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Full Length Research Paper

How Turkish universities have evolved through constitutional changes

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National constitutions determine the foundation and the operation of universities in a country. Constitutions are renewed to meet changing societal needs. In Turkey, universities have also been affected by constitutional changes. This study examines how universities have evolved in the history of Turkey's written constitutions and seeks to use this development to shed light on the structure and activities of today's universities. To this end, those articles in the six Turkish constitutions which have affected universities were identified and used as data sources. The work examines the first constitution written in 1876 up to the most recent 1982 constitution. The document review method was used to collect the data and the articles found were evaluated using the descriptive analysis method. The findings show that there were no articles which affected universities in the 1876, 1908 and 1921 constitutions. These were put into force in the 1924 constitution, which was introduced after the start of the Republic. It was found that universities were granted considerable powers and scientific autonomy in the 1961 constitution, but this autonomy was limited by the changes made in the 1982 constitution. In addition, it was found that military coups were responsible for some of the constitutional changes which affected the universities.

Key words: Turkey, university, constitution, social change.

INTRODUCTION

The concept of a 'university' is derived from the Latin words *universus* or *universitas*, which refer to a group of people who form a legal entity and have common interests (a guild). *Universus* and *universitas* were used to refer to a union, whole or general. Similarly, the terms *studium generale* and *collegia* were synonyms of *universitas*. Whilst *universitas* referred to a community made up of students and teachers, *studium* corresponded to religious, legal and medical schools not yet structured as universities but which have existed in many cities for

centuries (Stella, 2016).

The first universities to be established in the west were the University of Bologna in Italy (1088), the University of Paris in France (1150) and Oxford University in England (1167). Local guild organizations underlie western universities. Charle and Verger (2005) defined university as "an autonomous society made up of teachers and students who come together to offer a higher level of education in certain disciplines; this institution is most likely to be the product of a special western civilization

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which was born in Italy, France, and England in the early thirteenth century”.

The Oxford English Dictionary defines ‘university’ as a word of Latin origin referring to “a higher level of educational institution where students study and academic research is conducted”. The Turkish Language Association defines it as “an educational institution made up of faculties, institutes, colleges, units etc. which is autonomous and has a legal entity and which offers education at a higher level, and conducts and publishes scientific research” (Türk Dil Kurumu). In Turkey, ‘higher education’ has a similar connotation; it identifies a university as being an autonomous and a legal entity which provides higher level education and conducts research especially in the interest of the human beings (Constitution By-law 2547, Article 3, para.3, 2018).

Universities across the world have undergone considerable changes over time. Particularly after the Second World War, the functions of applied research and counseling and community service were also included alongside the traditional functions of education and scientific research (Kavak, 1990). In parallel with changes in society, universities have also gone through significant changes in Turkey.

In Turkey, universities, like many other institutions, are regulated by the country’s constitution. The constitution regulates the basic structure of the state, the governmental regime, the executive bodies of the state, their relationship with each other and the fundamental rights and liberties of individuals (Çiftçi, 1993; Gülcan, 2019). A constitution, which is also called a ‘social contract’ should respond to the needs of the individual and of society, and for that reason it is updated according to the needs of the individual and of society.

It is inevitable that changes occurring in a society are reflected in constitutions because amendments to constitutions are expected to maintain the social order and guide society. Up to 2019, there have been a total of six constitutional amendments in Turkey before and during the Republican period. The first written constitution was drawn up in 1876 and the most recent and current constitution in 1982. Universities tend to be affected by constitutional changes and this present study is designed to focus on the effects of the constitutional changes on universities in order to have a better understanding of the university in the Turkish context.

The birth and development of contemporary universities in Turkey

It is necessary to evaluate the process of the establishment and development of universities in Turkey in two stages: one before the creation of the Republic and the other after it started. Different factors have played a role in the development of universities before and during the Republic (Korkut, 1983) and these factors

have mostly been political. For example, in both single-party and multiple-party political periods and in the aftermath of military coups, significant changes occurred in universities.

There are different views regarding the point at which the history of contemporary Turkish universities began. The general opinion is that the foundations of the university were established in 1845 and were consolidated through conferences on physics, chemistry, astronomy, geography and geology which were initiated in 1863 and were open to the public. The, 1869 National Education Regulations, the departments and the regulations of the university (then called a *darülfünun*) were introduced and it began to manage its own affairs from 1870. The fact that the institution gained scientific autonomy by a regulation issued in 1919 is considered to have been a significant development. In 1924, the institution was granted the status of a legal entity (Erdoğan, 2004). It should be noted that the Turkish university was not an institution which evolved from the *madrasahs* (Muslim theological schools), but was established by deliberately modelling western universities (Gürüz, 2003).

Universities were undergoing significant changes in the west in the nineteenth century when Turkey adopted the concept of a modern university. Universities in France were shut down after the French Revolution in 1789, and instead of operationalizing old universities, Napoleon Bonaparte, who came to power in France in 1804, established a new institutional structure called the *Université de France* by a law which he introduced on 10 May 1806. This was because he believed that education should be offered as a public service and that its basic aim should be to maintain the political stability of the state by training qualified professionals. What was established was not a university, but an educational system. The aim of the system was to educate people and leaders who would perform various services in a classless society by taking them out of the bourgeoisie by means of offering them a cultural and vocational education. The system was established with a structure in line with the understanding of a powerful central state envisaged by all the subsequent French leaders: the *Université de France* existed until 1896 (Gürüz, 2003).

Turkey took as a model Napoleon’s desire to shape the university based on the needs of the regime and controlled by the state. Turkey imitated the education and administration system of France in the nineteenth century. Just as the first university before the Republic was established with an intention of creating an Ottoman identity and world presence, the aim of the 1933 reform, which was the first university reform after the start of the Republic, was to form and sustain a national identity and ideology.

In the early nineteenth century, universities in Germany went through significant changes in terms of structure and function (Gürüz, 2003). The implementation of the

Humboldt university model, in which research and education were combined, in Berlin University in 1808 was a turning point in the world history of universities. Unlike European universities, American universities originated from an aristocratic and idealist tradition. These universities were shaped in accordance with market conditions due to both this tradition and the development of industrial capitalism (Demirtaş, 2019). In the late nineteenth century, many newly founded and reformed universities in and outside Europe were based on the German university model, which was established on the basis of a research university. For example, Greece established the University of Athens based on the German model within five years after it broke away from the Ottoman Empire in 1832 (Van Bommel, 2019). The German model was then adopted in the Turkish *darülfünun* after twenty German academics accepted posts in Turkey in 1915. These academics from Germany made significant contributions to the university reforms which took place in 1933 and 1946 in Turkey.

It is believed that the *darülfünun* maintained its autonomy for a long time after the proclamation of the Republic in 1923. Early in the Republic when revolutions were regular events, it is remarkable that there was no intervention in the curricula of the *darülfünun*. It is assumed that even though the state expected the institutions to develop and progress by their own efforts, they could not make the expected progress until the university reform in 1933. The attitudes of institutions to the changes which the state wanted to introduce, especially before 1933, and the fact that they were not able to conduct significant scientific studies were strongly criticized (Akyüz, 2018; Korkut, 1984).

In 1931, the Turkish government invited Albert Malche, a professor at Geneva University, to Turkey to oversee the reform of the *darülfünun*. On 31 May 1931, Malche prepared a report for submission to the Turkish Ministry of Education. It was stated in this report that lack of a unit to inspect the *darülfünun* broke this institution away from society. Following this report, on 18 November 1933, İstanbul University was founded by law no 2253. Under this law, 59 of the 155 people employed at the *darülfünun* were appointed as teachers in the university and the other 96 were not assigned to any positions (Ataunal, 1993; Gürüz, 2003; Hirsch, 1950).

In İstanbul University, which had been founded with four faculties, the Faculty of Theology was abolished and in its place, the Institute of Islamic Studies was opened within the Faculty of Letters. Restriction of scientific and administrative autonomy due to unfavorable political conditions was the main feature of Atatürk's 1933 university reform, in particular, because of the determination to make the revolution and the philosophy of the Republic permanent, these restrictions were seen as obligatory (Ataunal, 1993; Hatiboglu, 1998). With this reform, the word 'university' began to be used for the first time instead of *darülfünun*. Tekeli (2003) stated that, with

the 1933 reform, there was a desire to establish a university based on the Humboldt model. The two universities which opened after İstanbul University were İstanbul Technical University in 1944 and Ankara University in 1946.

After the 1933 university reform, a second radical change regarding universities took place by the Law of Universities, no 4936 dated 1946. Under this law, universities were defined as higher-level research and teaching units, they were granted scientific and administrative autonomy and they gained the status of a legal entity. Even so, it is not possible to say they gained full administrative autonomy (Gök, 1998; Ortaylı, 2001).

The 1946 law introduced a structure which focused on research as well as teaching. It removed the view that university curricula were simply bulk knowledge and supported the process of teaching with research and with the search for solutions to the prominent problems of the country. The fact that this new law required the inspection of curricula to be carried out from inside rather than from outside is considered to be better progress than the 1933 reform. The establishment of an Inter-university Board, the placing of the Ministry of Education at the very top of the administrative structure and the authorizing of the minister of education to inspect universities and affiliated bodies were among the most significant features of the 1946 reform. In order to ensure cooperation and the identification of solutions to common problems faced by universities, it was decided to establish the Inter-university Board as part of this law.

The extension of Turkey's universities to İstanbul and Ankara took place in the subsequent years. Political, social and economic changes which occurred in the years following 1946 led to the idea of spreading universities nationwide, and the notion of establishing regional universities became increasingly predominant (Korkut, 2003). The establishment of the Black Sea Technical University (1955), the Aegean University (1955) and the Atatürk University (1957) constituted the beginning of the spread of universities nationwide by taking them out of big cities such as İstanbul and Ankara (Gürüz, 2003).

Another reform which took place after the 1946 university reform began in 1960. After the 27 May 1960 military coup, some attempts were made to bring about improvements in universities by the introduction of Law no 115, put into force in 1960. One of the most important changes was the abolition of the rule that the Minister of Education was the head of the universities, and the transfer of power to administer the universities from the Ministry of Education to the individual universities themselves was considered to be a more democratic practice (Hatiboğlu, 1998). A decade later, however, a provision that the government could take over the administration of universities was introduced by Law no 1488, which came into force in 1971 following the 12 March 1971 military memorandum.

In 1967 the Hacettepe and Bosphorus universities were founded as a consequence of the transfer of the Robert College by the American Association to Turkey.

In the history of Turkish universities, another important reform was introduced by the Law of Universities no 1750, which came into force in 1973 and replaced the 1960 Law of Universities. Under Law 1750, in the definition of a university, emphasis was given to teaching, and the goal of teaching began to turn to 'national' values. The student unrest seen all around the world in 1968 affected Turkey as well and those incidents revealed a radical need for changes in universities. The inspection under the Law of Universities was regulated by the provisions of the Higher Education Council, which was a radical innovation (Timur, 2000) and a Board of University Inspection was established to inspect the universities.

After the 12 September 1980 military coup, the provisions introduced by the previous law was speeded up and a Higher Education Law no 2547 came into force on 4 November 1981. The regulation which was introduced by this law was the most radical one in the field of education after Atatürk's university reform in 1933 and the foundation of METU (the Middle East Technical University) in 1956. Under this new law, the model of continental European universities was abandoned and an interim institution called the Higher Education Council (HEC) was established, an equivalent to similar bodies which exist in northern European countries. Significant innovations which can be regarded as reforms were the appointment of university presidents and faculty deans, the organization of academic structures by departments and institutes, the title of assistant professorship, the conversion of assistants to research assistants, the abolition of the dissertation requirement for an associate professorship, and a requirement to have published internationally and to have received citations in publications for promotion to a professorship, the establishment of research funds and the creation of the idea of foundation universities (Gürüz, 2003).

Following the Law of Higher Education no 2547, under governmental decree no 41, which came into force in 1982, 28 universities were founded by affiliating faculties and colleges to these universities and a foundation university was opened which had the status of a private university.

Until the present, because there has been no consistent planning behind Turkey's higher education provision, rather than concentrating on issues such as balancing employment needs with the needs of the country in the near and distant future and on social demands, the priority given to keeping costs low and political pressures made many of the newly founded universities simply in name only (Korkut, 2002). In other words, these new universities are not upholding the established university standards. There are currently a total of 202 universities in Turkey, 129 public and 73

foundation universities.

The aim of the study

The aim of this study is to analyse the regulations on universities in the Turkish constitutions of 1876 as amended in 1921, 1924, 1961 and 1982. The research questions are:

1. What were the impacts of the Turkish constitutional developments of 1876, 1921 and 1924 on universities in Turkey?
2. What were the impacts of the Turkish 1961 constitutional developments on universities in Turkey?
3. What were the impacts of the Turkish 1982 constitutional developments on universities in Turkey?

METHODOLOGY

Research model

The study was conducted using a survey (descriptive) model. Karasar (2005) stated that the survey model is based on describing an existing situation as it is. Using a qualitative methodology, the study followed the five-step document analysis method: (1) accessing the documents, (2) checking their originality, (3) understanding the documents, (4) analysing the data and (5) using the data (Yıldırım and Şimşek, 2008).

Data collection instrument and data analysis

The data for the study were obtained using the document analysis technique. First, all six constitutions were accessed and reviewed, then the articles referring to universities were identified. The regulations applying to universities contained in each constitution were identified, analysed and interpreted.

The descriptive analysis method was employed for the analysis and interpretation of the data. In the descriptive analysis, direct quotations were extracted in order to show clearly the articles which applied to the universities in all of the constitutions which came into force in Turkey. A descriptive analysis requires the data obtained to be analysed and interpreted by the researcher. The data obtained were first described systematically and explicitly. Following this, the descriptions were interpreted and explained and thus the findings were generated (Yıldırım and Şimşek, 2008).

FINDINGS

The impacts on universities of the developments in the constitutions of 1876, 1921 and 1924

Before the Republic was proclaimed in Turkey, three constitutions had come into force, the constitutions of 1876, 1908 and 1921. Even though there were no articles directly related to universities in the 121 articles contained in the first constitution, it was found that education was addressed. Articles 15 and 16 of the first constitution

which came into force on 23 December 1876 were related to education. It was stated in article 15, which was about the freedom of teaching, that every Ottoman citizen was entitled to receive both public and private education on condition that they act in accordance with the law. In article 16, it was stated that all schools were under the control of the state (Gözler, 1999). The next constitution which came into force in 1908 was a reinforcement of the previous constitution which had been abolished in 1877 and no changes were made in its articles.

In the constitutions of 1921 and 1924, no articles were found which referred directly to universities. The 1921 constitution was put into force by the Turkish Grand National Assembly (and is referred to as the *Teşkilatı Esasiye Law*) before the proclamation of the Republic. None of its 23 articles referred directly to the *darülfünun* (which was what the university was then called).

The first constitution to be introduced after the proclamation of the Republic was the 1924 constitution, and although it contained no direct provision about universities, article 80 stated that all the kinds of education which were provided came under the supervision of the state.

The impacts on universities of the developments in the 1961 constitution

Article 20 of the 1961 constitution related specifically to universities. It was stated in this article that universities can be established by the state and by law and they were defined as institutions which have scientific and administrative autonomy. Article 20 also stated that universities should be managed and inspected by an authorized board of faculty members, and it introduced the provision that administrative bodies and faculty members and assistants of the universities could not be dismissed from their positions and that they had the right to conduct research and publish studies freely.

The impacts on universities of the developments in the 1982 constitution

The 1982 constitution was approved on 18 October 1982. Article 68 of this constitution referred to the membership of faculty members and students of political parties. The article stated that the membership of political parties of lecturers who served in higher education institutions could only be regulated by law, it did not allow them to be assigned to duties in any political party apart from those in the central bodies of political parties, and it set out the rules which those lecturers who were members of political parties had to comply with in higher education institutions. The same article stated that the rules regarding membership of political parties by students in higher education could be regulated by law.

In article 130 of the 1982 constitution, it was stated that the aim of universities was to train people in line with the needs of the country based on the rules of contemporary education. In accordance with this purpose, universities were defined as institutions which had status as a legal entity and scientific autonomy and were made up of several units in order to offer education, to conduct and publish research, to offer guidance and to serve the country and humanity, and it was also stated that universities could be established by law by the state. It was also stated that higher education institutions could be established by foundations under the supervision and inspection of the state provided that they did not operate for profit. The 1982 constitution allowed faculty members and assistants in universities to conduct and publish all kinds of research freely. However, it was also stated that this authorization did not allow them to act against the existence and independence of the state and the indivisible unity of the country. Universities and affiliated bodies were under the supervision and inspection of the state and the security service. In line with the procedures and rules set by this law, university presidents were appointed by the President of the country and deans were elected and appointed by the HEC. Under no circumstances could individuals responsible for university administration and inspection be dismissed from their positions by any official authorities other than the authorized bodies of the HEC and the universities. After the budgets of the universities had been examined and approved by the HEC, they had to be submitted to the Ministry of Education. The budgets were then put into force and inspected in accordance with the rules of the budget of the central governmental management. The law regulated the establishment, bodies and operation of higher education institutions; the appointment, duties, authorizations and liabilities of these bodies; the procedures of supervision and inspection of the universities by the state; the duties, academic titles, appointment, promotion and retirement of lecturers; the training of lecturers; the relationships of universities and lecturers with public and other institutions; the levels and duration of education; admittance to and attendance at higher education; tuition fees; the principles of financial aid provided to the universities by the state; disciplinary and criminal actions, financial issues and fringe benefits; the rules which lecturers had to obey; the assignment of lecturers based on inter-university needs; the implementation of education freely and with assurance and in line with the requirements of modern science and technology; and the correct utilisation of the financial resources allocated to the HEC and the universities by the state. For their academic studies, the supply of lecturers and security other than financial and administrative issues, the higher education institutions established by foundations were liable to the same rules on public higher education institutions as stated in the constitution.

According to article 131 of the 1982 constitution, the aim of higher education was to plan, coordinate, manage and inspect education; to direct scientific research activities; to ensure that higher education institutions were established and developed in line with the goals and principles stipulated in the law; to ensure that the resources allocated to universities were used efficiently; and to plan to train academic staff. The HEC was to be made up of members elected by universities and then appointed by the President of Turkey and members who were directly appointed by the President of Turkey. The organization, duties, powers, responsibilities and working rules of the HEC were regulated by the law.

DISCUSSION

This section discusses the findings which emerged from the data in reference to the relevant literature.

The universities established in Turkey before and during the Republican period were affected by social, political and economic developments. The *darülfünun* were established before the Republic entirely for pragmatic reasons. In the first half of the nineteenth century, there was the idea of establishing universities to address the problems of the inadequacy of military and technical schools, of the constant import of technology and technicians, and of sending students abroad for educational purposes (Erdoğan, 2016; Demirtaş, 2019). In the early years of the Republic, the state wanted to keep education under control as it did in many areas, and these institutions were also affected by this. As the *darülfünun* did not act in accordance with the innovations of the state, its autonomy was restricted in the 1933 university reform. The Second World War brought significant transformations in Turkey as well as in many countries, and the process of transition to a multi-party political structure began. The universities were granted autonomy under the 1946 university reform.

It is believed that constitutions change in line with the needs of society in a country, so changes which occur in society are expected to be reflected in constitutions. It was found that universities, which are significantly important educational institutions, were also affected by constitutional amendments and that they went through a number of changes as well. Berdahl (1990) stated that whereas universities on the one hand fulfill their functions by being loyal to the notion which led to their emergence, on the other hand, they constantly have to change in line with the changing needs of society. Universities in Turkey had to act in accordance with the reasons for their establishment, but they have also striven to respond to social changes. It can therefore be said that in carrying out an evaluation of the universities in Turkey today, these two functions of universities must necessarily be taken into account. In order to carry out a proper evaluation of the universities in Turkey today, the

changes and the accumulation of knowledge and experience about universities in the past must necessarily be known and the future must be built by learning the lessons of history because today's universities were established based on the changes which occurred in the past.

The first written constitution in Turkey came into force in 1876 and six subsequent constitutions were introduced. Whereas the 1876, 1908 and 1921 constitutions were made before the proclamation of the Republic, the 1924, 1961 and 1982 constitutions came into force during the Republic. The 1908 constitution was a reinforcement of the 1876 constitution which had previously been abolished. These two constitutions were made in the period of the Ottoman Empire. The 1921 constitution was drawn up by the Turkish Grand National Assembly.

Developments in universities in Turkey began after the proclamation of the *Tanzimat*, which lasted from 1839 to 1876. The universities in Turkey were called *darülfünun* in 1845 for the first time. The opening of universities under the name *darülfünun* (in the sense of 'house of sciences') became possible in 1863. *Darülfünun* in the sense of university were not opened in connection with the *madrasahs*, which had served as higher education institutions in the period of the Ottoman Empire. The opening of *darülfünun* as a different institution suggests that the Turkish university model was taken from the west (Gürüz, 2003). Arslan (2011) stated that the *darülfünun* was established mostly by taking the French university model. It was found that the first written constitution was put into force in 1876 by Abdülhamit II before the establishment of the Republic. Even though no article directly related to universities was found in the 1876 constitution, it did contain articles about education more generally, in particular about who was authorized to open schools and the inspection of educational institutions. In the 1876 constitution introduced at the end of the *Tanzimat* era, it was stated that every Ottoman citizen was entitled to both public and private education on condition that the education was offered in accordance with the laws, and that all the schools were under the supervision of the state.

No article was found in the 1921 or 1924 constitutions which referred to the *darülfünun*. The 1921 constitution was the first constitution which the Turkish Grand National Assembly put into force and the provisions about the structure and duties of the Assembly were set out in the constitution. The 1924 constitution was the first after the Republic was proclaimed. Provisions about education were contained in this constitution and it was emphasized that all forms of education were free provided that they were under the supervision and inspection of the state. Hatiboğlu (1998) stated that the relevant article in the constitution allowed for the opening of universities by private enterprise, but that private universities did not exist until 1981 because there were no explicit provisions

about private universities in the constitution. The most important feature of the 1924 constitution is that it remained in force until 1961. Between 1924 and 1961, significant changes involving universities occurred in Turkey and İstanbul University, which was the first modern university, was established in 1933. After the university reform of 1933, those universities which did not have autonomy were granted autonomy only in 1946.

Throughout the world after 1950, universities began to spread to large communities; they increased in number quickly and began to react to market conditions (Chiragov, 2015). In parallel with the growing number of universities, the number of student unions began to increase. Between 1950 and 1960, the government of the period suppressed the universities' activities and students protested about being denied freedom of speech; these protests, the 1957 economic crisis and tension between the military and the government led to a military coup in 1960. After all this unrest, the 1961 constitution was drawn up. These problems which occurred between 1950 and 1960 caused the universities to be heavily involved in political acts after 1960 (Tekeli, 2010).

The next constitution after the 1924 constitution was the 1961 constitution, which was introduced after the 1960 military coup. Bingöl (2012) and Arslan (2005) stated that although the 1933 university reform, which was one of the reforms made to higher education in Turkey, stood out as a reform which coincided with the later years of Atatürk's revolutions, other deep-rooted reforms took place following radical social transformations such as the transition to a multi-party political system and military coups. The 1961 constitution introduced significant regulations on universities and contained articles concerning both the autonomy of universities and the membership by academics and their assistants of political parties. Under this constitution, universities were defined as institutions which had scientific and administrative autonomy.

Article 20 of the 1961 constitution was mostly related to universities; it stated that universities could be established by the state and by law, and it defined them as institutions which have scientific and administrative autonomy. In accordance with the articles about universities contained in the constitution, universities had to be managed and inspected by authorized bodies of the board of academics who were elected by the universities themselves. In order for academics and their assistants to serve in a free environment, the constitution assured them that they would not be dismissed from their positions by people or institutions outside the university for any reason. Hatiboğlu (2008) and Güler (1994) regarded the fact that academics and their assistants were freed from the pressure of political power to be one of the most significant developments of the 1961 constitution.

The most important positive feature of the 1961 constitution regarding universities is that it granted universities scientific and administrative autonomy

(Gürüz, 2008). When the 1961 constitution was put into force, although the top administrator and the inspector of the universities on behalf of the government was the Minister of Education, the Inter-university Board made up of people elected by the universities became the final decision-making body over specific issues for universities (Arslan, 2011). The autonomy of the universities mostly covered scientific, educational, administrative and financial issues. Universities have to be autonomous in order to fulfill their duties properly (Albornaz, 1991), but Küçükcan and Gür (2009) commented that academics in Turkey have mostly perceived the autonomy of the university as the power to elect their own administrators. From time to time, universities perceived the suggestions of the government and the Ministry of Education as interventions in their autonomy.

The autonomy granted by the 1961 constitution was restricted by law no 1488 on 20 September 1971, which stipulated that universities' autonomy would not prevent the prosecution of criminals for crimes committed on university premises. One of the significant reasons for the restriction of the autonomy granted to universities by the 1961 constitution was the worldwide student riots which broke out in 1968. Turkey was deeply affected by the 1968 student unrest and these incidents had various social, political and economic consequences (Bulut, 2011). In addition, to ensure that the freedom of education was not endangered in universities and their affiliated bodies and when this danger was not eliminated by the university authorities, law no 1488 authorised the Board of Ministers to take over universities and their units and it required such incidents to be referred to the Turkish Grand National Assembly (Hatiboğlu, 1998).

The aim of the constitutional amendments made after the military memorandum issued on 12 March 1971 was to strengthen the executive. Küçükcan and Gür (2009) stated that there was a prevalent view that the 1961 constitution entitled the people to fundamental rights and freedoms excessively and that it tied the hands of the executive. The student unrest in Turkey meant that university students with opposing political views clashed with each other, but there was no intervention in these incidents in Turkish universities because of the understanding contained in the 1961 constitution that universities were autonomous, so the view that the autonomy of the universities should be restricted was supported. Under the regulations introduced in 1971 and 1973, however, one-third of the 1961 constitution was changed and the universities were also affected by this change. The restriction of the administrative autonomy of universities formed the basis of the constitutional amendment to universities after 1971. These amendments therefore paved the way for intervention by the security forces in incidents whenever public order was threatened.

The next constitution which came into force after the 1961 constitution was the 1982 constitution which also followed a military coup. It regulated on issues such as university lecturers' and students' membership of political

parties, the establishment of foundation universities being permitted for the first time, scientific and administrative autonomy, and the formation and management of universities' administrative bodies. A significant innovation for the universities introduced by the 1982 constitution was the establishment of the HEC; it also stipulated that university lecturers' membership of political parties could only be regulated by law and it forbade lecturers to be assigned to duties other than those within the central bodies of political parties. It also stated that the rules on the membership by university students of political parties could be regulated by law. The universities were defined as legal entities which fulfilled duties such as education, scientific research and publication, and counseling, and it allowed for the establishment of universities by foundations under the supervision and inspection of the state on the condition that they did not operate for profit, which was a significant innovation for higher education. Following the permission for foundation universities, private universities eventually began to be established in Turkey.

