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Full Length Research Paper

The effective school: The role of the leaders in school effectiveness

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This study focuses on investigating issues that are currently raising serious concerns in the education system in Saudi Arabia with regard to state school effectiveness. In order to understand the factors that prevent its efficiency and to enable reliable policy recommendations to enhance the quality of Saudi education and ensure greater efficiency, the researcher conducts this research on the effectiveness of the school by creating a comprehensive frame work that helps to explain why efforts to increase effectiveness succeed or fail, and what promotes or hinders effective school improvement. In order to fulfil the aims and objectives of this study the researcher used a survey approach with sample of 179 teachers and 11 school leaders. Research instruments included a questionnaire (quantitative data) and interview (qualitative data). The school leaders were interviewed. This exploratory study highlighted some key issues likely to affect effectiveness in Saudi State schools. It appears that the main problem facing the state schools is the lack of the main factors to effectiveness that are effective leaders, effective teachers, and effective environment. The purpose of the study was to find answers to the inquiry as how these schools can be improved to be effective. The findings of the study affect the researcher in terms of acquisition of knowledge and experience in school effectiveness and they are basis for further studies on this field. Moreover, being aware of the main factors to school effectiveness will be very helpful and provide fruitful reflections to those who are interested in the improvement of the effectiveness of schools.

Key words: School effectiveness, leaders, education, Saudi Arabia.

INTRODUCTION

Context

Many nations aspire to social equality, a strong economy, a highly skilled and motivated workforce and the most advanced health provision possible. This ambition can be brought to fruition by only one means: education (Levin and Kelley, 1997). As a result, investment in education has received much attention, in both develop-

ed and less developed countries, for future prosperity. The sector of education is often among the largest claimants on governmental budgets as a result. This is on top of significant private spending on education, the money spent by people in educational institutions to develop their human capital, and the costs of public resources related to education.

Worldwide, educational authorities have demonstrated

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an increasing level of concern about the effectiveness, quality and standards of achievement in schools (Macbeath and Mortimore, 2001). Since the mid-1950s the issue of schools effectiveness has been the concern of the Office for Standards in Education (OFSTED) and Local Education Authorities (LEAs) in the UK, and increasingly in the UK and elsewhere the focus is on finding the approaches and techniques that enable the effective improvement of educational institutions. Harris (2002: 6) states that "In England and Wales, in particular, there has been increased central government control over core aspects of the educational process". Therefore, the issue of identifying the effective schools has been of great concern for researchers and policy makers in recent decades.

Educational authorities worldwide have shown increasing concern about the efficacy, quality and standards of achievement of their schools (Macbeath and Mortimore (eds), 2001). Success in this area is difficult to gauge because it is not easy to measure or to conceptualise. There are no universally used measures for the effectiveness of educational institutions, although different attempts to describe the characteristics of an effective school will be considered in this essay.

Being the researcher is a teacher, this study is originated from an interest and the need to find the effective strategies that teachers and managers can use to create effective schools and colleges in her country. The other reason for choosing to conduct this topic is that she hopes by the findings of this study she can give a fruitful knowledge for those who want to develop themselves and increase their effectiveness to reach to the job satisfaction of teachers and managers.

However, as Saunders and Stockton (2005: 7) have pointed out "more recently school effectiveness research has become increasingly sophisticated and has challenged the notion of a school's overall effectiveness and the concept of differential effectiveness has developed". One basic premise is that an increase in competition from independent schools, which are trying to be more effective than state schools at raising standards and then achievement levels. These independent schools offer a very attractive alternative to the wealthy and middle-class parents (Creemers, 2001). Therefore, state schools must recognize what they should do to be effective and "what kind of support and challenge from external sources is most conducive to their effective development" (Macbeath and Mortimore, 2001: 2); and they need to improve their performance to be able to attract enough numbers of students.

Saudi educational system

When King Abdul-Aziz entered Makka in 1925 and

established the directorate of education, Makka became the cornerstone for a modern educational system in the Kingdom. As King Abdul-Aziz was interested greatly in education, he builds a lot of libraries and schools to spread knowledge all over the kingdom. He made the primary education obligatory, but free to urge people to join. The king divided education into 4 stages; A: elementary (from 6 to 12 years of age), B: Intermediate (from 12 to 15 years of age), C: Secondary stage (from 15 to 18 years of age), D: University stage (from 18 to 22 years of age) (Al-Huqail, 1998).

The main goals of education varied in the four stages and all of them are listed in the national policy of education. This educational system provides students with free education, books, health services and it is open to everyone in Saudi Arabia. It is a given fact that education is the cornerstone of any developmental plans and achievements. Saudi government allocated about 153 billion SR to the improvement of human resources. The sector of education received about 27.5 Billion SR from the budget of 1996 (SAIC, 1996: 48).

The Saudi administration of education is centralized and educational policies are controlled by the government. The main aim of this administration is to uniform curriculum and textbooks all over the kingdom. There are four main institutions that are responsible for the educational system in Saudi Arabia (A): the Ministry of Education which supervises the general education from kindergarten stage until the secondary level for male students. (B): The General Presidency for Girls' Education, which controls and manages programmes including all stages of general education and after secondary training for female students. (C): The Ministry of Higher Education, which controls post secondary education for both men and women at the universities. (D): The general organization of technical education and the vocational training, which is responsible for the training programmes at the sectors of industry, trade and agricultural subjects (Al-Huqail, 1998).

The educational system in Saudi Arabia is mainly built on a series of examination promotion every year and all students must pass these examinations to join the next stage or grade. Each school has the responsibility of preparing and supervising the exams for their own students. Students are required to pass and succeed in all subjects. If students fail any subject, they are required to enter another exam before starting the next new academic year, but if they fail again, they must repeat the grade. The school year has two semesters. Each semester consists of fourteen weeks plus two weeks for exams. The schedule of the school day has either 6 or 7; each class period is about 45 min long (SACM, 1991).

There is equality in education for both men and women; the schools of each are strictly separated throughout

except in nursery and kindergarten. Both male and female students study the same curriculum, except for some small differences in the specialization of home economics for girls and physical education for boys (Ministry of Education, 1970).

