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Mapping Out the Methodology of Psychology Research in Turkey

Halis SAKIZ
Assist. Prof., Mardin Artuklu University, Department of Psychology
Yrd. Doç. Dr., Mardin Artuklu Üniversitesi, Psikoloji Bölümü
halissakiz@artuklu.edu.tr
Güldest Baş
Res. Assist., Mardin Artuklu University, Department of Psychology
Arş. Gör., Mardin Artuklu Üniversitesi, Psikoloji Bölümü
guldestbas@gmail.com

Abstract

The aim of this study is to discuss the research literature of psychology in Turkey. The paper consists of two subfields, 'educational psychology' and 'social psychology,' as a case study and focuses on the methodology employed in these researches. 84 research studies (n=44 for educational psychology and n=40 for social psychology) were included within the current study. Findings of the analysis have revealed that (a) the methodological approach was based on quantitative and positivist paradigms in 74 (88.1%) studies, (b) the methodology employed in 53 (63.1%) studies were found to employ a methodology having little connection with the purpose and questions of the research study, (c) the implemented procedure contained cross-sectional data collection in 81 (96.4%) studies, and (d) the sample in 24 (54.5%) studies in the field of educational psychology was located only in one school while the sample in 34 (85%) studies in the field of social psychology was located in one city. Findings of the current study help to shed light on the psychology researches and create awareness in regards to how methodology is utilized in these researches by providing a detailed description of these studies.

 $\textbf{Keywords:} \ Psychology, \ research, \ methodology, \ educational \ psychology, \ social \ psychology$

Türkiye'deki Psikoloji Araştırmalarının Metodolojik Haritasının Çıkarılması

Öz

Bu araştırmanın amacı, Türkiye'de yapılan Psikoloji alanına dair araştırmaların metodolojik incelemesini yapmaktır. Araştırma örneklem olarak Eğitim Psikolojisi (n=44) ve Sosyal Psikoloji (n=40) alanlarından seçilen çalışmaları içermektedir. Araştırma sonucunda (a) incelenen çalışmalardan 74 (%88.1) tanesinin metodolojisinin pozitivist ve nicel paradigmalardan etkilendiği, (b) 53 (%63.1) çalışmada kullanılan metodoloji ve araştırma soruları veya hipotezler arasında zayıf bir ilişki olduğu ve (c) 81 araştırmada (% 96.4) tek bir zaman ve mekanda veri toplandığı ve (d) eğitim psikolojisi alanındaki çalışmalardan 24 (%54.5) tanesinde tek bir okulda bulunan örneklemden, sosyal psikolojisi alanındaki çalışmalardan 34 (%85) tanesinde de tek bir şehirde bulunan örneklemden veri toplandığı tespit edilmiştir. Araştırma bulgular, Psikoloji alanındaki araştırmalar hakkında bilgi vererek bu alanda metodolojinin nasıl kullanılabileceğine dair farkındalık yaratmayı amaçlamaktadır.

Anahtar Kelimeler: Psikoloji, araştırma, metodoloji, eğitim psikolojisi, sosyal psikoloji

Introduction

The purpose of this study is to investigate an under-researched area by shedding light on the methodology of the research carried out in the field of psychology. The researchers have selected studies from Turkey and focused on two sub-fields of psychology: educational psychology and social psychology. The methodological trends followed in these studies are presented descriptively and critically. First, we provide an introduction to social research and methodology as well as the stance of psychology within these phenomena. Second, we present the selection criteria for the studies followed by the results obtained from the analysis. We conclude the paper with a critical discussion of the results.

Social Research and Methodology

Social sciences investigate human beings from various perspectives. They directly explore human life and set a background upon which explanations and conclusions can be based. The background may involve practices within the human and bureaucratic system such as improving public health, enhancing educational effectiveness or understanding one's life. Findings of social research can influence a variety of outcomes, by seeking to answer questions and finding solutions to problems regarding various social phenomena (Neuman, 2007). Instead of relying on traditions, common sense or erroneous observations, social research serves as a reliable tool for thinking scientifically about questions about the social world. Social sciences such as psychology or anthropology usually involve the study of human beings, their thoughts, desires, beliefs, behavior and interactions with and within the ecological system. Using specialized methodologies and techniques and coming up with relevant data after a systematic process based on some scientific rules, those involved in social research justify or reject their preliminary assumptions about various social phenomena.