The 1982 constitution enabled the HEC to be established for the purposes of planning, regulating, managing and inspecting education in the higher education institutions; coordinating education and scientific research; ensuring that these institutions were established and developed in accordance with the goals and principles stipulated in law; making sure that the resources allocated to the universities were utilized efficiently; and making plans for the training of lecturers. The President of the country had supreme influence over the election of the members of the HEC.

The significant issues in the 1982 constitution, in which the term 'higher education' was used in place of 'university', were the following:

- 1) Foundation universities can be established under the supervision and inspection of the state on condition that they do not operate for profit.
- 2) Academic freedoms were restricted.
- 3) The universities and their affiliated bodies were under the supervision and inspection of the state and their security services were to be provided by the state.
- 4) University presidents were appointed by the President of the country and deans were elected by the HEC.

Suggestions

1. When Turkey's history of constitutions is examined, it is observed that university reforms were carried out without a plan, they were unscientific and were made without cooperation among the relevant parties. The reforms were implemented from a single center for a variety of political reasons. So in order for the universities in Turkey to compete with universities across the world in education and science, all parties (the government, the HEC, academics, non-governmental organizations and

industry) should act in cooperation in the planning, implementation and evaluation of reforms.

2. For the universities in Turkey to perform well and respond to the needs of society well, international standards should always be taken into account, social and economic developments in the country should be analysed and the universities should cooperate with industry and non-governmental organizations. Based on these requirements, an assessment and a needs analysis should be conducted through scientific studies, and reforms should be implemented accordingly.

3. Autonomy has a quite significant role for universities to be actively involved in the development of the country and to fulfill their expected duties. However, even though universities are granted autonomy under the law, it cannot be said that they always exercise their autonomy adequately and effectively because of their vulnerability to political influences. Political influences should therefore be totally eliminated from universities and the academic staff and students should have more say in the administration of the university.

CONFLICT OF INTERESTS

The author has not declared any conflict of interests.

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Full Length Research Paper

Impact of instruction with concept cartoons on students' academic achievement in science lessons

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In this study, the impact of concept cartoons on students' academic achievement in science lessons was investigated. The research was carried out in 2018-2019 spring term. The study group consisted of 49 4th grade students in Zonguldak Devrek Çaydeğirmeni TOKİ Primary School. 23 of the students were in the experimental group, and 26 of them were in the control group. Quasi-experimental design with pretest and posttest control group was employed in the study. The unit "The Earth Crust and Movements of The Earth" was taught with concept cartoons to the experimental group students, and with conventional method (current instructional program) to the control group students. The research lasted for 4 weeks. The students in the experimental and control groups received 12 h of education (3 h per week). Achievement test and concept cartoons were used as data collection tools. Arithmetic mean, standard deviation, normality test, KMO test and independent groups t-test were used for data analysis. A statistically significant difference was found between academic achievements of experimental group students on whom instruction was made with concept cartoons and of control group students on whom instruction was carried out with conventional method. The difference was in favor of the experimental group students.

Key words: Science, concept cartoons, conventional method, academic achievement, experimental group, control group.

INTRODUCTION

The studies in the area of education and training have always tried to find answer to this question: How can people learn better and more easily? While searching answer to this question, new instructional theories, approaches, methods and techniques were obtained. Scientific knowledge obtained in the area of education is a result of these studies. However, information about how people can learn better has not been found yet. Final changes in curriculum have promoted students to be

active in education. Reaching knowledge and constructing it in mind have been missions of students whereas teachers have taken the role of guiding students.

Constructivist approach was adopted while making changes on Science curriculum in Turkey (MEB, 2005). According to constructivist approach, learning is shaped with regard to individual's prior knowledge, his/her personal characteristics and learning environment (Özmen, 2004). Constructivist approach argues that

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learning happens as a result of an active learning process which is constructed by an individual through interpersonal variations and by interaction with physical phenomena (Watts, 1997; Spigner-Littles and Anderson, 1999). Constructivist approach suggests that learning is a process that includes association of prior and new knowledge of an individual (Liang and Gabel, 2005). Activities in which students are required to be active have gained importance with the changes in the curriculum (Gürol, 2003). In this context, learning environment in which students are included and instructional methods and techniques are pretty important in increasing quality (Hançer et al., 2003).

Although a constructivist approach has been adopted in the science curriculum, the lessons are still taught using traditional methods. This situation adversely affects the students' active participation in the lesson. However, the constructivist approach requires methods and techniques that ensure the active participation of the students in the lesson and supports individual differences. From this perspective methods and techniques are needed in the Science lesson to ensure the active participation of the students in lesson. Teaching methods and techniques used in teaching process have great importance in students' active participation in classes, in focusing their attention to classes, in their producing original ideas, in their improving creativity skills, in their assessing course contents, briefly, in enabling permanent learning. In this regard, it can be suggested that instruction with concept cartoons is effective in teaching process. Concept is a general name of an object or thought in mind. Concept refers to the word based on information obtained about an object or a topic. Learning concepts accurately facilitate reaching information about concepts; however, learning them inaccurately may cause misconceptions.

Misconceptions are information that hinder teaching concepts that happen as a result of individual experiences and that are scientifically verified (Çakır and Yürük, 1999). Another description identifies them as behaviors that occur in consequence of students' false beliefs and experiences (Baki, 1999). Students' learning concepts about content of science lessons is important in terms of course learning outcomes. A concept which is learnt inaccurately or incompletely can lead to misconceptions.

True learning becomes quite difficult after mislearning. Therefore, while teachers teach a new concept, they should arrange teaching process efficiently (Yürümezoğlu et al., 2009). When misconceptions are analyzed, it can be seen that meanings of these concepts are pretty different from their real meanings. These mislearned concepts affect students' true learning negatively and decrease their academic achievement (Driver and Easley, 1978; as cited by Yağbasan and Gülçiçek, 2003). Students' active participation in classes is crucial in terms of true and sustainable learning.

Learning approaches that enable students' active

participation in science teaching should be used (Köseoğlu and Kavak, 2001). Instruction aided with concept cartoons improves students' active participation in the teaching process. Concept cartoons were developed by Brenda Keogh and Stuart Naylor in 1992. They were created to meet in-service teachers' needs of finding new instructional methods in science education (Van der Mark, 2011). Concept cartoons are visual tools which tell a scientific event with cartoons and give different points of view (Coll, 2005; Stephenson and Warwick, 2002; Naylor et al., 2001; Keogh and Naylor, 2000). Concept cartoons are drawings which consist of written texts in visual or oral forms and express daily life events in cartoon-shape (Keogh et al., 1998; Keogh and Naylor, 1999). Each concept cartoon shows a group of children in a speech bubble based on daily life and children express different opinions on a topic. The alternatives shown in speech bubbles are based on real events, classroom scenarios, common thoughts or misconceptions (Samkova and Hospesova, 2016). Concept cartoons are really effective on visualization of topics, active participation of students and justification of ideas (Morris et al., 2007). Concept cartoons encourage students to search and help them see scientific truths while searching (Kabapınar, 2009; Keogh and Naylor, 2000). Different ways of thinking with concept cartoons are conveyed to students through visual tools; misconceptions of students who have similar ideas are revealed, and reasons of these misconceptions are discussed in the classroom. The fact that concept cartoons include visual elements related to the subject to be taught raises students' attention in the subject and provides students' learning with fun (Balim et al., 2008). Concept cartoon teaching strategy has the potential to increase creativity and innovation as well as students' interest in understanding concepts. It is considered as a method that encourages students to continue exploring issues raised and seeking solutions (Jamal et al., 2019). Concept cartoons have a positive effect on students' critical thinking skills (Demirci and Özyurek, 2017; Yin and Fitzgerald, 2017). Concept cartoons are suggested as teaching materials to be used in science education with respect to the fact that they create learning environment suitable for constructivist approach and overcome problems to be experienced in teaching process (Keogh and Naylor, 1997; Keogh et al., 1998; Naylor and McMudro, 1990). Using concept cartoons in classroom settings help students discuss their opinions in classrooms, question their knowledge and make arrangements in their cognitive structures (Evrekli, 2010). Concept cartoons can be used for improving conceptual understandings of the students and for revealing their misconceptions (Stephenson and Warwick, 2002). Concept cartoons arouse curiosity in young students and develop their investigation and questioning skills (Long and Marson, 2003). Additionally, concept cartoons are assistant tools used in attracting students' attention to

classes and improving their interest in them (Roesky and Kennepohl, 2008). The cartoon concept has succeeded in showing its importance in modern teaching and learning strategies (Koutnikova, 2017). Hence, impact of concept cartoons on academic achievement of primary school 4th grade students in the unit “The Earth Crust and Movements of The Earth” in science lesson was investigated.

Aim of the research

Aim of the research was to analyze effects of instruction with concept cartoons on students’ academic achievement in the unit of “The Earth Crust and Movements of The Earth” in primary school 4th grade science lesson. Answers for the following questions were searched to achieve this aim:

1. Are there any significant differences between pretest scores of the experimental group students on whom instruction was carried out with concept cartoons and of the control group students on whom instruction was made with conventional method (instruction based on current curriculum) in the unit of “The Earth Crust and Movements of The Earth” in primary school 4th grade science lesson?
2. Are there any significant differences between posttest scores of the experimental group students and of the control group students in the unit of “The Earth Crust and Movements of The Earth” in primary school 4th grade science lesson?

MATERIALS AND METHODS

Model of the research

Quasi-experimental design with pretest and posttest control group was employed in the study. This design provides great statistical potential to the researcher about testing the effect of intervention on dependent variable, and helps interpretation of findings obtained within the context of cause and effect (Büyüköztürk, 2011).

Study group

The study group of the research was created via convenient sampling in line with the aim of the study. Convenient sampling is described as a suitable method to fasten and ease research when there are problems related to time and expense, and it is a sampling method in which people close and convenient to the researcher are selected (Yıldırım and Şimşek, 2003).

The study group consisted of 4th grade students studying at Zonguldak Devrek Çaydeğirmeni TOKİ Primary School in the second semester of 2018-2019 academic year. 49 students, 23 of whom were appointed to the experimental group and 26 of whom were appointed to the control group, were included in the study.

Process

Data collection tools

Achievement test and concept cartoons were used as data

collection tools in the research. These data collection instruments were developed by the researcher. Information regarding development of these tools is listed by titles below.

Development of test questions

The test developed by the researcher consisted of 33 items about a unit in science lesson which was “The Earth Crust and Movements of The Earth”. Subject area experts were consulted in confirming items’ suitability to the students’ levels, their being clear - understandable and their content validity.

This test which included 33 items was applied as a pilot study on 100 4th grade students in a different school from the school where the research was conducted. The reason of choosing 4th graders was that they had studied this subject previously. Afterwards, validity and reliability process of the study were carried out, and factor analysis was made. Before the factor analysis, appropriateness of the data for factor analysis was tested via Kaiser-Meyer-Olkin (KMO) test. KMO value of the 33 items was found as 0.75. Minimum KMO value required for factor analysis is suggested as 0.50 (Sharma, 1996; as cited by Eroğlu, 2008). The KMO value obtained was found higher than the suggested value. This showed that the data were suitable for factor analysis. 13 items were removed from the test since their eigenvalues were beneath 0.45. The rest 20 items were included in the final form of the test. Cronbach-Alpha reliability coefficient of the test with 20 items was found as 0.84. The final form of the achievement test was applied to 49 4th grade students before and after the intervention.

Creation of concept cartoons

The concept cartoons were prepared in relation with the unit “The Earth Crust and Movements of The Earth” in the 4th grade Science lesson. The concept cartoons were developed regarding students’ misconceptions about “The Earth Crust and Movements of The Earth” unit in primary school 4th grade science lesson. With this aim, the misconceptions that the students mostly did were determined by analyzing the studies carried out on this topic. 12 concept cartoons were developed by considering the misconceptions determined and by using ToonDoo cartoon tool. For suitability of the concept cartoons to the students’ levels, academic staff working in this area and teachers of science, of class, of visual arts and of information technologies were asked to get their opinions. The students in the experimental group were given training with the concept cartoons developed during 12 h (3 h a week) for four weeks.

Data collection

The data were obtained from the scores the students received from pretest and posttest. The data collection was performed in 3 steps:

Obtaining pretest scores

In the beginning of the study, the test with 20 items developed by the researcher about the unit “The Earth Crust and Movements of The Earth” in primary school 4th grade science lesson was implemented on the students in the experimental and control groups. Pretest scores were determined as a result of the answers that the students gave.

Implementation of the research

Two weeks of the research was spent for the assessment of pretest

and posttest results, and 4 weeks were spent on implementation. The students in the experimental group were taught according to the instruction with concept cartoons while the students in the control group were taught in accordance with the current instructional program. The study lasted for 4 weeks - 3 h per week. The total implementation period was 12 h.

In the classes with the experimental group, the concept cartoons about the lesson were shown to the students. The students spoke on the related concept cartoons, and they discussed them together. At the end of the classes, the students were given the printed concept cartoons, and they were asked to answer the activity questions below the related cartoons. The students who responded incorrectly were corrected, and they were given correct feedbacks.

Obtaining posttest scores

The test with 20 items which was used at the beginning of the research was applied once more to the experimental and control groups as posttest. The students' posttest scores were found as a result of their answers to the posttest questions. Then, pretest and posttest scores of the students in the experimental and control groups were compared. The sample pretest and posttest questions used for the study were as follows:

(1) Which of the following ideas about shape of the earth is proved to be wrong with the fact that an airplane going continuously in the same direction arrives at the same departure after a period of time?

- (i) It is round
- (ii) It is spherical
- (iii) It looks like a ball
- (iv) It is flat

(2) Which of the followings is a sign for the fact that the earth is similar to sphere?

- (i) Firstly the funnel of a distant ship is seen
- (ii) The moon revolves around the earth
- (iii) The earth is surrounded by seas
- (iv) The earth revolves around the sun

(3) Which of the followings are correct?

- (i) Day and night occurs because the earth rotates on its axis.
 - (ii) Seasons happen because the earth revolves around sun.
 - (iii) When we see the sunlight it is day, and when we do not it is night.
- (iv) I and II (b) I, II and III (c) II and III (d) I and III

(4) Which of the followings cause the creation of day and night?

- (i) That the earth revolves around the sun
- (ii) That the moon revolves around the earth
- (iii) That the earth rotates on its axis
- (iv) That the moon rotates on its axis

(5) What is the reason why we see the sun as if it is moving during the day when we look at the sky?

- (i) That the earth revolves around the sun
- (ii) That the earth is immobile
- (iii) That the sun revolves around itself
- (iv) That the earth rotates on its axis

In "The Earth Crust and Movements of the Earth" unit of science course, each incorrect answer of the students was scored 0 point and their each correct answer was scored 1 point while evaluating their academic success (Table 1).

Analysis of data

Arithmetic mean, standard deviation, normality test, KMO test and

independent groups T-test were employed in data analysis process. Normality test was applied in order to understand if the pretest scores of the students in the experimental and control groups showed normal distribution or not. The experimental group pretest value of skewness was 0,846 and value of kurtosis was -0,290 while the control group value of skewness was 0,472 and value of kurtosis was -0,628. It was regarded that the data showed normal distribution since the pretest values of skewness and kurtosis were between -1 and +1.

Normality test was applied in order to understand if the posttest scores of the students in the experimental and control groups showed normal distribution or not. The experimental group posttest value of skewness was -0,802 and value of kurtosis was 0,450 while the control group posttest value of skewness was -0,459 and value of kurtosis was -0,829. It was considered that the data showed normal distribution since the posttest values of skewness and kurtosis were between -1 and +1.

RESULTS

In this section, the findings related to the impact of instruction with concept cartoons on the students' academic achievement were included.

Results and interpretations related to the first sub-problem

The findings related to the first sub-problem which was "Are there any significant differences between pretest scores of the experimental group students on whom instruction was carried out with concept cartoons and of the control group students on whom instruction was made with conventional method (instruction based on current curriculum) in the unit of "The Earth Crust and Movements of The Earth" in primary school 4th grade science lesson?" are presented in Table 2.

In Table 2, there were not any significant differences between pretest scores of the experimental group students on whom instruction was carried out with concept cartoons and of the control group students on whom instruction was made with conventional method (instruction based on current curriculum) ($T_{(47)}=-0.91$; $p=0.36$). Thus, it can be stated that the experimental and control group students were equal before the intervention.

Results and interpretations related to the second sub-problem

The findings related to the second sub-problem which was "Are there any significant differences between posttest scores of the experimental group students and of the control group students in the unit of "The Earth Crust and Movements of The Earth" in primary school 4th grade science lesson?" are shown in Table 3.

In Table 3, it was found that there were significant differences between posttest mean scores of the experimental group and of the control group in favor of the experimental group ($T_{(47)}=-2.74$; $p=0.00$). Therefore, it

Table 1. Implementation in the experimental and control groups.

Groups	Pretests	Experimental procedures	Posttests
Experimental Group	Achievement test about the unit "The Earth Crust and Movements of The Earth" in science lesson	Instruction with concept cartoons	Achievement test about the unit "The Earth Crust and Movements of The Earth" in science lesson
Control Group	Achievement test about the unit "The Earth Crust and Movements of The Earth" in science lesson	Conventional teaching method (current instructional program)	Achievement test about the unit "The Earth Crust and Movements of The Earth" in science lesson

Table 2. T-test results regarding the pretest scores of the experimental and control groups.

Groups	n	\bar{X}	S	sd	t	p
Experimental Group	23	46.73	18.43			
Control Group	26	41.53	20.91	47	-0.91	0.36

Table 3. T-test results regarding the posttest scores of the experimental and control groups.

Groups	n	\bar{X}	S	sd	t	p
Experimental Group	23	77.60	12.60			
Control Group	26	60.96	26.53	47	-2.74	0.00

can be claimed that the experimental group was more successful than the control group. Additionally, it can be stated that academic achievement of the students in the experimental group on whom instruction was made with concept cartoons was higher than of the students in the control group on whom instruction was carried out with conventional instructional program (Appendix 1).

DISCUSSION

As a consequence of the research, it was found that instruction with concept cartoons was effective in increasing academic achievement of primary school 4th graders in science lesson. When the scores received from the achievement test on "The Earth Crust and Movements of The Earth" by the students in the experimental and control groups were compared, a significant difference was observed in favor of the experimental group. Thus, it is possible to suggest that instruction with concept cartoons was efficient in increasing academic achievement of the students in science lesson.

Conclusion

Conclusions from the research are similar to the

conclusions of some previous studies. There are a large number of studies which revealed that instruction with concept cartoons in science education affected students' achievement (Gafoor and Shilna, 2013; Stephenson and Warwick, 2002; Webb et al., 2008; Atasoy and Ergin, 2017; Akdeniz and Atasoy, 2006; Ceylan, 2015, Balım et al., 2009; Akamca and Hamurcu, 2009; Balım et al., 2011; Yavuz and Büyükekeşi, 2011; Baysarı, 2007; Evsen, 2013; Taşkın, 2014; Meriç, 2014; Atılğan, 2014; Ocak et al., 2015; Atasayar, 2015; Kabapınar, 2009; Atasoy et al., 2013; Demirel and Aslan, 2014; Gölgeci and Saraçoğlu, 2011). In this regard, the conclusion obtained in the current study is parallel to the conclusions of previous studies.

Several studies revealed that instruction with concept cartoons was efficient (Foley et al., 2011; Rule and Auge, 2005; Chen et al., 2009; Balım et al., 2015). These conclusions are similar to the conclusions of the current study. It can be stated that instruction with concept cartoons is effective because of the fact that instruction with concept cartoons is fun; they are instructing while entertaining, they encourage students to participate in the classes actively and they keep students' attention alive.

Moreover, while many studies suggested that concept cartoons improved students' academic achievement (Keogh et al., 2003; Durmaz, 2007; Eroğlu, 2010; Özüredi, 2009; Evrekli, 2010, Alkan, 2010), some others

claimed that they increased motivation levels of the students during the instructional period (Delisle, 1997; Lou et al., 2010; Dalacosta et al., 2009; Long and Marson, 2003; Naylor and Keogh, 1999; Keogh et al., 1998; Inel and Balım, 2011).

Consequently, both the findings of the current study and the findings of the previous studies have suggested that instruction with concept cartoons in science lesson improved students' achievement. From this aspect, the conclusion of the present study is similar to the conclusions of the previous studies. Concept cartoons make topics visual, increase students' motivation towards lessons, make them active in lessons and make lessons more enjoyable. Thus, instruction supported with concept cartoons is recommended in science lessons to provide students' permanent learning.

CONFLICT OF INTERESTS

The author has not declared any conflict of interests.

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Appendix



Concept Cartoon Examples



Appendix. Contd.

Full Length Research Paper

The changing dialogue on grade inflation: A graduate education program's look at grading in higher education

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This research was based on a mixed-method design. The terms assessment and evaluation have a deeply seated significance in the matters of curriculum, learning outcomes, and instructional strategies, to name a few. What has been established through the literature is that grading in higher education is surrounded by many controversies, one of which includes what criteria is graded. However, one area in which there was a convergence is that grade is an indication of student's mastery of the subject, that is, what student understand, know, and can do. In the process of programmatic assessment, a department of graduate education increased its grading scale. The before and after data, which was the student's grade, was evaluated to determine if the increase in grading scale (treatment) had an impact on the frequency of students who earned A in a particular course. The result shows that the treatment did not have an impact on the number of students that earned A. In a further analysis, it was evident that students in the graduate program advanced their effort and employed a greater level of rigor in addressing course assignment after the grading scale was increased. What was also established from this study is that the use of rubric as a grading tool fostered transparency, which contributes to the dialogue on grade inflation and adult learners.

Key words: Grading, assessment, evaluation, rubric, adult learner.

INTRODUCTION

Grades are used by educators to show students' mastery. The purpose of a grade is to communicate the summary of a student's achievement in a content area (Allen, 2005). In doing so, educators use a set of criteria to determine what students know, understand and can do (Heacox, 2009). However, some researchers, including Allen (2005), contend that grades alone are not indicators of what students know and can do, whereas some argue

that grades are indicators of what students understand and the teacher's evaluation of the students' work. The common system for reporting students' grade includes the conversion of numeric scores into letter grades of A, B, C, D, and F. This system of grading, which is used by K–12 educators and higher education faculty, has been in existence since the late 1800s (Cox, 2011). An A grade is usually awarded for excellent work, B is considered very

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good, C is considered average, D is considered less than average, and F is for failing. There are several philosophies and variations around the grading of students' work and the criteria graded. Whereas some educators grading include criteria such as grammar, style, timeliness, and neatness in addition to the quality of the material produced (Guskey and Pollio, n.d.), other educators may be more interested in the students' creativity, that is, the quality of work produced. The difference is that one educator is more interested in the whole student and sees the importance of rewarding several efforts leading to the final product whereas the other educator places emphasis simply on the finished product. This is a means to an end versus an end in itself approach.

The terms *assessment* and *evaluation* are often used interchangeably in empirical matters relating to accreditation and discussion about how to support students' learning. According to Morrison et al. (2010), *assessment* is the systematic collection of data used to evaluate, that is, to judge the quality or success of a program or student. Grading, which falls under the umbrella of assessment, has a few typologies, including confirmative assessment, which is predicated under the principle of continuous evaluation and extends beyond summative evaluation. However, the most commonly used practices are summative and formative assessments. As noted in Taras (2005), *summative assessment* is a teacher's judgment whereas *formative assessment* is summative assessment coupled with feedback from the teacher for the use of the learner. Advocates of summative assessments take into account a student's overall performance in a given course or activity whereas those favoring formative assessment zone in on the learning process and many activities leading to the student's outcome in the course (Popham, 2000). Clearly, the use of summative and formative assessments adds to the variations of grading because these two types of assessment are conceived differently from teacher to teacher, which further compounds the complexity of assessment (Taras, 2005).

Institutions have the liberty to determine what percent equals a specific letter grade. However, variations may exist among educators in the same school in the grading percentage and criteria used to determine a letter grade. For instance, some consider 90 to 100% as meriting a grade of A (Guskey and Pollio, n.d.) as opposed to 96 to 100% being an A. While grades represent students' mastery, grading rubrics are used in many institutions of higher education to promote transparency in the assessment of students' work. Rubrics, which are regarded as tools for assessing students work, are becoming commonplace in educational systems. Proponents of such tools favor their use because they clearly explain the criteria for what constitutes *excellent*, *good*, *average*, and so on. In many instances, rubrics

include percentage; provide a delineation of what is considered adequate, developing, and below expectation; and includes some quantification about the frequency of certain tasks, such as the inclusion of three bibliographies as opposed to two. The use of rubrics as a grading tool seems to reduce some degree of subjectivity in the assessment of students' work (Andrade, 2000). Andrade's (2000) position is that rubrics can be used as an instructional tool because they make teachers' expectation clear for the teacher and the students. Rubrics are beneficial for teachers because they have the potential to help the teacher assess student's mastery and command of the content, which can also be linked to the course learning outcome. A teacher assessing the quality of a student's work makes a judgment about what is deemed as high versus marginal quality; whereas rubrics support an efficient and educated assessment. Reddy and Andrade (2010) also reported that in most cases when rubrics are presented to students and used in assessing students' work, most students, especially adult learners, tend to excel and produce high-quality work.

On the premise of variation in the grading scale, some institutions support the use of extra credit for activities that are above and beyond expectation whereas some do not. In Guskey and Pollio (n.d.), some schools espouse a binary approach in grading students' work, using P for pass and F for fail. Some institutions do not report a grade of F for students. The term *No credit* or *Incomplete* may be used for work below passing—that is, in lieu of fail. Undoubtedly, grading is surrounded by many more controversies.

Grade inflation is not a new phenomenon in higher education. Students, including those in graduate programs, are required to demonstrate their learning in various forms, including writing a paper, contributing to a group project, conducting a case study, providing reflections, carrying out research, developing a portfolio and/or other creative activities, to name a few. Test-taking, although frequently used to evaluate students' mastery of the content in undergraduate programs, is rarely administered for graduate students.

