



What Do We Know About Social and Emotional Learning? A Review and Bibliometric Analysis of International and National Studies

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Abstract

The aim of this study is to investigate recent trends in Social and Emotional Learning (SEL) studies. For this purpose, 321 studies conducted around the world between 1997 and 2020, and 85 studies conducted in Turkey between 2004 and 2020 were investigated. In this study, data were analyzed by document analysis and bibliometric analysis. According to the results, studies have been conducted mostly in the USA around the world, and most of the studies have been held in the fields of education and psychology between 2018 and 2020. In addition, the terms of "practice", "emotional intelligence" and "academic success" were used mostly as keywords. As for the research studies held in Turkey, the literature indicates that most of these studies have been conducted in the fields of educational sciences, guidance and psychological counseling between 2018 and 2020 ,and relational screening model was usually used and the participants were mostly chosen from secondary school students. Moreover, the relationships between social and emotional learning skills and demographic variables were generally examined in relevant publications. All the results obtained from this research were evaluated on the basis of general trends and differences in studies on SEL. Building upon the findings of this research, suggestions for future research were presented.

Keywords: Social and emotional learning, Turkey, review, bibliometric analysis.

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Sosyal ve Duygusal Öğrenme Hakkında Ne Biliyoruz? Uluslararası ve Ulusal Çalışmaların Gözden Geçirilmesi ve Bibliyometrik Analizi

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Öz

Bu araştırmada Sosyal ve Duygusal Öğrenme (SDÖ) ile ilgili yapılan araştırmalardaki mevcut eğilimlerin incelenmesi amaçlanmıştır. Bu amaçla, 1997-2020 yılları arasında dünya genelinde yapılan 321 araştırma ve 2004-2020 yılları arasında Türkiye’de yapılan 85 araştırma incelenmiştir. Araştırmada veriler doküman analizi ve bibliyometrik analiz yöntemleriyle çözümlenmiştir. Araştırmadan elde edilen sonuçlara göre, dünya genelinde yapılan araştırmalar en fazla ABD’de, genellikle eğitim ve psikoloji alanlarında, çoğunluğu 2018-2020 yılları arasında yapılmıştır. Bununla birlikte, ilgili yayınlarda anahtar kelime olarak en çok “uygulama”, “duygusal zekâ” ve “akademik başarı” kavramları kullanılmıştır. Türkiye’de yapılan araştırmalarda ise, çalışmaların çoğunluğu 2018-2020 yılları arasında, en çok eğitim bilimleri, rehberlik ve psikolojik danışmanlık alanlarında yapılmış, genellikle yöntem olarak ilişkisel tarama modeli kullanılmış ve katılımcı olarak çoğunlukla ortaokul öğrencileri yer almıştır. Bununla birlikte, ilgili yayınlarda genellikle sosyal ve duygusal öğrenme becerileri ile demografik değişkenler arasındaki ilişkiler incelenmiştir. Araştırmadan elde edilen tüm sonuçlar SDÖ ile ilgili araştırmalardaki genel eğilim ve farklılıklar temelinde değerlendirilmiş, gelecekte yapılacak araştırmalara yönelik öneriler sunulmuştur.

Anahtar kelimeler: Sosyal ve duygusal öğrenme, Türkiye, derleme, bibliyometrik analiz.

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1. Introduction

One of the main purposes of education is to provide students with the life skills they need in physical, cognitive, social and emotional areas. Therefore, the only gain to be achieved through education is not academic competence, but also it is the development of social relations with biological and emotional progress (Elias et al., 2003). Although this is the theoretically ideal situation, a different picture is encountered in practice. The excessive emphasis on academic success, seen as the most important element to shape the future lives of students, has left social and emotional development in the second place (Elias et al., 1997). Considering the previous practices, it has been observed that although educators adopted the importance of social and emotional development, they paid more attention to develop academic competence of the students due to the academically oriented school curriculum (Lopes & Salovey, 2004).

Changes in the traditional family structure caused by industrialization and modernization have led to inadequacies in learning the vital skills that children will acquire from their relatives, especially their parents and the current expectations in the family have forced students to improve their academic success more. Studies have shown that students experience an increase in problem areas as well as academic achievements. (Elias et al., 1997; Payton et al., 2000; Schaps, 2010; Weissberg et al., 2013). Negative situations such as drug abuse, violence, school drop-out, adolescent pregnancy observed in schools in developed countries have prompted educators to seek solutions, and this increase in problematic behaviors in the information society has become a matter of curiosity (CASEL, 2003). The source of increasing social problems in many countries has been examined, and the deficiencies in education and training have been discussed in detail. It was investigated why individuals had difficulties in dealing with life problems despite academic development, and the lack of SEL competencies was ascertained to be an effective factor (Lopes & Salovey, 2004).

The researchers described social and emotional competencies as "missing piece" for many educational approaches that focus on a goal that is quite difficult to achieve, such as "success for all" and claimed that any education system that does not take into account these priority characteristics cannot be effective in educating healthy citizens (Elias et al., 1997). In 1994, a conference was organized by the Fetzer Institute to determine the developmental, educational, psychological and general health needs of student conceptual foundation of SEL skills were laid at this conference (Elbertson et al., 2010). In the years corresponding to the same period, "*Collaborative for Academic, Social and Emotional Learning*" (CASEL) was established to develop SEL competencies and transform its scientific findings into effective school-based practices used around the world (Baron, 2013). CASEL has been instrumental in producing and scientifically testing programs that will systematically gain social and emotional competencies in all educational levels from pre-school to the end of high school since its inception, and has played an extremely important role in conceptualizing of SEL competencies (Macklem, 2014). In 1997, the CASEL team compiled more than a thousand evidence-based school-based prevention and intervention services in the USA, analyzed the content, and gathered skills in five basic competencies sets that both reduce undesired behaviors in students and increase academic achievement (Elias & Weissberg, 2000). SEL is centered on five core competencies are self-awareness, self-management, responsible decision-making, relationship skills and social awareness (CASEL, 2015).