Methodology is an indispensable tool for conducting social research. It is not a single phenomenon that is used only by the scientific community. On the other hand, methodology refers to the ideas, rules, techniques and approaches utilized by a wide range of audiences including practitioners in various fields. For Lincoln and Guba (2000), methodology is the process which researchers go through in order to obtain the knowledge needed to understand the phenomena under investigation. Methodology involves professionalism, diligence and integrity while it includes openness about how the study is conducted and focuses on the characteristics of the research and not on those of the individuals who conducted the study.

Conducting social research depends on utilizing a robust methodology that helps to find a solution to the problem and answer the research questions. The process of carrying out research differs among researchers. However, there are a number of approaches to conducting social research and



employing methodology. Usually, the steps proposed by Neuman (2007) are common (Figure 1). The beginning of the process involves selection of an issue or topic which is too broad for conducting a specific research study. The next phase requires that the broad topic is narrowed down through specific research questions followed by review of past research or the literature on a topic. At this stage, a possible research question or hypothesis is developed while the theory is very important at this stage. After determining a research question, a detailed plan needs to be developed and practical details of carrying out the research should be determined. Crucial decisions are made such as whether a survey or an interview should be used or how many participants will be selected. After completing the designing phase, the processes of collection and analysis of data begin. These processes help to locate the dominant patterns and give meaning to or interpret the data. Finally, the process includes informing others by writing a report describing the background of the study, the way it was conducted and the findings located.

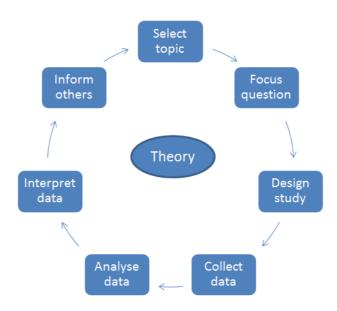


Figure 1. Steps in social research (Adapted from Neuman, 2007)

However, the process shown on Figure 1 and the steps described above are simplified because one rarely completes totally one step and moves on to the next step. In addition, in most research the process is quite interactive because the steps are influenced by and, in fact, blended into each other. The process is therefore not as neat and linear as implied in the figure. Activities performed in one step often stimulate the researchers to re-consider the activities in the previous steps and encourage further thinking on them.



Methodology in Psychology

The philosophical approaches to research methodology were categorized broadly as quantitative or qualitative throughout history. According to Tashakkori and Teddlie (1998), supporters of these approaches within social sciences have engaged in a long lasting dispute or 'paradigm war' to claim superiority over each other. On one side, qualitative researchers claim that, ontologically, the way one constructs reality creates multiple truths or multiple realities and, therefore, reality constantly changes based on the individual and social ways of constructing it (Guba & Lincoln, 1994; Altheide & Johnson, 1994). Epistemologically, qualitative researchers tend to support the idea that our mind is the main tool for having access to reality, and there is not an external criterion by which reality can be compared (Smith, 1983). During research conducted based on the qualitative paradigm, the researcher and the object of study mutually create the reality or findings of the study (Denzin & Lincoln, 1994). This means that reality can be located by investigating between the time the activity of research starts and the time when the reality is no longer searched for (Smith, 1983).

On the other side of the argument, proponents of the quantitative paradigm, ontologically, conceive of reality as a single entity and claim that empirically tested research is the main tool for reducing all phenomena to indicators that represent reality. From an epistemological point of view, the researcher and the object under research are independent entities. Based on this view, it can be claimed that the researcher should be able to study whatever being researched without affecting it or being affected by it; 'inquiry takes place as through a one way mirror' (Guba & Lincoln, 1994, p. 110). The aim of a quantitative research is to investigate causal relationships between variables within a value free framework (Denzin & Lincoln, 1994).

In psychology, according to Michell (2003), the quantitative imperative implies that when research findings cannot be measured one cannot be considered as knowing what they are talking about. However, when outcomes can be quantified researchers can be aware of what they do and therefore, qualitative methods have no place in psychology and on the basis of this imperative, qualitative research methods are still excluded from mainstream psychology. Contrasting positivism with constructivism, which admits qualitative methods; proponents of the qualitative methodology in psychology often argue that the high emphasis on quantitative method within the discipline's mainstream reflects the legacy of positivism (Hammersley, 1995; Rogers, 2000). Indeed, in the middle decades of the last century, positivism dramatically influenced methodological design in psychology and its legacy is still observable (Mertens, 2014; Michell, 2003; Morgan, 2007). As a result, qualitative methods seem to have been summarily neglected based on biased assumptions.