This paper focuses on how a graduate program in a Midwestern U.S. university has attempted to approach the issue of grade inflation in the education programs. Its faculty member and administrators considered what it meant for students to earn an A or B. A discussion emanated from developing a rubric to accurately reflect a higher expectation for an A grade. Part of the discussion was how to increase the rigor of work that was worthy of a grade of A as opposed to a grade of B.

In this research, the terms *core course*, *grade inflation*, *grading scale*, and *graduate education program* are used. The author recognizes that these terms could be understood differently from one setting to another. Therefore, the terms are operationalized as appropriate

Table 1. Old versus new grading scale of institution under study.

Grade	Old grading scale		New grading scale	
	Point range	Percent	Point range	Percent
A	675-628	100-93	710-682	100-96
B	627-567	92-84	681-611	95-86
C	566-506	83-74	610-540	85-76
F	< 506	< 74	< 540	< 75

to the context of this study.

Core course

In the institution where this research took place, some course work is generalized to all graduate education programs. Core courses are required for all students in the master's degree in education program. Although the sequence of the core courses varies from one program to another, the learning objectives, content, text material, assignments, and rubric are the same across the programs, that is, a core course in one program can be administered in the first semester but can be in the second, third, or fourth semester in another program. This is likely a limitation because the level of writing and depth in analysis of a first-semester student in a graduate program is likely to be different for the same student after 1 year of the graduate learning experience. Consequently, when assessing students' material to determine if students increased the rigor of their writing and academic output in the program, the researcher of this work was considerate of the course sequence, that is, when students took the course and produced the material that was part of this study. The chosen core course that was used in assessing the quality of work produced by students was the Educational Research and Applications course, which is generalizable across the master of arts in education program in terms of learning objectives, outcomes, content, and course material. However, the point in which students take the course vary depending on the emphasis area. The said course landed between course number two and six in the graduate education program.

Grade inflation

Grade inflation occurs when students are readily awarded an A for less than excellent work and a B for mediocre work (Kohn, 2002). However, granting a grade of A for less than excellent work is not the only factor. Rather, what causes grade inflation is the higher frequency of As and Bs. Therefore, when everyone or the majority of the

class earns an A, the ranking of excellent has little to no value. The issue of grade inflation is considered rampant among many universities and colleges even though many institutions avoid the problem (Johnson, 2006). However, for a college interested in assessing its student output, the department under study has considered many ways to assess its instructional practices as well as increase the rigor of its program. Hence, it has looked at the percentage of students earning an A or B and implemented a higher grading scale.

Grading scale

A grading scale is the conversion of numeric scores into an alphabet grade. Higher institutions have various criteria for grades. In some colleges and universities, a 100 to 90% score equals a grade of A, 89 to 80% would be a grade of B, whereas C is 79 to 70% (Creswell, 2002). Some schools allow extra credits; however, this is not a practice in the institution under study. The literature does not suggest that a grade of B in one school would equal a grade of B in another. However, in the case whereby students are transferring credits from one institution to another, most of the time, the final grade would not be transferred using the earned grade; rather, institutions are likely to use its system of transferring grades, such as grade point average. The graduate education program under study does not consider a grade of less than C as passing and does not award minus grades such as A. The institution under study uses the grading scale in its graduate education program reflected in Table 1, which provides a comparison of the institution's new, present scale with its previous, old scale.

Based on the espoused grading scale for the graduate programs, as expressed in the graduate handbook in the College of Education under study:

1. A grade of A indicates a superior level of understanding and expression of ideas, with a depth of critical thinking on issues such that the individual shows a profound level of understanding of the material.
2. A grade of B indicates that the student exhibited good

basic understanding and diligence, and was able to extend the knowledge to other situations, making connections between the material and other concepts.

3. A grade of C indicates that the student exhibited an acceptable basic understanding of the material and was able to express that understanding clearly and accurately. This shows a preprofessional level of understanding.

4. A grade lower than C indicates that the student exhibited a lack of basic knowledge and understanding of the material.

It is important to note that one of the charges of the graduate policy committee of the institution under study, which is comprised of faculty and staff, is to determine grading policies, including grading scale. Faculty and administrators of each college and department may suggest and present a grading scale to the graduate committee. Before the implementation of the higher grading scale in the graduate education program, the change was proposed to the dean of the college and tendered to the graduate policy committee.

Graduate education program

A graduate education program looks different across many institutions. Some are initial licensure programs whereas some are not. In both cases, students have earned an undergraduate degree prior to entering the graduate program. Students enrolled in the graduate program enter the program for career advancement and to further develop their craft as professional educators.

LITERATURE REVIEW

The higher education community sees graduate education as a means for career advancement and, in some cases, career preparation; and as a way to increase the depth of professionals already in their line of work. The practice of teaching in higher education varies for those in undergraduate and graduate programs. In teaching for pre-K–16, in most cases, the knowledge resides with the teacher (Davis and Hoffman, 2008), whereas, for professional educators in graduate programs, teaching is the exchange of knowledge and exploration of information. Teachers in a pre-K–16 program identifies with the principles of pedagogy whereas those teaching in graduate programs tends to embody the principles of andragogy, heutagogy, and ergonagy in their work with students (Reynolds et al., 2009).

The debate about andragogy versus pedagogy revolves around teaching and learning, wrote Yonge (1985). Bloom's taxonomy (Appendix 1), is often used across the education system to determine the degree to which students as learners are able to remember,

understand, apply, analyze, evaluate, and create, respectively (Krathwohl, 2002). The first three levels of the learning taxonomy are associated with fundamental thinking skills, which is typified by the ability to recall, explain, and use information in a new situation. Whereas the top three levels are associated with an advanced level thinking skill, which includes drawing connections, appraising, and producing new information. This illustration is consistent with the graphical representation by Tolks et al. (Figure 1).

The first three from the bottom of the learning taxonomy include knowledge, comprehension, and application. In moving up in Bloom's taxonomy, when students analyze information, they are assessing the information and its use. When students evaluate, they are making a judgment as to the value of the information. *Create*, which is at the top of the learning taxonomy, implies synthesizing information—that is, taking a look at various information to make a judgment. Teaching adult learners in higher education using the principles of andragogy requires the use of high-order thinking, representing the top three layers of the learning taxonomy: Analyze, evaluate, and create (Wang and Farmer, 2008). Working with graduate students requires innovative instructional approaches including building on the prior experiences of students, which is not to say that teaching graduate students is incongruent with the first three levels of the learning taxonomy. Rather, the first three layers of the taxonomy are a starting place for the adult learner, which may be necessary for developing a frame of reference for engaging in scholarly discourse—inherent in teaching adult learners. In graduate programs, the first three layers of the learning taxonomy are typified by reading and interpretation of texts, which is a necessary first step for engaging in intellectual dialogue. Reading and review of academic material serve as a pretext to the greater intellectual experience that manifests when students as adult learners engage in cooperative learning or other forms of a learning exercise. The work of Heacox (2009) Tolks et al. (2016) and Krathwohl (2002) can be used to explain the intersection between the learning taxonomy and grading criteria. Student's grade, which is an indication of what the student know, understand and can do (Heacox). Knowing is an indication of remembering, understand is an indication of having a grasp of the information, and can do is the student's ability to apply the learning (Tolks; Krathwohl). The appendix section provides further illustration of this intersection, and how they serve as an overlay to the grading construct espoused in the department of graduate education under study.

Many accelerated learning programs use the flipped classroom model to facilitate learning among adult learners and promote self-directedness (Tolks et al., 2016). Under this tenet, higher educators tend to front-load the reading material, whereby the review of

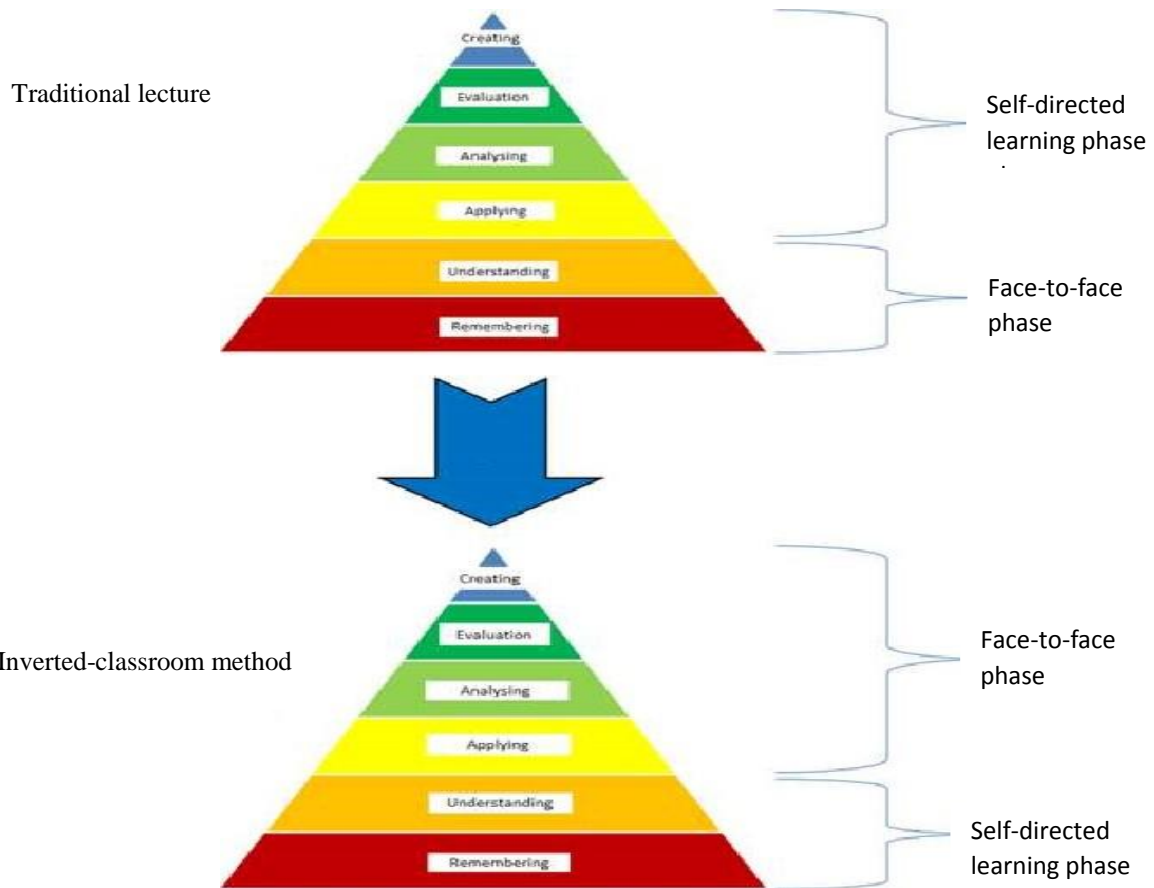


Figure 1. Blooms' taxonomy and the instructional method. From “An introduction to the inverted/flipped classroom model in education and advanced training in medicine and in the healthcare professions” by Tolks et al. (2016), *GMS Journal for Medical Education*, 33.

academic material helps accelerate learning and create a shared language to be used in the classroom among the professional learning community (Wlodkowski, 2003). This student-centered teaching, rooted in the philosophy of andragogy, is highly regarded for promoting higher-order learning because the teacher is able to efficiently move up the learning taxonomy in a manner that is stimulating for the learners. Tolks et al. (2016) graphical representation shows the connection between Bloom's taxonomy, the difference between the traditional versus the flipped classroom model (also known as the inverted-classroom method), and the self-directed learning level in the learning taxonomy.

Similarly, in a growth curve analysis of students in mathematics, Ahmed et al. (2013) postulated that several factors can change and impact students' learning and growth. Among other things, they reported that changes in positive emotions are systematically associated with changes in self-regulated learning and achievement. This is consistent with Edwards (2004), who reported that

instructional approach matters significantly to students' learning.

METHODOLOGY

Research questions

1. Did increasing the percentage to earn an A grade reduce grade inflation in the graduate education program?
2. Was there a difference in the number of students who did not earn an A?
3. Based on comparing students' work before and after the use of the higher grading scale, what phenomenon was observed about the quality of work produced?

Research design and data collection

This mixed-method research drew on the foundations of positivist and postpositivist paradigms. The first espoused methodology included a quantitative approach for evaluating the final grade of students in the graduate education program over the period of one

academic year before and after the implementation of the increased percentage to earn an A. The data, final grades, were compared from before and after for students who did not earn an A. The final grades, although not compared to the previous year on an individual student basis, were compared with data from a year prior to the implementation of the higher scale to determine if the treatment had an effect on students' grades and, if it did have an effect, the degree to which it had an impact.

In the second methodology, students' papers, which were randomly selected, were accessed through the course management system. This plan was communicated with the department chairperson and college dean. A qualitative approach was used to evaluate the students' papers to determine if students were more rigorous in completing graded assignments in an effort to earn an A. Notably, the said course is used in all the Master of Arts in education program emphases areas. The scoring rubrics and papers compared for the two academic years, 2016 (pre) and 2017 (post) in an effort to assess the quality of students' work before and after the higher grading scale was implemented. The students' papers that were reviewed came from each of the emphases areas in the graduate education program. The random selection meant that a list with students' names was made and one name was selected randomly from the list. Therefore, any of the students' paper from the course had an equal chance of being selected for the review. This randomization method was used for the before and after groups for the six emphases, which generated 12 papers. Once the randomization process was completed, the selected papers were printed and the students' information was redacted. Then, the papers were labeled *before* and *after*. Although a randomized protocol was applied to the selection of papers included in the qualitative approach, the volume of materials generated the and the number of students' papers included were not enough to suggest that the evidence was representative of the other students who also earned an A but not included in the review.

Table 2 provides an illustration of the research question, the data used to assess the question, and the procedure that was used to collect and analyze the results.

Population and samples

The graduate education program comprised of 77.4% women, and 22.6% men in 2016, and 77.7% women and 22.3% men in the 2017 academic year, who have earned their undergraduate degree and have work experience prior to entering the program and, therefore, are adult learners. The data that were used for this study was the final grades for graduate students in the education program—that is, students in the master of arts in education program. The data included students' final grades in the curriculum and instruction, differentiated instruction, early childhood education, educational leadership, educational technology, and special education programs in the College of Education. The program is a 2-year program leading to a master's degree in education with an emphasis in any of the aforementioned specializations. The students in the program took a set of core courses, which ranged from 30 to 50% of the course work, whereas the other courses are content area specific. The early childhood program is unique because students in that specialty take one additional course to fulfill the requirements of the program.

Although the duration of the program is 2 years, comprising of courses and capstone research, some students may take a longer time to complete the program as some take a break for a period of time for professional, personal, and other reasons. Additionally, it should be noted that students are able to take the course in two modalities: The traditional on-campus, face-to-face or the online format. The course requirements and learning activities are similar

for students in either format.

In assessing if the increase in the percentage to earn an A grade reduced grade inflation, chi-square was used to determine whether the implementation of the higher grading scale changed the number of students who earned a final grade of A based on comparing before- and after-data. Also, a *t*-test was used to determine the difference in before- and after-data. Before the implementation of the higher grading scale, students were required to have 93 to 100% to earn an A, whereas, for the new scale, students needed 96 to 100% for an A. Those who did not earn an A were those who scored 95% and below. The students' grade that was part of this assessment included all students who earned an A.

The 12 randomly selected students' work, that is, final papers across the graduate education programs were reviewed, along with the grading rubric. The students' work that was reviewed comprised of six papers written before and six papers written after the increase in grading percentage went into effect. Although this was not intended to be representative of the student body, it was intended that this review would provide additional insights for addressing the research question and, more importantly, the quality of work that received an A. Although tangential to the espoused research design, the observation from the artifact review (students' papers) was corroborated with observations of four faculty members in the graduate education program, who are responsible for teaching and assessment in the various emphases areas.

Privacy and consent

The researcher of this study contacted the institutional research office of the institution under study via e-mail, explaining that the researcher, upon recommendation of colleagues in the Department of Graduate Teacher Education, wished to conduct an evaluation of the number of students earning an A before (2016 grades) and after (2017 grades) the implementation of a higher grading scale, taking into account the entire student body during the specified academic years. The Office of Institutional Research at the university responded with a statement of support and agreed to provide the necessary data.

The significance of the study

The primary significance of this study was to help the faculty and department evaluate its practice. As such, this study shows that the implementation of a higher grading scale led to increased rigor, which also changed the narrative on grade inflation. In addition, this study serves as implications to other graduate programs in increasing the quality of students' academic output while reducing grade inflation. Thus, this research adds to the body of knowledge.

RESULTS

The statistical software that was used for the data analysis was Minitab 16. Cross-tabulation and chi-square were used to determine whether the change in the grading scale (before 93% = A versus after 96% = A) had an impact on the degree to which students earned an A, and the *t*-test was used to determine where there was a difference in the categories of A, Not A, IP, and Pass. In this report, the implementation of the higher grading scale to earn an A was considered a treatment. Therefore, the before- and after-data of students who earned an A were

Table 2. Research framework.

Research question	Method of assessment	Procedure
1. Did increasing the percentage to earn an A grade reduce grade inflation in the graduate education program?	Quantitative: Situated in the positivist paradigm, the researcher took an objective view in analyzing students' data using chi-square to determine the degree to which there was a difference in the number of students who earned an A before and after the implementation of the higher grading scale. The result of this analysis was used to determine if the change in grading scale had an impact	The percentage of students who earned an A was compared to those who did not earn an A before and after the implementation of the higher grading scale.
2. Was there a difference in the number of students who did not earn an A?	A <i>t</i> -test was used to assess grades before and after implementation of the higher grading scale to determine the difference in the categories of those who earned an A and those who did not earn an A	
3. Based on comparing students' work before and after the use of the higher grading scale, what phenomenon was observed about the quality of work produced?	Qualitative: In an effort to address Research Question 3, the data collection and analysis resided in the postpositivist framework. Thus, the students' papers were treated as artifacts and were examined for rigor and quality. The artifacts were comprised of students' final papers before and after the implementation of the higher grading scale.	Students' final papers in the aforementioned course were reviewed in an effort to determine if students increased their effort to meet the rigor to earn an A grade after the implementation of a higher grading scale. A comparison was made using students' material from the same course before the use of the higher grading scale.

Table 3. Chi-square test results.

	Grade				Total
	A	Not A	In progress	Pass	
Before	1657	93	12	14	1776
	1598.06	161.56	7.91	8.47	1598.06
	2.174	29.092	2.117	3.605	2.174
After	1172	193	2	1	1368
	1230.94	124.44	6.09	6.53	1230.94
	2.822	37.769	2.748	4.680	2.822
Total	2829	286	14	15	3144

Chi square = 85.007, *df* = 3, *p*-value = 0.000.

compared in an effort to address the research question (Tables 3 and 4).

The chi-square does not distinguish between the four categories (A, Not A, In Progress, Pass). Based on the *p*-value of 0.00, as shown in Table 3, which is smaller than 0.05, the treatment, in this case, the implementation of a higher grading scale had an impact in at least one of the categories.

The *t*-test was used to examine the individual category to determine if the A category was affected by the

treatment. When the *t*-test was used to compare the difference between how many students earned an A before and after the treatment, it appears that based on the *p*-value of 0.396 being larger than 0.05, there is no evidence that there was a significant difference in before and after the implementation of the higher grading scale for those students who earned an A grade (Table 4).

From the *t*-test (Table 5), the *p*-value of 0.006 being smaller than 0.05, there is some evidence that the treatment had an impact on students who did not earn an A.

Table 4. Two-sample T-test and confidence interval data: A Grade.

	N	Mean	Std dev	SE mean
After	3	914	380	220
Before	3	1286	532	307
Difference = mu (after) - mu (before)				
Estimate for difference: 373				
95% confidence interval for difference: (-1574, 829)				
T test of difference = 0 (versus. not =): t -value = -0.99, p -value, = 0.396, df = 3				

Table 5. Two-sample T-test and confidence interval data: Not A Grade.

	N	Mean	Std dev	SE mean
After	3	182.3	15.1	8.7
Before	3	90.3	17.2	9.9
Difference = mu (after) - mu (before)				
Estimate for difference: 92.0				
95% confidence interval for difference: (50.0, 134.0)				
T test of difference = 0 (versus not =): t -value = 6.96, p -value = 0.006, df = 3				

The box plots in Figure 2 provide insight, whereas the t -test shows the statistical significance or the lack of it. Therefore, the t -test is more precise. In Figure 2, the lines in the box plots represent the median and the dots represent the means. The line across both after and before categories represents the difference between the means. Visually, using Figure 2, because of the overlap in the category of students who earned an A, there is likely no significant difference in before and after whereas in the Not A category, there was no overlap.

It appears that after the treatment, there were fewer students who earned an A when comparing the mean from Tables 4 and 5, which shows that before the implementation of the higher grading scale, there were 1,289 students who earned an A compared to 914 students who earned an A after the treatment. Students who did not earn an A before were 90 compared to 182 students after the treatment.

DISCUSSION

The difference in the number of students who earned an A was not significantly different, based on the comparison of data on students' final grade before and after the implementation of a higher percentage. Following are the study findings by research question:

1. Did increasing the percentage to earn an A grade reduce grade inflation in the graduate education program? No, based on the p -value of 0.396, there is no significant

difference in before and after the implementation of the higher grading scale for those students who earned an A grade.

2. Was there a difference in the number of students who did not earn an A? Yes, based on the p -value of 0.006, there is some evidence that the treatment had an impact on students who did not earn an A.

3. Based on comparing students' work before and after the use of the higher grading scale, what phenomenon was observed about the quality of work produced? In comparing the students' selected papers for before and after the increased grading scale, there was some evidence to suggest that students increased their efforts to earn a higher grade. In almost all instances after the increased grading scale, students were particularly thorough in addressing the rubric criteria.

The students' work reflect a particular level of quality; however, those papers produced by students after the treatment was of a much higher level of graduate writing in that the level of depth, analysis, and reflection as presented in the papers was undoubtedly rigorous. Notable, the inclusion of a rubric made a clear difference in whether students addressed the criteria for the assignment and the degree to which they did. In almost all instances, students provided the illustrations necessary yet concisely addressed the requirements.

Evidently, after the higher grading scale, students were even more incisive in addressing the criteria for the assignment.

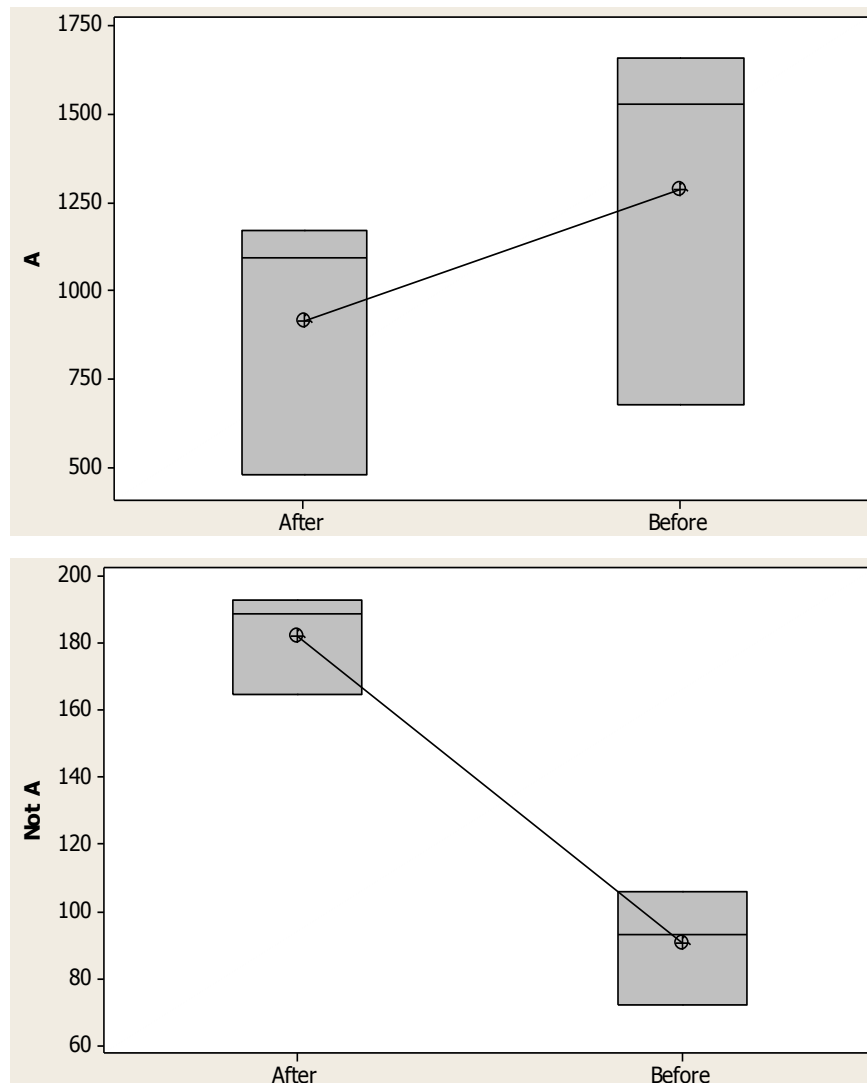


Figure 2. Comparison of before and after implementation of higher grading scale for A grades and not-A grades.

Conclusion

To circle back to Reddy and Andrade (2010) on the use of rubrics, it is likely that students who earned an A were able to excel to the new standard of grading. Because the criteria were openly laid out and communicated, students sampled in this study were able to meet the requirements for academic excellence. Although the number of students who excel and earn good grades is considerably higher, grade inflation remains perpetual, which is likely an indication that educators and institutions of higher education could start looking at grade inflation differently. When rubrics are used to grade students on specific criteria, it demystifies the ambiguity about learning objectives, teacher expectation, and students' outcome.

Therefore, students can demonstrate what they know, understand, and can do. Perhaps grade inflation, which is caused by a majority of students' earning academic honor, can be attributed to students' motivation to do well.

Limitations

It was not clear if there was a difference in the instructional approach used in instructing students before and after the treatment. That is, it was not determined if the instructional efforts were intensified after the treatment. Because no such data were accounted for, this is a limitation to the results. Although there is

valuable information derived from this study that could serve as an implication to other institutions of higher education, this finding can only be generalized to the department where the research took place, which means other institutions of higher education could consider this research as a frame of reference; however, they have the opportunity to replicate this study in their institution.

Recommendations for future research

What was not explored in this study is a measure of a student's grade in relation to persistent enrollment. Thus, future research is necessary to determine if students' learning increased over time after persistent enrollment in the graduate program. Furthermore, the criteria for measuring students learning overtime would need to be determined for this assessment to occur.