From five basic competencies, the following definitions can be made about SEL. SEL are competencies that provide an individual to realize own emotions, manage own emotions, to take other people's feelings into consideration, to make informed decisions, to be aware of own behavior and to be aware of the responsibility of own behavior (Zins & Elias, 2007). Different approaches are used in the acquisition of SEL competencies (CASEL, 2015). Some of the implemented programs handle social and emotional learning competencies directly, while others handle indirectly with programs such as character education, drug abuse and violence prevention

(Zins et al., 2004). Research shows that approaches focused on improving social and emotional competencies have a longer-term effect than approaches that focus on directly reducing negative outcomes (Catalano et al., 2004; Durlak et al., 2011). Another approach in terms of implemented programs is the creation of safe, warm and participatory learning environments aimed at increasing school engagement, motivation and academic success in students (Zins et al., 2004). Looking at studies based on this approach, it is seen that teacher-student interactions and learning environment characteristics are two important determinants of academic success and socialization (Mashburn & Pianta, 2006).

Studies on the approaches implemented show that SEL competencies improved students' academic achievements (Barbara, 2004; Cohen, 2006; Denham & Brown, 2010; Greenberg, 2004; Zins & Elias, 2007), developed levels of psychological well-being (Brant, 1999), empathy (Schonert-Reichl et al., 2012) and made the class-school climate more interesting (Cohen, 1999; Greenberg et al., 2003; Linares et al., 2005; Lopes & Salovey, 2004). Similarly, SEL competencies were seen to reduce severity and bullying (Elias & Brune-Butler, 1999; Kozina, 2018) and to be an effective protective factor in preventing risky behaviors such as school drop-out and drug abuse (CASEL, 2005). It has been determined that it contributes to the development of students' attitudes, behaviors and academic performances (Durlak et al., 2011; Zins et al., 2001) and skills such as collaborative, creativity, communication and critical thinking (Lindsay, 2013). In addition, it has been observed that lack of SEL competencies in children, adolescents and adults causes lack of communication skills, tendency to violence, addiction, adolescent pregnancy, negative conflict resolution styles, sleep problems and psychological disorders (Payton et al., 2000).

Current Study

This study aims to investigate recent trends in Social and Emotional Learning (SEL) studies. Considering the relevant literature on the development of skills, it is seen that SEL is becoming increasingly prevalent as an alternative model of guidance in schools in the United States, while the research studies in Turkey are increasing day by day (Totan, 2014). A great number of studies show that SEL is an increasingly important approach both in practice and in the relevant literature, and highlight the necessity of being an indispensable element of the education system and curriculum (Erkman et al., 2019; Frydenberg et al., 2017; Humphrey, 2013; Jacobs and Struyf, 2013; Weissberg et al., 2013). Therefore, this study aimed to investigate the general trends in research studies held on SEL around the world and in Turkey in order to develop a new perspective for future research, contribute to the future research investigations to be more original and innovative, and provide a descriptive framework for the researchers. In response to this main purpose, the current study sought to answer the following questions:

- What is the distribution of studies on SEL around the world according to the countries, the years of publication, the research fields, key terms, countries, organizations and authors referred to?
- What is the distribution of studies on SEL in Turkey according to the years of publication, the study types, the research fields, the participants and the variables used?

2. Method

Document analysis has been used in this study. Document analysis is a research method in which both printed and electronic materials are systematically analyzed to obtain empirical information and meaning about a phenomenon (Corbin & Strauss, 2015). The study group of this research consists of 85 studies (36 postgraduate theses published in the "YOK National Thesis Center" and 49 articles published in the databases "Web of Science", "EBSCOhost", "Google Scholar" and "ULAKBIM") in Turkey between 2004 and 2020, and 321 studies (published in the "Web of Science" database) around the world between 1997 and 2020 (June 6, 2020).

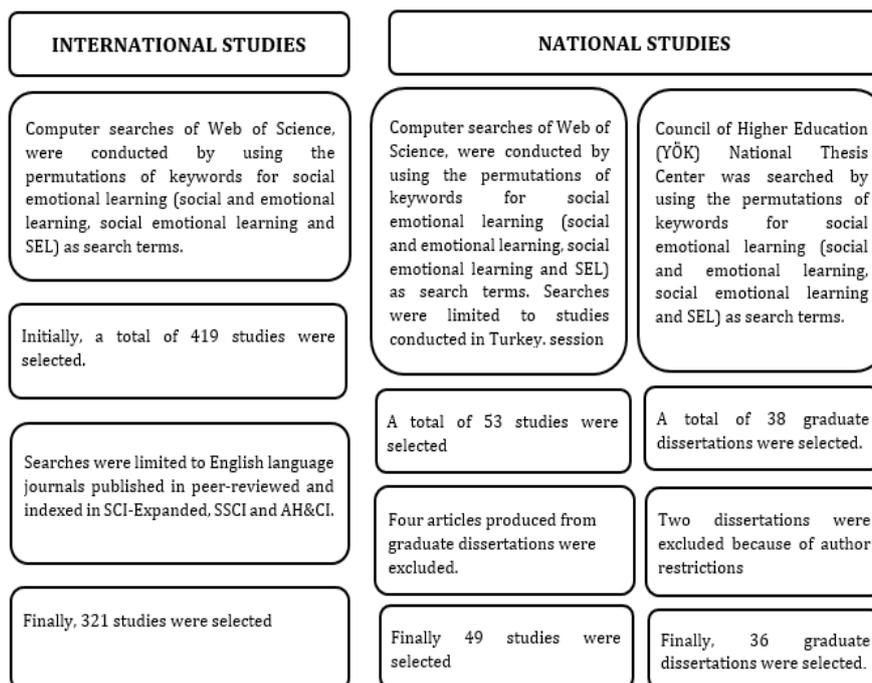


Figure 1. Study group selection process

2.1. Data Analysis

In order to search for studies conducted in Turkey, "YÖK National Thesis Center" for postgraduate theses and "Web of Science", "EBSCOhost", "Google Scholar" and "ULAKBIM" databases were used for articles. To access related studies, "social emotional learning", "social and emotional learning", "social-emotional learning" and "SEL" keywords were used in the databases. A coding procedure was applied to examine the studies' substantive characteristics at this phase. Therefore, a 9-column coding file (including 24-items) was created to identify variables related to publication year, author name, publication type, research design, research area, outcome variables, measurement, participant types and educational grade. To access research on SEL around the world, online inquire was made in the "Web of Science" database using the following keyword group:

TI= ("social and emotional learning" OR "social emotional learning" OR "social-emotional learning" OR "SEL") Time span=All years, Documents= Article, Indexes=SCI-EXPANDED, SSCI, A&HCI

The studies obtained from the databases were encoded and transferred to the computer environment. The analysis of the transferred studies was conducted taking into account the evaluation criteria prepared by the researchers. The bibliometric details of the papers were exported into an Excel spreadsheet for analysis. This table includes the publication year, author details, research area, journal title, article title, keywords, and country. To analyze the data, document analysis was applied for the studies in Turkey and bibliometric network analysis was used for the studies around the world. Document analysis is a research method in which both printed and electronic materials are systematically analyzed to obtain empirical information and meaning about a phenomenon (Corbin & Strauss, 2015). Bibliometric analysis is a type of document analysis method used to analyze relevant literature using mathematical and statistical approaches (Zou et al., 2018). VOSviewer (Version 1.6.14) package program was used for bibliometric analysis. VOSviewer is a computer program used to create and view bibliometric network maps (van Eck & Waltman, 2009).

3. Results

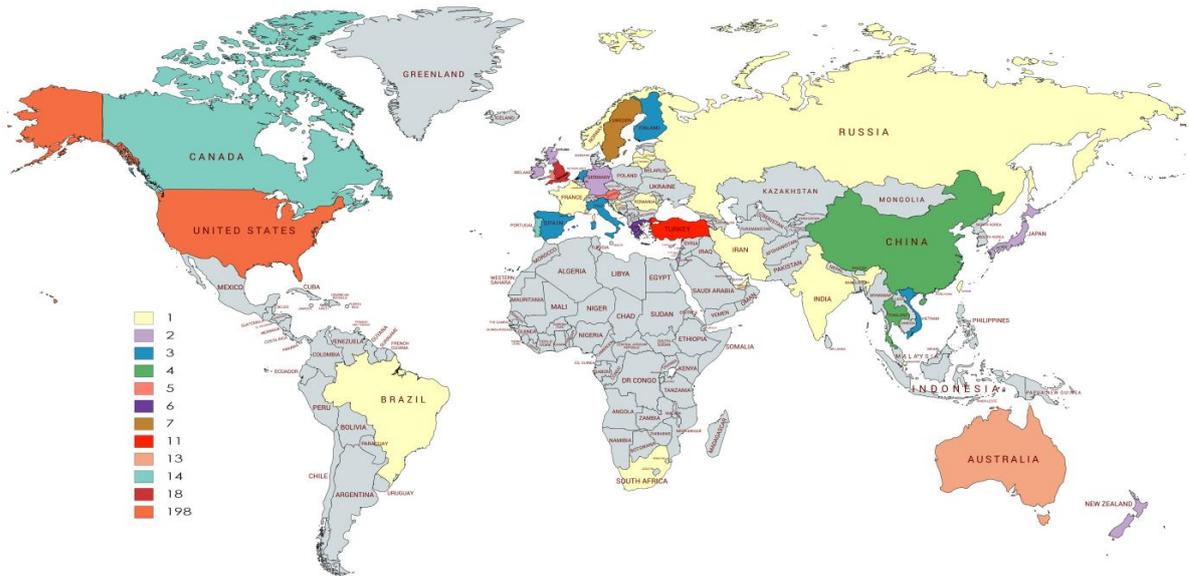


Figure 2. The distribution of SEL research studies by country

According to Figure 2, the related studies on SEL in the "WoS" database were mostly conducted in The United States ($n=198$). This data is followed by England ($n=18$), Canada ($n=14$) and Portugal ($n=14$) respectively. Turkey ranks sixth around the world in terms of total number of publications and the third in Europe ($n=11$). Considering the total number of publications in the database ($n=321$), the excess number of publications in the United States stands out.