Historically, the association between quantitative methodology and psychology has been strong; psychologists and philosophers were interested in the measurement of psychological qualities in the medieval period as well as in the eighteenth and nineteenth century. When it came to the modern



period, as different from earlier psychological inquiry, the effort to apply the experimental and quantitative methods of physiology and physics to the investigation of mental constructs was dominant (Michell, 2004). Towards the middle of the nineteenth century, there was enough confidence in the quantitative and experimental methods in that they could be extended to other branches, including psychology. This led to the rise of psychological testing and measurement of psychological attributes of people (Michell, 1999).

According to Michell (2004), the face value and success of the quantitative method in psychology results from the view that psychological attributes of people are quantitative and not from the fact that the quantitative method perfectly fits investigation of these properties. From the beginning, psychologists of the twentieth century wanted their discipline to be a quantitative science while this became a reality and opportunity for significant institutions and movements to benefit from. However, questions like 'are psychological attributes actually quantitative?' and 'is measurement an appropriate method for assessing psychological attributes?' are debatable (p. 310). In psychology, according to Michell (2004), many human qualities and attributes of interest are actually experienced as qualitative, not as quantitative. While one attempts to investigate such qualities that are traditionally viewed as quantitative and therefore measurable (e.g., personality traits and social attitudes), observation is the only method used to understand order relations in regards to these attributes, not quantitative relations. A considerable part of the data collected in psychology, such as behavior style or performance on aptitude tests, originally has qualitative character which is rarely viewed as a legitimate data source in its own right.

For the past few decades, proponents of the qualitative methodology have confidently advanced their claims, especially into the disciplines of the human sciences where meaning plays an important role in behavioral processes (Michell, 2004). However, while traditional psychologists cultivate deep suspicion towards qualitative researchers, many qualitative researchers view positivism as their enemy. As a result, a considerable number among from the proponents of qualitative methodology possess myths that conceive of the use of traditional methods in psychology, that is measurement and experimentation, as outdated (McGrath & Johnson, 2003).

Objecting to the strictly polarized view between the quantitative and qualitative methodology in psychology, pragmatism now is seen as a popular philosophical view that acknowledges the value of each paradigm based on their value and usefulness in answering a particular research question. Pragmatism guides usage of qualitative and quantitative methods separately or together (Teddlie & Tashakkori, 2009). Pragmatists view the research question as more important than the method they use or the philosophy that underlies the method. According to this view, finding an answer to the question 'what works?' is important to decide upon the method to use to answer a specific research question (Mertens, 2014). As a



result, the mixed-methods research in psychology that aims to bridge the qualitative and quantitative methodology is getting increasingly popular.

The Current Study

Quantitative, qualitative or mixed-methods research and their associated scientific procedures (e.g., sampling, analysis, and presentation) make the structure of the empirical studies in the field of psychology. Embarking from the views presented above, we consider that the current trends in the methodology used in psychology research need to be described and evaluated from a critical perspective. In this paper we selected the research studies conducted in Turkey as a case and present the outcomes we obtained from the analysis. The main research question was the following:

• What is the methodological tendency within the psychology research studies conducted with samples from Turkey?

Method

Literature Search Procedure

The main activity during this process was to determine the literature to include within the analysis. First, we searched Psych INFO, Tübitak ULAKBİM, Proquest, EBSCO, Academic Search Premier, IEEE, and Google Scholar databases using the following search terms as well as their various combinations through basic and advanced research options: social Turkey, research, education, psychology, educational psychology, psychology, psychology research, and psychological methodology. In addition, we included in the search key terms belonging to the field of social psychology and educational psychology such as learning, development, social cognition, attitudes, and social influence, motivation, learning styles, bullying, adaptation, subjective well-being, life-satisfaction, academic procrastination, acculturation, national identity, values, leadership, migration, intergroup relations, and procrastination. To increase results in the searched terms, we next conducted hand searches in various selected national and international journals with the specific option to include Turkey within the search. Some of these journals were suggested by experts in the field most of whom were colleagues of the researchers, while others were journals known to the researchers. Last, we searched the reference lists of included studies for referrals to other primary research.