It was gathered from this study, though a hypothesis at best, that students are likely motivated and invigorated by the new expectation required to earn an A. Future study is required to examine this further and to explore the potential Hawthorne effect that would likely result from the change in the grading scale.

There are other factors that are considered an outlier to this study. One of these factors is the evaluator's judgment when assessing students' work and awarding grades. A future researcher could consider the evaluator's shift in paradigm when using a new grading scale to assess students' work.

In the matter of reducing grade inflation, this researcher wonders if some schools, such as highly competitive schools, naturally attract students who are likely to earn a high grade based on having a high expectation for quality scholastic work. To that end, could this be used to explain grade inflation? A comparison between the grading data of students in private and public institutions is also needed.

CONFLICT OF INTERESTS

The author has not declared any conflict of interests.

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Appendix 1

Appendix 1. Grading construct in relation to assessment and bloom's taxonomy.

Heacox (2009)	Tolks et al (2016) on bloom's taxonomy	Department of graduate education grading criteria
Know	Level 1: Remember, that is to recall the information	A grade of C- indicates that the student exhibited an acceptable basic understanding of the material and was able to express that understanding clearly and accurately – Shows a preprofessional level of understanding
Understand	Level 2: Understand-to have a grasp of, that is, to recognize and be able to explain the information	This is also consistent with the criteria to earn a grade of C, meaning student in this category is expected to be able to demonstrate and express understanding of the course content clearly at the preprofessional level
Can do	Level 3: Application, which is to use the information in new setting.	A grade of B indicates that the student exhibited good understanding and diligence, and was able to extend the knowledge to other situations, making connections between the material and other concepts. The expression of these ideas shows a greater depth of understanding and critical thinking
	Level 4: Analyze, which is to draw connection, organize and examine.	A grade of A indicates a superior level of understanding and expression of ideas, with a depth of critical thinking such that the individual shows a profound level of understanding. Critical thinking, as typically expressed in the graduate rubric, the individual is required to analyze and draw inferences with exceptional clarity. Students in this category are expected to demonstrate a greater level of understanding, by formulating questions or response that reflects a particular depth of scholarship, which includes assessment, and the creation of new information-contributing to the body of knowledge both theoretically and pragmatically
	Level 5: Evaluate, to justify and appraise.	
	Level 6: Create, produce, design, construct, develop, formulate.	

Full Length Research Paper

Relationship between school, family and environment, according to school principals' views

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The aim of the study is to identify any possible deficiencies and disruptions that may be in the way of establishing a healthy cooperation between school, family and environment. It is a mixed research design study. Data were collected by scanning model and document analysis methods. Survey was used in the scanning model. The opinion of the N=50 school principals working in Rize Province of Turkey and the data obtained from these were analyzed using SPSS statistical program. Based on the results, in the process of establishing cooperation between school, family and environment the most influential element is school. The teacher who is part of the human resources of the school was the most important sub-element of this process followed by the school principal and the administrative staff. In the continuation of the activity ranking in the process of establishing cooperation between school, family and environment, parent-teachers association, Ministry of Education, parents and lastly the NGO take place. It is recommended to carry out model development and implementation studies, including studies and policy documents that will contribute to the elimination of this problem and to solve the deficiencies and problems within the system integrity.

Key words: Deficiencies and problems, family and environment participation school, school principal's opinions.

INTRODUCTION

The first thing that comes to mind when a student is mentioned is the existence of a learning person. According to the Turkish education system, the student starts his/her student life at the age of four when he/she starts kindergarten and at the age of 18 if he/she does not go to the university and does not leave school in this process, he/she completes his/her pre-university education as a graduate from high school level. During this period, the student spends at least 10.84% of his/her

time in the school and the remaining 89.16% out of school settings. Out-of-school settings consist of the home or family environment and the environment. The school where the learner spends 10% of his/her time is considered as 'a social organization' by Furman and Shields (2005: 133) and Bursalıoğlu (2000: 69). This social organization is expected to provide healthy, effective and functional environments as well as the whole system and its components. In the school, a

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unique organizational climate and organizational culture occur (Keleş, 2006: 21). Helvacı and Aydoğan (2011: 41) explain that there are four elements of an effective school. These are; education and teaching process, school and environment relationship, school climate or culture and school, family and parent relationship. The elements of an effective school system are students, school's human resources, family and environment. The student is at the center of this system. The school's human resources consist of; school principal, administrative staff, teachers and other employees. The family is consisted of mother-father, other family members or the student's guardian. The environment is the people and organizations around both the school and the student. It is essential to establish a good relationship between family, community and school (Akkök, 2003), that is to say that it is imperative to have established good relationship between these parties. Looking at some of the outcomes of academic studies explained in this context "the more parents participate in their students' learning and the school environment, the greater the success of students (Henderson and Berla, 1994). This is not only limited to academic achievement. The student's self-esteem, attendance and social behavior are strengthened (Lemmer, 2007: 219). It is also possible to explain this as discussed in Pehlivan (1997)'s study. It contributes to students' participation, motivation and self-confidence and to develop positive attitudes towards school and teachers. In summary, a healthy school environment produces morale, motivation, productivity and consequently increased performance" (Ayık and Ada, 2009). It benefits the students, families, the school, the teacher and society (Akkök, 2003).

There are many models that explain a possible healthy relationship between school, family and society. In the explanation of these models, it is seen that the school system focuses on different elements and sub-components. According to this information, Aydın (2005)'s study has seven, Epstein (1995)'s and Taymaz (2003)'s models have six elements. In the works of Bursalıoğlu (2000) and Yiğit and Bayraktar (2006) four elements are included. As discussed in these studies, one of the most important elements of a healthy school system is school management. A school; is managed by a principal. A school principal has many duties and responsibilities. Among the duties of a school principal are to provide the learning individual with the opportunity to learn and teach in a systematic structure, to regulate relations with society, to lead the education and management fields (Gündüz and Balyer, 2013; Şaban, 2011; Wohlstetter and Mohrman, 1996; Helvacı and Aydoğan, 2011). Like all systems and their elements that change, develop or transform the tasks or roles expected from school, school principals also differ over time. Today's new management approaches address some elements that stand out when determining the effectiveness and functionality of the school principal. In Balyer (2012)'s these elements are listed as:

accountability, self-governing school, competitiveness, curriculum and assessment methods. Emphasizing that the roles of school principals are more flexible and diverse, Mulford (2003) stated that school principals should be individuals who are successful in performance, management, reorganization of teaching and related responsibilities such as the power they possess, student performance-oriented assessment, complex social environment, multipolar society, change of teachers' roles. Another matter is that a school principal is the facilitator in the relationship between school, family and environment (Hall, 2005, p.12). The principle should be involved in relationships with parents, decision-making, school budget and finance matters (Sahid, 2004). Besides all of these, the school principal, contributes to the effective and efficient learning environment and the positive view of the family to education. The principal also contributes to the formation of self-esteem in the student through motivation, interest and integration in the environment and contributes to the protection of the student from negative effects, if there are any (Uluğ, 1990; Beler, 1993; Burns, 1993; Gül, 1998; Özçınar, 2003).

Rationale and importance of the research

Many studies have been carried out to establish a healthy relationship between school, family and environment. Apart from these studies, as reported in Badavan and Özbaş (2009) legal and administrative arrangements are made as well. However, despite all of these studies no healthy relationship between school, family and society has been established. In fact, how to establish and develop (Çalık, 2007: 123) this healthy relationship is not mentioned. This situation necessitates the explanation of how to develop healthy relationships between the school, the family and the community. Therefore, the opinions collected from school principals are considered important in terms of compiling the above-mentioned problems and the opinions that may be the subject of the solution of these problems. Thus, the school principal is in an important position in the relationship established between the school, family and society. When the literature is examined, it is seen that there are many studies related to this subject with similar scope and content. In this study, any deficiencies, disruptions and areas of improvement related to the possible healthy environment between school, family and environment will be described with the opinions of the school principals.

MATERIALS AND METHODS

In this study the mixed research design method was used. In the data collection process, literature review and content analysis methods were used. Relevant field literature studies and questionnaire were used. Data collected through the questionnaire

were analyzed by SPSS statistical package program.

Purpose of the research

The aim of the study is to identify any possible deficiencies and disruptions that may be in the way of establishing a healthy cooperation between school, family and environment. For this purpose, according to the schools principal's opinions the study tried to answer the question: If there are any, what are the deficiencies and disruptions that may be in the way of establishing a healthy cooperation between school, family and environment?

Population and sample

In the data collection process, the opinions of the school principal were used with the screening model of this study. The population of the research was Rize Province which according to the statistics of the Ministry of Education (2019: 20, 27), has 171 primary school level and 189 secondary school level educational establishments. The samples of this study are the school principals working in 50 schools which are considered sufficient to represent the population among the schools in this province.

Data collection tools

The data suitable for the research purpose were obtained by document analysis and scanning model method. As reported in Büyükköztürk et al. (2012)'s study which used the scanning model was conducted to determine the participants' views related to the scope or characteristics of their interests, skills, abilities, attitudes, etc. In other words, factual opinions, attitudes and behaviors (Aziz, 2015: 103) were determined. The study was carried out with 50 sample groups from Rize province, in accordance with the description of the following scanning method; "in a population considered to consist of many elements, in order to make a general judgment about it, group of samples or a sample is taken from the whole population or from sample of it" (Karasar, 2005 : 79). The people whose opinions were consulted are the school principals. The aim of the study is to explain the relationship between school, family and society in the context of educational science and learning and to provide data to the conceptual framework needed in the analysis of the data in the scanning model. The scanning model consisted of opinions collected from school principals through questionnaires. In the research the questionnaire used as a data collection tool is titled "Family Participation Research" and is developed by Prof. Eleanor Lemmer, a faculty member at University of South Africa. The questionnaire consists of two parts. The first part is the introduction part. There are six open-ended questions in this part where demographic information is compiled. These questions are titled as; name, type, state or private status of the school, number of students and other. The second part that has 27 questions composed of two sub-parts named "home and school relations" and "school support". Some of these questions are multiple choice and some are open ended. The questionnaire was translated to Turkish by the researchers and was used in data compilation process. For scope and structure validity and reliability, in addition to interviews done with Lemmer, data were compiled from additional face-to-face interviews with 5 school principals. The questionnaire was delivered to school principals in the form of printed forms. The forms were collected after being filled in by the principals. When the collected questionnaires were examined, it was found that the whole sample responded to the questionnaire. The data obtained through the questionnaire were analyzed with SPSS 22.0 statistical software. In this process; frequency (f),

percent distributions (%) and t-test analysis were done. Findings related to the degree of freedom (df) and level of significance (Is) were put forward and the findings, results and recommendations were obtained from this document analysis.

RESULTS AND DISCUSSION

According to the analysis of the data compiled by answering the questions for the purpose of the research, all n = 50 schools subject to the research have state school status. 54% of the schools are primary, 20% are secondary and 26% are high schools. The school principals (54%) are with 1-3 years of experience, 28% are with 4-6 years, 14% are with 7-10 years and 4% are with more than 10 years of experience as principals in these schools. 58% of the schools have up to 300, 36% have between 300-600 and 6% have more than 600 students. In order to determine the relationship between the school, family and environment, the principals were consulted on the following subjects: knowledge of the teachers and staff working in the school, in-service training activities for this purpose, if the school has a staff in charge of the relevant subject and whether the school has or does not have a policy document related to the subject.

In addition to this, communication and interaction tools and information gathering method for the healthy relationship between school, family and environment have been the subject of data collection. Also, the topics and frequency of the meetings, attitude and behavior of the parties were some other subjects of data collection. The views of the family regarding their voluntary work and participation in-school and extra-scholastic cooperation with the school were also collected. According to the opinions of the principals, it is established that 82% of the teachers and 96% of the other school staff do not have enough information about the relationship that should be established between the school staff and the family. Only 34% of schools have an in-service training program for staff. 36% do not have family representative and 36% do not have a policy document. In addition, in 28% of schools it is believed that the expected relationship between the school and the family is not qualified.

The means of communication and interaction between the school and the family are listed from most effective to least effective: telephone in 96% of the schools, meetings conducted during certain calendar periods in 68%, home visits in 56%, entertainment sport or other activities in 52%, writing status reports in 42% and conducting meetings in the area where the family is located in 6%. It was found that the report cards in the data collection tool were never used. The parties, in 46% of the schools meet sometimes and in 36% of the schools meet regularly for possible cooperation between the school and the family. For this purpose, only teachers meet with families frequently in 62% of schools and once in a period of 30%.

Table 1. Families' participation in teaching activities organized by the school in relation to school, family and environment relationship.

Activity	X (mean)
Participants in individual family-teacher meetings	2.56
Regular participants in the meetings organized at school	2.30
Regular participants in regular study meetings organized at school	2.16
Activity – Basic level writing skills	1.96
Activity-Finding information for Homework and projects	1.94
Activity – Basic level mathematical skills	1.83
The ones who control the daily homework of their children	1.81
Participants in the school governing body elections	1.80

In order to discuss the situation of students with special learning needs and behavioral problems, the parties always meet in 50% of schools and sometimes in 30%. In order to discuss the situation of successful students, the parties meet frequently in 60% of schools and sometimes in 36%. School principals spend on average 3.73 h per week to meet with the families to discuss school and family relations. According to the opinions of the school principals 28% of the schools' families gather for some voluntary services. The voluntary services provided by the families are from the largest to the smallest and proportionally as follows: 48% organize trips or take part in organized trips, 44% contribute to the students' development through sharing personal experience or making career plans, 26% read together with the students, 12% listen to students' readings, 10% check students' works and 6% contribute to students' acquisition of skills in the learning process.

One of the subjects on which school principals' opinions were collected was; the voluntary support provided by the families in cooperation between the school, family and environment. One of the subjects on which school principals' opinions were collected is; the voluntary support provided by the families in cooperation between the school, family and environment. According to 40% of school principals, the families observe the students in the playgrounds activities. In addition, in 36% of the schools, the families observe the participation of the students in the activities of the school buildings, social living spaces and laboratory. In 20% of the school's families voluntarily contribute by working in areas such as libraries and computer laboratories, 20% assist in the canteen and assist other students during lunch hours, and 8% contribute by assisting the students in studies or private lessons. Also, in order to determine the different forms of cooperation with families and their frequency, the opinions of the school principals were used. The school principals' responses were recorded with the minimum (1), medium (2) and maximum (3) points. With the analysis of these records, it was found that the families participated in the teacher and family meetings with an average of 2.56 points as shown in

Table 1. Afterwards, it was found that with an average score of 2.30 points the families participated in irregular meetings organized by the school and with an average score of 2.16 points they were invited to and that they participated in meetings during different periods of time. Family; in the cooperation between school, family and environment in addition to participating in the meetings arranged by the teachers and the school they also cooperate with the aim of contributing directly to the academic studies of the students. According to this, family support activities that support students' writing skills with 1.96 points on average, with 1.94 average points they support the students in homework assignments and finding information related to projects and with average 1.83 points they support the students with their basic mathematic skills.

One of the subjects on which school principals' opinions were collected is related to the students learning activities at home. 28% of school's families are always consulted and 64% are sometimes consulted by school on issues related to the students' homework. While 58% of the schools have a homework policy 42% do not. 46% of the schools make interaction with the parents regarding the homework assigned to the students. 40% of the school's families are informed about the students' homework assignments during the school and family meetings; in 26% of the schools written note is used (Table 2).

The issues that the principal wants to take part in the council established with the school, family and environment and their school-based ratios are as follows. 40% of the school's principals want to support the family education and to take part in issues related to the academic skills expected to be acquired by children. Principals of 70% of the schools want to take part in issues related to special skills or needs, 42% want to take part in the process of supporting the conditions for students to learn at home and 64% want to take part in the issues that are subject to the active participation of the family. Principals of 80% of the schools want to take part in students' progress and the evaluations related to it, 56% want to take part in activities related to

Table 2. Participation level of the School, family and Environment Elements in the School, Family and Environment Council.

	Tenure	N	Average (M)	Group average	Standard deviation	Standard deviation of the average
School management unit	1-3	25	3.56	3,61	0.71	0.14
	4-6	14	3.57		0.76	0.20
	7-10	6	3.17		1.17	0.48
	More than 10	2	4.00		0.00	0.00
Support staff, deputy principal, clerk, janitor	1-3	25	3.48	3,53	0.71	0.14
	4-6	13	3.46		0.66	0.18
	7-10	6	3.33		0.82	0.33
	More than 10	2	3.50		0.71	0.50
Teacher	1-3	25	3.40	3,46	0.71	0.14
	4-6	14	3.21		0.80	0.25
	7-10	6	3.50		0.83	0.34
	More than 10	2	4.00		0.00	0.00
School council	1-3	25	3.16	3,15	0.99	0.20
	4-6	14	2.93		1.121	0.27
	7-10	6	2.83		1.17	0.48
	More than 10	2	4.00		0.00	0.00
Ministry of education	1-3	23	2.91	2,91	1.16	0.24
	4-6	12	2.97		1.16	0.34
	7-10	6	2.17		1.17	0.48
	More than 10	2	3.50		0.71	0.50
Parent	1-3	25	2.72	2,46	0.79	0.16
	4-6	14	2.00		0.88	0.23
	7-10	6	2.17		0.75	0.31
	More than 10	2	2.00		0.00	0.00
Non-governmental organization	1-3	23	1.78	1,82	0.99	0.21
	4-6	14	1.79		1.05	0.28
	7-10	6	1.67		0.82	0.33
	More than 10	2	2.00		0.00	0.00

determining parents' opinions about the school, 50% want to participate in decision making process and 72% want to take part in the activities related to the benefit of society. While taking the years of duty of the principals into consideration the opinions of the parties involved in school, family and environment collaborations and their participation levels in the collaborations between the school, family and environment were analyzed and obtained data is given in Table 2. As shown in Table 2, in collaboration between school, family and environment the most effective party is the school and its sub-element the school management; then, other school staff, teachers, school council, Ministry of Education, family and non-

governmental organizations follow, respectively. In the collaboration between school, family and environment non-governmental organization is the least effective.

According to the school principals' opinions, the school, family and environment participation is supported by school management, 64%; 54% by deputy principal and support staff and 52% by the teacher. This shows that the process and the relationship between school, family and environment are carried out through school staff. According to the school principals' opinions, 82% of the teachers and 92% of the other staff have sufficient knowledge. In 34% of the schools on-the-job training is applied. In 36% of the schools it is believed that the

family representative is participating in the activities. Again in 96% of the schools' phone calls, in 68% conducting interviews during certain calendar periods; in 56% doing home visits; in 52% organizing entertainment, sport etc. activities; in 42% writing status reports; in 6% organizing meetings in the areas where the families live are other communication and interaction methods being used. 46% of the school principals meet with the families 'sometimes' and 36% meet 'often'. Also, school principal spends on average 3.73 h a week for an effective school-family cooperation. 28%, participate in some voluntary service at school. The 20% of the support is oriented at the school structures, social living spaces and laboratory works. In the process of striving to establish a healthy relationship between school, family and environment, the opinion of the family and the environment is "always" referred to with a rate of 28% and it is "sometimes" referred to with a rate of 64%. In the assignments given to students, direct interaction with family members is done with rate of 46%.

Apart from these findings, school council and Ministry of Education are part of the schools governing body with the rate of 44 and 36%, respectively. On the other hand, the parents have relationship with the rate of 8% and non-governmental organizations with 6%. This situation shows that the School Councils do not establish a strong and organized relationship between schools and families and that holism is not ensured (Topçu, 2013). Similarly, the importance of continuous and regular communication between school and family is emphasized in order to ensure family participation. The schools' human resources, in order to ensure participation of the family, may interact and contact them via phone or materials such as letter, bulletin board, school-parent handbook, poster-brochure (Hohmann and Weikart, 2000). It is seen that there is not enough contribution to the formation of a process that "contributes towards the development of the collaboration between the teacher and the school; students' learning activities at home; student's increased learning success; contributes towards the parents' awareness of teachers' workload (Wyk and Lemmer, 2009:14-16). However, it is also consistent with the following explanation "there should be a consistency between the school and the family in the expectations of the family from the school and the goals of the school. If this consistency is not achieved, both the school will lose its effectiveness and the expectations of the family will not be realized" (Epstein and Sheldon, 2002: 310; Aslanargun, 2007). These findings show that, there are important deficiencies and problems in the process of establishing a healthy relationship between school, family and environment. Finding a solution to these deficiencies and problems is seen as a necessity. However, it would not be a correct and fair approach to expect these deficiencies and problems to be solved solely by the school principals. Hence, it is necessary to search for solutions to existing deficiencies and problems within the

system and to carry out studies to eliminate them and to take measures.

Conclusions

The schools the teachers (82%) and 96% of other staff do not have necessary knowledge related to the healthy relationship expected to be established between school, family and environment. In addition, while only in 34% of the schools there is on-the-job training oriented towards the staff, in 36% family representative takes part in activities and in 36% there is no policy document. The ways of communication and interaction between the school and the family are listed from most effective to least effective as follows: telephone in 96% of the schools, meetings conducted during certain calendar periods in 68%, home visits in 56%, entertainment sport or other activities. In addition, in 42% writing status reports and in 6% conducting meetings in the area where the family is located are ways of establishing communication and interaction. In this process, report cards found in the data collection tool were not used at all.

In 46% of the school's family and school staff meets sometimes and in 36% they meet often. 62% of the teachers meet with the families frequently and 30% meet once at the beginning of the semester. In 50% of schools there are always meetings and in 30% there are sometimes meetings to discuss the situation of students with special learning needs and behavioral problems. In 60% of the schools there are frequent meetings and in 36% there are occasional meetings to discuss the situation of the successful students. When school principals come together with families for school-family relations they spend on average 3.73 h a week.

According to the opinions of the school principals, 28% of the school's families take part in voluntary services. The voluntary services the families take part in are mostly social activities. According to this, proportionally the voluntary services provided by the families are as follows: 48% organizing trips or taking part in organized trips, 44% contributing to the student's development through sharing personal experience or making career plans, 26% listening to the students' readings, 10% checking students works and 6% is contributing to students' acquisition.

Family volunteer support includes 40% observing the activities in the student playgrounds, 36% following their participation in the activities and observing the student in the school buildings, social living spaces and in laboratories. Besides these, 20% of the schools' families voluntarily contribute by working in areas such as libraries and computer laboratories, 20% assist in the canteen and assist other students during lunch hours, and 8% contribute by assisting the students in studies or private lessons. When families are scored with the highest

3 and lowest 1, they attend individual family-teacher meetings with a maximum of 2.56 on average. Then, they attend the meetings held at the school with an average of 2.30 and regular meetings held at the school with an average of 2.13. After these three elements, it is seen that they show more interest in the subjects related to academic study. Activities that support writing skills are supported by families with an average score of 1.96, homework assignments and project information finding with 1.94 and supporting mathematics skills with an average score of 1.83 points.

28% of schools' families are always consulted and 64% are sometimes consulted by school on issues related to the student's homework assignments. While 58% of the schools have a homework assignment policy 42% do not. 46% of the schools make interaction with the parents regarding the homework assigned to the student. The relationship between the homework assignments given to the student and the family is made through direct interaction in 46% of the schools.

40% of the school principals want to take part in the subjects related to the academic skills expected to be acquired by children and to the subjects related to the support of family education. Principals of the 70% of the schools want to take part in issues related to special skills or needs, 42% want to take part in the process of supporting the students in the subjects they are to learn at home and 64% want to take part in the issues that are subject to the active participation of the family. Principals of the 82% of the schools want to take part in students' progress and the evaluations related to it, 56% want to take part in activities related to determining parents' opinions about the school, 50% want to participate in decision making mechanism process and 72% want to take part in the activities related to the benefit of society.

The research provides findings and conclusions that the most effective element of school, family and environment cooperation is the human resource of the school. According to this, the teacher is at the forefront of the school's human resources; following are the school management and administrative support staff. In the relationship between school, family and environment, after school's human resources, it was concluded that school council, Ministry of Education, parents and civil society organization were effective.

RECOMMENDATIONS

The most important deficiency or problem is estimated to be the fact that the process between the school, the family and the environment runs through the school and that the family and the environment are not actively involved. Finding a solution to these problems and deficiencies within the system's integrity is seen as a necessity requirement. For this reason, continuing the studies in this scope, developing and implementing

models including policy documents is recommended.

CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

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Full Length Research Paper

Comparisons of children's level of recall: Stories told through e-book and picture book

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Preschool period covers the years when the child is in a rapid change and development in every aspect. The learning experiences in this period affect children's development. The developments in knowledge technologies affect the child's environment and children's books. This rapid change brings with it some discussions. "Do either traditional methods or digital applications affect children's level of recalling more positively?" This question was the starting point of the research. Thus, the aim of this study is to compare the effect of stories told through e-books and picture books on children's level of recall. The research is based on random design with post-test control group from real experimental designs of quantitative research model. The groups were determined by simple random sampling method and each group consisted of 10 children. The research data were collected by asking the children various questions about the stories and the characters in the stories by the researchers after storytelling through e-book and pictures book. Mann Whitney U test was used to analyze the data. As a result of the study, it was discovered that the children in the group that the story was told by using pictures book have higher level of recall.

Key words: Preschool education, story, story book, e-book, recall.

INTRODUCTION

Preschool period covers the years when the child is in a rapid change and development in every aspect and the learning experiences in this period affect children's development. As a result of these learning experiences, the child discovers solutions to the problems s/he will face in her/his future life. In this sense, preschool years are considered as a critical period in acquiring basic knowledge, skills and habits (Elliott, 2006; Turla and Tür, 1999). However, the aim of teaching in this critical period in which development is the fastest should not be "transmitting knowledge to children, but getting them to

gain the skills to access it (Ari, 2003). Among these skills that children can access knowledge, perception, thinking, problem solving and level of recall are represented by cognition processes (Messick, 1976). Cognition processes organize knowledge, and they involve many mental processes such as attention and level of recall (Leng and Hoo, 1997). These skills that are used to access knowledge can be improved through many experiences offered to children (Beyer, 1987). The fact that the knowledge and skills that are learned previously are remembered when the individual needs that knowledge

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is essential for learning. The process of recall is considered as the basic attribute for measuring whether knowledge is learned or not. Remembering the information shows the student's learning success. Students' individual differences, learning environment and the quality of the material that was learned have an influence on the level of recall (Woolfolk, 1990).