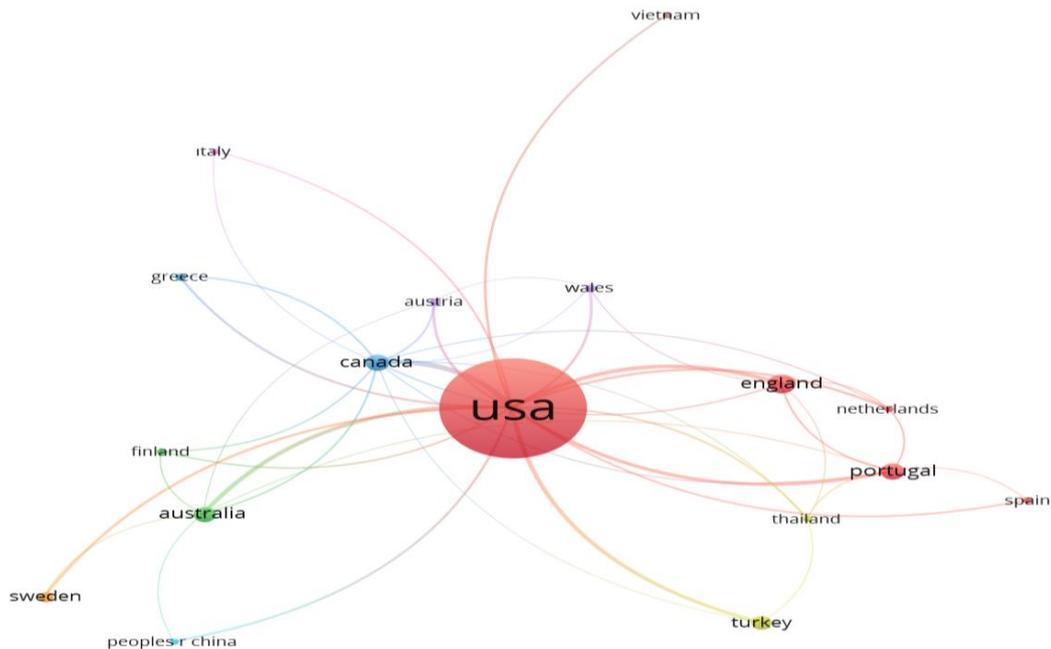


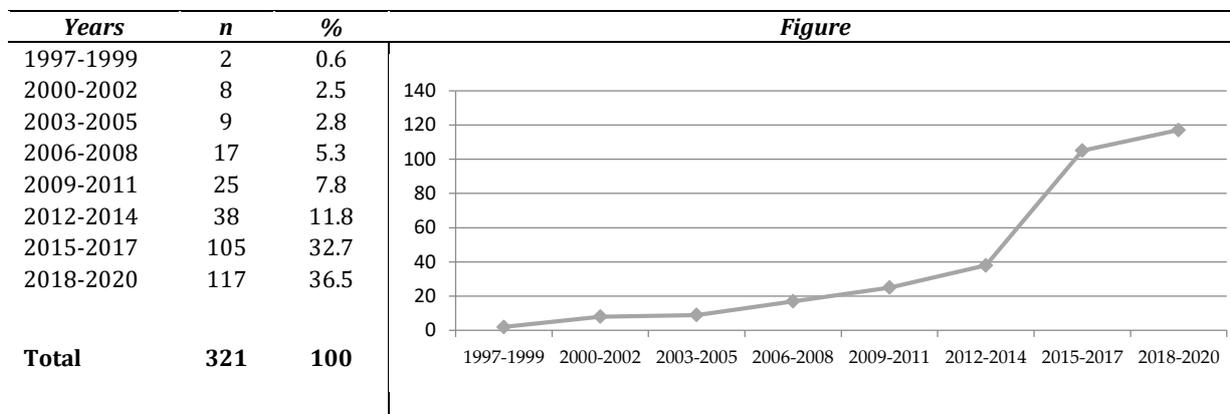
Figure 3. The bibliometric network analysis of most cited countries

In order to create a map based on text data for the most cited countries, citation analysis and countries were selected. Minimum number of occurrences of a keyword was determined as 3 and the number of country to be selected was automatically stated as 17. Figure 3 shows that the most cited countries in which the authors are employed are the USA ($f = 4213$), Canada ($f = 505$), England ($f = 73$), Portugal ($f = 66$), Australia ($f = 43$), Sweden ($f = 43$), Wales ($f = 40$), Netherlands ($f = 24$), China ($f = 24$), Turkey ($f = 21$), Austria ($f = 14$), Greece ($f = 14$), Finland ($f = 11$), Italy ($f =$

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11), Thailand (f = 1), Vietnam (f = 1) and Spain (f = 1). These results mean that studies were mostly cited in the USA.

Table 1. The distribution by Years of SEL related studies in the database WoS



As illustrated in Table 1, totally 321 studies were conducted in the "WoS" database between 1997 and 2020. Moreover; these studies showed a linear slope with the recent increase over time. It has been noticed that research studies were mostly conducted between 2018 and 2020 (n=117, %=36.5%). When all the data in the table is taken into account, it is especially noticeable that there has been a significant increase in the research on SEL in 2015 and afterwards (n=222, 69.2%).

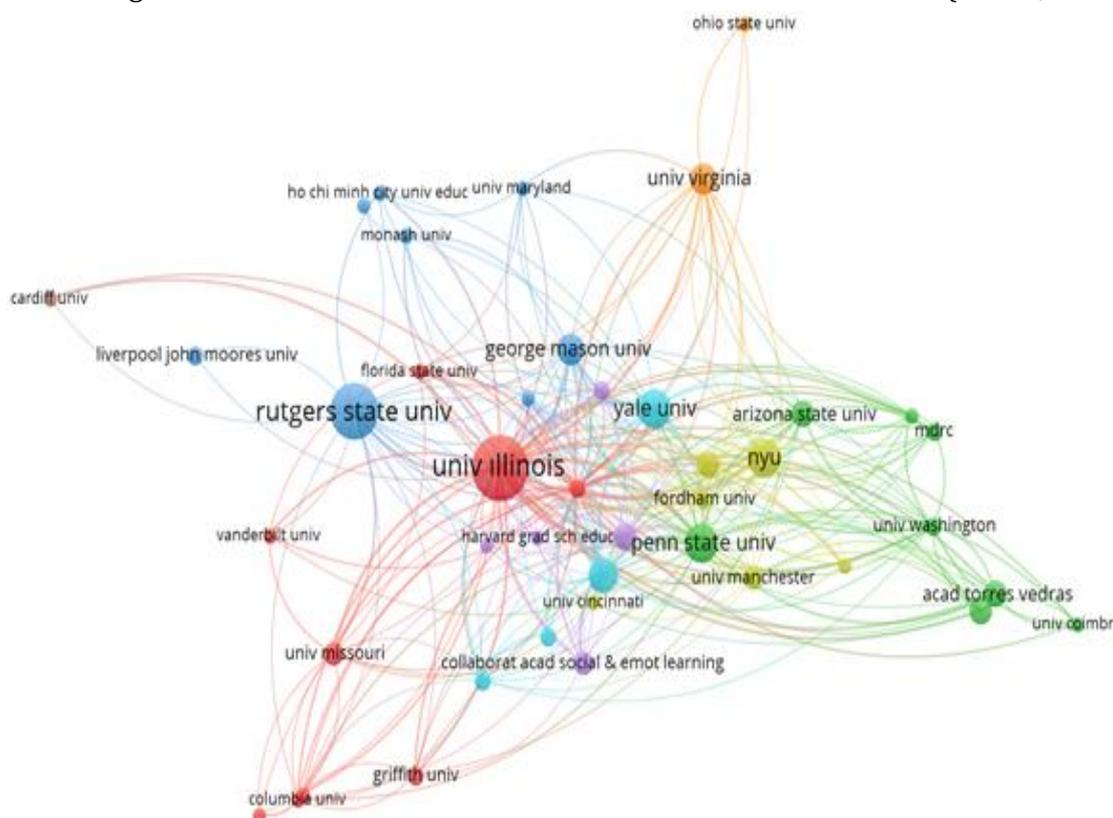


Figure 4. The bibliometric network analysis of the most cited organizations

Citation analysis and organizations were selected to build a map based on text data for the most cited organizations. The minimum occurrence number of a keyword was determined as 3, and the number of organizations to be selected was automatically specified as 45. The Figure 4 shows the first five organizations cited by the authors are Univ Illinois (f = 2450), Loyola Univ (f = 2029),

Univ British Columbia (f = 449), Rutgers State Univ (f = 327) and Penn State Univ (f=316). These results mean that studies were mostly cited from Univ Illinois.