Inclusion and Exclusion Criteria

To be included within this study, each study had to meet several criteria. First, the studies had to belong to the fields of educational psychology or social psychology. There were two main reasons for selecting educational and social psychology research studies. First, we came across more studies in the related Turkish literature, leading to richer data. Second, the researchers had degrees in educational and social psychology, making the



study more manageable. We checked whether this criterion was met by reading each paper and making sure that the themes and constructs focused on belonged to each field. As a second to be included within this research, the studies had to be published in a journal. Studies that were awaiting publication were not sought to be included. Third, the studies had to be conducted no later than 2006, which is ten years before the current study was carried out. The main rationale for this was to set an appropriate date to both catch the current trends and reach a sufficient number of researches that we think is already limited in the Turkish context. Fourth, the research context had to be Turkey and the sample had to include participants from Turkey. This helped the researchers to limit the study with Turkey and Turkish sample as Turkey was selected as a case. No other criteria were set because more purposive selection would affect the methodological tendency that we actually wanted to randomize.

Findings

After searching the literature in educational and social psychology conducted with Turkish sample, 84 studies met the criteria and were included within the analysis. The studies that were included within this research belonged to the fields of educational psychology and social psychology.

Journal Characteristics

Characteristics of the journals in which the studies were published are presented in Table 1.

Table 1. Information regarding the journals in which the studies were published.				
	Journals Indexed in Social Science Citation Index (SSCI) (n/%)	Journals Indexed in International Indexes other than SSCI (n/%)	Journals Indexed in National Indexes (n/%)	
Studies in Educational Psychology	5/5.9	15/17.8	24/28.6	
Studies in Social Psychology	3/3.6	14/16.7	23/27.4	
Total	8/9.5	29/34.5	47/56.0	

Table 1 shows that the majority of the studies were published in national journals in Turkey (n=47, 56%). In addition, the majority of the national journals belonged to official institutions such as institutes and faculties of universities. 43 out of 47 studies (91%) published in national journals were indexed in ULAKBİM, a national index managed by the Turkish Scientific and Technical Research Institute. When it comes to the international



journals, these were all indexed either in Social Science Citation Index (SSCI) or other indexes known in the areas of social science, education and psychology.

Study Characteristics

The main findings in this study represent the methodological tendencies of the research carried out in the fields of educational psychology and social psychology. These tendencies are presented in Table 2 for educational psychology and in Table 3 for social psychology. In general, findings of the analysis have revealed that the methodological approach was based on quantitative and positivist paradigms in 74 (%88.1) studies.

To begin with the findings regarding educational psychology research (n=44) (Table 2), it is safe to highlight the dominance of quantitative design over qualitative and mixed-methods research design in that 38 (86.4%) studies were designed with a quantitative paradigm. Within this design, survey research was the first option among researchers (n=35, 92.1%) while experimental research was less preferred (n=3, 7.9%). In all quantitative studies questionnaire was the only data collection method preferred by all researchers (n=38, 100%). As the target group, students constituted the majority within the quantitative research (n=31, 81.6%) while teachers constituted the other part (n=7, 18.4%). The data collection strategy within the quantitative research was mostly cross-sectional (n=35, 92.1%). Second, qualitative design was preferred in 4 (9.1%) studies with 2 (50%) of these studies employing descriptive approach, 4 (100%) employing cross-sectional data collection method and 3 (75%) collecting data from students as the main target group. Third, mixed-methods design was the least preferred (n=2, 4.5%) within the educational psychology research. Of the 2 (100%) studies, 1 (50%) used evaluation research and 1 (50%) used case study as the main approaches. In the entire educational psychology studies, the sample in 24 (54.5%) studies in the field of educational psychology was located only in one school whereas 20 (45.5%) studies collected data from sample located in more than one school.

When it comes to the findings from the methodology in social psychology research (n=40) (Table 3), the dominance of quantitative (n=36, 90%) over qualitative (n=4, 10%) design is apparent. The entire quantitative studies (n=36) included survey research approach (n=36, 100%), questionnaire as the main data collection tool (n=36, 100%) and cross-sectional strategy as the main data collection technique (n=36, 100%). Within the qualitative studies (n=4, 100%), 3 (75%) studies used descriptive approach and 4 (100%) used cross-sectional strategy for data collection. Finally, the sample in 34 (85%) studies in the field of social psychology was located in one city while the sample in 6 (15%) studies was in more than one city.