Al-Baadi (1995:844) describes Saudi education as follows: "it has grown remarkably fast, satisfying most of the immediate needs of a burgeoning population. As it approaches the twenty-first century, it shows normal signs of fatigue and maladjustment. Its challenge now is to tune itself so that it becomes more ...effective". Because it is struggling to meet a high demand for education, it is possible that, to a point, quality and efficiency have been compromised. It is time now to focus more on these important issues. The current Minister of Education, Arrasheed, acknowledged in 1998 that Saudi education has some serious shortcomings. He stated that, among other indicators, the low quality of education is suggested by the prevalence of poor examination results, and the poor performances of the graduates of the general education in universities and vocations. More recently, the Deputy Minister for Education Development recognized many indicators of inefficiency in the education system and emphasised the need to focus on increasing its quality and changing the ways in which it resources (Al-Awad, 1998).

Identifying school leader

"It used to be the case that leadership was thought of wholly in terms of the head teacher or principal" (Dimmock, 1995a: 7). The leader of a school in Saudi Arabia is the principal who directs, administrates and manages human and material educational resources as well as performing other administrative tasks and representing the authority role within a school. Because of this multi function role of a school principal, the title 'leader' is used by the researcher in this study instead of the term 'a school principal' as he/she is considered the leader of a school.

Purpose and aims of the research

In Saudi Arabia there is a great deal of concern about the need to improve the quality of state schools so that an acceptable level of education among citizens can be reached. Saudi educational professionals often have a faith in education as a tool that can ease social change. They believe that improving methods of teaching and therefore opportunities of education will create new generations that are focused on improving social conditions in the country. In light of this belief, and the demands being voiced by parents in Saudi Arabia for improved teaching standards, it is important to check the

factors that affect the provision of education in Saudi Arabia. Since the number of schools with the government being the only source of funds grows continuously, and because of current resource policies, the educational finance is increasingly likely to expand the government budget. Indeed, there has been a common belief that education resources could be more effectively managed by focusing on reducing the level of inefficiency. This view has grown along much concern about the quality of education that is on offer.

Although there is a general view that it is imperative to improve the quality and efficiency of education in Saudi Arabia, there has not been enough research evidence about improvement policies. The existing research on efficiency has been limited in terms of both measure and scope. These reasons lead the researcher to conduct this study which focuses on investigating issues that are raising serious concerns in the education system in Saudi Arabia. In order to understand the factors that prevent its efficiency and to enable reliable policy recommendations to enhance the quality of Saudi education and make sure greater efficiency, the researcher conducts this research on the effectiveness of the schools by creating a comprehensive framework that helps to explain why efforts to increase effectiveness succeed or fail, and what promotes or hinders effective school improvement. The findings of this study affect the researcher in terms of acquisition knowledge and ability in school effectiveness and they are the basis for further studies in this field. Moreover, being aware of main factors to school effectiveness will be very helpful not only for the researcher's future practice as a teacher in state schools but also might offer fruitful reflections to those who are interested in the improvement of the effectiveness of schools. Through these ideas, the researcher intends to investigate some of the school effectiveness by eliciting some questions.

Research questions

The rationale for conducting this study and its purpose have been discussed above; it remains to explore the following questions:

- 1- What do we mean by effective school?
- 2- What are the characteristics of an effective school?
- 3- What are the main factors affecting effectiveness in Saudi schools?
- 4- What is the role of Saudi school leaders in school effectiveness?
- 5- What are the barriers facing Saudi leaders in creating effective schools?

In order to get a range of data that is needed to

investigate the above issues, the researcher will adopt both qualitative and quantitative approaches. This will be possible by means of constructing and distributing a questionnaire among teachers and conducting semi-structured interviews with leaders of state schools in Jeddah city in Saudi Arabia.

The next section will check the relevant literature, to tackle the above questions as well as to show more about the situations facing the state schools in Saudi Arabia.

LITERATURE REVIEW

In this section, some relevant studies will be reviewed to identify the questions presented in this research.

Identifying the effective school

There is no universally accepted definition of the term 'effectiveness' as it has itself always been elusive. It is not always easy to separate definitions of effectiveness and success. However, there has been no agreement on its definition, and the cause of this disagreement may have its roots in the differences between researchers in terms of cultural background, belief and environment (Alamri, 1992).

There are a number of interpretations of what makes up or defines effectiveness. One interpretation, from Fullan (1993: 265), is that "It is the total of formal and informal learning pursued and experienced by the student in a compelling learning environment under conditions of complexity and dynamic change". Other definitions of effectiveness state that it involves using the resources and the means that are at the disposal of an educational organization to fulfil its goals without working staff too hard (Reynolds et al., 1996).

There is no definition of effective school that accepted universally. However, any acceptable definition has to take into consideration both what the student learning and teacher does. While Mortimore (1995: 7) states that the effective school can be defined as "One in which the pupils progress further than might be predicted from consideration of their attainment when they enter the school", Creemers and Reezigt (1997:401) have defined school effectiveness as the result of "all theories and research studies about the means-ends relationships between educational processes and outcomes, in particular student knowledge and skills... aiming at explanations for differences in student achievement between schools and classrooms". Creemers (2001: online) insists, "School effectiveness is strongly focusing on student outcomes and the characteristics of schools and classrooms that are associated with these outcomes

without automatically looking at the processes that are needed to bring changes". Therefore, effective school can be defined as the facilities, materials, equipment and physical environment of the school which enhance effect on the goals that teachers set for their students. However, these definitions make no allowances for the nature of the goals that are achieved, or of any difficulties that inhere in establishing them.

There are no universally used measures used to measure the effectiveness of educational institutions, although a number of attempts to describe the characteristics of an effective school will be considered in this essay. Some critics of school effectiveness research claim that it is not reasonable to call a school effective simply because at the end of the last school year the average level of achievement is demonstrated by a test to be relatively high. Ralph and Fennessey (1983) state, for instance, that if a school is effective it should be able to prove relatively high levels of achievement at every stage. Moreover, they feel that schools only deserve to be labelled 'effective' when they have attained well over several years. However, as Sammons et al. point out, "school effectiveness research results do not give a blueprint or recipe for the creation of more effective schools" (1995: 2).