Table 2. The distribution of studies by research area

<i>Research Area</i>	<i>n</i>	<i>Research Area</i>	<i>n</i>
Education	151	Area Studies	1
Psychology	147	Environmental Sciences Ecology	1
Public Health	16	General Internal Medicine	1
Social Sciences (Other)	16	Criminology Penology	1
Family Studies	13	Linguistic	1
Health Care Sciences	13	Math. Methods in Social Sciences	1
Social Work	9	Medical Ethics	1
Pediatrics	6	Music	1
Business Economics	5	Neurology	1
Nursing	5	Physiology	1
Psychiatry	5	Public Administration	1
Behavioral Sciences	4	Religion	1
Rehabilitation	4	Sociology	1
Computer Science	3	Sport Sciences	1
Government Law	3		

According to the Table 2, the studies on SEL were mostly carried out in the fields of Education (n = 151) and Psychology (n = 147), and followed by Public Health (n = 16) and Social Sciences (n = 16) respectively. When other data in the table are analyzed, it can be seen that relatively a small number of studies on SEL have been carried out in different fields such as Business, Rehabilitation, Physiology, Sports Sciences and Neurology.

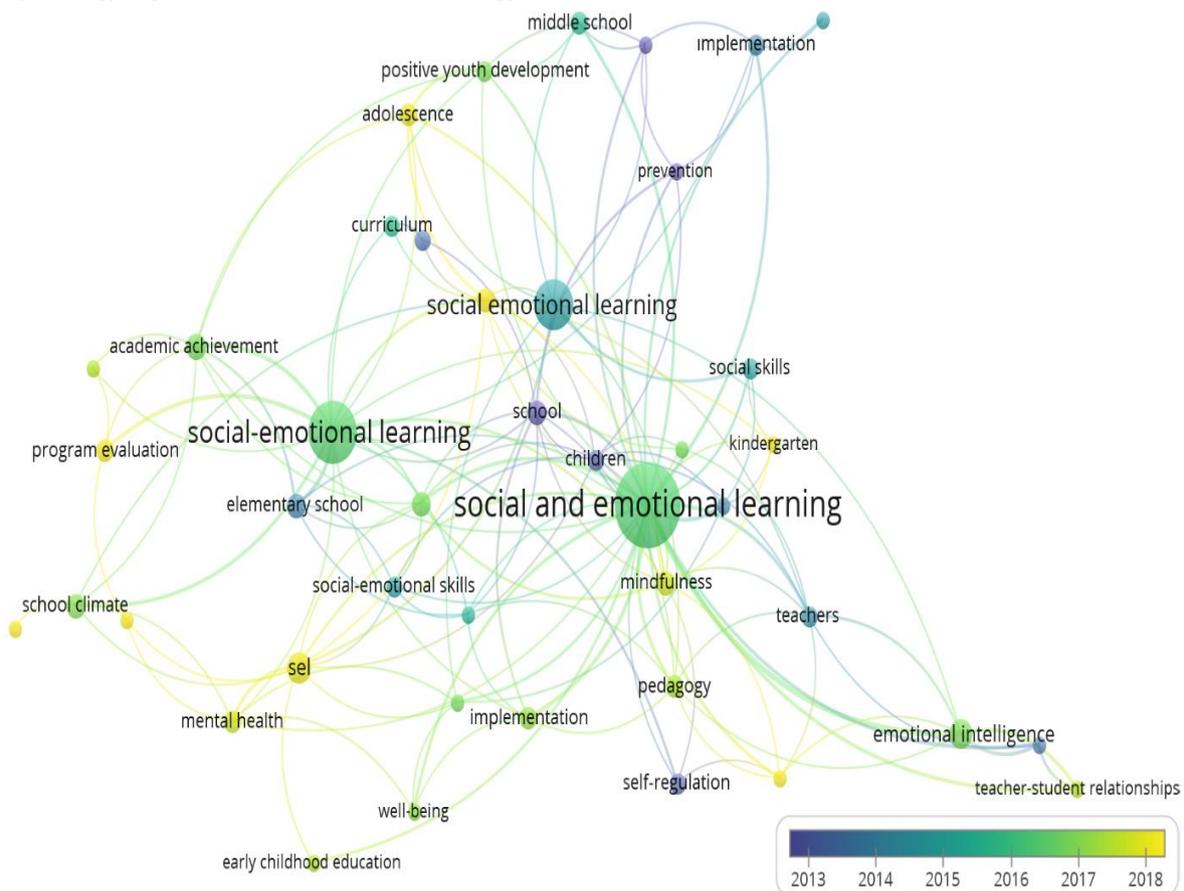


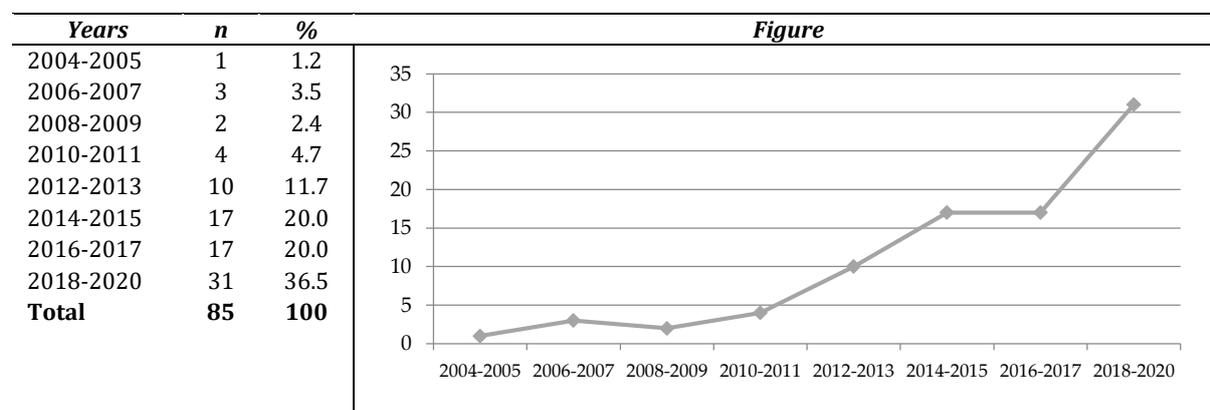
Figure 5. The bibliometric network analysis of keywords

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In order to build a map based on text data for the most-used keywords, co-occurrence analysis and author keywords were selected together. The minimum occurrence number of a keyword was determined as 3 and the number of keywords to be selected was automatically specified as 43. Each color in the figure corresponds to a different cluster and the circles correspond the frequency of usage in the publications according to the size of the circles. The network to which the circles are connected matches the concepts used to associate, and the colors specified in the scale correspond to the intensity of use of the concepts in time.