The environment, educational materials and especially books which are presented to children during preschool period and which contain rich stimuli are very important tools for supporting the development of the child (Turla and Tür, 1999). Books have been used to support the child's development over the years, and different ways of reading have been created. The most commonly used way for an adult to read to a child has been storytelling with a picture book. As a result of the study conducted by Chiong et al. (2012), it is recommended that parents and preschool teachers tell stories to children through picture story books. Reading activities carried out by adults in preschool period through story books have many benefits in the development of children's mental and academic skills (Deretarla, 2013). Researchers found a positive relationship between children's intelligence tests and their reading and language skills in their preschool period. This showed that reading story books has a positive effect on thinking, level of recall and learning levels (Deretarla, 2013).

Today, children are opening their eyes to a digital age and they are getting to know many electronic devices at an early age. Television, which is one of these tools, is used frequently in education because it addresses many senses. Technological tools like television provide different experiences to children by making learning fun (Christakis et al., 2004). According to Lamb (2011), the use of technological tools has also changed books. This process started when digital technology and books have come together and started to take place in our lives since 2000. These changes have led to the emergence of e-books. In its simplest form, an e-book can be defined as a book that allows readers to access the content of any book in electronic form (Hawkins, 2000). Although e-books were created in the late 1990s and in the early 2000s, they were less accessible to readers. Shiratuddin and Landoni (2002) classified electronic children's books as illustrated electronic books, audio electronic books and multimedia books. Thus, e-books with different classifications have started to be used in all areas of our lives. Today, people can easily access e-books from smartphones, tablets and computers. This situation changed the book phenomenon and reading activity. These changes have led many researchers to come up with different views on how adults should read to a child in preschool period. (Al Otaiba, 2004; Heather, 2004). The main difference between e-books and picture books is that an e-book contains moving images, verbal expression and sounds appropriate to the event / situation (Ihmeideh, 2014).

E-book content created for children is increasingly being accessed from digital media and used by many people (Miller and Warschauer, 2014). However, using technology is recommended if it can have the same effect on skills development in learning (Plowman and Stephen, 2005, 2007).

In the study conducted by Kangal et al. (2019), the positive and negative features of e-books in the development of children were discussed; and it was emphasized that qualified e-books should be selected. Another study in the related literature examined e-book applications for children (Turgut, 2018). It is concluded that e-books have many advantages and that these materials need to be developed and should be perceived as additional materials rather than replacing printed books. It has been also suggested in the relevant literature that the effects of e-books should be investigated. Walton (2007) compared e-books with printed books, and stated that e-books have both good and bad sides. While e-books are evaluated as positive in terms of making life easier and accessible; they are considered as negative in that they cause eye fatigue, difficulty in reading and display addiction. It is stated that qualified picture children's books not only create love of books in children but also develop all areas of child's development in a positive way (Gönen and Arı, 1989). In addition, there are studies conducted on the future trends of e-books and printed books (Soydan, 2012) and examining e-books prepared for children based on their graphic design elements (Pektaş, 2018).

The aim of this study is to compare the effect of stories told through e-books and picture books on children's recall levels. The research is considered important because of the originality of the research subject and the evidence it provides for a new situation.

METHOD

The aim of this study is to compare the effect of stories told through e-books and picture books on children's level of recall. The research is based on random design with post-test control group from real experimental designs of quantitative research model. In the random test with post-test control group, firstly, two groups were formed from the subject pool randomly. The first group was determined as the experimental group the second one the control group. The experimental procedure was then applied to the experimental group. Post-test was carried out after the application, and the two groups were compared using appropriate techniques for the measurement results of the dependent variable (Büyükoztürk et al., 2018).

Sample

The study was carried out with two different groups of the same age and two different classes of a kindergarten affiliated with Ministry of National Education. The groups were determined by simple random sampling method, and each group consisted of 10 children. The main feature of random sampling method is the high power of the sample to represent the universe. In this method, the sampling

Table 1. Research design.

Group	Pre-test	Experiment	Post-test
Control	-	Picture story	X
Experimental	-	E-book story	X

Table 2. Mann Whitney U test on the difference between picture story and e-book groups (B1-hungry caterpillar).

Group	n	Mean	Sum	U	Z	p
Picture story method (G1)	10	14.00	126.00	18.000	-2.411	0.016
E-book method (G2)	10	7.64	84.00			

probability of sampling units is equal and independent (Büyüköztürk et al., 2018). When the examined Table 1, the research model can be seen of this study. The post-test control group design is also called the classic controlled experimental design. The design includes both a control and a treatment group. The control group which were told stories through the picture book was coded as G1 and the experimental group which were told through e-book (experiment) as G2.

Data collection procedure

Five books were selected randomly from preschool story books and the selected stories were digitized by the researchers. These books were named as B1(Book 1), B2, B3, B4 and B5. The stories that were digitized and converted into e-book format were told as e-stories using computer, projector, projector screen and sound system. The same stories were told to the control group using the picture story book by the researcher. One hour after the story-telling process, one-to-one interviews were conducted with each child in the group, and research data were collected using a semi-structured interview form. Data collection was performed under the same conditions for both the experimental and control groups.

The interview form was prepared by the researchers with the help of an expert's opinion. The questions in the interview form that were answered by the children are as follows;

- Do you remember the name of the story book?
- Do you remember the names of the characters in the storybook?
- Do you remember the events in the story?
- What are the features of the main character X in the story?
- What was the story about?

In the process of collecting the research data, firstly, both groups were read / watched stories by the researcher on different days of the week and at the same time of the day. The picture story book was read by the researcher in a classroom setting in a way that all children could see the pictures. It took an average of 20 min to read the picture story book to the children. The children were allowed to watch e-book by using computer, projector, projector screen and sound system. It lasted about 20 min. One hour after the story telling process, one-on-one interviews were conducted with each child in the group and data were collected using a semi-structured interview form. The same process was repeated with the group where the story was told digitally via e-book.

Analyzing of data

In the interviews, each of the children were given one minute to

answer the questions. The answers given to the questions were coded in the interview form according to G1 and G2 codes. Then, the responses were coded as "correct and detailed remembered (4 points)", "poorly remembered (3 points)", "unremembered (2 points)", "incorrectly remembered (1 point)".

First of all, the normality of the distribution was examined in the analysis of the research data, and Shapiro-Wilks test was applied since the number of subjects was less than 30 (Seçer, 2013). The distribution of the normality test results was not normal, and therefore, Mann Whitney U test, a nonparametric one, was used in the analysis of the data.

FINDINGS

The findings are presented in the tables below. The responses of the children to the questions regarding the story books were illustrated separately.

The findings in Table 2 relating to the story of the Hungry Caterpillar show that there is a significant difference in the recall of the book contents between the group that were told stories through picture story and the group that were told stories through e-book ($Z = -2.411$; $p = 0.016$). The mean rank of children in the picture story group (mean rank= 14.00) was higher than the average number of children in the e-book story group (mean rank= 7.64).

The findings in Table 3 concerning the storytelling of the Brave Firfir display that there is a significant difference in the recall of the book contents between the two groups ($Z = -2.395$; $p = 0.017$). The mean rank of children in the picture story group (mean rank= 13.65) is higher than the mean rank of children in the e-book story group (mean rank= 7.35).

The findings regarding the storytelling of Tiny Seed illustrate that there is a significant difference in the recall of the book contents between the two groups ($Z = -2.356$; $p = 0.018$). As can be seen in Table 4, the mean rank of children in the picture story group (mean rank= 13.60) is higher than the average of children in the e-book story group (mean rank= 7.40).

The findings in Table 5 related to the story of The Most Ordinary Tree of the Forest show that there is a significant difference in the recall of the book contents

Table 3. Mann Whitney U test on the difference between picture story and e-book groups (B2-brave firfir)

Group	n	Mean	Sum	U	Z	p
Picture story method (G1)	10	13.65	136.50	18.500	-2.395	0.017
E-book method (G2)	10	7.35	73.50			

Table 4. Mann Whitney U test on the difference between picture story and e-book groups (B3-tiny seed).

Group	n	Mean	Sum	U	Z	p
Picture story method (G1)	10	13.60	136.00	19.000	-2.356	0.018
E-book method (G2)	10	7.40	74.00			

Table 5. Mann Whitney U test on the difference between picture story and e-book groups (B4-The most ordinary tree of the forest).

Group	n	Mean	Sum	U	Z	p
Picture story method (G1)	10	13.35	133.50	21.500	-2.165	0.030
E-book method (G2)	10	7.65	76.50			

Table 6. Mann Whitney U test on the difference between picture story and e-book Groups (B5-dinosaur came out of my seed).

Group	n	Mean	Sum	U	Z	p
Picture story method (G1)	10	13.30	133.00	22.000	-2.129	0.033
E-book method (G2)	10	7.70	77.00			

between that were told stories through picture story and the group that were told stories through e-book ($Z = -2,165$; $p = 0.030$). As can be seen in Table 4, the mean rank of children in the picture story group (mean rank= 13.35) is higher than the average of children in the e-book story group (mean rank= 7.65).

The findings in Table 6 related to the story of The Dinosaur Came Out of My Seed illustrate that there is a significant difference in the recall of the book contents between the two groups ($Z = -2,129$; $p = 0.033$). As can be seen in Table 5, the mean rank of children in the picture story group (mean rank= 13.30) is higher than the mean rank of the children in the e-book story group (mean rank= 7.70).

DISCUSSION

The aim of this study is to compare the effect of stories told through e-books and picture books on children's level of recall. Early childhood researchers argue that it is important to improve the level of recall of children in this period (Dickinson and Smith, 1994). In order to provide

learning and improve their level of recall, it can be considered as a way for teachers to ask children to remember what they learned during the day and the week (Dickinson and Smith, 1994). This study sought to answer the question of "which method is more effective on children's level of recall?". This question has brought to mind the effect of electronic media, which is indispensable in the development process of children today. This research was conducted since there is a lack of research on the effect of electronic environments on the development of preschool children. There are studies comparing e-book with traditional books in the relevant literature; however, these studies were conducted on decoding skills, vocabulary and understanding the meaning of words. Moreover, unlike this research, they emphasized the positive features of reading e-books (Segers and Verhoeven, 2003; Verhallen et al., 2006). This study compared the level of recall by bringing a different perspective. Thus, it has shed light on those that are wondered about the effects of e-books and picture books in different development areas. Vandewater et al. (2007) stated that what is known in this field is much less than that of unknown ones, and supports the need for

much research on the effect of electronic environments on the development of children.

As a result of the research, a significant difference was found between the level of recall of the group which were told stories through picture story book and of the group which were told stories through e-book. For all the stories, the difference is in favor of the group whose stories were told in the picture storybooks. As a result of the research, the mean rank of the children in the picture book storytelling group was higher than that of the children in the e-book group. This shows that storytelling with picture story book is more effective on level of recall than storytelling through e-book.

This situation is thought to be related to teacher-child interaction during storytelling with picture story book; teacher's use of some strategies such as raising voice tone, asking questions, drawing attention, arousing curiosity and being more active in the children's story listening process. This can be shown as an evidence of what kind of knowledge has been learned. The primarily learned knowledge includes objects, sounds, touches, smells and flavors, and the knowledge collected by all these senses can be remembered. Then, the knowledge that is learned secondarily is the knowledge learned by living (Ersanlı and Uzman, 2008). It is easier to remember the knowledge collected by this method. When the story is told by the teacher through the picture book, it is thought that the children actively gathering knowledge with all their senses, and communicating and interacting with the teacher support the recall process.

Some researchers have argued that during storytelling through e-books, children actively participate in the storytelling and create their own learning. This was mentioned as an effective application for the learners to realize what and how much they learned. It is thought that it will be effective in its use in today's learning activities in terms of supporting the skills that the constructivist approach wants children to acquire (Barrett, 2006; Ohler, 2006; Tendero, 2006). Using technology in preschool education is not the main objective. It should not be aimed in the preschool period to ensure that children use technological tools that they will frequently use in their future lives. Integrating the use of technology with the preschool education program should be seen as a delicate issue that needs to be investigated (Wardle, 1999). Technology can have many benefits in the preschool period, but it is required not to make random choices without adequate examination and research. When using technological tools in the preschool period, it should be remembered that these tools cannot replace the face-to-face interaction between children and adults and materials in learning (Sayan, 2016). As seen in this study, the face-to-face interaction of the material helps the child to concentrate and remember.

There are studies which indicated that increasing the curiosity of children makes learning more active thanks to the computer-supported education environment. This was

due to the fact that the computer took into account the interests and desires of children (Sevinç, 2003). However, technological tools have become ordinary for children over time. In addition, the fact that parents spend most of their time with social media during the day has been influential in children's spending most of the day in this way. Sapsağlam's (2018) study on social media awareness and use in preschool children confirms this effect.

In contrast to previous studies (Korat and Shamir, 2012; Segal-Drori et al. , 2009), this research has shown that technological tools do not facilitate children's understanding of the story, increase the sense of curiosity, and it may be inadequate to provide an effective learning environment in line with their interests and aspirations. In addition, this study supports the studies that indicate the importance of reading picture books in preschool period (Crozier and Tincani, 2007; Gönen, 1989).

Suggestions

As for the future research, researchers are advised to examine the effects of technological tools on children's development and learning skills. In addition, the effects of storytelling on different levels of children can be investigated with different materials and different methods.

CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

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Full Length Research Paper

The Ottoman perception in process: Turkey social studies textbook analysis¹

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In the study, it is aimed to determine whether there has been a change in the image of the Ottoman in the social sciences textbooks in the last ten years (2006-2017) in Turkey. The study was structured through document analysis technique based on qualitative research model. In the research, samples were determined in accordance with purposeful sampling technique. In compliance with that, the book of the authorized publishing house which was published in 2017 was selected. Data were collected in accordance with the document analysis technique. Content analysis method was applied in the study. Findings of the book published in 2017 were previously discussed and compared with results of a research on social sciences textbooks published in 2006 and 2008 with the same method and in the same subject by the same researcher. While interpreting quantitative data in the conclusion part, a symmetric, quantitative to qualitative data evaluation key was used. In the research, it was concluded that most of the coding in the textbook of 2017 are neutral, they are partly positive and rarely negative. This negative coding is related to the Ottoman Empire's period of regression; an Ottoman image which is weakening and losing power in the military field, industrial field, country borders and generally in every field is drawn. Compared to the period between 2006 and 2008, negative statements have increased almost by fifty percent. New positive themes were added in 2017. Place reserved for the Ottomans has increased compared to the previous period but positive coding has decreased and neutral statements have become more common.

Key words: Social Sciences, textbook, content analysis, Ottoman, Turkey.

INTRODUCTION

Tools and materials in teaching are the basic elements that constitute the quality of teaching work. Textbooks have an important place among these elements. A

textbook is the basic resource written for the teaching of a specific course and intended for students at a certain level; the content of it is appropriate to the programs, and

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it has been examined and approved (Oğuzkan, 1974; cited in: Ceyhan and Yiğit, 2005:16). The textbook is a printed instruction material prepared in accordance with the objectives, content, teaching-learning process and measurement and evaluation dimensions demanded in a curriculum; it is used in order to teach (Çebi, 2006:2). The aim of preparing textbooks is to present the information related to the course topics in an orderly and correct manner and to help teachers and students (Duman and Çakmak, 2004:18). The use of the textbook as the main resource for teaching a course is valid in many countries. In addition to this, considering the elements it contains, it is stated that textbooks which are a special curriculum are the most commonly used teaching tools in many countries of the world (Fischer, 1997; cited in: Bağcı, 2007:5). One of the reasons for this is that textbooks, which are one of the most important inputs of education, are the main carriers of the social and political discourses of the nation-state system. They establish the basic points of reference in the creation of reference points related to time and place, in the creation of public memory, and in the production of the “new human” being foreseen by social change (Kancı, 2007; cited in: Arslan, 2008:34). Since the textbooks are written for students/children as a special audience, it makes these tools important. Textbooks have an important function in creating individual and social awareness and perceptions (Kabapınar, 2009:368-369). It is of great importance to fulfill the social, political, economic and individual development functions undertaken by the school programs (Tertemiz and Kayabaşı, 2001: 1, 2). It is one of the materials with the highest contribution to the development of children’s cognitive, affective and psychomotor skills (Kılıç, 2005:38). In this sense, textbooks constitute the content of the curriculum (Küçükahmet, 2001:11-13).

Textbooks are prepared by state institutions in modern nation-states, or they are controlled after being prepared by private organizations. Such control of the states ensures that textbooks are mirrors reflecting the ideologies, perceptions, approaches, and policies of the states. Especially history, citizenship and social studies textbooks reveal whether a state considers its citizens to be more rightful or more obliged individuals, the policies adopted by the state on religion and secularism, the way of interpreting the history, the perception of nationalism, the way of administration, and approaches to other states and nations; in brief, they reveal the way a nation has been constructed.

Studies on the contents of Turkish textbooks are common. İpek (2011) evaluated the appropriateness of the citizenship education presented in the 6th and 7th grade social studies textbooks with respect to the objectives in the social studies curriculum. He has examined textbooks based on topics such as national identity, universal identity, democracy, human rights, multiculturalism, economic relations and environmental awareness. In his study, he concluded that the

understanding of the nation-state is given in line with the needs of today’s world and the European Union criteria; that textbooks are written considering the universal identity and national values; that the subjects in textbooks are given more theoretically in the dimension of democracy, human rights and economic relations; that the Ministry’s goal of creating “active citizen” conflicts with the examples in textbooks; that they actually show an approach which aims to create “passive citizen” instead of “active citizen”; that the citizenship values in the textbooks differ from the targets of the Ministry of National Education and do not include the citizenship understanding of today’s world.

In his study, İnal (2004) aimed to identify democratic and nationalist values in the middle-school textbooks used in the period of military coups occurred on 27th May and 12th September in Turkey. In the research, it was concluded that the impacts of the coup processes affected the textbooks; that the values represented by the coups were reflected in the textbooks; that these values were reproduced through the textbooks; that despite some differences in the views on democracy and nationalism during both military coups, the basic points of the official ideology did not change; and that in national textbooks, nationalism precedes democratic values.

In his research in which he compares the perception of the Ottoman in Egyptian and Turkish social sciences textbooks, Osmanoğlu (2014) concluded that the concept of Ottoman in Turkish textbooks is given more neutral while the dominant discourse is entirely negative in Egyptian textbooks. Yılmaz (2009) analyzed the ways in which the concepts in the textbooks were given according to the 1998 and 2004 social studies programs, and concluded that the last program was more advanced in terms of the delivery of the concepts. In these studies, what kind of changes are experienced about the Ottoman perception in the process is not given. The study is a preliminary step to address this lack. The aim of the study is to describe the Ottoman image in the 7th grade social studies textbook used in secondary schools in 2017.

Main problem of the research

In which direction did the image of the Ottoman change in the social studies textbooks in this period of 10 years? In this context, the sub-questions of the research are as follows:

- (i) What are the rates of positive, negative and neutral usage of the expressions used in the 2017 textbook about the Ottoman Empire?
- (ii) What categories can the statements about the Ottoman Empire be collected in the 2017 textbook?
- (iii) What is the difference between the Ottoman image in the textbooks of 2006 and 2008 and the Ottoman image in the textbooks of 2017 in accordance with the 1st and 2nd problems?

Table 1. Data evaluation key from quantitative to qualitative.

1-15%: Rarely	51-65%: Partial majority
16-40%: Partly	66-90%: Majority
41-49%: Almost half	91-99%: Almost all
50%: Half	100%: All

METHODOLOGY

Research design

This study is structured with document analysis technique based on qualitative research model. Document analysis involves the analysis of written materials containing information about the cases or subjects that are intended to be researched. It can be a single data collection method in qualitative research (Yıldırım and Şimşek, 2008:187). Document analysis is a method used in the collection, systematic analysis and evaluation of official or private records. This method provides a wealth of data collection (Ekiz, 2003).

Sample

In this research, sampling was determined according to purposeful sampling technique. Accordingly, as a basis for comparison, social sciences textbook of Ünal et al. (2017) was chosen to compare with the books of Kolukısa et al. (2006) and Polat et al. (2008) which were analysed by the researcher in his previous study. These books are 6th and 7th grade textbooks. They were published by private and official publishers. Since the books are officially approved, it is assumed that whether publishing houses are private or official will not negatively affect the validity of the research. The books were printed to be used in schools for five years. Starting from the first unit of the textbooks, all the texts in the book were designated as the study area with the exceptions mentioned. National anthem, contents, textbook organization chart, dictionaries, bibliography and chronology were excluded.

Data collection

Data were collected in accordance with the document analysis technique. Texts were read thoroughly. In the pre-reading of the textbook, it was decided that the recording unit should be a word and the context unit should be a sentence. The sentences related to the Ottomans encountered during the main reading were marked and the code list was created by recording them under the code system. Quantitative coding was not considered sufficient while recording; qualitative coding was also carried out by making sure that each code is positive, negative or neutral according to the sentence context, and they were recorded together with the corresponding codes. After the coding was completed, the codes were classified by their relationship with each other and it was decided how to create the category clusters. As a matter of fact, the creation of a category system is the most important step in transforming research questions into a systematic analysis method. Berelson (1952:147) stated that the keystone of the content analysis is categories (cited in Gökçe, 2006:57). The categories used in the study were designed to answer the research questions first. Thus, the following category definition has emerged.

The Turkish state which was founded in Anatolia, and ruled from the end of the 13th century to the first quarter of the 20th century of which broadest borders are today's Albania, Greece, Bulgaria, Yugoslavia, Romania and the islands in the eastern Mediterranean,

some parts of Hungary and Russia, Caucasus, Iraq, Syria, Palestine, and the whole North Africa and Arabia up to Egypt and Algeria. In this context, words and themes related to the Ottoman Empire, Ottoman State, Ottoman administrators, Ottoman people, Ottoman army, Ottoman works, Ottoman customs, Ottoman behaviors, Ottoman wars, Ottoman politics and so on.

Analysis of data

Content analysis method was applied in the study. Accordingly, the weightless scores obtained by the code lists or categories generated during the data collection process are shown as frequency (f) and percentage (%). The questions were answered according to the intensity score and qualitative characteristics each one got, and the analysis was carried out in this way. The following symmetric data evaluation key was used to interpret the quantitative data in the conclusion. This key was developed by the researcher to facilitate the reader in interpreting qualitative data in the results part of the research (Table 1).

Reliability of the research

After creating the categories and recording the data, it was time for the reliability test. Reliability in content analysis depends on whether or not coders understand texts in the same way. As the number of people participating in the coding increases and the unity of understanding between them decreases, reliability decreases. Creating, defining and coding by one person increases reliability. In this case, the rate of the relationship between the same person's coding at different times should be high (İnal, 2004:163). This study was conducted by a single researcher. In every inconsistent coding realized during the coding or change in the decision related to the coding, the coding process was canceled and returned to the beginning. One week after the consistency of the coding style was achieved, the coding was repeated. Full agreement between the two codes was achieved.

Validation of the research

Gökçe (2006:83) states that there is no validity measurement tool apart from the definitions of the categories in the content analysis in the textbooks. The validity of the research is assured if the definitions of the categories are considered to be shared by everyone and thus the research scale measures what it actually wants to measure. Alkan (1989, 207, 208; cited in: İnal, 2004:163, 164) states that content analysis has two main measures of content validity: The first one is the appropriateness of scales (categories) in terms of measurement. In the study, this validity was evaluated by the validity and consistency of the results. The second measure is related to the fact that the texts included in the sampling contain sufficient scope and dimensions for the processing of the subject. In this study, the entire text of the textbook was analyzed. It shows that validity is achieved.

Table 2. Distribution of the Ottoman category codes by their being positive, negative and neutral.

Category	Neutral		Positive		Negative		Total	
	f	(%)	F	(%)	F	(%)	f	(%)
Ottoman	566	71.55	193	24.39	32	4.04	791	100

RESULTS

Amount of positive, negative and neutral expressions about the Ottoman Empire

The first sub-question of the research was answered under this title. In the analysed textbook, 791 codes related to the Ottoman category were made. Distribution of coding by their being positive, neutral and negative is shown in Table 2. According to Table 2, 561 (71.55%) of the codes are neutral, 193 (24.39%) of them are positive, and 32 (4.04%) of them are negative.

Categories created by expressions about the ottoman

The second sub-question of the study was answered under this title. Negative codes are grouped under one main category: category of the Declining Ottoman. There are the Weakened Ottoman, Non-industrialized Ottoman, Fleeing Ottoman Soldiers and Other Ottoman categories under this category. The most common of the subcategories of this category is the Weakening Ottoman category. The themes of this category are unsuccessful, regressing, deteriorating and defeated Ottoman. Selected sample sentences related to coding are presented below.

Failure to follow advances in ship technology and insufficient attention to training of seafarers caused the Navy to lose its former strength. As a result, the Ottoman Empire, which lost its dominance in the Mediterranean, ceased to be a powerful naval force... The Ottoman navy could not continue its successful conquests of the XVI. century in the following centuries. (p.75) ... As the Ottoman Empire's power started to decline against Europe from the XVII. century, statesmen sought remedies for this situation... As the Ottoman Empire's power started to decline against Europe from the XVII. century, statesmen sought remedies for this situation. (p.90) ... Starting from the XVII. century, the Ottoman Empire's power began to decline against the European states and took some reforms in the direction of Europe. (p.93) ... Land management began to deteriorate in the XVII. century. The fact that fеоffees did not fulfill their duties adequately, that the land was empty, and that the deterioration of the military order caused the disruption of land management... This deterioration affected the military and economic power of the state. (p.120) ... At the beginning of the XX. century, the old Ottoman economic and political power was no longer available.

Moreover, since these products were passed through our borders without paying customs duties, the domestic industry was getting weaker and the amount of foreign borrowing was increasing. (p.168) ... In the XIX. century, the Ottoman Sultan Mahmud II abolished the divan organization and established ministries instead. (p.147) ... It lost all of its lands in Europe except Eastern Thrace and lost its power... Lastly, it was repeatedly defeated in Tripoli and Balkan Wars... To which state did the Ottoman Empire suffer the most land loss?... In which century did the Ottoman Empire begin to lose land? (p.168) ... The Ottoman army was defeated and forced to retreat due to climatic conditions and inadequate transportation (p.171).

As can be seen in the above examples, this category is related to the process of the Ottoman Empire, which is defined as the period of regression. In general, there is an Ottoman image that is weakening and losing power in land management, army and navy, industrial areas, country borders and in general in all areas. The second most common subcategory in negative coding is the Non-industrialized Ottoman category. The sentences related to the codes are presented below. While many factories were opened in European countries, the number of factories opened in the Ottoman Empire was negligible... The Ottoman Empire became a country where the raw materials needed by European countries were met and the cheaper products produced by the Europeans were marketed. This situation decreased the competitiveness of the Ottoman industry and also prevented its development (p.129).

