istanbul Directorate of National Education with the letter dated 02.06.2022 and numbered 50899543. Special education teachers working in the educational institutions where the research will be conducted were informed about the research. An Informed Voluntary Consent Form was given to the teachers who wanted to participate in the study. Teachers who filled in the Informed Voluntary Consent Form and submitted it to the researcher and met the prerequisites were included in the study. To collect data from teachers through the scales determined within the scope of the research, the date and time of the interview were determined. Data were collected through face-to-face interviews with the teachers at the specified date and time. The data were collected by coding the scales.

Data Analysis

To determine the normality distribution of the data obtained in the study, the skewness and kurtosis values of the data were examined. Accordingly, the skewness and kurtosis values of the data were between -1.5 and +1.5. Due to the normal distribution of the data, the analysis of the data obtained in the study was carried out using parametric tests. Data were analyzed in the SPSS program with a t-test and ANOVA test to determine whether there is a difference between the mean scores for the "Knowledge Sharing" and "Innovative Work Behavior" scales. The values for the normality distribution of the data are presented in Table 2.

Table 2. Findings Regarding Normality of Data

Scale and Sub-Dimensions	n	Skewness value	Kurtosis value
Innovative Work Behavior	244	-0.31	-0.18
Idea Generation and Realization	244	-0.32	-0.04
Idea Promotion	244	-1.17	0.50
Knowledge Sharing	244	-0.98	0.42

Research Ethics

Before starting to collect the research data, ethical permission was obtained from the ethics committee of Çanakkale On Sekiz Mart University with the decision dated March 3, 2022, and numbered 05/29, and then data collection permission was obtained from the Istanbul Directorate of National Education with the letter dated June 2, 2022, and numbered 50899543.

FINDINGS

The study aims to investigate the effect of the knowledge-sharing process on the innovative work behavior of special education teachers in private education institutions. The data obtained in the research were interpreted by analyzing the arithmetic mean ($\bar{x}$), frequency (f), standard deviation (s.d.), t-test, and ANOVA test. Descriptive statistics regarding the sub-dimensions of the scales used in the study are given in Table 3.

Table 3. Innovative Work Behavior and Knowledge Sharing Scale Average Scores

Scale and Sub-Dimensions	n	($\bar{x}$)	Standard Deviation
Innovative Work Behavior	244	4.27	0.48
Idea Generation and Realization	244	4.08	0.60
Idea Promotion	244	4.63	0.49
Knowledge Sharing	244	4.38	0.70

To examine whether the Innovative Work Behavior and Knowledge Sharing Scale differ according to their sub-dimensions, a t-test was conducted for unrelated samples. Accordingly, the data presented in Table 3 show that the Innovative Work Behavior mean score is very high ($\bar{x}$=4.27). Similarly, the mean score of the Knowledge Sharing Scale was determined to be at a very high level ($\bar{x}$=4.38). The differentiation of the mean scores of the Innovative Work Behavior and Knowledge Sharing Scale according to the gender of special education teachers is shown in Table 4.

Table 4. The Difference Between Innovative Work Behavior and Knowledge Sharing Scale Mean Scores According to Teachers' Gender

Scale and Sub-Dimensions	Groups	n	Mean ($\bar{x}$)	SD	t	p
Innovative Work Behavior	Man	75	4.19	0.50	-1.57	0.119
	Woman	169	4.30	0.47		
Idea Generation and Realization	Man	75	3.99	0.65	-1.60	0.110
	Woman	169	4.12	0.57		
Idea Promotion	Man	75	4.60	0.51	-0.72	0.472
	Woman	169	4.65	0.48		
Knowledge Sharing	Man	75	4.26	0.76	-1.87	0.063

According to the data in Table 4, the mean scores of the Innovative Work Behavior Scale and the Knowledge Sharing Scale did not differ significantly in any of the sub-dimensions depending on the gender of the special education teachers. Accordingly, the scores obtained from the sub-dimensions of the scale are close to each other in terms of the genders of the special education teachers. The differentiation of the mean scores of the Innovative Work Behavior and Knowledge Sharing Scale according to the education level of special education teachers is shown in Table 5.