According to Figure 5, practice, emotional intelligence, academic achievement, intervention, mindfulness, school, education, primary school, school climate, pedagogy, adolescents, mental health, program evaluation, middle school, child, teachers, positive youth development, social skills, social-emotional skills, self-regulation, curriculum, perception, early childhood, teacher-student relationships, behavior, development, prevention, school-based intervention, well-being, preschool, early childhood education and meta-analysis are the keywords that are seen in the research studies in the "WoS" database based on the keyword density. According to this, keywords such as practice, intervention, program evaluation, curriculum, prevention, school-based intervention and early childhood education can be interpreted that practical-oriented researches are relatively more. Keywords such as emotional intelligence, academic achievement, mindfulness, school climate, positive youth development, social and emotional skills, self-regulation and well-being can be considered as variables that are frequently associated with SEL. Keywords such as preschool, primary school, middle school, adolescent, school, child, early childhood, education, teacher and teacher-student relations can be interpreted as SEL is frequently used in the field of educational research and the related student groups. According to the scale in the Figure 5, keywords such as adolescents, early childhood, preschool, mindfulness, mental health, school, program evaluation, early childhood education, teacher-student relationships, positive youth development, well-being, academic achievement and meta-analysis can be considered as concepts that are extensively used in recent studies.

Table 3. The distribution of SEL-related Studies Conducted in Turkey by years



Considering the data in Table 3, totally 85 studies on SEL were carried out in Turkey between 2004 and 2020. It is seen that these studies have shown a linear slope over time with the recent increase and the most of the studies were conducted especially between 2018 and 2020 (n = 31, % = 36.5).

Table 4. The distribution by research design of research on SEL in Turkey

		<i>Research Type</i>	<i>n</i>	<i>%</i>	
Research-Examination	Quantitative	Correlational	33	38.8	
		Descriptive	13	15.3	
		Experimental	11	12.9	
			<i>Sub-total</i>	57	67.0
	Qualitative		10	11.7	
	Mixed		5	5.9	
Scale Development		3	3.6		
Scale Adaptation		4	4.7		
Theoretical Review	Review		6	7.1	
	Total		85	100	

As shown in Table 4, 67% of the studies on SEL in Turkey have conducted quantitative research (38.8% correlational, 15.3% descriptive, 12.09% experimental) while 11.7% qualitative, 5.9% mixed, 3.6% scale development and 4.7 scale adaptation have been utilized in terms of research designs of reviewed SEL studies. Accordingly, the most frequently used research designs are correlational, descriptive and experimental ones.

Table 5. The participants of research studies on SEL in Turkey

<i>Participants</i>		<i>n</i>
Students	Preschool	3
	Primary School	11
	Middle School	34
	High School	7
	College	12
Teachers		7
Parents		1
Gifted and Talented		3
Single Parent Families		1
Homeless Children		1
Convicted		1
Athletes		1
Academicians		1
Adult		1

As seen in Table 5, the researchers in Turkey have generally studied with students (n=67), teacher (n=7), gifted and talented students (n=3), parent (n=1), single parent families (n=1), homeless children (n=1), convicted (n=1), athletes (n=1), academician (n=1) and adult (n=1). As for the student groups, it is seen that the sample groups consist of pre-school (n=3), primary school (n=11), middle school (n=34), high school (n=7) and college students (n=12). This finding also indicates that the researchers seem to study with more middle school, college and primary school students than the other sample groups. Apart from student sample groups, it is also seen that the researchers frequently have conducted SEL studies with teachers, whereas relatively few special groups such as gifted and talented students, single-parent families, homeless children etc., have been selected as participants in the studies.

Table 6. The distribution by fields of graduate theses on SEL in Turkey

<i>Theses</i>		<i>n</i>	<i>%</i>			
Institute	Educational Sciences	18	50.0			
	Science and Tech.	1	2.8			
	Graduate Studies	1	2.8			
	Health Sciences	2	5.6			
	Social Sciences	14	38.8			
	Total	36	100			
Department	Clinical Psychology	1	2.8	Physical Education and Sports	2	5.6
	Curriculum and Instruction	3	8.1	Physics Education	1	2.8
	Early Childhood Education	2	5.6	Primary School Teaching	2	5.6
	Educational Adm. Supervision	2	5.6	Psychiatric-Mental Health Nursing	1	2.8
	Educational Sciences	2	5.6	Psychological Counseling G	11	30.5
	English Language Teaching	1	2.8	Psychology	4	11.0
	Family Counseling	1	2.8	Public Relations and Publicity	1	2.8
	Lifelong Learning	1	2.8	Social Sciences	1	2.8

As seen in Table 6, the studies on SEL in Turkey were mostly conducted in the Institutes of Educational Sciences (n = 18, 50%), and in the Department of Guidance and Psychological Counseling (n = 11, 30.5%). These data are followed by Social Sciences Institute (n = 14, 38.8%) and Health Sciences Institute (n = 2, 5.6%) among institutes. In addition, they are followed by Psychology (n = 4, 11%) and Curriculum and Instruction (n = 3, 8.1%) among disciplines.