Table 2. Methodo	Table 2. Methodological tendencies within the Educational Psychology research in Turkey	Educational Psycl	hology research in Tu	rkey			
Design	Scope (n)	Target group (n)	Data analysis strategy (n)	Data collection strategy (n)	Number of participants (n)	Data collection methods (n)	Approach (n)
	1 country (35), 1 city (31), 1-5 cities (4)		Descriptive and	:	0-100 (6), 101-250 (5), 251-500 (17),		
Quantitative	1 school (23), 1-5 schools (4), 5-15 schools (4), 16+ schools (4)	Students (28) Teachers (7)	inferential analysis (35)	Cross-sectional (35)	501-1000 (5), 1001- 2000 (1), 2001- 3000 (1)	Questionnaire (35)	Survey (35)
	1 city (3), 1-5 schools (3)	Students (3)	Descriptive and inferential analysis (3)	Longitudinal– Pretest-Posttest (3)	0-100 (3)	Questionnaire (3)	Experimental (3)
	1 city (1), 1-5 schools (1)	Students	Content analysis	Cross-sectional (1)	20	Interview (1)	
	1 city (1), 1-5 schools (1)	Students	Thematic analysis	Cross-sectional (1)	34	Observation (1)	Descriptive (2)
Qualitative	1 city (1), 1 school (1)	Students	Thematic analysis	Cross-sectional (1)	41	Interview and observation (1)	Case study (1)
	1 city (1), 1-5 schools (1)	Teachers	Content analysis	Cross-sectional (1)	19	Interview (1)	Phenomenolog y (1)
Mixed-	1 city (1), 1-5 schools (1)	Students	Descriptive, inferential and thematic analysis	Longitudinal– Pretest-Posttest (1)	83	Questionnaire and interview (1)	Evaluation Research (1)
Pragmatic	1 city (1), 1-5 schools (1)	Students and teachers	Descriptive, inferential and thematic analysis	Cross-sectional (1)	23	Questionnaire, interview and documents (1)	Case study (1)



Table 3. Methodol	logical tendencies w	rithin the Social Psyc	Table 3. Methodological tendencies within the Social Psychology research in Turkey	ırkey			
Design	Scope (n)	Target group (n)	Data analysis strategy (n)	Data collection strategy (n)	Number of participants (n)	Data collection methods (n)	Approach (n)
Quantitative	1 country (36) 1 city (31) 1-5 cities (5)	Students (14) Immigrants (7) Ethnic groups (7) Other adults (9) Employees (3)	Descriptive and inferential analysis (36)	Cross-sectional (36)	0-100 (5) 101-250 (7) 251-500 (13) 501-1000 (5) 1001-2000 (2) 2001-3000 (2) 3001+ (2)	Questionnaire (36)	Survey (36)
.:	1 city (2) 1-5 cities (1)	Immigrants Students (2)	Content analysis (2) and thematic analysis (1)	Cross-sectional (3)	24, 41 and 19	Interview (3)	Descriptive (3)
Çuantanve	1 city	Other adults	Content analysis	Cross-sectional (1)	62	Interview and documents (1)	Case study (1)



Consistence between Research Questions/Hypotheses and the Methodology Employed

According to Creswell (2009), the methodology employed is directly related to the problem, hypothesis and questions of the research. Definite types of problems of social research call for specific designs and approaches. A research problem, as discussed under social research and methodology, is a concern or issue which needs to be addressed (e.g., whether one sort of intervention is more effective than another sort of intervention). For example, if the concern is to identify factors that lead to an outcome, the effectiveness of an intervention, or understanding the best predictors in outcomes, then a quantitative approach is best. The quantitative approach is also appropriate to test a theory or explanation. On the other hand, if the concern is to understand an under-researched concept, issue or phenomenon, then this may require a qualitative approach. When the researcher has little knowledge of the important variable to examine, qualitative research can be useful and exploratory. Qualitative research is needed especially when the topic is new, the topic has never been investigated with a certain sample, or existing theories do not apply with the particular sample or group under study (Morse, 1991).