As in the examples above, this category is related to the Ottoman Empire which could not realize the surplus production against the modern period Europe which became industrialized and acquired capitalist mode of production. There is an Ottoman image that cannot keep up with the modern era economy. The third most common subcategory in negative coding is the Fleeing Ottoman Soldiers category. The sentences related to the codes are presented below. Our battalion at the observation area fought until all the vehicles in its possession were exhausted and then could not find a solution but fleeing... Why are you fleeing? On one side there were enemies under their noses, on the other side, there was a believing voice which roars as "One must not run away from the enemy" (p.174).

In the above mentioned sentences, the mentioned soldiers were the ones who finished their bullets in the Battle of Gallipoli. It was stated that the escape of the soldiers was normal under the given circumstances.

Table 3. Frequency and percentage distribution by sub-categories

Ottoman category	Sub-categories	F	(%)
Power category	Growing, conquering, powerful, dominant, admired, imitated, triumphant, superior, long lived	88	
Social values	Moral, charitable, brave, determined, humble, compassionate, honest, generous, respectful to children, friendly, welcoming, animal lover, respectful to science, fair, religious	59	
Ottoman administration	Fair, peaceful, tolerant, respectful to differences, serving the public, providing security, integrating with the public, pleasing the public, open to innovation, caring for scientific development, respecting rights, being united, believing in the goal	46	
Total		193	100

Later, the soldiers were told to fight to death and there is no negative image. The image of Mustafa Kemal's fearlessness was given over the fleeing soldiers. Another group of the negative coding is the other category. This category includes non-group encoding. According to this, there are codes regarding the absence of the rule of law in the Ottoman Empire and the lack of printing. The sentences related to the codes are presented below:

In the Ottoman Empire, while works in Greek, Armenian, Hebrew and other languages were printed in printing houses, there was no printing house where Turkish works could be printed. (p.84)... For the first time, the rule of law was accepted in the Ottoman Empire with this royal decree. (p.147). When all of the above given negative codes are considered, it is understood that the sentences encoded as negative are associated with weakness, failure to industrialize, defeat, deterioration, military-economic-bureaucratic-technological regression, failure, avoiding the enemy, lack of rule of law and borrowing.

In the study, partial positive coding was carried out. Three major categories emerged in the coding: Power, Ottoman Administration, and Social Values. Frequency and percentage values of these categories by their weights are presented in Table 3. In Table 3, 0.88% out of 193 positive coding were done in Power Category, 59% of it were done in Social Values Category, and 46 of it were done in Ottoman Administration Category. Most positive coding was done in the Power category. Some example sentences related to this category are presented below.

Osman Bey, who conquered the Byzantine lands by enlarging his principality day by day, expanded his lands consisting of Söğüt and Domaniç to the borders you see on the map. Well, what reasons made this little principality a powerful political force? (p.62) Bursa was conquered and became the center of the principality (1326). İznik and İzmit, the last two important cities of Byzantium in Anatolia, were conquered after Bursa. (p.64) The conquests of Rumelia, which began in 1353, expanded to Central Europe in the mid-15th century... During the reign of Orhan Bey, the principality became a

powerful state of the region with its conquests and settlement politics... In parallel with the conquests in Rumelia, the Anatolian Turkish principalities began to be united under Ottoman rule. (p.65)... The ruler of the land and seas, the Ottoman (p.68)... Mehmet the Conqueror continued his conquests after Istanbul and made the Ottoman Empire one of the most powerful states in the world. (p.70)... The Ottoman army led by Selim the Resolute defeated the Mamluk army in Mercidabık in 1516 and in Ridaniye Wars in 1517... Miniature showing the Caldiran Victory that Selim the Resolute won against the Safavids (p.71) What seas did the Ottoman Empire dominate with its conquests? (p.75) The Gallipoli Wars were written in gold letters on the history of the Turkish nation. This victory was gained with people's blood, life, and solidarity; every moment was an epic full of heroism. The Ottoman Empire was the longest-lived Turkish state in history and the only Turkish state to survive on three continents. It is a state that has reigned for more than 600 years on three continents. (p.76)... Suleyman Aga was the center of attention with the coffee he drank. Thus, coffee became widespread in France. Turkish coffeehouses, which became fashionable in England to drink coffee, were opened. Over time, coffeehouses became indispensable elements of social life in Europe. The fashion of consuming coffee according to the Turkish style became widespread. Europeans brought coffee mills, coffee cups and spoons when they went back to their own countries from the Ottoman Empire. This is how the "Café" culture of our day emerged. In Europe, the rich began to decorate a room of their homes with Turkish tiles, carpets and divans as a Turkish corner. Turkish rugs and carpet motifs are included in the paintings of European painters as can be seen in the table below... Apart from everyday items, aesthetic elements of Ottoman architecture started to take place in various works in Europe. Schwetzingen Mosque, which was built by the Germans in the XVIII. century within the German borders, and photographed below, reflects admiration for Ottoman architecture. (p.83) "The passage of these trade routes through the territory of the country played a major role in the economic strengthening of the Ottoman

Empire.” (p.123)... The Dardanelles Front is the only front in which the Ottoman army won a decisive victory in the First World War. (p.172)... The people following the Ottoman delegation were in awe and admiration... Musicians like Beethoven and Mozart included Turkish music tunes into their works. (p.82)

In the above examples and other sentences that cannot be taken here, an Ottoman image which is conquering, seizing, dominating, becoming victorious, expanding, growing, advancing, having strong army, economy and large state, serving for jihad, superior, controlling, admiring, imitating, being hero and long-lasting is given. The second most common category in positive coding is the Social Values Category which emphasizes the values the Ottoman had. Some example sentences related to this category are presented below.

These revenues consist of gifts from donations made to charity in order to provide services such as the care of mentally ill people, poor people, and the education of children... All mosques have great incomes to be used in charity work... In addition, they distribute a thousand okka rice and enough meat to the poor people in the imaret near the mosques... There were charity stones in different parts of the city for people in need in the Ottoman Empire. The money left here was received by the needy in proportion to his need. Thus, solidarity would be exhibited in society and the needs of people would be met. (p.89)... However, the ironer tradesmen here refused to accept me because I often said bad words... The masters had to obey values such as trust, righteousness, honesty, generosity, brotherhood and helpfulness. For example, various offenses would be imposed on unfair tradesmen who sold defective goods or treated unfair to their customers. Disciples (Feta) must be high in morality, righteous in his promises, and honorable; he should not leave mercy in his provisions, should not betray the goods of the forbidden goods, should not be hypocrite, and double-dealer. Three things of Disciples are closed, three things are opened: the eyes are closed to the forbidden, the mouth to sinful words, and the hand to persecution. The door is open for the guests, the sac is for the brothers in need, and the table for all hungry people... (p.136). All mosques have great incomes to be used in charity work. Do not leave charity work!. On one side there were enemies under their noses, on the other side, there was a believing voice which roars as “One must not run away from the enemy”... Weapons and technology were defeated by the faith and determination of Ottoman soldiers. On the opening day of the Imaret, the Sultan personally handed out food to the poor. There would be no deception in shopping. Always bestow on everyone. They respect the elderly and children. Turks and other nations living under Ottoman rule lived in friendship with each other. The main characteristic of the Turks, which stand out for one who lived among the Turks, is their hospitality. Storks and swallows can nest to the homes of the Turks without fear of being driven out. Seek for people who work for

knowledge. For this reason, do not do anything which may be against the order of Allah. Our job is to be on the way of Allah. In this world, my main aim has always been the victory of my religion.

In the above examples and other sentences that cannot be taken here, the image of an Ottoman who is moral, charitable, courageous, determined, humble, compassionate, honest, generous, respectful to children, friendly, welcoming, animal lover, respectful to science, helpful, fair and religious is given. The third category in positive coding is the category of Ottoman Administration. The codifications mostly show the administrative understanding of the state administrators. Some example sentences related to this category are presented below. After this event, rubbers¹ walked around bazaars and announced that nobody would torture anyone, and if there was anyone who had been tortured, that person would go and inform them...(Dear son) Continue the conquest moves and bring justice also to the Greek (Byzantine) countries... Osman Bey treated everyone living in his land with tolerance and justice (p.63)... He made tolerance and justice the basic principles of management... Despite these differences, the Ottoman Empire ruled people in harmony... It was not necessary to be a Muslim in order to know Osman Bey as a judge and to obey his rules... The Byzantine Christian people got closer enough to Turkish people to live easily in harmony with them in same neighborhoods... Today, in the Balkans and in the Middle East, if people can speak their own language and maintain their cultural values unchanged, it is thanks to tolerance... Tolerance and justice were among the most important factors facilitating the conquests of the Ottoman Empire... With its tolerant and fair policy, the Ottoman State ensured that different nations lived together... With its tolerant and fair policy, the Ottoman State ensured that different nations lived together... After the conquest of Istanbul, Mehmet the Conqueror embarked on major reconstruction movements in order to develop the city in every area... With the conquest of the city, Mehmet II got the title of “Conqueror” (“Fatih” - the one who conquers) and promised the feared Byzantines that their lives and property would never be harmed, and he made them go home safely. (p.69)... After the conquest of Istanbul, Fatih took the necessary measures for the return of those who left the city... He declared to the people gathered in Hagia Sophia that they could return to their homes and jobs freely and without any fear. He also provided security for them... No one should disturb or harm these people or their churches... no one of the sultans, nor the viziers or officers, nor my servants, nor of the citizens of my country will harm and torture them. (p.77)... They respected each other’s religious beliefs and lifestyles... Thus, the Ottoman administration was adopted and became permanent. The Ottoman Empire undertook the

¹ In the book, the word ‘tellak’ (rubber) was mistakenly used instead of tellal (middleman).

Table 4. Comparison of books of 2006-2008 and the book of 2017.

Books	Positive (%)	Negative (%)	Neutral (%)	Total
2006- 2008	33.33	2.70	63.96	100
2017	24.39	4.04	71.55	100

patronage of Orthodox Christians. One of the best proofs of living together in the Ottoman Empire was Darülaceze, which was opened in 1895 during the period of Abdulhamid II; you can see an introductory painting on the side. Darülaceze was established for sheltering orphans, homeless, sick, disabled and elderly people. This institution, which continues its activities today, continues to serve people without any discrimination. People of different nationalities within their borders have lived their religions and cultures, and spoken their languages without any pressure. (p.76-77)... The Tulip Age was the era of peace, cultural development and new expansions. (p.84)... Various institutions were opened to ensure the progress of the country. Apart from this map, he wrote a book called "Kitabı Bahriye" and introduced the land and ports around the Mediterranean, thus making important contributions to the geography from the social sciences. Mors sent a letter to the Sultan to thank him and said the following to the Sultan; "Abdülmeçit has become the first great European man who understands the value of my invention with this medal and congratulations" The Ottoman Empire followed these technical developments closely and made efforts to spread them on its territory. The Ottoman Empire did not lag behind Europe and America in the use of telegraph. (p.91).

Although some of the above given sentences are related to the periods of Osman Bey, Mehmet the Conqueror and Sultan Abdulhamid II, in general, expressions covering the whole Ottoman history were also used. In the relevant sentences and other sentences that cannot be taken here, an Ottoman image which is just, peaceful, tolerant, respecting differences, serving the people, providing security, conducting conquest movements with the aim of bringing justice to the lands under persecution, applying the same justice and tolerance to those from different nations and religions, and in this way, providing the unity and solidarity among the people, open to innovation, caring about scientific developments, and believing in the target is given.

DISCUSSION

It is very important to discuss the results of this research with the results of Osmanoğlu (2014). This discussion will also constitute the answer to the 3rd sub-question of the research. So, this comparison will reveal the change in the Ottoman image drawn in Turkish textbooks over a

period of about 10 years. The mentioned study was conducted on the Ottoman image in the social sciences textbooks of 2006 and 2008. These textbooks are 6th and 7th grade textbooks. In order to make this comparison in both periods, it is necessary to take the density of percentages of the code and category lists in the new and old books because there are two books on one side and one on the other. In addition, comparing the themes of both periods in the code lists will provide important clues about the direction of change. Comparison of the density of positive, negative and neutral expressions of the Ottomans in the textbooks of both semesters over two groups rather than 3 books are presented in Table 4.

According to Table 4, while 33.33% of the total coding in the Ottoman category in the 6th and 7th grade social sciences textbooks of 2006-2008 were positive, 24.39% of the coding in 2017 textbook were positive; respectively, while 2.7% were negative in the former, 4.04% were negative in the latter; and, 63.96% were neutral in the former, 71.55% were neutral in the latter one. The difference between the two periods is evident. First of all, neutral use in the textbooks of both periods is more than biased use. In the new period, the rate of neutral use has increased further. While neutrality increases, positive image usage decreases significantly. Negative usage has increased by half. In general, the attitude towards the Ottomans has become more neutral and less positive. In addition to this comparison, the themes that make up the code lists on which the comparisons are made should also be compared. Differences and similarities between coding themes of textbooks in 2006-2008 and 2017 are presented in Table 5. According to the table, while 19 positive themes were identified in the textbooks of 2006-2008, 33 positive themes were identified in 2017 textbooks. New positive themes were added to the 2017 textbooks. Positive codes which are common in textbooks of both periods are the themes of fair, moral, respectful to adults, loving to small, conquering, tolerant, helpful and triumphant. While there are 4 negative themes in the 2006-2008 textbooks, there are 6 negative themes in 2017. There has been an increase in negative theme rate.

CONCLUSIONS AND RECOMMENDATION

The results of the conducted research are presented below. Qualitative expressions were used according to

Table 5. Differences in coding themes between periods

Periods	Positive coding themes	Frequency	Negative coding themes	Frequency
2006-2008	Fair, moral, respectful to elders, growing, giving education right, conquering, safe, tolerant, hero, respect for housing right, caring for children, property right, patience, clean, patriotic, charitable, victory winner	19	Weak, defeated, rebellious, poor	4
2017	Fair, moral, ambitious, peaceful, growing, respectful to elders, brave, generous, respectful to children, religious, friendly, honest, securing safety, respectful to differences, conquering, strong, judge, serving people, pleasing people, integrating with people, charitable, admired, animal lover, tolerant, respectful to science, welcoming, compassionate, modest, longevity, superior, helpful, open to innovation, victory winner	33	Unsuccessful, deteriorated, Regressed, not industrialized, defeated, fleeing	6

the quantitative to qualitative data evaluation key given in the method section. In the 2017 textbook, the coding is mostly neutral, partly positive and rarely negative. Negative coding is related to the process of the Ottoman Empire which is defined as the period of decline. It is sufficient to create a Declining Ottoman category for negative coding. The sub-categories of this category are the Weakened Ottoman, Non-industrialized Ottoman and Fleeing Ottoman Soldiers. The Weakened Ottoman category consists of unsuccessful, regressive, deteriorated and defeated Ottoman subcategories. In all of these categories, there is an Ottoman image that is weakening and losing power in land management, military area, industrial area, country borders and generally in all areas. The non-industrialized Ottoman category is related to the Ottoman Empire which could not realize the surplus production against the modern period Europe which became industrialized and acquired capitalist mode of production. There is an Ottoman image that cannot keep up with the modern era economy. In the Fleeing Ottoman Soldiers category, there were soldiers who had to flee because they ran out of bullet in the Battle of Gallipoli. However, it was stated that the escape of the soldiers was normal under given circumstances. Later, the negativity was attempted to be turned into normal by mentioning the fight of soldiers until they died. The image of the fearlessness of an Ottoman officer Mustafa Kemal was given through the fleeing soldiers. Other category includes non-group coding. According to this, there are codes regarding the absence of the rule of law and the absence of the printing press in the Ottoman Empire. When both periods are compared, negative expressions have increased by half compared to the previous period.

Partially positive coding was made in the 2017 textbook. Three major categories emerged in positive coding: Power, Ottoman Administration, and Social Values. In the Power Category, there are subcategories of growing, conquering, powerful, dominant, admired, imitated, victorious, superior, and long-lasting Ottoman. In the

Social Values Category, there are sub-categories of moral, charitable, courageous, determined, humble, compassionate, honest, generous, respectful to children, friendly, welcoming, animal-loving, and respectful to science and religious Ottoman. In the Ottoman Administration Category, there are subcategories of fair, peaceful, tolerant, respect for differences, serving the public, providing security, integrating with the public, satisfying the public, open to innovation, caring for scientific development, respecting rights, unity, and believing in the target. Positive codes which are common in both semesters are themes of fair, moral, respectful to elders, lovers to small, conquering, tolerant, helpful and victorious Ottoman. There has been no change in these themes. New additional themes are Determined, Peaceful, Brave, Generous, Religious, Friendly, Honest, Secured, Respectful to differences, Strong, Dominant, Serving the public, Pleasing the public, Integrating with the people, Charitable, Admired, Animal lover, Respectful, Hospitable, Compassionate, Modest, Long-lasting, Superior, Open to innovation themes. The number of positive coding in the textbook of 2017 is 1.36 times less than the positive coding in previous periods' textbooks. However, while the number of subcategories in positive coding was 19 in the previous period, it was 33 in 2017. The number of subcategories in 2017 is 1.73 times higher than the previous period. In other words, the affirmation aspects of the Ottomans are numerically more diverse and new affirmative themes have been added. A total of 777 codes were established in the textbooks used in 2006-2008. In the textbook of 2017, 791 codes were established. Coding carried out in two textbooks is less than coding in a single book. This means that in 2017, the place devoted to the Ottomans increased considerably. Many values are discussed in relation to the Ottoman period.

Conducting this research by dividing the period from the proclamation of the Republic to the present day into periods as one-party period, post-one-party coups period, and the periods between the coups will provide a

complete portrait of the Ottoman image reflected in the textbooks throughout the history of the Republic and essentially depicted by the dominant power.

CONFLICT OF INTERESTS

The author has not declared any conflict of interests.

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Full Length Research Paper

Teachers perspective on the extent to which the national interactive curriculum scheduled for governmental kindergartens in Jordan take into account the psychological, social, aesthetic and cognitive foundations

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The aim of this study is to know the extent to which the national interactive curriculum scheduled for governmental kindergartens in Jordan take into account the psychological, social, aesthetic and cognitive foundations are considered. The researchers used the analytical descriptive approach. The sample of the study consisted of all kindergarten teachers in the education districts of Central Badia Region. The sample comprised 118 teachers, during the second semester of the academic year (2017/2018). The study concluded that there are statistically significant differences between the average estimates of the sample on the field of psychological foundations and the total score according to the difference of scientific qualification for the benefit of higher studies. No difference was found on the extent of taking into account the national interactive curriculum scheduled for the governmental kindergartens in Jordan for the social, cognitive, psychological, aesthetic and total scores except for the domain of social foundations, according to the years of experience variable. To determine the source of these differences, Scheffe test was used. Finally, the researchers proposed some recommendations.

Key words: National Interactive curriculum, governmental kindergartens, psychological foundations, social foundations, aesthetic foundations, cognitive foundations.

INTRODUCTION

The character of a Kindergarten child is that of a rapidly evolving and developing character. Hence, the kindergarten is keen to provide a dynamic curriculum that

takes into account the personality of the child and his needs, for sound growth. This is in accordance with the age and mental characteristics of the normal child, taking

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into account the reality of society and its philosophy.

The concept of the curriculum in kindergartens takes a somewhat different meaning from curricula in primary or secondary education. Here, educators agree on the broad lines and sometimes implementers differ on the details. It is not a specific curriculum based on scheduled subjects, it is a platform based on activity. Its first goal is to develop the child's perceptions, raise his senses, satisfy his desires and needs, discover his tendencies and talents and allow these talents to grow and appear in an atmosphere of freedom away from repression, fatigue and militancy in following a certain regime (Hawamdeh and Adwan, 2012).

If the feelings of communication are fast and volatile in the pre-school age, the way the child's emotion and the degree of expression of each affected by the impact of the situation, and the degree of freedom allowed by the social environment to express these feelings; then there will be varying degrees in the level of expression of children owing to feelings of different kinds (Ibrahim, 1999).

Sherif (2007) points out that the child is exposed in his life to many influences through the interaction of people or means of communication, technology and information provided; these train him on new skills in his life, in addition to the values and culture of the society in which he lives. This process, in which the culture of the society is acquired by social education, aims at providing appropriate behavior, standards and trends to certain social roles that enable him to cope with his social group and social harmony with them, and gain a social character and facilitate for him integration into social life.

Education also has a great responsibility in helping the child to grow through the creation of social conditions and settings. It is the biological preparation that helps him develop comprehensively, as well as the development of his cognitive, psychological, aesthetic, self-reliant and communicative abilities (Khawaldeh, 2003).

Sanker (1986) confirmed that it is needful to pay attention to this stage for its effective role in the development of all aspects of growth, where the child learns to establish social relations and is able to interact through his presence in his groups to deal with and interact with others. It is therefore necessary for the child to go to the kindergarten because the primary purpose of it is the growth of the child's personality.

Modern education emphasizes that quality education is not limited to the academic aspect, despite its importance; but it include mostly the education of all life skills, including: Social skills, such as cooperation, responsibility, communication skills, decision-making, problem-solving, self-esteem, and learner knowledge of his rights and that of others. These skills will contribute to the social well-being of the individual and help him to deal with others in a scientific way that will enable him to effectively integrate into the field of work (UNESCO, 2000).

Problem of the study

The problem of this study is to try to know the extent to which the interactive national curriculum is observed rapporteur of the State kindergartens in Jordan for the psychological, social and aesthetic dimensions. The study problem can be defined as follows:

- (i) The pre-school level of students is low in most skills, based on the observations of the educational field.
- (ii) The novelty of the interactive national curriculum, which means that it must be analyzed to determine the strengths and weaknesses, and to suggest solutions to address them.
- (iii) Availability of notes on this curriculum after trying it for two years.

Hypotheses of the study

The researchers proposed some hypotheses:

- (i) The national curriculum takes into consideration the psychological, social and cognitive dimensions.
- (ii) There are statistically significant differences at a level ($\alpha=0.05$) in the teachers' point of view; due to the variables of the study (scientific qualification, experience, interaction between scientific qualification and experience).

Importance of study

The importance of this study is evident in the objectives it seeks to achieve. This study coincides with the efforts of the Ministry of Education in Jordan to find a suitable and comprehensive curriculum for kindergarten. The importance of this study is highlighted in the fact that it deals with the curriculum of the age stage, since childhood is an important stage in the formation of the principles of the human personality, and its influence the rest of his life; therefore, childhood is the most important stages of the individual's psychological and social development. The study also presents findings and recommendations that contribute to better and more appropriate change and development of the curriculum for this age group.

Objectives of the study

This study aims to know the extent to which the national curriculum take into account the psychological, social and cognitive foundations of the state kindergartens in Jordan are considered.

Limitations of the study

The results of this study can be generalized in light of the

following limits:

- (i) Time limits: 2018
- (ii) Spatial boundaries: Directorate of Education for the Central Badia Region.
- (iii) Human borders: All kindergarten teachers in the directorates of education for the Central Badia region.
- (iv) The objective limits: To determine the extent to which the interactive national curriculum takes into consideration the psychological, social, cognitive and aesthetic foundations.

Definition of terms

Foundations

A group of principles that constitute a theoretical framework for education define their goals, clarify the criteria for its success, and provide some kind of autism to their activities and concepts, analyze their processes, or theoretical and ideological theories that condemn the authors of the curriculum as well as the construction of this curriculum in addition to its implementation and evaluation (Almushref, 2003).

Social foundations

Is the full knowledge of the needs and nature of the society that builds and manages schools, the nature of its economic production, its cultural heritage and its cultural changes, as well as its scientific and industrial progress (Sharadqa, 2001).

Knowledge bases

It means the foundations of knowledge epistemology, conceptual structure, and the nature of thinking. It is necessary to emphasize the organic relationship between different knowledge, values, attitudes and skills (Jabir, 2006).

Psychological foundations

These relate to the target learner and his characteristics. The curriculum should take into account the abilities, tendencies, aptitudes, psychological needs and stages of development of children (Batayneh, 2004).

Aesthetic foundations

These are related to the child's artistic and aesthetic appeal, which allows him a beautiful expression in a

variety of ways about his feelings and thoughts as well as satisfy his desires; thus, he reflects a picture of himself and the world around him, which makes him feel comfortable and balanced (Ayesh, 2008).

Interactive national curriculum

It is a special curriculum for the kindergarten stage in Jordan, which is applied formally and it binds the government kindergartens. The fields are divided into six axes: moral, social, linguistic, physical, cognitive and aesthetic (Momani, 2010).

Kindergarten stage

The pre-school stage is from the age of 4-5 years, in which the child enters Kindergarten. Some schools include children's rooms specially equipped for children, which is a non-compulsory stage, free of charge by the Ministry of Education (Abu Talib et al., 2004).

THEORETICAL FRAMEWORK AND PREVIOUS STUDIES

Theoretical framework

The difference between human societies in terms of traits, characteristics, goals and objectives, is that each community has its own independent educational personality expressed through the philosophy of the educational system of that society. It is incumbent on officials to prepare programs and curricula that provide the child with the concepts and experiences which gives him trends, tendencies and habits, which enable him to live in today's society, and helps him to understand the environment in which he lives in terms of its requirements and modern capabilities. Recent trends in the education of children in Riyadh have emphasized the importance of exposing the child to various sensory stimuli, and to provide the appropriate concepts to help him attach to this huge scale of modern technological development (Bahader, 2003).

It is not possible to imagine an educational curriculum for a nation without it being based on its beliefs and perceptions of existence, the universe, human and life. Therefore, it is not possible to imagine the possibility of borrowing from another nation educational curricula or to build a nation of its curricula or develop them according to specifications determined by another nation (Shadukhi, 2002).

The Interactive National Curriculum is one of the most important achievements of the project to develop kindergarten education in Jordan. The curriculum was developed by a national team specialized in

kindergartens, under the supervision of the National Commission for the Development of Kindergarten Education. All public kindergartens in Jordan were provided with the curriculum and Experimental starting from the second semester 2003/2004 (Hawamda and Al-Edwan, 2009). The psychological bases are related to the target learner and the characteristics of the learner. These foundations form sources of the program's objectives, the selection of its contents, the selection of its methods and activities. Also, the curriculum should take into account children's abilities, attitudes, aptitudes, psychological needs and stages of development (Batayneh, 2004).

Whatever the aims of the educational process, the learner first and foremost is an element of society that lives a current life in which there are many fields in which it is required to engage in it, we can say that the creation of the knowledge society necessary for human development can only be achieved through the acquisition of knowledge, language and the mechanism of acquiring and disseminating scientific and technical knowledge. It is the incubator with its various degrees and creativity, it is the means of communication between members of the society and its various institutions, exchange information and ideas among them (Hawamda and Ashour, 2007).