Table 7. The variables of research on SEL in Turkey

Variables	n	Variables	n
Demographic	14	Empathic Tendency	1
Self-Regulation	3	Early Learning Skills	1
Hope	3	Facebook Addiction	1
Parental Attitudes	2	Task Articulation	1
Emotional Intelligent	2	Vocational Self-Esteem	1
Education Distress	2	School Engagement	1
Critical Thinking	2	Attitude Towards School	1
Self-Efficacy	2	Psychological Resilience	1
Social Support	2	Positive Social Behavior	1
Life Satisfaction	2	Social Relationship	1
Bullying	2	Mindfulness	1
Academic Branch S.	1	Loneliness	1
Peer Relationships	1	Lifelong Learning	1
Attachment Styles	1	Theory of Mind	1
Self-Esteem	1	Mental Symptoms	1
Courage	1	Mental Ability	1

According to the data in Table 7, it has been noticed that demographic variables have been generally used in postgraduate theses on SEL. In addition, self-regulation, hope, parental attitudes, emotional intelligence, education distress, critical thinking, self-efficacy, social support, life satisfaction, bullying, academic branch satisfaction, peer relationships, attachment styles, self-esteem, courage, empathic tendency, early learning skills, facebook addiction, task articulation, vocational self-esteem, school engagement, attitude towards school, psychological resilience, positive social behavior, social relationship, mindfulness, loneliness, lifelong learning, theory of mind, mental illness, mental symptoms and mental ability variables are also included in the reviewed studies on SEL.

4. Discussion and Conclusion

According to the publications in the "WoS" database, the country with the highest number of research studies on SEL worldwide is the USA. Turkey is the sixth in the world and the third in Europe in terms of the number of publications (Figure 2). Considering the publications around the world, the United States stands out with the highest number of publications. Similarly, the United States is the most cited country in which the authors are employed in studies (Figure 3). This result is thought to be due to the fact that the USA is the country where SEL is conceptualized, the existence of organizations such as Illinois University and CASEL and the high number of the researchers working on this subject. Given the research studies in the database, nearly 25% of 321 studies held in University of Illinois (68) and CASEL (14) supports this idea.

Illinois is the first state in the United States to build a framework for social and emotional competencies and develop SEL standards. Approximately 60% of schools in this state apply a specific SEL curriculum. University of Illinois is also the organization with the most cited publications on SEL (Figure 4). 50 states have SEL standards across the U.S. (Weissberg et al., 2013) and resources of CASEL are used in 187 countries, including the United States (Weissberg, 2019). While most of the research studies have been conducted in many countries in the United States and Europe, a great deal of research interest in SEL is increasing in other parts of the world. Some programs developed in the United States are successfully implemented in other countries while there are some independent SEL programs implemented in other countries such as England and Australia (Humphrey, 2013). Researchers state that SEL's being a major focus in the USA is due to the efforts of researchers who have developed SEL programs to evaluate the impact of them and to prove that it is superior to other programs. (Frydenberg et al., 2017). Another reason is the increase of violence, drug abuse and other risk behaviors in American schools, which prepares the conceptual emergence of SEL. In particular, the wide-ranging research results, which revealed their contribution to academic success and the development of positive behaviors in the United States, have further increased interest in SEL (Durlak et al., 2011; Taylor et al., 2017; Merrell & Gueldner, 2010).

According to the publications in the "WoS" database, totally 321 studies on SEL were conducted around the world between 1997 and 2020 (Table 1). 85 studies on the SEL were held in Turkey between 2004 and 2020 (Table 3). Regarding the date range of the studies held most frequently, it is seen that research studies were generally conducted both around the world (n=117, 36.5%) and in Turkey (n=31, 36.5%) between 2018 and 2020. This finding also shows that interest in SEL research has vastly increased in Turkey in recent years. Given the conceptual emergence of SEL in the 1990s, the fact that studies' increase in number in Turkey enabled to catch up with the other SEL studies held worldwide seems to support this situation (Table 1 and Table 3).

SEL programs in the USA were implemented regionally in the early 1990s whereas they began to be implemented as evidence-based programs after 2010s. However, despite the large number of school-based programs implemented, no research was conducted on the effectiveness of the programs until the 2000s. School-based programs implemented with CASEL's reports published after the 2000s were evaluated and their effectiveness was investigated (CASEL, 2003; 2013; 2015). According to Humphrey (2013), the needs for the development of SEL, which is a universal subject area that has recently captured the interest of researchers, educators and policy makers, is being noticed in many societies day by day. As in other countries in the world, Turkey has recently focused on improving students' social-emotional learning competencies. Especially, with the constructivist approach applied since 2005, the adoption of student-centered education, and students' social and emotional development are seen other crucial factors that have increased the interest in SEL (Martin, 2012). In support of this idea, a study examining 52 academic studies on SEL in Turkey between 2002 and 2012 (Martin & Alalaci, 2014), found that 25% of the research studies were published until 2007, 36,5% of the researches were published between 2008 and

2012, and 38,5% were published in 2012. This finding also indicates the increasing interest in SEL in recent years.

According to publications in the "WoS" database, studies on SEL were mostly conducted in the fields of Education (n=151) and Psychology (n=147) around the world (Table 2). In Turkey, it is seen that graduate theses about SEL were mostly held by the Institute of Educational Sciences (n=18) and in the Department of Guidance and Psychological Counseling (n=11) (Table 6). Moreover, it has been found out that a relatively small number of research studies in Turkey and around the world has been carried out in different fields such as Business, Rehabilitation, Psychology, Sports Sciences, Neurology, Family Counseling and Education, Nursing and Lifelong Learning. Accordingly, it can be said that studies on SEL are mostly conducted in the fields of education and psychology with other disciplines, as well.

As regards to the studies on SEL, it is seen that a great majority of research has been conducted in various disciplines such as education, developmental psychology, sociology and neurobiology (CASEL, 2013). According to a published report, education (24.3%), positive youth development (14%) and psychology (8.1%) account for more than a third of 136 disciplines in 20 fields of study that cover social and emotional development, including CASEL's widely used skills (Berg et al., 2017). According to the researchers, increase of theoretical knowledge in the field of psychology has also an effect on SEL's increasing importance after the 1990s (Mckenzie, 2004). In addition, it has been stated that psychoeducation and school guidance programs were used as scientific evidence in the conceptualization of SEL competencies created by CASEL (Elias & Weissberg, 2000). Therefore, considering the common theories and techniques of psychological counseling, psychology and social work, it is possible to say that SEL is a common point for these fields. As for the content of SEL competencies, it is seen that it covers the skills intended to be gained in school counseling services. Accordingly, it is possible to evaluate SEL in the field of guidance and especially within the scope of preventive guidance service (Totan, 2014). Therefore, education, psychology and guidance and psychological counseling are the fields in which research studies are mostly conducted because of the content of SEL competencies.