Conceptualizing effectiveness and efficiency

Effectiveness is clearly often seen as being related to a means-end relationship. When applied to educational situations, effectiveness refers to the level to which educational practises result in the attainment of educational targets. In the language of a simple input-process-output systems of education, it is possible to refer to effectiveness as the transition of inputs using processes into sought-after outputs and outcomes (Scheerens, 1992: 11). Campbell et al. (1977: 93) suggest that "effectiveness is system oriented and has to do with the achievement of organization goals. Effectiveness of a school is measured according to its yearly intake, which could partly be attributed to intensive canvassing or school marketing"

Efficiency is "person oriented and has to do with the feelings of satisfaction a worker derives from membership of an organization" (Campbell et al., 1977: 93). Scheerens (1992:3) defines it as "the maximum output for the lowest possible cost. In other words, efficiency is effectiveness with the other need that is achieved in the cheapest possible manner". The term 'efficiency' is closely related to the term 'quality', but it is more specific. As Belfield (2002: 6) points out, "efficiency involves getting the most out of the resources available and therefore has two sides: what is 'got out' compared to what is 'put in'. Both sides need to be considered;

efficiency can be improved either if more is obtained from the same inputs or if the same amount is obtained but with less inputs". Efficiency analysis should look at the effect of various resource factors on the quality of education. Resources that do not enhance quality can actually cause inefficiency. Often, levels of resources could be reduced without negatively influencing the standard of education provided.

Conceptualizing effectiveness and quality

In discussions of education the term 'effective' is often associated with the quality of education. Effectiveness is defined differently by people in different disciplines, but can be broadly described as "the extent to which the desired output is achieved" (Scheerens, 1992: 3). The term 'quality' is usually used in education in reference to the 'goodness' of education, in contrast with the term 'quantity' which is used to refer to the aspects that are more easily measured, such as years of education, number of graduated pupils or enrolment rates. In the literature of economics of teaching and learning, the term 'quality' is used as an exchange with 'effectiveness' (Kingdon, 1994), to refer to the extent to which or how successfully the desired results are achieved (Windham, 1988). Education output has many facets and dimensions and cannot be gauged by one measure, but it is commonly agreed that student attainment, as measured by examination results, is the most accurate indicator of the success of the education system. Thus, students with higher attainment levels should be those who received a better education.

Conceptualizing effectiveness and improvement

Hopkins (1996: 32) claims that there are two ways in which the term school improvement can be applied. The first "is a common sense meaning which relates to general efforts to make schools better places for students and [for] students to learn". The second is a more technical in which he (1996: 32) defines school improvement as a "strategy for educational change that enhances the student outcomes as well as strengthening the school's capacity for managing change". This stresses that school improvement is very important to enacting changes to school culture. It views the school as the focal point of change and teachers as a basic part of the improvement process. It suggests that if school improvement is to occur teachers must show a dedication to the process of improvement which will involve them not only in examining their own practice but also in changing it as well.

School improvement research differs from research

dealing with school effectiveness because it seeks both to improve and to understand the effectiveness of schools and classrooms. It focuses on raising achievement by placing emphasis on the teaching and learning processes and those factors that support it. School improvement is most efficient when a clear and practical attention for development is combined with work on the internal conditions of the educational institution, as Hopkins et al. (1997) point out. In contrast, school improvement is usually connected with each school and colleges, and relies on the professional experiences of teachers to name areas that need to be concentrated on for improvement. This has tended to lead to a stress on changes to processes and not directly on outcomes, and has typically been associated with qualitative and not quantitative evaluation (Creemers, 2001). The characterization that contrasts school effectiveness and school improvement can be seen in Table 1.

To summarise, school effectiveness concerns trying to find out what needs to be changed in schools if they are to become more effective, since school improvement concerns trying to find out how schools can change to make improvements.

Characteristics of the effective school

Establishing the characteristics of effective schools has long been considered an important issue. Since the mid 1970s a number of studies have focused on this concept. In the mid 1970s in Britain and elsewhere there was a considerable amount of studies undertaken to uncover the characteristics of effective educational institutions. According to Creemers (1994) about 15% of the differences between students' achievements are the result of differences between schools. Reid et al. (1986: 5-32) note a range of factors that have been identified by different studies as being linked to school effectiveness. Though it is not doubted that there must be many interacting causes for a school to be effective, it is sensible to believe that some factors are more important than others in establishing and support the conditions for school effectiveness.

Focusing on the situation in the UK, but drawing on research and inspection evidence from around the world, Sammons et al. (1996), Harris (1996) and others have analysed the effectiveness of the schools and the ways in which they differ in their approaches. Some British researchers such as Rutter et al. (1979), Rutter (1980), Reynolds et al. (1976), Reynolds (1982, 1985), and Mortimore et al. (1988), and a number of American researchers such as Purkey and Smith (1983), Levine and Lezotte (1990) as Reid et al. (1986: 4) state "have published books and research reports with similar findings, all of which support the notion that schools are

Table 1. The contrast between school effectiveness and school improvement (after Reynolds et al.1993) cited in Harris et al (1998:131).

School effectiveness	School improvement
1.Focus on School	1.Focus on each teacher or groups of teachers
2.Focus on school organization	2.Focus on school processes
3.Data driven, with emphasis on outcomes	3.Rare empirical evaluation of effects of changes
4.Quantitative in orientation	4. Qualitative in orientation
5.Lack of knowledge about how to carry out change strategies	5.Concerned with change in schools exclusively
6.More concerned with change in pupil outcomes	6.More concerned with journey of school improvement than its destination
7.More concerned with schools at a point	7.More concerned with schools as changing
8.Based on research knowledge	8.Focus on practitioner knowledge

Table 2. The characteristics of effective schools identified by Purkey and Smith, (1983) and Sergiovanni (1995).