Education is considered the arena of convergence of physiological and social, relationship with the community as a variable of the philosophy of education, which runs on its own. Education is sometimes subject to the leadership of its society, sometimes driving and leading the march and its development. There are those who see it as a social institution within other institutions that interact with each other, according to the laws of the distribution of social science (Ali, 2001). The foundations on which kindergartens in Jordan are based on are seeking to achieve the needs of the child, which is difficult for the family to achieve. Here, the child compensates what is deprived of him in his home environment, and to complement the role of the family in the upbringing of its children by transferring it to the world of young people and helping him to adapt properly, integrate development as well as inclusive and balanced growth, in addition to correcting socialization errors in which a family can be found by creating an environment free from the moral flaws of society (2008).

Previous studies

Momani (2010) conducted a study on the Analysis of the Interactive Kindergarten Curriculum in Jordan and its relevance to the abilities of children from an Islamic perspective. The sample of the study comprised of 165 children, the instrument of the study comprises analyzing the content of the interactive curriculum and a 25-point performance test. The results show that the curriculum is suitable for kindergarten children.

Momani (2007) study tested the effectiveness of a proposed training program in social development of pre-school children's skills. It consisted of three divisions comprising 69 children randomly distributed to three groups. The first experimental group received total training, the second experimental group received partial training, and the control group received training and education in normal circumstances. The researcher built a training program in social growth, and developed a measure of the beginning after the process of reliability and consistency. The results of the study showed that there were statistically significant differences in the skill of the pilot in favor of the experimental group compared to the children scores in the control group, and the absence of statistically significant differences due to the gender of the child or the interaction between sex and group.

Halloran (2003) conducted a study aimed at identifying the impact of the teaching of direct social skills in an educational attitude on social behavior, on improving problem solving skills, and on improving self-concept. The study sample consisted of 94 children with learning difficulties. The results of the study showed that there is a positive impact of training on social skills in improving problem solving skills and improving the self-concept of students with learning difficulties.

Sharaa (2006) conducted a study aimed at revealing the degree of representation of the Islamic education curriculum for the basic stage in Jordan for the social, cognitive, psychological and philosophical foundations of the curriculum, using a list of contents developed by the researcher. It was used as an analysis tool for the content of the book. The sample of the study consisted of the books of Islamic education for the basic stage of basic education in Jordan. The results of the study showed that the contents of the knowledge bases exceeded the contents of the other foundations (42%), psychological foundations (34%), then the social foundations (14%), and the philosophical foundations (9%). The study recommended the need to pay attention and focus on these foundations in the construction of curricula of Islamic education in Jordan.

Al-Batayneh (2004) conducted a study aimed at identifying the degree to which the Social Book considers the criteria of the social and national foundations of the curriculum at the secondary level in Jordan, and the development of the study unit in the light of those foundations. The researcher developed a questionnaire covering these principles. The results of the study showed that the degree of social sensitivity to the standards of social and national bases is high from the point of view of supervisors and teachers by a significant difference in favor of supervisors.

Shammari (2005) conducted a study aimed at identifying the degree of observance of geography book for the upper elementary stage of the psychological bases of the curriculum from the point of view of teachers and school principals in the province of Hafr al-Batin in

Saudi Arabia, a randomized stratified sample was formed from (89) teachers and (57) students. The researcher developed a questionnaire of (50) paragraphs. The results showed that there are a number of psychological bases that should be considered in the geography curriculum, where there were differences of statistical significance to the degree of consideration of the psychological bases attributed to the variable status of the job.

Hawamdah (2006) conducted a study aimed at identifying the degree of representation of Arabic language books for the basic stage in Jordan for the psychological, philosophical, social and cognitive bases of the curriculum using the descriptive method. The study sample consisted of all the Arabic language books for the basic stage in Jordan. The results of the study showed that the highest frequency was the standards of knowledge based on the ninth grade book, and the researcher recommended the need to reconsider the criteria of social foundations.

Khuraisha (2009) conducted a study aimed at revealing the degree of representation of English language books in the seventh, sixth and fifth grades in Jordan to the social, cognitive, psychological and philosophical foundations of the curriculum. The study sample consisted of English language books for the seventh, sixth and fifth grades. The researcher used the method of content analysis and the researcher developed a list of the contents of these foundations distributed in different fields of foundations and conducted the truth and stability. The results of the study showed that the social bases obtained the highest frequencies followed by the cognitive bases, psychological foundations, and philosophical foundations, indicating that there is a clear lack of representation of the contents of these social and cognitive bases in the English language books for the mentioned stage. The researcher recommended the development of curricula in the Ministry of Education to take into account the social and cognitive foundations in the future.

Beni (2013) conducted a study aimed at identifying the effectiveness of the interactive national curriculum in providing kindergartens with social skills. In order to achieve the objectives of the study, the researcher used observation card as a tool for collecting data, the researcher used the quantitative approach in descriptive style and the quantitative approach in an abstract manner of preliminary designs. The observation card consisted of (68) paragraphs in its final form and was applied to the study sample consisting of 225 children, distributed to 100 children and 125 children, of the total study population. The results of the study showed that the social skills (as a whole) were included in the interactive national curriculum with a high arithmetic mean. The results also showed the strength of the interactive national curriculum, and the results showed that there is a difference in social skills according to the gender variable.

METHODOLOGY

The researchers used analytical descriptive approach and analyzed its data. Furthermore, they describe the relationships among its components, the views expressed about it, the processes involved, and the effects they produce.

Study population

The population of the study consisted of all the kindergarten teachers in the education districts of the Central Badia Region, the sample reached 118 teachers during the second semester of the academic year (2017/2018), according to ministry statistics.

Study sample

The entire study population was selected for its small size. Table 1 shows the distribution of sample members according to the study variables.

Instrument of the study

After reading the theoretical literature and previous studies on the subject of study such as the study of Khuraisha (2009) and Bani (2013), a scale has been developed to identify the extent to which the interactive national curriculum for the state kindergartens in Jordan is subject to the social, cognitive, psychological and aesthetic foundations, from the point of view of teachers in the light of some variables, where the questionnaire was formed from (38) paragraph and distributed over four areas (The field of knowledge bases, the field of social foundations, the field of psychological foundations, and the field of aesthetic foundations). The triangular Likert scale was used, as follows: high, medium and low to answer those paragraphs.

Validity of the instrument

The researchers designed the questionnaire in its initial form, and then presented it to a group of arbitrators (9) with the expertise and experience of faculty members in the departments of colleges of education in Jordanian universities. The arbitrators were asked to judge the quality of the content of the paragraphs, to express an opinion on the language and integrity of the paragraph, the appropriateness of the paragraph for the field under which it was included, and the linguistic accuracy, as well as any other views they may deem appropriate, whether by deletion, addition or integration. The arbitrators made many observations, as some of the paragraphs have been amended, with 88% of them in agreement.

Reliability of the instrument

To verify the reliability of the study instrument, the reliability coefficients were calculated in two ways: the first is the method of testing and retesting; it was applied to a survey sample from outside the study sample (25 teachers), by applying them twice and with a time interval between the first application and the second application of two weeks. Person Correlation Coefficients were calculated between the results of the two applications, the total correlation coefficient was 0.87. In the second method, the Cronbach Alpha method was used to identify the internal consistency of the paragraphs. The values of stability coefficients (0.91) of the instrument as a whole were acceptable values to

Table 1. Distribution of sample of the study.

Variable	Level	N	Percentage
Scientific qualification	BA and less	84	81.6
	Higher studies	19	18.4
Years of experience	Five years and less	19	18.4
	Five to ten years	50	48.5
	Ten years and more	34	33.0
Total		103	100

Table 2. Values of the reliability coefficients of the test/retest and the internal consistency of each domain of the questionnaire.

N	Domain	Reliability coefficients values	
		Pearson	Kronbach alpha
1	Cognitive foundations	0.84	0.87
2	Social foundations	0.85	0.89
3	Psychological foundations	0.83	0.87
4	Aesthetic foundations	0.81	0.86
Questionnaire as a whole		0.87	0.91

conduct such a study. Table 2 shows the values of the stability coefficients of the domains in the regression method, and the alpha-Cronbach method of internal consistency.

Correction of the study instrument

The three-step Likert scale of the approval scores was used as follows: high (3°), the average of two degrees, the low one degree, to assess the role of kindergartens in the development of health concepts among kindergartens from the view point of the teachers. The following statistical staging was used for the distribution of arithmetical averages, according to the following equation:

$$\text{Category length} = \frac{\text{Category length}}{\text{Number of categories}}$$

$$= (1 - 3)^3$$

$$= 0.67$$

Therefore, the distribution of categories is as follows:

First: (1- Less than 1.67) low.

Second: (1.67 - less than 2.34) Moderate.

Third: (2.34-3) high.

Study variables

Independent variables include:

(i) Academic qualification: it has two levels (Bachelor and below, postgraduate studies).

(ii) Years of experience: it has three levels: (less than 5 years, 5-10 years, more than 10 years).

Variable dependent: The extent to which the interactive national

curriculum for the state kindergartens in Jordan is subject to the social, cognitive, psychological and aesthetic foundations from the teachers' point of view.

RESULTS AND DISCUSSION

The researcher presents the findings after collection of data, using the study tool and presented them according to the study questions. To answer the first hypothesis, the mean and standard deviations were calculated for the sample of the study on the areas, comprising the extent to which the interactive national curriculum for the state kindergartens in Jordan is subject to the social, cognitive, psychological and aesthetic principles, as shown in Table 3.

Table 3 shows that the field of social bases ranked first with an average of (2.71) and a standard deviation of (0.34) with a high rating, the field of knowledge bases came second with an average of (2.40) and a standard deviation of 0.19 and a high estimate. The field of psychological bases came last with an average of 1.87 and a standard deviation of (0.37) with a moderate rating. The arithmetic average of the sample estimates was based on the extent to which the interactive national curriculum for the state kindergartens in Jordan was observed of the social, cognitive, psychological and aesthetic foundations as a whole (2.30), with a standard deviation (0.20) and with an average estimate.

This result is due to the fact that the interactive national curriculum still needs to be further reviewed and developed and to benefit from the global experience in

Table 3. Arithmetical averages and standard deviations of the study sample ratings on its domains.

Rank	N	Domains	Mean	Standard	Rating
1	2	Social foundations	2.71	0.34	High
2	1	Cognitive foundations	2.40	0.19	High
3	4	Aesthetic foundations	2.13	0.53	Moderate
4	3	Psychological foundations	1.87	0.42	Moderate
Tool as a whole			2.30	0.20	Moderate

*Highest degree of 3.

Table 4. Arithmetical averages and standard deviations of the study sample ratings on the cognitive foundations' domain arranged in descending order.

Rank	Number	Items	*Mean	Standard deviation	Rating
1	4	Provides an environment conducive to children's linguistic development	2.52	0.58	High
2	10	Develops among them the knowledge of the modern technology	2.50	0.50	High
3	1	Develop children's cognitive and reflective abilities	2.48	0.58	High
4	8	Helps children to employ diverse thinking skills	2.46	0.50	High
5	7	Develops the love of exploration in children	2.44	0.49	High
6	2	Develop children's educational capacities	2.40	0.51	High
7	9	Developing for them knowledge of various sciences	2.35	0.48	High
8	5	Provides children with knowledge appropriate to their growth and mental characteristic	2.34	0.52	High
9	3	Provides a rich environment for children's cognitive growth	2.27	0.51	Moderate
10	6	Develops the creative aspects of children	2.26	0.50	Moderate
Domain as a whole			2.40	0.19	High

building the curriculum for kindergartens, calculations and standard deviations were also calculated for the study sample on the areas of the extent of taking into account the national interactive curriculum scheduled for the State kindergartens in Jordan for the social, cognitive, psychological and aesthetic foundations.

The first domain: The field of knowledge bases

Calculation averages and standard deviations were calculated for the sample of the study to the extent to which the interactive national curriculum for the state kindergartens in Jordan is subject to the social, cognitive, psychological and aesthetic foundations of this area, as shown in Table 4.

Table 4 shows that item number (4), which provides an environment conducive to children's linguistic development", was ranked first with an average of (2.52) and a standard deviation of (0.55) with a high rating. Paragraph 10, which states "developing knowledge of modern technology", came second with an average of (2.50) and a standard deviation of 0.50 with high appreciation. Paragraph 6 stating "developing the child's creative aspects", ranked last with an average of 2.26

and a standard deviation of (0.50) with a moderate rating. The arithmetic average of the sample estimates for the subjects in this field has a whole (2.40) and standard deviation (0.19) with a high rating.

This result is due to the fact that the curriculum still focuses on certain aspects more than other aspects within the same grounds or one area, and here the activities must be applied by teachers and focus more on creative activities.

The second domain: The field of social foundations

The means and standard deviations of the sample estimates of the extent to which the interactive national curriculum for the state kindergartens in Jordan were based on the social, cognitive, psychological and aesthetic foundations of this area were calculated as shown in Table 5. It is clear in Table 5 that item number (18), which states "developing the positive side in dealing with others", ranked first with an average of 2.82 and a standard deviation of 0.39 with high appreciation. Paragraph (16), which states "Helping children to learn about etiquette and dealing with others", ranked second with an average of 2.81 and a standard deviation of 0.51,

Table 5. Means and the standard deviations of the study sample ratings on the items field of social foundation domain.

Rank	N	Item	*Mean	Standard deviation	Rating
1	18	Develops the positive side in dealing with others	2.82	0.39	High
2	16	Helps children learn about etiquette and deal with others	2.81	0.51	High
3	21	Develop the concept of family in children	2.76	0.49	High
4	17	Develop healthy social habits in children	2.75	0.50	High
5	12	Develop in children the spirit of teamwork	2.72	0.53	High
6	13	Helps the child build social relationships with his peers	2.70	0.48	High
6	22	Develops social trends in children that suit the personality of each child	2.70	0.50	High
8	20	Helps the child to build a balanced social relationship with his peers and the others	2.69	0.54	High
9	14	Develop the spirit of cooperation among children	2.65	0.54	High
10	19	Develops in children the concept of belonging to the homeland	2.60	0.49	High
11	15	Develop for them the ability to dialogue and accept others	2.59	0.63	High
Domain as a whole			2.71	0.34	High

*Highest degree of 3.

with high appreciation, while paragraph (15) which states "develop the ability to dialogue and accept the other" ranked last with an average of 2.59 and a standard deviation of 0.63 with high estimate. This result is attributed to the fact that the national curriculum and its activities have given a large space for the development of the social aspect, that is they need more to focus on developing a culture of discussion and dialogue among children to become more skilled in this area.

The third domain: The field of psychological foundations

The statistical averages and standard deviations were calculated for the sample estimates of the extent to which the interactive national curriculum for the state kindergartens in Jordan for the social, cognitive, psychological and aesthetic bases on the paragraphs of this field, as they are shown in Table 6.

It is clear in Table 6 that item number (28), which states "developing children's ability to control emotions", was ranked first with a mean (2.01) and a standard deviation (0.75) as well as a moderate rating, item (27), which states "provides activities satisfying the psychological needs of children" ranked second with a mean of (2.00) and a standard deviation of (0.83) and a moderate rating. Item (26) stipulates that "develop children with the ability to organize themselves", ranked last with a mean of (1.68) and a standard deviation of (0.77) and a moderate rating. The arithmetic average of the sample ratings for the subjects in this domain as a whole was (1.87) and a standard deviation (0.42) with a moderate rating. This result is due to the fact that the interactive national curriculum needs to be developed in the field of emotional activities and to focus on the concepts of self-control.

The fourth domain: The aesthetic foundations domain

The means and standard deviations of the sample ratings, regarding the extent to which the interactive national curriculum for the governmental kindergartens in Jordan take into account the social, cognitive, psychological and aesthetic foundations of the items of this domain, as shown in Table 7.

It is clear from Table 7 that item number (38), which states that "develop the ability to choose beautiful dramas among children" came in the first ranked with a mean of (2.22) and a standard deviation of (0.80) and an average rating. Item (35) which states "develop the child's ability to conform to the rhythmic motor dynamics" came with the second rank with a mean of (2.21) and a standard deviation of (0.78) and moderate rating. Item (33), which states "developing the child's ability to enjoy his artistic achievements", came in the final level with arithmetical average (1.85) and a standard deviation of (0.83), as well as a moderate rating. The arithmetic average of the sample ratings was (2.13) and a standard deviation (0.53), with a moderate rating. This result is due to the fact that the child is interested in the aesthetic aspect, making his pleasure in the implementation of the activities of the curriculum. However, he needs to focus on developing his ability to touch the creativity and beauty in what he offers.

To answer the second hypothesis, the statistical averages and standard deviations of the sample ratings were calculated according to the extent to which the national interactive curriculum for the governmental kindergartens in Jordan take into consideration the social, cognitive, psychological and aesthetic foundations, depending on the variance of the scientific qualification variable (Bachelor and below, and postgraduate studies), and years of experience variable (five years and less, five to ten years and ten years and more). Table 8 illustrates

Table 6. Arithmetical averages and the standard deviations of the study sample ratings on the items of psychological foundations domain arranged in descending order.

Rank	N	Items	*Mean	Standard deviation	Ratings
1	28	Developing children's ability to control emotions	2.01	0.75	Moderate
2	27	Provides activities satisfying the psychological needs of children	2.00	0.83	Moderate
3	32	The curriculum promotes positive attitudes in children	1.93	0.77	Moderate
4	29	Develops among children the ability to understand others' feelings and needs	1.92	0.76	Moderate
5	24	Develops among children the ability to express their feelings	1.89	0.87	Moderate
6	30	The curriculum takes into account the individual differences between children	1.87	0.80	Moderate
7	31	The curriculum takes into account the mental and psychological development of children	1.84	0.76	Moderate
8	25	Develops among children the ability to take responsibility	1.83	0.85	Moderate
9	23	Develops among children the concept of self-awareness	1.77	0.78	Moderate
10	26	Develops among the children the ability to organize themselves	1.68	0.77	Moderate
Domain as a whole			1.87	0.42	

*Highest degree of 3.

Table 7. Arithmetical averages and the standard deviations of the study sample ratings on the items of aesthetic foundations' domain arranged in descending order.

Rank	N	Item	*Mean	Standard deviation	Rating
1	38	Develop the ability to choose beautiful dramas among children	2.22	0.80	Moderate
2	35	Develops the child's ability to conform to the rhythmic motor dynamics	2.21	0.78	Moderate
3	36	Develops in children an aesthetic taste of nature	2.19	0.82	Moderate
4	34	Develops the child's taste with music and songs	2.18	0.86	Moderate
5	37	Develops among the children the initiative to draw beautiful things in nature and other things	2.16	0.79	Moderate
6	39	Develops in children the ability to build positive relationships with peers	2.09	0.85	Moderate
7	33	Developing the child's ability to enjoy his artistic achievements	1.85	0.83	Moderate
Domain as a whole			2.13	0.53	

*Highest degree of 3.

it further.

Table 8 shows that there are apparent differences between the averages of the students' scores on the total score of the scale and the extent to which the national interactive curriculum for the governmental kindergartens in Jordan take into consideration the social, cognitive, psychological and aesthetic foundations according to independent study variables (scientific qualification and years of experience). To detect these differences in arithmetic averages, the MANOVA analysis was used using the Wilk's Lambda test at the ($\alpha=0.05$) level. Table 9 shows the results of the Wilkes test for the principle and results of multivariate analysis. Table 9 shows:

(1) There are statistically significant differences at the level of ($\alpha=0.05$) between the average estimates of the sample on the field of psychological foundations and the total score, according to the difference of the scientific qualification for the benefit of higher studies. This result is attributed to the fact that the high scientific qualification

provides teachers with more knowledge and experiences than the rest of their colleagues, especially in the psychological domain.

(2) There are statistically significant differences at the level of ($\alpha=0.05$) between the average estimates of the sample on all the extent of taking into account the national interactive curriculum scheduled for the governmental kindergartens in Jordan for the social, cognitive, psychological, aesthetic and total scores except for the domain of social foundations according to years of experience variable. To determine the source of these differences, Scheffe test was used.

It is clear in Table 10 that there are statistically significant differences between the average ratings of those with more than 10 years of experience on the one hand, and the average of those with less than 5 years of experience and 5-10 years of experience on the other hand, attributed to years of experience variable, in favor of the ratings of more than 10 years' experience in all domains

Table 8. Arithmetical averages and standard deviations of the study sample responses according to the variable of scientific qualification and years of experience.

Variable	Level	Domains				Total score	
		Cognitive foundations domain	Social foundations domain	Psychological foundations domain	Aesthetic foundations domain		
Scientific qualification	Bachelor and below N = 84	Mean	2.37	2.67	1.77	2.04	2.24
		Standard deviation	0.19	0.36	0.37	0.52	0.16
	M.A. N = 19	Mean	2.53	2.86	2.33	2.51	2.57
		Standard deviation	0.15	0.18	0.31	0.37	0.05
Years of experience	Less than 5 years N = 19	Mean	2.29	2.54	1.48	1.52	2.01
		Standard deviation	0.18	0.44	0.25	0.41	0.11
	From 5 to less than 10 years N = 50	Mean	2.38	2.68	1.81	2.12	2.27
		Standard deviation	0.18	0.35	0.35	0.46	0.08
	10years and above N = 34	Mean	2.50	2.84	2.19	2.48	2.51
		Standard deviation	0.18	0.19	0.35	0.34	0.08

Table 9. Multiple variance analysis of the differences between the sample members' ratings according to the academic qualification and the years of experience variables.

Variable	Domains	Sum of squares	Df	Mean of squares	F value	Sig
Scientific qualification Value of Welux = 0.804 H = 0.000	Cognitive foundations domain	0.043	1	0.043	1.369	0.245
	Social foundations domain	0.016	1	0.016	0.153	0.697
	Psychological foundations domain	0.753	1	0.753	7.179	0.009*
	Aesthetic foundations domain	0.034	1	0.034	0.199	0.657
	Total score	0.125	1	0.125	21.239	0.000*
Years of experience Value of Welux = 0.237 H = 0.000	Cognitive foundations domain	0.246	2	0.123	3.926	0.023*
	Social foundations domain	0.653	2	0.327	3.028	0.053
	Psychological foundations domain	2.604	2	1.302	12.419	0.000*
	Aesthetic foundations domain	7.995	2	3.998	23.399	0.000*
	Total score	1.707	2	0.853	144.662	0.000*
ERROR	Cognitive foundations domain	3.106	99	0.031		
	Social foundations domain	10.676	99	0.108		
	Psychological foundations domain	10.380	99	0.105		
	Aesthetic foundations domain	16.914	99	0.171		
	Total score	0.584	99	0.006		

Table 9. Contd.

Total	Cognitive foundations domain	597.510	103
	Social foundations domain	766.603	103
	Psychological foundations domain	379.750	103
	Aesthetic foundations domain	495.755	103
	Total score	549.398	103

*Statistical significance at the level of ($\alpha = 0.05$).

Table 10. Scheffe test results for the differences between the averages of the sample ratings according to the years of experience variable.

Domains	Years of experience	Less than 5 years	From 5-10 years	More than 10 years
Cognitive foundations domain	Mean	2.29	2.38	2.50
	Five years and less	2.29	0.09	*0.21
	Five to ten years	2.38		*0.17
	Ten years and above	2.50		
	Mean	1.48	1.81	2.19
Psychological foundations domain	Five years and less	1.48	0.28	*0.17
	Five to ten years	1.81		*0.39
	Ten years and above	2.19		
	Mean	1.52	2.21	2.48
	Five years and less	1.52	0.36	*0.60
Aesthetic foundations domain	Five to ten years	2.21		*0.96
	Ten years and above	2.48		
	Mean	2.02	2.27	2.51
	Five years and less	2.01	0.16	*0.25
	Five to ten years	2.27		*0.51
Total score	Ten years and above	2.51		2.50

*Statistical significance at significance level ($\alpha = 0.05$).

and the total score. The result shows that the more years of experience with the teacher have, the more he/she is able to evaluate the curriculum.

RECOMMENDATIONS

The researchers recommend that:

(i) Developing and revising the national interactive

curriculum on an ongoing basis so as to ensure that this curriculum is enriched with aesthetic and psychological foundations.

(ii) Access to the programs and curricula of

kindergartens such as the Portage program and the curriculum of the High Scoop should be used in the process of developing the content of the curriculum and activities as well as methods of evaluation.

(iii) Conduct further studies on the interactive national curriculum to enrich this curriculum.

(iv) To enrich the curriculum with activities that satisfies children's needs and wishes.

(v) Holding courses and workshops on the national curriculum and involving kindergarten teachers and parents in improving the curriculum.

CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

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Full Length Research Paper

Remote and rural placements occurring during early medical training as a multidimensional place-based medical education experience

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The Northern Ontario School of Medicine delivers medical education aiming to improve the health outcomes for persons living in Northern Ontario, including those in underserved rural and geographically remote communities. Second year students experience rural medicine and living during two four-week long placements set in remote and rural communities (RRCP) supervised by local physicians. This place-based approach to medical education aims to equip learners with the skills and dispositions needed to work there successfully. The goal of the study was to develop a better understanding of RRCPs from different perspectives: Institutional, community-preceptors and students. Data was collected by review of institutional documents, semi-structured interviews, and questionnaires to obtain information about the aims of each group. A place-based educational framework informed the analysis which developed themes and sub-themes using a constructivist approach. The aims of each group were in five themes, social accountability, community engagement, integrated learning, forming the rural clinician, and living in place as a rural clinician. Differences were, however, apparent in terms of emphasis and perceived relevance, with these being related to the perceptual, political, ideological and social dimensions. For example, the finding that students did not value extra-clinical learning about or within the wider community can be viewed as students having a different place-relationship with the community than their teachers in terms of the social dimension. The data suggests that curricula should include consideration of the various ways students and teachers interact with placement communities with the aim of gaining understanding of, and bridging the gap between, their different expectations.

Key words: Place-based education, medical education, rural placements.

INTRODUCTION

The Doctor of Medicine degree offered by the Northern Ontario School of Medicine (NOSM) has been created to

be a socially accountable program that meets the health care needs of the people of Northern Ontario (Hudson

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and Hunt, 2009). The NOSM MD program explicitly aims to reduce health inequities in the region, targeting those who have poorer health outcomes, such as indigenous persons and those who live in rural communities. The program follows the international movement aimed at improving health equity through greater access to quality healthcare services (Boelen and Woolard, 2009; Boelen and Heck, 2015). As an educational program, this translates into preparing graduates with the knowledge, attitudes, and skills to practice in the region, while also requiring students to experience a wide variety of practice contexts located (Strasser, 2009; Strasser et al., 2009). Such curricular goals are in accordance with those healthcare regulatory bodies that have indicated undertaking training in the future practice context is essential to meeting healthcare needs of the population served (General Medical Council, 1993; World Health Organisation, 1996, Frank et al., 1996; Association of the Faculties of Medicine of Canada, 2010).