With regard to the publications in the "WoS" database, the following keywords have been most commonly used in the studies on SEL around the world, in terms of frequency of usage: implementation, emotional intelligence, academic achievement, intervention, mindfulness, school, education, primary school, school climate, pedagogy, adolescents, mental health, program evaluation, middle school, child, teachers, positive youth development, social skills, social-emotional skills, self-regulation, curriculum, perception, early childhood, teacher-student relationship, childhood, behavioral relationships, school-based intervention, well-being, preschool, social and emotional skills, early childhood education and meta-analysis (Figure 5). Keywords such as practice, intervention, program evaluation, curriculum, prevention, school-based intervention and early childhood education, which are frequently used in research in the "WoS" database, reveal that experimental approach is used more often in research studies. Regarding the relevant data in studies conducted in Turkey, it is seen that the vast majority of the research studies were carried out in quantitative methods, and the most widely used research pattern in the studies was relational screening. The experimental method, qualitative method and mixed method were used less (Table 4). This finding indicates that considerable amounts of experimental research studies have been carried out by the researchers across the world. A growing number of research studies revealing that SEL programs have provided short and long-term improvements in students' behavior and academic achievement seems to support this fact. As regards for SEL studies held in Turkey, two main points are focused by the researchers. In the first point, there are descriptive studies on defining the skills and subcomponents of SEL, and in the second point, there are relational studies that examine the relationship between a skill and another skill or variable. There is a small number of studies that aimed at developing SEL skills and determining the effectiveness of the programs compared to the research studies held with

both focus points and scale development/adaptation studies (Erkman et al., 2019). A study examining SEL research in Turkey has revealed that correlation, ANOVA and regression analyses were generally applied as a statistical analysis in 30 out of 53 research studies. When relevant research studies were examined in terms of method, it was found out that the quantitative research method was most frequently utilized, 7 of them in qualitative and 2 of them in mixed research design were conducted. (Martin & Alalaci, 2014). As regards to another research study focusing on 12 class-based SEL interventions, it is seen that these intervention programs have provided positive gains while a meta-analysis-based research study has not been carried out to assess the impact of intervention programs (Martin, 2012).

Keywords such as emotional intelligence, academic achievement, conscious awareness, school climate, positive youth development, social and emotional skills, self-regulation and well-being, which are used extensively in the studies in the "WoS" database, can also be considered as variables that are frequently associated with SEL. As concerns the studies held in Turkey, it is seen that demographic variables are mostly used in the postgraduate theses on SEL in addition to other variables such as self-regulation, hope, parental attitudes, emotional intelligence, education distress, critical thinking, self-efficacy, social support, life satisfaction, bullying, academic branch satisfaction, peer relationships, attachment styles, self-esteem, courage, empathic tendency, early learning skills, facebook addiction, task articulation, vocational self-esteem, school engagement, attitude towards school, psychological resilience, positive social behavior, social relationship, mindfulness, loneliness, lifelong learning, theory of mind, mental illness, mental symptoms and mental ability variables (Table 7). Four meta-analysis studies involving 452 studies on SEL (Durlak et al., 2011; Sklad et al., 2012; Taylor et al., 2017; Wiglesworth et al., 2016) found out that the terms highlighted in research were academic achievement, positive social behavior, behavioral problems and emotional problems. Consequently, it can be said that similar variables are frequently addressed by the researchers in the studies conducted on SEL both in Turkey and around the world.

Keywords such as kindergarten, primary school, secondary school, adolescents, school, children, early childhood, education, teacher and teacher-student relations, which are used intensively in the studies in the "WoS" database, can be interpreted as SEL is frequently used in the field of education and these student groups. In respect of sample groups selected in SEL studies in Turkey, it seems that researchers generally have studied with middle school students while pre-school, primary school, high school and college students are rarely chosen as participants. On the other hand, the finding indicates that the mostly chosen sample groups other than students are teachers although relatively few special sample groups (gifted students, single parent students, or homeless children etc.) have taken part in the research studies, as well (Table 5).

According to recent research studies on SEL in the "WoS" database, keywords such as adolescents, early childhood, pre-school, positive youth development, well-being, academic success, awareness, mental health, school, program evaluation, teacher-student relationships, early childhood education and meta-analysis take place more often. As can be seen in this finding, as a consequence of most commonly used keywords such as adolescents, preschool and early childhood the researchers seem to have preferred to study more with these sample groups. As for the keywords such as school, teacher-student relationships and early childhood education, experimental research studies take place more often compared to quantitative research methods. Similarly, usage of keywords such as positive youth development, well-being, academic achievement, mindfulness and mental health can be provided as an evidence for SEL is associated closely with positive psychology whereas keywords such as program evaluation and meta-analysis can be referred to that research studies have been generally held to determine the effects of the intervention programs.

Limitations

There are a few limitations of this research. While determining the study group of the research, it was aimed to reach all the studies in the relevant databases; however, two postgraduate theses in the National Thesis Center of the Turkish Council of Higher Education (YÖK) could not be reached due to the author restriction. In addition, four of the research studies conducted in Turkey were excluded from the scope of the research due to the fact that they were converted from postgraduate theses. In order to reach the studies conducted in Turkey, the databases "YÖK National Thesis Center", "Web of Science", "EBSCOhost", "Google Scholar" and "ULAKBIM" were used. With regard to the worldwide research studies on SEL, the "Web of Science" database covering many high-impact journals and providing significant conveniences in obtaining data was utilized. Consequently, the documents obtained in the study are limited to publications in the relevant databases. The terms of "social emotional learning", "social and emotional learning" and "SEL" were typed when searching the databases online. The findings of this study are limited to the use of relevant terms in the title, summary and keywords sections of the reviewed research studies in the literature.

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Etik Beyannamesi

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