The mixed methods design is appropriate to capture the best of quantitative and qualitative approaches. For example, the researcher may prefer to both generalize the outcomes of an investigation to a population and capture a deep understanding of a phenomenon or concept for individuals. In such an investigation, the researcher may benefit from the advantages of collecting both closed-ended quantitative data and open-ended qualitative data to best understand a research problem (Creswell, 2009).

Looking to the findings from this research, we present in Table 4 that the majority of the research purposes (n=53, 63.1%) were not directly related to the approach and design of the research. Within the research in the area of educational psychology (n=44, 52.4%), only 4 (4.8%) studies were designed with a qualitative approach whereas the nature of the hypotheses or research questions of the 28 (33.3%) studies involved qualitative inquiry such as understanding a phenomenon, investigating an under-researched topic or explore an issue with a particular sample of individuals (Lincoln & Guba, 1985). For example, in one study the researchers aimed to describe the meaning of bullying and victimization among high school students. According to Creswell (2009), verbs and phrases such as 'describe', 'examine the meaning of' and 'understand' keep the inquiry open and convey an



"İnsan ve Toplum Bilimleri Araştırmaları Dergisi" Journal of the Human and Social Sciences Researches" [itobiad-e-issn: 2147-1185] Cilt: 6, Sayı: 1 Volume: 6, Issue: 1 2017 emerging qualitative design. However, in this particular study, researchers used a survey with close-ended questions to collect quantitative data from students in a single school. Instead, researchers could better learn how high school students describe the meaning of bullying and victimization through open methods (e.g., interview) that could lead to the generation of a deep

understanding of the phenomenon. What is more, the study collected data from students in a single school, leading to controversy from a quantitative point of view which argues for generalization from sample to the population.

Table 4. The nature of research questions/hypotheses and the corresponding design within Psychology studies		
Field (n/%)	Nature of research question/hypothesis (n/%)	Corresponding design (n/%)
	Quantitativo (16/19 0)	Quantitative (14/16.6)
	Quantitative (16/19.0)	Qualitative (2/2.4)
Educational Psychology (44/52.4)	Qualitative/Mixed (28/33.3)	Qualitative/Mixed (4/4.8)
		Quantitative (24/28.6)
Social Psychology (40/47.6)	Quantitative (11/13.1)	Quantitative (10/11.9)
		Qualitative (1/1.2)
	Qualitative (29/34.6)	Qualitative (3/3.6)
		Quantitative (26/30.9)

Within the remaining 16 (19%) studies that could be identified as having a quantitative nature, 14 (16.6%) studies were designed with a quantitative paradigm. These studies had a quantitative nature in terms of the research questions or hypotheses and involved investigation of the relationships between factors leading to an outcome (correlation and regression), effectiveness of an intervention (experimentation), tendencies of a sample of individuals (survey), or differences among various groups based on some certain criteria (differences of groups). However, 2 (2.4%) of these studies had a qualitative design. For example, one study aimed to investigate university students' level of subjective well-being in regards to their demographic variables. Creswell (2009) thinks that quantitative research involves a focus on relating or comparing variables and constructs, a design that could be appropriate to the aim of the aforementioned research because



a variable refers to a characteristic or attribute of an individual or an organization that can be measured (Mertens, 2014). However, researchers utilized interview and content analysis as data collection and analysis methods, which cannot measure, relate or compare variables.

The case within the social psychology research was similar. 36 studies (42.8%) included a quantitative design while the nature of the research questions and hypotheses in 29 (34.6%) of these studies was qualitative. In these studies, the purpose was to explore highly qualitative human traits

such as status or assimilation or investigate new phenomena among a definite group of individuals such as migrant Turks. For example, in one study researchers aimed to explore the assimilation and inclusion experiences of a group of people in a community by utilizing a questionnaire with close-ended questions. According to Creswell (2009), exploring human experiences and social factors is an qualitatively oriented issue and requires in-depth understanding of these experiences and factors. Therefore, such issues require methods and strategies that go beyond rating, marking or short answers and provide rich personal data.

On the other hand, we considered the remaining 11 (13.1%) social psychology studies as having a quantitative nature. 10 (11.9%) of these studies were designed based on a quantitative paradigm and associated procedures whereas 1 (1.2%) study included a qualitative design. In this study, researchers aimed to elaborate on the relationship between authoritarian leadership behavior and experiences of bullying at workplace. In this study, researchers used interview schedule and thematic analysis to collect and analyze data regarding the experiences of participants. However, according to Robson (2002) relationships between variables may best be described and measured through correlational strategies and statistical analysis.