Northern Ontario is a sparsely populated area covering approximately 800,000 km². Although NOSMs two main campuses are in the cities of Thunder Bay and Sudbury, much of the population lives in rural communities with populations ranging from approximately 100 to a few thousand, many of them in remote and inaccessible areas (Strasser, 2009). These rural communities have been chronically underserved with respect to healthcare services, a factor which has contributed to health inequities both within the region and when compared to the more populated Southern Ontario (Rural and Northern Health Care Panel, 2010; Glazier et al., 2011). To help address this, the NOSM program has utilised a place-based educational approach which exposes the students to medical practice in rural settings during their training (Ross et al., 2014). The four-year Doctor of Medicine program begins with a 'pre-clerkship' during which students engage in learning about health and healthcare in Northern Ontario using a combination of case- and problem-based learning, in addition to the typical medical curriculum topics of foundational sciences and clinical skills. In year two this foundational learning is applied during two compulsory four-week long placements in remote and/or rural communities (the Remote and Rural Community Placements or RRCP) which constitute the students' first substantive clinical experience. Within the RRCP, students spend time with one or more clinical faculty preceptors who practice medicine in that community (Strasser, 2009).

Community- and place-based educations are part of a broader educational movement to ground teaching and learning in the particularities of place. It is explicitly founded on the idea that education, medical or otherwise, should not be generic, but specifically for and about somewhere (Sobel, 2004). The movement has historical roots reaching back to the seventeenth century and educational theorist, Comenius, who said, "*Knowledge of the nearest things should be acquired first, then that of*

those farther and farther off" (Woodhouse, 2001). Place-based education aims for students to learn to act situationally (Gruenewald, 2003) by means of understanding their relationship with place in terms of culture, ecology, ideology, politics and perception. These can be understood theoretically in terms of a series of dimensions including (i) our relations with places shaped by human culture, the sociological, (ii) the non-human habitat, the ecological, (iii) how are relationship with place is arranged and controlled, the ideological, (iv) how our relationship with place is contested and changed, the political, and (v) how we experience places in a sensory manner, the perceptual (Gruenewald, 2003).

The current movement for place-based learning in medicine is in part a response to the dominant decontextualized learning (that is, learning for anywhere instead of somewhere in particular) that is often found in the goals of state-supported education at all levels and in all disciplines (Ross et al., 2014). In addition, advocates of place-based learning argue that it is particularly important in underserved and historically disadvantaged communities where educational curricula is often unresponsive to the needs of local communities (Gruenewald, 2003; Shannon and Galle, 2017). In such cases, place-based education has the theoretical and political aim of actively working to "decolonize" a place that has suffered historical inequities and to help its citizenry "reinhabit" their communities with a greater sense of empowerment and wellbeing (Gruenewald, 2003; Reid et al., 2011; Shannon and Galle, 2017). As NOSM's mandate is to serve such communities, the RRCPs are an expression of place-based medical education with the aim of ensuring that learners experience and consider how local community life impacts their ability to help their patients.

The RRCP was modelled after similar rural elective placements at other institutions, such as Dartmouth in the 1970s, and Morehouse School of Medicine and Eastern Virginia Medical School in the 1980s (Johnson and Houghton, 1975; Blumenthal et al., 1983; Berger and Schaffer, 1986; Lynch et al., 2001). Such experience have shown to be effective for nurturing positive attitudes towards rural medicine (Riley et al., 1992; Vaz and Gona, 1992); Grant et al., 1997; Lynch et al., 2001), and the intent to base future practice in rural communities (Moore et al., 1998; Williamson et al., 2003; Peach et al., 2004). The inclusion of the placements is also supported by studies showing that community placements can improve students' social responsibility towards the community they subsequently practice within (Reeves, 2000).

In year 3, students undertake a 9-month comprehensive community clerkship. This also occurs outside the two main campuses although mainly in larger communities than those which host the RRCPs. Finally, in the 4th year, students undertake a conventional rotations-based clerkship based in the cities of Thunder

Bay and Sudbury. In this way, NOSM students are exposed to a series of communities in Northern Ontario representing a variety of different potential future practice contexts, but always beginning with the most underserved context, the remote and rural community.

During the RRCP, students spend approximately 15 h per week in 'clinical time' with a community-based preceptor, as well as in community learning sessions undertaken with allied health professionals or health-related agencies located in the host community. From the onset of the program the RRCPs curricular aims have been very broad and articulated as "*learning about what it is like to live and practice medicine in these settings*", along with a requirement to practice histories and examination skills (Northern Ontario School of Medicine, 2007). While giving preceptors the autonomy to deliver fully contextualised community-based education, this strategy has made it difficult to determine what learning is occurring, or meant to occur, and therefore to evaluate the success of the RRCPs. In addition, it is not known whether the three intra-institutional 'players' of community-based education (that is, students, teachers and institution), are actually in agreement regarding the purpose of the RRCPs. It is also unclear how the RRCPs relate to the place-based education more generally. As such, to aid understanding of the RRCPs, this study determined for the first time in the literature, to use the dimensions of place as tool to analyse a medical educational activity. The goal of this study, therefore, is to better understand what the roles of the RRCPs are from different place perspectives which can be used to guide the development of this and other rural community placements during medical training.

METHODS

Participants

Participants were recruited by invitation and gave informed consent before taking part in the study according to a protocol approved by the Lakehead University Ethics Board. Institutional Leaders (ILs) were selected using purposive sampling (Lichtman, 2006) through the organisational chart of the Undergraduate Medical Education program at NOSM. All ILs were faculty of the school and had taken a leadership role in the program during the current or previous academic year, or during the planning stages of the school. Consent was obtained from 9 of the 10 invited ILs (6 male and 3 female). Community preceptors (CPs) were recruited by inviting all NOSM faculty by email who had taken part in the RRCP during at least one of the two previous academic years, with 13 (8 female, 5 male) recruited from the 31 invited. Student participants were recruited over 2 academic years by introducing the topic to them prior to the start of a scheduled lecture followed by an invitation to participate sent by email. All students were recruited from the Lakehead University campus of the medical school resulting in 20 out of 55 agreeing to participate (13 female and 7 male).

Data collection

The overall purpose of the data collection phase was to collect data

pertaining to educational aims of the RRCP, including the knowledge, skills and attitudes to be gained, and the educational experiences from a variety of perspectives using a constructivist approach (Lichtman, 2006).

Document review

Documents were obtained from the NOSM office of Undergraduate Medical Education that is related to the early years of the school ranging from pre-opening to two years post-opening. More specifically it consisted of: (a) early documents about the proposed model for the school; (b) reports about community consultations about what the school's curriculum should contain, and (c) instructions to faculty teaching in the RRCPs. Each document was reviewed for relevance to the community placements or a related topic (that is, social accountability, community education, and community engagement at NOSM), resulting in a list of 4 documents (NORMS Liaison Council, 2000; Northern Ontario School of Medicine, 2003; 2007; Ellaway, 2013). Documents were read several times to extract any information pertaining to the outcomes, objectives, and methodology of place-based medical education at NOSM, including the RRCPs, with notes being taken using a standardized form.

Interviews

Both ILs and CPs were interviewed using a semi-structured interview either in-person or by telephone (Lichtman, 2006). The questions were designed by a member of the research team with in-depth knowledge about the pre-clerkship program at NOSM, and who was the primary document reviewer. The interviews consisted of asking participants about what they thought the: (a) overall purpose of the RRCPs were in terms of the medical school's mission, (b) student learning outcomes within the RRCP should be, and (c) what sort of experience learners should have during the placement. All interviews were recorded and transcribed verbatim made with additional field notes taken as required during and after the interview. Interviews averaged about 45 minutes.

Questionnaires

Data from students was collected via a questionnaire that mirrored the interview questions of the ILs and CPs, as there was insufficient time to conduct interviews between the start of the academic year and the start of the RRCP. Using open ended questions, the questionnaire asked students to describe the purpose of the RRCPs, desired learning outcomes, and what sort of experiences they expected to have, mirroring the questions used in the interviews of the institutional leaders and community preceptors. The interview and questionnaire questions were reviewed by a place-based education expert and were found to be suitable data collection instruments for the purpose suggesting they had face validity.

Data analysis

All data was entered into ATLAS.ti, a qualitative software analysis program (ATLAS.ti Scientific Software Development GmbH, Germany) which facilitated the assigning of various themes and sub-themes to the data. Data analysis was a collaboration between BR and DG, which began with reading the entire text twice to gain a general impression of the content and develop an initial code list. Using ATLAS.ti, the data was further separated into distinct segments (for example phrases, sentences or paragraphs) and

assigned codes (Denzin, 2005). Additionally, the data was examined for relevant structural codes identified in the literature regarding place-based medical education. The analysis was iterative in that as new codes were developed from the data, previously analysed transcripts were reviewed to determine whether these new codes were already present. The results of the analysis were discussed between researchers during and prior to finalising the thematic organisation of the data to promote credibility of the research findings. As part of these discussions, the team also discussed their emerging awareness as a self-reflexive process to add credibility to the emerging themes (Lincoln and Guba, 1985; Finlay, 2006; Tracy, 2010).

RESULTS

Data was collected regarding the aims of the RRCP from the perspective of ILs, CPs and students prior to them taking part in their first RRCP. The objectives of each group fell into five main themes --social accountability, community engagement, integrated learning, forming the rural clinician, living in place as a rural physician--differences were apparent in terms of emphasis and perceived relevance (Table 1). Notably, student objectives diverged from those delivering the program at institutional and community levels, a finding with implications for place-based medical education.

Theme One: RRCPs are a mechanism for being social.

From the institutional perspective, the RRCPs represented a mechanism by which the program acts in a socially accountable manner. This emerged mostly from the document review and ILs and CP responses to questions about the general purpose of the RRCPs. For example, one founding document (Northern Ontario School of Medicine, 2003) stated, "*There must be a focus on getting more physicians into our communities*" In addition, most IL referred to social accountability directly with one ILs saying "*The school exists to make the north healthier and the placements are part of that*". Only two students referred to meeting community healthcare needs, one writing, "*My aim is to better understand what <community name> expects from physicians*" and "*I aim to understand how physicians work in <community name> to treat addiction*".

The CPs frequently referred to one aspect of social accountability, that of increasing the supply of rural physicians stating, for example, "*My aim is to train my future colleagues*" and "*... our community needs more docs, that's what I am trying to do*". This aspect of social accountability is closely connected to physician recruitment, and it is on the matter of recruitment that the perspectives of the institution and CPs differed. While it was clear that the RRCPs were viewed as a recruitment tool by both CPs and ILs, they differed in terms of recruitment to where, and on the role that NOSM should play in such. One IL said "*as a school we have an*

obligation to generally enhance recruitment to all of the communities that we serve". Conversely, it was made clear by two ILs that actively recruiting students to practice in a specific community was not part of the school's mandate. For example, "*We need more docs in the north ... but the school must be absolutely hands off in anything about (recruitment) to any community*". This differed markedly from the view of one CP who said, "*The only time we see NOSM students is during (the RRCP) and I hope some come back and join us*". Another CP expressed frustration saying "*I wish (NOSM) would work more with us to recruit (physicians)*" although another CP was aligned more with the institutional stance stating "*I would never seek to sell our clinic to students*". As such, while ILs and CPs shared a desire to recruit more physicians to the region, the institution has a general aim to increase the supply of physicians to anywhere in the region, while at least some CPs wanted the RRCPs to increase recruitment to their own community. In other words, CPs and ILs differed in terms of the geographic scale of place that social accountability operates within.

Theme two: Working in, though and with community

Working in partnership with the healthcare and wider community was viewed as an important aim in both the founding documents and by all the ILs. One founding document (NORMS Liaison Council, 2000) stated, "*... pre-clerkship training will occur in both Thunder Bay and Sudbury and northern regional rural, remote and Aboriginal learning sites*" while an ILs said "*(The RRCPs are).... about engaging the communities and it's not just physicians and other healthcare providers, but it's the entire community*". This reflected a desire to better understand health care needs with an IL saying "*It is crucial to know what the community wants, they know better than anyone where their needs are*", but also for the purpose of developing community-based training sites: "*... part of it was engaging with the community leadership in order to get them to support what we were doing there*". This was aligned with the desire of some CPs to develop the clinical teaching capacity, both infrastructurally and personally stating "*... being in the med school has allowed us to get more space for teaching*" while another said, "*I have not taught much before and I really want to build my teaching skills*". One student also referred to community engagement from a career perspective, their aim being "*to develop connections with the physicians I will be working with in the future*", with another stating they aimed to "*network with other health professionals and students*".

Theme three: Moving beyond classrooms through experiential pedagogy

It was clear that ILs did not view the RRCPs as stand-alone

Table 1. Aims of the remote and rural community placements from the perspective of the institution, community preceptors and students.

Theme	Dimensions of place-based education	Institutional aim	Preceptor aim	Student aim
Social accountability	Political	Be socially accountable by improving health outcomes and health care access. Enhance recruitment of physicians in the region.	1. Train my future colleagues. 2. Increase access to healthcare by enhancing recruitment of physicians to my community.	Engage in health advocacy while on placement. Understand community healthcare needs.
Community engagement	Ideological	Engage with communities to develop the experiential learning environment.	Develop personal and community teaching capacity	Develop personal relationships with community-based clinicians
Integrated educational program	Perceptual	Apply skills previously learned in the classroom. Have the RRCPs be part of a broad range of clinical experiences. Provide a stepping stone between the pre-clerkship and clerkship stages of the program.	Integrate teaching of year 2 medical students with learners at other stages of their education who are also present in the community.	Find out what clerkship will be like Learn how to be a clinical learner when away from home
Forming the rural clinician	Perceptual social	Put in place programs which equip students for rural practice. Foster a positive attitude towards rural practice.	Provide students with a positive experience of rural practice. Allow students to gain knowledge of rural health care systems. Teach clinical skills. Demonstrate to students how a rural context impacts medical practice. Emphasize the importance of generalism in rural practice. Emphasize the importance of interprofessionalism in rural practice.	Apply knowledge and skills gained in the classroom. Gain 'real world' clinical experience. Find out more about rural practice. Have clinical experiences which will help with future career development.
Living in place as a rural physician	Perceptual Social	Allow students to experience life in a rural community.	Learn about my community. Make students aware of what is expected of physicians by the community in terms of professionalism within and outside the clinic.	None stated

elements but rather as part of an integrated program. Firstly, the RRCP provided the first opportunity to apply theory to practice. One IL said, "...it's a clinical experience and it's about helping the students, you know, experience for themselves what they've been learning about in their classroom" and "... in most modules the system affected is a given, but in (the RRCPs) the students see the undifferentiated patient, they have to integrate what they have learned". A

student commented similarly that they aimed to "understand what it is really like working as a physician". Secondly, the RRCPs are part of a continuum of community learning. It was thought important that students experienced all types of northern communities to be aware of the breadth of practice contexts, to aid their understanding of these contexts, and to forge the necessary connections that are key to successful future practice. One IL stated "(students) need to be

exposed to all different types of community experiences: Aboriginal, rural communities, and small and larger urban communities in the north, so they could get the broad sense of what it means to practice medicine here" mirroring what is said in the founding documents. Having a broad-based experience prior to clerkship was another frequently stated aim. For example, an IL stated "in the earlier years the learning is much broader ... (a) broader sense of what clinicians

can and should do". Lastly, preparation for the community-based clerkship (CCC) was mentioned by several ILs including one who said "(the RRCP) are a preparation for their CCC placement and to make sure that they have got some social supports....they are a lot better prepared all round for the CCC; it would be difficult if they went straight to it". Students frequently stated this as an aim, such as "finding out how to learn away from home" and "getting ready to be a clinical learner".

A frequent finding of both the document review, and in the responses of all participants about the educational outcomes of the RRCPs, was the placement curriculum, namely the knowledge, skills and attitudes, needed by a rural physician. This was differentiable into two aspects, clinical and non-clinical which are described separately.

Theme four: Forming the rural clinician

Within the founding documents (Northern Ontario School of Medicine, 2003; Ellaway, 2013), training rural physicians was paramount at NOSM as evidenced by statements such as "students learning in environments which will closely resemble those in which they will work after graduation", and "know, be skilled and like to work in the north". These general statements were aligned with more detailed comments about the specific curricular aspects of rural medical education, with several sub-themes emerging:

(i) *Having a positive regard for rural practice.* The RRCPs were viewed as a vehicle for demonstrating the key features of rural practice, including what is distinctive and desirable about rural medicine, and how a practitioner can deliver excellent care to their patients. Within the founding documents (NORMS Liaison Council, 2000; Northern Ontario School of Medicine, 2003; Ellaway, 2013) statements such as "see the positive in rural practice" and "see themselves as rural practitioners" were common. This aligned with the views of both ILs and CPs who placed an emphasis on influencing student's attitudes towards rural practice, although students themselves were silent on this aspect of the placement. One IL stated that "we want students to see rural practice as the type of physician they want to be" and that "(a) factor associated with going into rural practice after training (are) positive clinical and educational experiences". Another articulated a perceived lack of status for rural practice with the professions stating that the RRCP "is there to show that rural practice is not second best, and it gives (students) an opportunity to engage in high quality healthcare day in and day out".

(ii) *Putting classroom skills into practice.* The CPs had much to say about the knowledge and skills that should be taught. Learning clinical skills was mentioned by most CPs with one stating "Taking a history, doing a physical,

writing notes and chart ... is often the first time that students are writing notes in charts and admitting their names to a piece of paper or to an electronic medium that says this is their assessment". Another CP viewed rural practice as the ideal formative clinical experience because of the variety of opportunities available saying, "students have no idea of what is coming through the door today ... they need to think from the basics up and not make assumptions". This aligns with most students who wanted to apply what they had learned, stating for example, that their aim was "to find out if I can do (clinical skills) with actual patients". As such the RRCPs aim to increase clinical confidence. Over and above generic clinical skills, however, the CPs articulated aims specifically connected with rural practice.

(iii) *The impact of rurality on medical practice.* The first, mentioned by all CPs, was to have students understand how rural medicine was different from that in large centres, and how rurality impacts rural practice. One CP said "students trained in the cities just don't know what to do here", while another said "it is important too for (students) to know what rural practice is like, whether they do it later or not, because knowing that will benefit rural populations as they will be able to work better with (rural physicians)". Similarly, a student stated "I want to experience rural medicine first hand". This aim, to know about rural practice, was shared by students all of whom wanted to find out what rural practice entailed.

(iv) *Knowledge of rural healthcare systems.* CPs viewed knowledge of how rural health systems operated as key learning objective for students. One IL said, "(students) need to know what facilities and resources are available here and how to use these to provide care" and "there are limits to what you can do here, so they need to know when and what to do when these limits are reached". This was also articulated by one student stating the wanted to know "what healthcare facilities were available to physicians".

(v) *The importance of health care teams and interprofessional practice.* Most CPs articulated a teaching aim of showing how important it was for rural physicians to be able to work in teams and being effective interprofessional practitioners: "Team work happens much more frequently in small communities than in the larger urban centres; a lot of talk about it in the big cities, but [it] actually happens more effectively in small communities since there is never enough (practitioners) so they all have to work together".

(vi) *The importance of generalism.* The need to have a broad base of knowledge and skills to be a successful rural practitioner was a common teaching aim; for example said one CP "... students need to know you cannot practice in those kinds of settings unless you are a generalist, unless you are delivering babies, and doing urgent care, and caring for patients in nursing homes, and dealing with public health crisis ...they need to realize that's what it's about and decide if they like that".

Theme five: Living in place as a rural physician

(i) *Knowledge of rural communities.* All ILs thought the RRCPs were not just about rural medical training but also about what being a member of a rural community is like, with a typical comment being “*It’s about (them) knowing what rural life is really like, particularly those who have grown up elsewhere*”. This was mirrored by several CPs; for example one stated “*they need to get out and socialize and see what rural living is like. If they think there is nothing to do and they will never come back, that’s good to know too*”.

(ii) *Living as a physician outside of the clinic.* Learning about how a physician lives in a small rural community was also considered to be a major objective of the placement by CPs, particularly with respect to living alongside those they serve, including matters related to professionalism, particularly that of confidentiality and social behavior. For example, one CP stated “*Learners need to experience what it feels like to meet someone in a social setting who they saw recently in the clinic*”, another that “*there is a layer of professionalism that is a bit different in small communities than in large urban communities where there is the opportunity for some degree of anonymity. The identity of a rural physician I think is a 24/7 sort of identity*”; Such comments allude to the idea that how we relate to, and behave in, a place is dependent on our role, that is that the social relationship with place as a physician differs from that of a non-physician, and that even a student who has grown in the same community must change and adapt (Proshansky et al., 1983). It was notable therefore that while CPs placed an emphasis on these two ‘off hours’ aspects of the RRCP experiences (community knowledge and physician life), no students expressed such aims, confining themselves to the clinical aspects of medicine.

DISCUSSION

The main aims of the RRCPs identified in this study and how they generally align between the institution, community preceptor and student perspectives is summarized in Table 1 with the various dimensions of place-based education (Gruenewald, 2003). Like other early clinical experiences during medical education, the RRCPs allowed students to try out skills gained in the classroom to increase clinical confidence (Hampshire, 1998; Mariolis et al., 2008). As may have been expected, CPs talked at length and in detail about how they wished to promote rural medicine to students with the hope that they would base their future practice in such locations. They also wished to educate students about the distinctive features of rural medicine (Theme 4) such as the importance of generalism and interprofessionalism, topics which align well with studies about rural practice (Hogenbirk et al., 2004; Pashen et al., 2007; Mariolis et al., 2008; Parker et al., 2013; Donato, 2015). Our major

finding, however, was the rather divergent views of the participant groups regarding a range of topics falling under broad thematic areas such as social accountability (Theme 1) and living in place (Theme 5). While it is a limitation of the study that the student viewpoint was collected by questionnaire rather than interview, the differences between the three groups are unlikely to be due to the data collection method utilized. These differences can usefully be considered within the theoretical framework of place-based education.

The ideological dimension

It was apparent that all participant groups had common ideas about changing healthcare for the better, focusing on improving health outcomes, increasing the supply of physicians, better meeting community needs, and engaging in equity promoting advocacy initiatives (Theme 1). As such our participants view social accountability in a manner in agreement with the conceptualisation of social accountability as a means to reduce health inequity (Murray et al., 2012; Boelen and Heck, 2015; Reeves et al., 2017). However, disagreement was apparent between the perspectives of the ILs and CPs when the issue of physician recruitment was considered, with some community physicians wanting to attract students to their rural community, not just into rural practice in general.

The political dimension

Such differing points of view relate to the important political dimension of place-based education, which changes over time, both within and between individuals, and highlights that the relationship to a place influences the change people desire to occur (Gruenewald, 2003). Given that the place-relationship of the participant groups varied (CPs, students, and ILs, were permanent, temporary and non-residents respectively), it is perhaps inevitable that each group would have differing political aims and suggests that differing and often conflicting political aims may arise within community-based educational experiences having an explicit social mission. Educators involved in socially accountable place-based educational models would therefore be well advised to prepare for and make visible divergent thinking within the placement curriculum. This idea builds upon a recent study that identifies the need to be intentional about strategies to prepare learners for rural practice (Thach et al., 2018). The study findings also highlight the need to consider how such strategies will play out within communities and the preceptor-student relationship, and to ensure that all those involved in rural community placement experiences are aware of the potential pitfalls. In addition, we suggest that concentrating community placements on how rural communities and rural healthcare is currently organized (the ideological

dimension of place (Gruenewald, 2003)), rather than on the politics of change inherent in social accountability (Boelen and Heck, 2015), may allow students, the institution, and community-clinicians to find common ground.

The social dimension

A second area of disagreement between students on one hand, and ILs and CPs on the other, lies within the social dimension of place (Themes 4 and 5). Both the CPs and ILs colleagues viewed gaining knowledge of the community both inside and outside the clinical environment as important. Such is in keeping with the literature regarding physician retention suggesting that a connection and satisfaction with the community is as important as how satisfied they are with their clinical practice (Pathman et al., 1998; Hanlon et al., 2010; Cameron et al., 2012). However, the aims of the students were entirely focused on the clinical community. This may be due to the student's novice status and anticipation of experiencing clinical work for the first time being their overriding aim, and that the broader sociocultural exploration of place important to their teachers has little value to them. Forcing students to engage with the broader community could conceivably, therefore, lead to conflict within the teaching relationship.

The perceptual dimension

While experiential place-based learning is inherently perceptual in nature, the result (Theme 3) strongly suggests that there may be little agreement on which specific experiences are desirable, with students focusing on the purely clinical, preceptors valuing a broader experience of rural life beyond the walls of the rural clinic, and the institution wishing students to experience a range of regional place-contexts, from small rural to larger urban. On the other hand, clearly articulating the rationale for a wider engagement with place in the curriculum and linking it to competencies required for rural practice may help to bridge the gap in expectations. In this regard, a recent study (Longenecker et al., 2018) that identified six core competency domains for rural practice, could serve as an important tool for building common language and clinical credibility for the need to learn in, with, and through community. Additionally, this study highlights how place-based pedagogies support the development of the roles outside of the biomedical definition of a medical expert to the non-bioscientific knowledge that is needed to for rural medical training (Kuper et al., 2017).

The ecological dimension

Finally, it was notable that no references to the

ecological, the habitat being occupied, were mentioned by any participants. In the era of climate-change and the effects that this will have on human health, a lack of understanding on how the non-human place interacts with healthcare is a significant deficiency which will require the development of new curriculum to address, and which we view as being ideal to being situated in a small rural rather than a large urban setting.

In summary, the expectation of the role of the RRCPs shows some agreement between students, preceptors and institutional leaders but also many areas of divergence, even considering that questionnaires rather than interviews were used to collect data from students. Considering the placements through the lens of place-based educational theory allows one to see the different aims of participants in terms of varying place-relationships. By designing curricula in a way that makes these place-relationships explicit, and which anticipates and manages the varying needs of those who participate in community placements in medical education programs. Future work may usefully investigate the long-term effect of these curricular elements on future career choice and any resulting beneficial reduction in the health inequities experienced by rural communities.

CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

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