Characteristics of effective schools outlined by Purkey and Smith (1983)	Characteristics of effective schools identified by Sergiovanni (1995)
1. Curriculum-focused school leadership;	1. Student centred
2. Supportive climate within the school;	2. Offer academically rich programs
3. Emphasis on curriculum and teaching;	3. Practice shared leadership
4. Clear goals and high expectations for students;	4. Provide instructions that promote student learning
5. A system for monitoring performance and achievement;	5. Have positive school climate
6. Ongoing staff development and in-service training;	6. Foster collegial interaction
7. Parental involvement and support;	7. Have extensive staff development
8. LEA support.	8. Foster creative problem solving
	9. Involve parents and the community

different and can have an important impact on the lives of their pupils, teachers and communities". After conducting a study of secondary school practice based on a sample of 185 schools the HMI summarizes that an effective school is one which is efficiently governed by leaders who have the ability to stimulate others, have a vision and supported by important agents. They state that there must be effective communication as well as clear shared goals and objectives... good environment that encourages pupils to express their views and interact with the teachers, fostering the pupils' personal and social development, qualified staff and well deployed expertise (DES, 1988 cited in Reynolds and Cuttance, 1993: 14; Purkey and Smith, 1983) cited in Reid et al., 1990:18) and Sergiovanni (1995) name some of the characteristics of effective schools shown in Table 2.

Commenting on the above studies, Reynolds and Cuttance (1993: 13) note that it is "important not to over-emphasize the extent of the agreement between the various British studies and between these British studies and the international literature." Rutter et al. (1979) found that high levels of turnover among school staff is the

result of levels of effectiveness in schools, which contradicts Reynolds's (1976, 1982) findings about high levels of staff turnover and ineffectiveness. In a similar vein, as Reynolds and Cuttance (1993: 13) note, "the consistent American findings on the link between frequent monitoring of pupil progress and academic effectiveness is not in agreement with the findings of Mortimore et al. (1988) that pupil monitoring which involves frequent testing of children is a characteristic of ineffective school".

Factors affecting the effective school

Any attempt to improve the standards of education must focus on a number of interrelated factors, related to the curriculum, the skills of education professionals, educational supervision, the quality of financial provision, school buildings and co-operation of and with parents and the wider community. It is often believed that educational development and change is dependent on the quality of teaching and of school management. The duties

Table 3. A comparison of Lezotte's (1990) and Mortimore et al's factors of school effectiveness (1988).

Factors of effective schools (Mortimore et al., 1988)	Factors of effective schools (Levine and Lezotte, 1990)
1.Purposeful leadership of the staff by the head	1.Productive school climate and culture
2.The involvement of teachers	2.Focus on student acquisition of central learning skills
3.The involvement of the deputy head	3.Appropriate monitoring of student progress
4.Consistency among teachers	4.Practice-oriented staff development at the school site
5.Structured sessions	5.Outstanding leadership
6.Intellectually challenging teaching	6.Salient parent involvement
7.A work-centred environment	7.Effective instructional arrangements and implementation
8.Limited focus within sessions	8.High rationalized expectations and requirements for students
9.Maximum communication between teachers and pupils	9.Other possible correlates
10.Thorough record keeping	
11.Parental involvement	
12A positive climate	

and responsibilities of school professionals involve enhancing the quality of life, and helping students to show self-awareness, develop themselves, and understand wider issues involving their society and culture. Therefore, education authorities consider teaching an investment in the future of their society, as it helps to nurture and develop the minds of future generations. In order to improve teaching and, therefore, improve the education system as a whole, and to be able to recognize problems and know how to deal with them, it is important to investigate factors which can have an effect on teaching. Al-Bashaireh (1995) considers that identifying factors that affect teaching will help to provide an accurate picture for parents and those who have responsibility for the education of children. Salamah (1995) supports Al-Bashaireh's (1995) idea, stating that when the factors affecting teaching are made clear, satisfactory solutions can more easily be found.

The earliest major study conducted in this area in the UK was undertaken by Rutter et al. in 1979. They compared the 'effectiveness' of ten secondary schools in inner London in a number of student outcome areas. In doing so they reached a similar conclusion to that in the survey conducted by the HM inspectorate of Education. Both studies found that effective schools benefit from strong leadership and a 'climate' that facilitates growth.

Rutter et al. (1979) found that 'effective schools' are characterized by factors "as varied as the degree of academic emphasis, teachers actions in lessons, the availability of incentives and rewards, good conditions for pupils, and the extent to which children are able to take responsibility". In reference to this study by Rutter et al. (1979), Reynolds and Cuttance (1993: 8) point out that the "study found that certain factors are not associated with overall effectiveness, among them class size, formal academic or pastoral care organization, school size,

school administrative arrangements... and the age and the size of school buildings".

Levine and Lezotte (1990) have produced a general list of the factors of the effective school (presented in Table 3) which is based on 400 studies of school effectiveness in the United States (cited in Reynolds et al., 1998: 113). However, Mortimore et al. (1988: 250-6) only found twelve factors that are comparable with the factors mentioned by Levine and Lezotte (1990).

Commenting on a similar list, Fullan (1985: 400) says that these factors "say nothing about the dynamics of the organization", and goes on to state that: "To comprehend what successful schools are really like in practice, we have to turn to additional factors which infuse some meaning and life into the process of improvement within the school".

Fullan (1985: 400) goes on to note that there are four 'fundamental factors' which lie behind processes that are a success:

- 1- A feel for the process for leadership
- 2- A guiding value system
- 3- Intense interaction and communication
- 4- Collaborative planning and implementation

These process factors according to Fullan (1985: 400) instigate the "dynamics of interaction and development of the earlier organization variables".

However, Macbeath and Mortimore (2001:7) present a later study conducted by Sammons et al. in 1996, in the subject of meta-analysis, where the factors of effective schools were reduced to the following 11 prominent factors:

- 1- Professional leadership
- 2- Shared vision and goals

- 3- A learning environment
- 4- Concentration on teaching and learning
- 5- Purposeful teaching
- 6- High expectations
- 7- Positive reinforcement
- 8- Monitoring progress
- 9- Pupil rights and responsibilities
- 10- A learning organization
- 11- Home-school partnership.