Table 5. The Difference Between Innovative Work Behavior and Knowledge Sharing Scale Scores According to Teachers' Educational Status

Scale and Sub-Dimensions	Groups	n	Mean ($\bar{x}$)	SD	t	p
Innovative Work Behavior	Bachelor	201	4.25	0.49	-1.28	0.203
	Postgraduate	43	4.35	0.44		
Idea Generation and Realization	Bachelor	201	4.06	0.61	-1.28	0.150
	Postgraduate	43	4.20	0.51		
Idea Promotion	Bachelor	201	4.63	0.48	-0.25	0.799
	Postgraduate	43	4.65	0.53		
Knowledge Sharing	Bachelor	201	4.39	0.68	0.43	0.669

According to the data in Table 5, the mean scores of the Innovative Work Behavior Scale and the Knowledge Sharing Scale did not differ significantly in all of the sub-dimensions of the scale according to the educational status of the special education teachers. Accordingly, the scores obtained from the sub-dimensions of the scale form the impression that the special education teachers do not change according to their educational status. Table 6 shows the differentiation of the mean scores of the Innovative Work Behavior and Knowledge Sharing Scale according to the type of institution where special education teachers work.

Table 6. The Difference Between Innovative Work Behavior and Knowledge Sharing Scale Scores of Special Education Teachers According to Institution Type

Scale and Sub-Dimensions	Groups	N	Mean ($\bar{x}$)	SD	t	p
Innovative Work Behavior	State	159	4.29	0.46	1.08	0.282
	Private	85	4.22	0.52		
Idea Generation and Realization	State	159	4.11	0.57	1.10	0.274
	Private	85	4.03	0.64		
Idea Promotion	State	159	4.65	0.49	0.52	0.607
	Private	85	4.61	0.49		
Knowledge Sharing	State	159	4.39	0.68	0.22	0.823
	Private	85	4.37	0.72		

According to the data in Table 6, the mean scores of the Innovative Work Behavior Scale and Knowledge Sharing Scale did not differ significantly according to the type of institution they work in. In this context, the scores obtained from the sub-dimensions of the scale show that the special education teachers do not change according to the type of institutions they work. The differentiation of the mean scores of the Innovative Work

Behavior and Knowledge Sharing Scale according to the professional seniority of special education teachers is shown in Table 7.

Table 7. The Difference Between Innovative Work Behavior and Knowledge Sharing Scale Scores According to Teachers' Professional Seniority

Scale and Sub-Dimensions	Groups	n	Mean ($\bar{x}$)	SD	SS		F	p	Difference
Idea Generation and Realization	0-5 Years	111	3.95	0.60	In-group	3	3.40	0.01	C>A
	6-10 Years	43	4.18	0.50	between groups	240			
	11-15 Years	39	4.25	0.60	Total	243			
	16 Years and Above	51	4.15	0.62					
Knowledge Sharing	0-5 Years	111	4.26	0.64	In-group	3	2.84	0.03	D>A
	6-10 Years	43	4.41	0.59	between groups	240			
	11-15 Years	39	4.43	0.50	Total	243			
	16 Years and Above	51	4.59	0.60					

According to the data in Table 7, the mean score of the idea generation and implementation sub-dimension of Innovative Work Behavior differed significantly according to the professional seniority of the special education teachers (F= 3.40; p= .01). Likewise, the Knowledge Sharing mean score differed significantly according to the seniority of the teachers (F= 2.84; p= .03), and the posthoc test was performed to determine between which groups the significant difference was. Before the test, the homogeneity of the variances was checked, and the variances were homogeneously distributed. As a result of the Tukey test, the average score of teachers with 11-15 years of professional seniority ($\bar{x}$=4.25) and the average score of teachers with 0-5 years of professional seniority ($\bar{x}$=3.95) was found to be significantly higher. The average score of Knowledge Sharing ($\bar{x}$=4.59) of teachers with a professional seniority of 16 years and above was significantly higher than the mean score of teachers with a professional seniority of 0-5 years. The relationship between the Innovative Work Behavior and Knowledge Sharing Scale mean scores is shown in Table 8.

Table 8. The Relationship Between Innovative Work Behavior and Knowledge Sharing Scale Mean Scores

Scale and Sub-Dimensions	1	2	3	4
Innovative Work Behavior	-			
Idea Generation and Realization	0.95*	-		
Idea Promotion	0.64*	0.37*	-	
Knowledge Sharing	0.51*	0.47*	0.36*	-

* p < .001

According to the data in Table 8, a moderate and positive correlation (r=.51, p<.001) was found between the Innovative Work Behavior Scale mean score and the Knowledge Sharing Scale mean score. There is a weak positive correlation between the mean score of the Idea Generation and Implementation and Supporting Idea sub-dimension and the Knowledge Sharing Scale mean score. Statistical data on the effect of Innovative Work Behavior on knowledge sharing are shown in Table 9.