Discussion

This research was an attempt to investigate the methodological trends in the psychology research in Turkey by focusing on two subfields: educational psychology and social psychology. Findings have generally shown that the quantitative paradigm and its associated methodological approaches (e.g., survey, cross-sectional design, descriptive and inferential analysis) dominate the research methodology in both subfields. In addition, it was found that the association between the research problem and the study methodology which embarks from the problem was week.



The findings of this study is a confirmation of the arguments of Hammersley (1995), Rogers (2000) and Michell (2003) who claim that throughout history the field of psychology has been dominated by the quantitative paradigm and its associated practices. In this study, regardless of the nature of the questions, the studies were designed in ways that human characteristics could be measured and the results could be quantified often due to the belief that research should include variables that can be measured and generalized to the population. In addition, the hidden ideas behind the dominance of the quantitative paradigm is the ontological belief that true knowledge is that which can be valid for everyone and that everyone can confirm a piece of knowledge as true when it is stated it numerical terms. Consequently, the epistemological tendency to acquire the true knowledge requires use of approaches such as experimentation, description and correlation.

However, Michell (2003) says that human characteristics are actually qualitative and the attempt to convert them to measurable variables may be misleading. For example, in this study, the problems that led to carrying out educational and social psychology included qualitative human variables such as behaviors (e.g., adaptation), emotions (e.g., rejection sensitivity), attitudes (e.g., 'migrants are potential criminals') and beliefs (e.g., 'I cannot learn'), which can only be measured and quantified indirectly (LeBreton, Barksdale, Robin, & James, 2007). However, measuring these properties through surveys, at one point of time and at one place is likely to deceive the researcher especially when it comes to the reliability of this measurement. Instead, we could argue for more dynamic, longitudinal, and natural investigation of these human characteristics which may be possible to realize through qualitative and mixed approaches and techniques.

Looking to the studies in the fields of educational and social psychology, it is surprising that only a few studies left space for participant involvement within the research process. As a natural characteristic of the positivist look to the scientific research, the majority of the researchers did not trust the idea that participants could be part of the knowledge construction process (Flick, 2009). For example, interviews were used only in a few studies whereas none of the studies involved action research. However, it is a highly pronounced fact that in psychology research, mental and practical involvement of the participant may lead to obtaining more reliable outcomes compared to the case in which they are made to feel isolated from the



research process as objects of the study. For example, in the educational psychology studies, there was not a single study in which parents were participants although many research problems (e.g., reasons for dropout) naturally and rationally required that families should have been part of that particular research process because they could contribute to the understanding and solution of the research problem thanks to the data they could provide.

The scenario illustrated above partly stems from the tendency to generalize from a single group of sample without necessarily understanding the nature of the research problem (Miles & Huberman, 1994). The majority of the social psychology studies aimed to generalize from one city and even one region whereas the educational psychology studies attempted to generalize from even one sample within one school. The quantitative paradigm asserts that reducing the measurement error requires random selection and increasing the number and variety of the participant groups (Creswell, 2013). In most cases, the studies in this research asked research questions that require this condition to be achieved whereas the methodology involved narrow non-satisfactory sampling in terms of quantitative research. In cases when this cannot be achieved, a qualitative design can be more appropriate on the condition that the research problem is revised in ways that qualitative or mixed approaches become meaningful.

In Turkey and elsewhere in the world, the meaning behind carrying out research is influenced by the competitive and score/outcome based evaluation systems that account researchers and academics primarily based on the quantity of the studies they conduct. As a consequence, one can observe the proliferation of journals and articles containing ideas, methodologies and conclusions that are weak in terms of robustness. This is one of the main reasons for the tendency to carry out research studies as fast as possible in order to publish as quickly as possible. Instead, we argue for the development of evaluation systems that look at the coherence, consistence and robustness of the research conducted and the outcomes published while academic journals need to revise their current publication criteria along these lines.

Conclusion



All in all, the picture illustrating the methodology used in the psychology research in Turkey is similar to that employed around the world: mainly quantitative, straightforward and serving to production and publication in order to benefit the evaluation and standards of the researchers. Reaching the quality in the methodology that is reached by high-achieving people in academia requires quality in the academic-researcher professional development processes, quality in the supervision of research processes, and quality in the evaluation and publication processes.

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