To summarize it, effectiveness of any school depends mostly on the following three factors:

- 1- Effective leaders
- 2- Effective teachers
- 3- Effective environment

Role of the school leader in school effectiveness

“The issue of leadership for school improvement is now high on the research and policy agendas of many countries” (Lambert, 1998: 5). The success of school improvement is dependent upon the way in which it is directed and managed internally (Harris, 2002). The principal of a school in Saudi Arabia is the leader of a school who directs, administrates and manages human and material educational resources as well as performing other administrative tasks and representing the authority role within a school. For this importance of this multi function role of a school principal, the title ‘leader’ is used by the researcher in this study instead of the term ‘a school principal’ as he/she is considered the leader of a school. This part of the literature review will highlight the role of the principles as leaders in the schools effectiveness:

Maintaining a consistent set of targets is essential to success, as Sammons et al. (1997: 199) notes: “Leadership helps to set up a clear and consistent vision for the school, which emphasizes the prime purposes of the school as teaching and learning and is highly visible to both staff and students. Benefitting from involved guidance and vision from leaders, schools are able to build and focus on sensible goals with regard to their progress. However, as Creemers (2001) argues, it is important to encourage teachers to set targets together, and to work towards these targets together.

An effective leader adds value to the work of their staff, as well as being responsible for it by contributing to outcomes and giving direction to help the group (Reynold and Cuttance, 1996). This requires involvement in the activities of the classroom, including curriculum, and monitoring students’ progress and teaching strategies. Teachers tend to undervalue the achievements of the school and thereby to detract from the effectiveness of

the learning environment in achieving its goals. This will add value and motivation to the work of these members of staff. Under such guidance, education professionals can learn the most effective teaching methods to enable effective learning, so that teachers and students alike will be encouraged to meet as much as possible and schools can develop a purposeful approach to their progress (Cornforth and Evans, 1996).

Leadership is collective and it requires the participation of everyone in an institution. A good leader can build these diverse relationships with others, and knows how to overcome the difficulties that inhere in teaching and learning practices. Sharing in endeavours that require the collaboration of school staff should be encouraged. This means working and learning side by side with the same last targets. An important aspect of this model of leadership is that it concerns “the ability of those within a school to work together, constructing meaning and knowledge collectively and collaboratively” (Lambert, 1998: 5). Hopkins et al. (1996: 177) points out that “successful schools create collaborative environments which encourage involvement, professional development, mutual support and help in problem solving”. It concerns the environment in which work takes place and people focus on a shared aim. The learning environment of a school is as Reynolds et al cited in Harris et al. (eds) (1998: 129) state “the ethos of a school is partly determined by the vision, value and goals of the staff ... and also by the climate in which pupils work”.

Fullan (1985, 400) states that intense “interaction and communication” are important to good leadership, to enable the easy and full transmission of important information, as “this reduces uncertainty and the risk of rumour and misinformation filling the vacuum caused by stoppages in the flow of information” (Dunham, 1995: 120). As Harris et al (2003) note this kind of leadership shows a sharing out of power and a new type of authority within the organization.

The leader of a school must be able to competently oversee resources. To make sure that their school is effective, leaders should use the resources at their disposal (both physical and financial) with great care and efficacy, maintaining a focus on sustaining the curriculum. They should keep a checklist of resources and make sure they make allowances for differentiation and allow for the differences in requirements related to the ability levels and ages of pupils. In educational establishments, how they ration their money to cater for the human and material needs and meet their aims is of paramount importance. Everard et al. (2004: 10) argue that managers can solve many problems related to limited funds by looking after the resources a school does have. Bush and Middlewood (1997) go on to note that by placing emphasis on securing the means for learning, leaders can help all teachers to focus on students’

abilities to learn by creating the necessary environment, structures, resources and support to motivate staff and encourage creativity.

Leaders can aid in encouraging developments by taking risks, and by encouraging others to challenge their views about how things should be managed and what can be achieved. Teachers can be encouraged to search for better answers to problems at school (Tomlinson, 2004). Leask et al. (1999: 2) point out that "If [school leaders] show in their work that ICT is a genuinely useful tool, then their staff are more likely to accept the challenge of change and development which access to ICT brings". They can encourage teachers to test their circumstances to understand the need for change and the measures that are preferred for facing problems in the learning environment. Moreover, good leaders make it known to teachers why a particular plan is to be preferred to others to create an effective learning. Teachers must be encouraged to understand how the learning process occurs, and how to use effective teaching approaches to create an effective learning so that pupils and teachers are able to fulfil their potential (Cornforth and Evans, 1996).

Furthermore, sharing leadership positions and involving teachers in curriculum planning and the management of school affairs, and consulting teachers about other practical decisions in school is important for good school leadership. As Harris (2002: 30) points out that: "Essentially, school improvement necessitates conceptualization of leadership where teachers and managers engage in shared decision-making and risk-taking". To increase motivation, Bush and Middlewood (1997) state that it is essential to include teachers in organizing schools and the curriculum, which will lead them to work as a team. Involving teachers in these ways can bring about effective changes and as Harris (2002: 70-71) notes, these values are "derived from the explicit and shared values of a community". Moreover, as Field points out, leaders have the "intellectual ability to handle several issues and to integrate the range of skills, knowledge and understanding according to specific context and situations" (Field, 2000: 7).

An important factor of any effective school is a leader with "the ability to think creatively, to anticipate and forecast changes in the subject (internally or externally driven), and to help others prepare for and take greatest advantage of any changes" (Field, 2000: 6). Tomlinson (2004) agrees with Field (2000), pointing out that creative people or team leaders must be ready to alter a school's normal practices, which otherwise would only be able to give acceptable or traditional answers to challenges. However, Tomlinson (2004) suggests that if a leader is to be creative and successful he must not be afraid to alter or challenge an educational institution's routines and norms. This outlet for creativity motivates

staff and thus helps to build a sense of success in the institution (Bush and Middlewood, 1997).