Table 9. The Effect of Innovative Work Behavior on Knowledge Sharing

Independent Variable	Dependent Variable	B	SH	β	t	Sig.
Innovative Work Behavior Total	Stable	1.25	.34		3.65	.00
	Knowledge Sharing	.73	.08	.51	9.21	.00
	R=.51, R^2= .26	F=84.84	p=.00			
Idea Generation and Realization	Stable	2.14	.27		7.85	.00
	Knowledge Sharing	.55	.07	.47	8.30	.00
	R=.47, R2= .22	F=68.95	p=.00			
Idea Promotion	Stable	2.02	.40		5.09	.00
	Knowledge Sharing	.51	.09	.36	5.98	.00
	R=.36, R2= .13	F=35.76	p=.00			

The data in Table 9 show that innovative work behavior positively affects knowledge sharing significantly (β= .51, t= 9.21, p<.001) and explains it by 26%. In the research, the idea generation and application sub-dimension positively affected knowledge sharing significantly (β= .47, t= 8.30, p<.001) and explained it at a rate of 22%. In addition, the sub-dimension of supporting the idea had a significant positive effect on knowledge sharing (β= .36, t= 5.98, p<.001) and explained it by 13%.

DISCUSSION & CONCLUSION

Special education environments are perhaps one of the educational environments where knowledge sharing should be experienced most intensely. The developmental characteristics and needs of children with special needs studying in these educational environments, which are compatible with their inadequacies, naturally make it inevitable for teachers working with children with special needs to share information. Moreover, the changing dynamic structure of special education requires constant information and knowledge sharing in this context. For this reason, it is thought that knowledge sharing is an important variable that supports innovation in special education environments.

This research aimed to examine the effect of knowledge-sharing processes of special education teachers working in private education institutions on innovative work behavior. When the literature is examined, many studies examine knowledge sharing and innovative work behavior together with various variables (eg, motivation). However, no research has been found that directly examines the effect of knowledge sharing on teachers' innovative work behaviors, and the research conducted with teachers based on this research is limited (Dokuz, 2023; Lecat et al., 2018; Töre, 2019; Tura & Akbaşlı, 2021). For this reason, it is thought that the possible results of the research will contribute to the literature.

In the study, the participating teachers participated in the Innovative Work Behavior sub-dimensions of "generating and implementing the idea" and "supporting the idea" at a very high level (x=4.27), and again at a very high level (x=4.38) in Sharing Knowledge. The mean scores of the Innovative Work Behavior Scale and the Knowledge Sharing Scale did not differ significantly according to the gender of the teachers, the educational status of the teachers, and the type of the teachers' institution. However, teachers working in private education institutions are willing to share innovative work attitudes and knowledge. When the relevant literature is reviewed, the number of studies examining the effect of teachers' knowledge sharing on innovative work behaviors is limited. This finding of the study coincides with the results of other studies in the literature. For example, in studies conducted on teachers' innovative work behavior levels in general education environments teachers' innovative work behavior levels were very high (Töre, 2019; Bodur, 2019; Aslaner, 2010; Uzun, 2022). In different studies, a significant difference was found between knowledge sharing between intellectual capital and school type and seniority variables and school type gender and seniority variables. On the other hand, there was no significant difference between intellectual capital and gender and branch variables (Başar et al., 2014; Güngör and Celep,

2016). It is thought that the reason why knowledge sharing differs in different studies based on demographic variables such as completed school, gender, and seniority year may be due to the differences in the professions and the work environment in which that profession is practiced. For this reason, the fact that knowledge sharing did not make a statistically significant difference based on demographic variables in the study can be explained by the fact that the teaching profession supports knowledge sharing.

The mean score of the innovative work behavior idea generation and application sub-dimension differs significantly according to the seniority of the teachers. In the Idea Generation and Implementation sub-dimension, the average score of teachers with 11-15 years of professional seniority was significantly higher than the average of teachers with 0-5 years of professional seniority. The average score of Knowledge Sharing of teachers with a professional seniority of 16 years and above was significantly higher than the mean score of teachers with a professional seniority of 0-5 years. As the professional seniority of the teachers increases, knowledge sharing increases. This finding of the study can be explained by the increase in knowledge sharing due to professional seniority, the greater professional experience of teachers, and their assimilation of the corporate culture. In Bakioğlu's (1996) study on the career stages of teachers, 1-5 years of professional seniority is in the "career entry phase", and 6-10 years of professional seniority is "stopping". 11-15 years of professional seniority is "experimentation," 16-20 years are professional seniority is defined as "expertise" and 21 years or more is defined as "calm". The Career Entry Phase is the period when the teacher starts his/her career, and the teacher develops his/her vision by criticizing his/her social reality and his/her work. When the experimentation phase is considered from the point of view of the life cycle of the teachers, this phase is a period in which a high level of physical and mental ability is achieved, and in the expertise phase, professional competence increases. In this context, teachers who are new to the profession do not have sufficient experience in developing innovative work behavior and knowledge-sharing skills. In addition, teachers who have just started their profession can benefit from experienced teachers in sharing knowledge and developing innovative work behaviors. The results of the research show that professional seniority is one of the determining variables in the increase of knowledge sharing and innovative work behaviors.