It is important to support teachers to develop their abilities to perform effectively and motivate them in different ways to improve their performance attitude towards work through non-financial aspects such as training as the Teacher Training Agency, (TTA), (1998a: p.4) states, the role of the leader is "to provide professional leadership and management for a subject (or area of work) to secure high quality teaching, effective use resources and improved standards of learning and achievement for all pupils". Supporting teachers to perform as effectively as possible, and motivating them to build upon their performance can be achieved by successful and thorough training and rewards of a non-monetary nature. As Harris et al. (1998: 1) note, "Effective management should be central to the professional development of all teachers and lectures irrespective of their place within the organization". Leaders have a responsibility to limit teaching loads to allow for more effective teaching and learning. School leaders must employ their motivational skills to sustain good performance, build high morals and avoid overload (Bush and Middlewood, 1997). A school leader is responsible for limiting teaching loads, to enable the most effective teaching and learning to take place. The best leaders focus on establishing high morale, sustaining performance levels and avoiding problems related to the stresses of overwork (Bush and Middlewood, 1997).

Barriers facing leaders in creating effectiveness school

Several factors work together to diminish effectiveness in a school and reduce the levels of students' success. One of these barriers is the need for improved management skills. Any successful change or innovation will need direction and leadership. If school improvement 'fails' this is often because of failings in leadership within the school, or because leadership has been handed down to others who lack the skills or authority to take it forward (Harris, 2002: 19). Lack of training has been identified to be a major cause of some of the biggest problems experienced by schools (Dunham, 1995), as is lack of support to carry out the changes schools need to give adequate technical, professional and emotional support for teachers (Harris, 2002: 19). According to Bush and Middlewood (1997), an effective school will exist most easily with enough financial resources and time.

Trust is also something that leaders need to generate school effectiveness. Walker et al. (1998: 2) suggest that trust "is a necessary element for building a learning community". Without the ability to trust each other, full cooperation between teachers and senior management is

unlikely to occur. Mitchell and Sackney (2002) state that without trust, people focus attention on self-protection rather than learning, and school staff will not take the risks needed to set up successful changes in schools. Moreover, the school will be a place for self-preservation instead of motivation. When staff disagree about the aims and values of their school and figure not to follow through with preconceived aims through collaborative working practices, the leaders are rendered hopeless. As has been noted by Harris (2002: 19), "any change requires teachers to take part in planning and decision-making" and that can happen only by promoting "sharing ideas and the open exchange of opinions and experiences" (Harris, 2002: 109).

Harris (2002) notes that help from 'supporting agents' including inspectors, policy makers, educational consultants, researchers or LEA advisors can encourage or even force schools to improve by providing demands and suggestions for improvement. Therefore, the lack of external agents in schools can be a major barrier to effectiveness. Earl and Lee (1998) claim that the external agent of change can help in providing necessary extra support and training for schools as 'Just in time' in-service training of this variety has proven to be useful in school improvement programmes.

According to the characteristics of the effective schools, factors of effectiveness and the role of the leaders of schools that are presented above by the various studies, the researcher will be able to identify, justify and then conclude the standards of the schools that are involved in this study. The next section will present the research method that has been conducted for this study. This will be followed by an analysis which will discuss factors that help or disrupt the effectiveness of some Saudi School schools. Finally, some suggestions about how teachers and leaders can be helped and supported in creating effective schools, and then a conclusion will sum up the findings of the research.

RESEARCH METHODOLOGY

The above literature review has identified the characteristics of the effective schools, the roles of the leaders and the barriers they may face in the schools effectiveness. The starting point for a research study is at a philosophical level, the position of the researcher towards ontological, epistemological and methodological instances (Opie, 2004). Researcher's assumptions over these concepts will influence the choices on methodological approaches and methods (Opie, 2004). This raises a number of issues. One concerns the degree to which choice of methodology should be determined by the philosophy, resources or abilities of the researcher, another concern the degree to which such studies should be seen primarily as a means of individual development or whether ways can be found to disseminate and accumulate the results of such work. The main focus of this study will be:

1. To examine the factors to effectiveness in Saudi schools such as

teachers' professional needs, responsibilities, tasks, constraints, support, tension and job satisfaction and the teaching/learning environment.

2. To examine the role of the Saudi schools' leaders including their professional needs, responsibilities, tasks, constraints, support, tension and leaders' authority and power.

3. To determine the link between the effectiveness of the leaders and the effectiveness of the schools.

4. To offer suggestions for improvement through an increased focus on the role of the schools leaders.

Research frame work

A quantitative framework seeks to reach at conclusions from the data collected and then quantify and generalize them. As O'Neill (2006: online) points out "Generally, quantitative methods are designed to provide summaries of data that support generalizations about the phenomenon under study. In order to accomplish this, quantitative research usually involves few variables and many cases, and employs prescribed procedures to ensure validity and reliability". Quantitative framework is appropriate for the collection of data which is described by Harvey (2002: on line) as the "data which can be sorted, classified, measured in a strictly "objective" way - they are capable of being accurately described by a set of rules or formulae or strict procedures which then make their definition (if not always their interpretation) unambiguous and independent of individual judgments".

In contrast, qualitative frame work is used to understand a particular person's actions, "and the influence that this context has on their actions" (Maxwell, 1996: 17). Moreover, Maxwell (1996: 17) goes on to state that: "Qualitative research studies are sought in collecting and providing data about small number of cases or about a single-case. By using qualitative frame work, the researchers use methods as Strauus and Corbin (1998:11) state enable them to "obtain the intricate details about phenomena such as feelings...and emotions that are difficult to extract or learn about through more conventional research methods" In addition, to explore reasons and concepts, a qualitative method is used as it is more likely to suit complex social situations and enable the researcher to interpret the findings and provide alternative explanations (Morrison, 2002, p. 3-25).

The researcher considers the mixed methodology framework. This decision is taken by the notion of 'fitness for purpose' that governs the research design (Cohen et al., 2000: 27). The mixed methodology is used in this study because in combination they provide the best opportunity to address the questions set. Moreover, it makes the triangulation of the evidence possible, as well as that the various methods complete each other in investigating the research issues. It is in this sense ideally suited to this study. Robson (2002: 373) argues, "... you need not be the prisoner of a particular method or technique when carrying out an enquiry". It is thought that every method has its weakness, but weakness vary for methods; so combining methods will reduce weakness and have the advantage of strengths as Brewer and Hunter (1989: 16-17) put it "Our individual methods may be flawed, but fortunately the flaws are not identical. In this exploratory design, a diversity of imperfection allows us to combine methods not only to gain their individual strengths but also to compensate for their particular faults and limitations".

Since this study aims to provide information about the effectiveness of the schools in Saudi Arabia, the mixed methodology is the appropriate means to arrive to the conclusion that the researcher hopes to be useful in order to understand the factors that prevent the state schools efficiency and to enable

reliable policy recommendations to enhance the quality of Saudi education and ensure greater efficiency. The quantitative framework is used in this study to explore the factors that enhance or prevent the schools effectiveness through collecting data from large numbers of teachers and make generalizations of the conclusion that are reached from the collected data. The qualitative research method is appropriate for investigation of the strategies that the leaders of the state schools use in order to improve and enhance the performance of the schools to be more effective as Weinreich (1996: online) points out that "The messages and materials developed based upon the exploratory research should be pretested using both qualitative and quantitative methods so that the results provide depth of understanding as well as generalizability".

Briggs and Coleman (2007:29) state that "in combination they provide the best opportunity to address the question set, or specific sub-facets of the research topic" as Fraenkel and Wallen (2003: 443) comment: "Can qualitative and quantitative research be used together? Of course and often they should be... The important thing is to know what questions can be best addressed by which method or combination of methods". According to Brown and Dowling (1998: 83), "the adoption of a dual approach involving both qualitative and quantitative techniques can help in overcoming such tendencies to what we might refer to as naïve empiricism".

The research approach

There are many research approaches that might have been used to undertake a study of this nature. However, the survey approach is considered as being adopted for this study and start by identifying what is meant by it. In defining the survey approach, Hutton (1990, 8) wrote: "survey research is the method of collecting information by asking a set of questions in a predetermined sequence in a structured questionnaire to a sample of individuals drawn so as it is the most frequently used research method". A survey is a strategy that aims to provide a wide panoramic and detailed view of a topic (Denscombe, 2003, 31). Before looking in detail at the reasons that support this decision, it is important to consider briefly the other research approach.

With consideration to several research strategies, a case study approach seems to be infeasible for this study. Denscombe (2003: 32) claims that "case studies focus on one instance (or a few instances) of a particular phenomenon with a view to providing an in-depth account of events, relationships, experiences or processes occurring in that particular instance". As a purpose and intention of this study, this method would only be useful if it is used as a "Follow Up" investigation which is used in relation to the survey and may intend to explain a certain phenomenon with a long term period. (ibid:11). In evaluating the case study as a research approach not to be adopted for this proposed study, the researcher needs to mention its disadvantage regarding the instance of generalization (Bell, 2005; Cohen et al., 2000; Denscombe, 2003; Opie ,2004). In addition, this approach focuses on "a single person, a group of people within a setting, a whole class, a department within a school" (Opie, 2004: 74). In other words, case studies do not use large samples but involve the exploration of a single instance or a narrow spectrum of instances. Moreover, it requires significant amounts of time and constant access to a team study. Methodology of this approach requires much expertise and skilful planning.

It would have been ideal for the researcher, as a teacher, to conduct an action research study, since its effect into the practice is greater. However, an action research is a cycle process of researching (Denscombe, 2003; Opie, 2004) that starts from the practice and finishes by changing it. Kemmis and Mc Taggart (1992), cited in Cohen et al., 2000: 227) claim that "to do an

action research is to plan, act, observe and reflect more carefully, more systematically, and more rigorously than one usually does in everyday life". There are some disadvantages in this approach such as the difficulty of generalizing findings that "originate from a bounded reality" and the difficulty researchers may encounter in trying to be free from bias (Denscombe, 2003). Being the researcher an individual is involved in collecting data and then generalizing the findings for once, this kind of approach is not appropriate for her study.

Turning now to consider the survey approach which is appeared to be suitable to the main objectives of this investigation, the information elicited from the group respondents is consistent in nature and expresses both real and professional points of view (Johnson, 1994). The survey approach allows information to be easily collected and as Bell notes (1999: 13) "analysed and patterns extracted and comparisons made". Furthermore, the researcher will then as Bell (1999: 13-14) states "be able to present the findings as being representative of the population as a whole". Surveys usually obtain data from a large spectrum of participant, which must be representative of the whole population. By studying the sample of a survey the researcher will be able to draw conclusions about the whole population and the information collected must be as far as possible (Bell, 2005). Because this study is conducted by an individual researcher with constraints of time and resources, the above features of the survey approach seem to be feasible for this study as it is the strategy that provides the researcher with a great quantity of data about the characteristics of the effective schools and the barriers that prevent some schools in Saudi Arabia from being effective through involving a wide number of teachers there in short time and less effort. It is mainly useful for those who seek to describe a phenomenon and to identify standards and relations between some aspects. The main elements of this approach stated by Cohen et al. (2000: 171) are:

1. gather data in an economical and efficient way;
2. gather numerical data that can be statistically processed;
3. make generalization from a great quantity of data;
4. involve a wide population.

The survey method was chosen because of all these reasons and the elements that follow will summarise the advantages of using this method:

1. The mentioned information is collected from various people to define and describe some characteristics of the population from which they are a part. The information is collected by asking questions (Fraenkel and Wallen, 1993: 343).
2. The responses of the group members form the data of the study (ibid).
3. The survey approach can result in a huge amount of information as Johnson states "cross-tabulated in many ways to produce a wealth of description" (Johnson, 1994: 18).

To sum up, despite the fact that the method used in this survey is viewed as giving the researcher the various and relative simplicity that help completing the study, the used method has some disadvantages including as Johnson, (1994:104) states "peoples' views, are ambivalent, sometimes because they feel they lack the information or understanding to make proper judgment" (Johnson, 1994:104). Further, Johnson, (1994) explains that the interpretation of the data in the survey should take into consideration the method's limitations. Nevertheless, it is viewed as being: "...essentially [...] a means by which we can document, analyse and interpret past and present attitudes and behaviour patterns" (ipid:104).