In the research, innovative work behavior affects knowledge sharing, idea generation, and application sub-dimension positively affects knowledge sharing, and the idea support sub-dimension positively affects knowledge sharing. Therefore, for teachers working in special education environments to share more information, it is necessary to take measures to prevent the disadvantage of low professional seniority. Especially to develop innovative work behavior, it is necessary to differentiate the bureaucratic structures of the schools, to adopt and effectively implement effective leadership practices, and to experience innovative practices in the education process of teachers (Töre, 2019). In addition, teachers are expected to exhibit a participatory, encouraging, tolerant, and supportive approach by being aware of the roles and responsibilities of school administrators, and to lead the creation of an innovative school culture (Uzun, 2022). Teachers who tend to innovate in institutions should be supported (Kıroğlu & Albayrak, 2017). In addition, in-house in-service studies should be carried out periodically to increase knowledge sharing. Characteristics of children with special needs and the complex nature of disability can support knowledge sharing through case reports and create a basis for the emergence of innovative behaviors to solve potential problems.

Special education teachers constantly need up-to-date information to meet student's needs and learning needs. As an innovative work behavior, teachers can develop the skills to search for information, access resources, and share this information with colleagues. The Internet and other technological tools offer great opportunities for easy access and sharing of information. For this reason, special education teachers must facilitate access to information to meet the needs of children with special needs. In addition, working with children with special needs means collaborating with many people. Special education teachers are in frequent contact with other teachers, experts, families, and other stakeholders. As an innovative work behavior, teachers can share knowledge by communicating effectively. For this reason, special education teachers need to share information by increasing their cooperation with other people in the life of the child with special needs. In this context, communication technologies and social media platforms should be considered as facilitating factors for cooperation and knowledge sharing among teachers. Therefore, knowledge sharing can enable special education teachers to discover innovative teaching methods, tools, and resources. Moreover, knowledge sharing enables teachers to share new approaches, technologies, and best practices. Thus, it may be possible for innovative applications to become widespread and reach a wider area of influence.

It is important for teachers to constantly improve themselves and stay up to date, and knowledge sharing enables teachers to learn from colleagues, experts, and researchers. This provides teachers with the opportunity to develop their professional skills, gain new ideas and contribute to the continuous learning process. Knowledge

sharing helps teachers develop their innovation and creativity skills. In particular, sharing the latest information in the literature can offer teachers new ideas and perspectives, and this will allow teachers to re-evaluate existing methods and develop more effective and innovative approaches. In addition, networks and communities established among teachers should be considered an important part of knowledge sharing. For this reason, special education teachers should be in regular contact with their colleagues, share their experiences, and solve problems together. These communities encourage the emergence of innovative ideas and enable teachers to learn from each other. In addition, knowledge sharing will contribute to the development of innovative practices aimed at increasing the education quality of students. By experimenting with different methods, teachers can improve student's learning outcomes and provide better support to students at risk of failure.

As a result, knowledge sharing stands out as a fundamental element of innovative work behaviors for special education teachers. This supports teachers' efforts to increase continuous learning, collaboration, innovation, and student achievement. Thanks to knowledge sharing, teachers can follow the developments in the sector, share their knowledge and experiences, and serve their students more effectively. Knowledge sharing enables teachers to learn from each other and share best practices in the process

Limitations

Conducting this research with special education teachers can be considered as the only limitation of the research.

Statements of Publication Ethics

Ethical permission was obtained from the ethics committee of Çanakkale On Sekiz Mart University with the decision dated March 3, 2022, and numbered 05/29.

Researchers' Contribution Rate

The authors collaboratively worked on each part of this study. Author contributions are shown in the table below.

Authors	Literature review	Method	Data Collection	Data Analysis	Results	Conclusion
Sinan Kalkan	☒	☒	☒	☒	☒	☒
Hasan Hüseyin Selvi	☒	☐	☒	☒	☒	☒

Conflict of Interest

The authors state that they have no conflicts of interest. All co-authors have reviewed and approved the manuscript's contents, and there are no conflicting financial interests to disclose. We confirm that the submission is original and is not currently under consideration by another publisher

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