Research instruments

Considering several research strategies, the researcher decided to use a combination of research tools to acquire valid data free from any kind of bias and perception which she thought would reveal as much detail about managing effective schools. Relying only on one method "may bias or distort the researcher's picture of the particular slice of reality she is investigating" (Lin, 1967, cited in Cohen et al., 2000:112). By using triangulation, the researcher has aimed to address the issues of validity and reliability in relation to the research which the researcher will operate honestly to avoid bias analysis of the data collected which aimed to be valid and reliable. Semi-structured interviews in conjunction with questionnaire provide a means of "triangulation between methods" (McFee, 1992: 215) in order to confirm the validity of the research.

Semi-Structured Interview

The first research instrument to be selected is the semi-structured interview. It is considered as the most suitable instrument for the proposed research. There are a lot of interview types; such as; structured, unstructured, semi structured, formal and informal interview. Considering the nature of this study, the specific chosen technique was short, semi structured interviews. This type of technique allows the investigation to get the feelings, intentions, views, expectations, current anxieties, and previous experience of the sample to be in detail, and related to the research question. The semi-structured interview approach also allows reducing alignment as it does not trace answers which support ideas that are pre-conceived. In this type of interview, Bell (1993: 94) recommends to give the respondent the opportunity to talk freely about what is more significant and important to him/her than what is important to the interviewer.

Drever (1995,1) states that by using the semi structured interview, the researcher "sets up a general structure by deciding in advance what ground is to be covered and what main questions are to be asked". According to the interviewees' responses, 'semi-structured' interview helps the interviewers to be flexible and adaptable. Through interviewing, the researcher will try to explore the factors and barriers to effectiveness of the schools in Saudi Arabia. Despite their general structure, 'semi-structured' interview enables interviewers to be flexible and adaptable according to the interviewees' responses. In other words, a response to one question can lead to another question.

A key aim of this enquiry is to explore perceptions and investigate effective schools. The main benefit of using the interview is its flexibility to follow up the thoughts and ideas, check responses, and investigate and examine incentives and feelings. The response can be in the form of the tone of voice, facial expression, or hesitation which can provide information that the written response may not reveal. While questionnaire responses have to be taken at face value, in an interview responses can be developed and clarified (Bell, 1993). In this survey, the interviews were made intending to achieve the following aims;

1. To identify the main problems that face leaders in managing schools.
2. To be aware of current situation within Saudi state schools.
3. To explore the whole situation within the leading profession.
4. To gain insight into the factors that may currently affect effectiveness in Saudi Schools.

Interview sample

In order to help the progress of the research and obtain the

appropriate data, leaders of Saudi state schools will be interviewed. According to time constraints the researcher enabled to interview eleven leaders in order to obtain the appropriate data, which will help the progress of the research (appendixes 4). The researcher will try to discover the approaches that leaders use in managing the schools, and what they need to be more effective. The questionnaire and the letter were designed in English and translated into Arabic (appendices 5 and 6) for respondents in Saudi Arabia. The interview samples were the leaders of the same schools that were concerned. However, the researcher was able to interview 11 leaders of the 12 schools, 6 females and 5 male leaders as one of the leaders was unavailable.

Questionnaire

In order to approach the subject of teachers' perception of the leader's role and effectiveness of the schools, a questionnaire was considered to be the most effective research tool due to its relative ease of distribution. It carries some advantages, one of which is that this kind of method is appropriate for researchers who want to get reliable data on a large scale in a systematic way (Gay, 1992). At its best, the questionnaire allows information recording, analysis and interpretation (Bell, 1999) and is "a good way of collecting certain types of information quickly and relatively cheaply" (ibid: 119). Furthermore, questionnaire empowers the respondent (Johnson, 1994, 37) and this was deemed vital when considering the potentially sensitive leadership matter. Johnson points out that there are two major considerations that should be discussed when designing the questionnaire:

1. understanding the questionnaire by the respondents and to find it suitable to his\ her experience and knowledge;
2. the researcher should try out the questions before distributing the questionnaire in the final form (Johnson, 1994: 37)
3. Moreover, the questionnaire gives the researcher many types of questions that enable her to get relevant information. The question types include; the Quantity, Ranking, Grid, Category, List and Scale system questions. In this study, all the questions used are based on the scale system. This type of analysis is known as the Likert Scale which helps analyzing the respondent's "strength of feeling and attitude" for a statement (Bell, 1999:185). The Likert scale may be of the most straight scale devices and as he writes, "Ask respondents to indicate strength of agreement or disagreement with a given statement or series of statements on a five- or seven- point range" (Bell, 1999: 186).

Although, the researcher thought that the questionnaire is an adequate research instrument for the study, it is noted that using this research instrument has some disadvantages. Bell (1999) and Johnson (1994) stated that questionnaires should not be so long because this may increase the high non-response rate. Moreover, questionnaires do not let the respondents explore the questions clearly. Instead respondents are inclined to a structured focus more than unstructured one. Nevertheless, researchers found out that using both questionnaires and interview, a lot of the negative effects of using questionnaire alone are removed.

Questionnaire sample

12 state schools were chosen randomly, four schools of each level of boys' and girls' state schools from different areas in Jeddah city in Saudi Arabia (Table 4) and number of correspondents) and sent a copy of the questionnaire to twenty teachers in each of these

Table 4. A list of the schools concerned and number of correspondents.

Level of schools	Female schools	Male schools	Distributed questionnaire
Elementary level	EGS1	EBS1	40
	EGS2	EBS2	40
Intermediate level	IGS1	IBS1	40
	IGS2	IBS2	40
Secondary level	SGS1	SBS1	40
	SGS2	SBS2	40
Total	6	6	240

schools.

Piloting procedures

To purify and consolidate the questionnaire, and to recognize and overcome any potential problems in distributing and completing the questionnaire, it was necessary to guide the questionnaire. Johnson (1994:39) recommends that the respondent pilots for the questionnaire be normally qualified persons. Therefore, three Saudi teachers studying in the UK were asked to pilot the questionnaire (all of them were eligible to participate in the study). Those teachers were asked to lead as they; (a) have an experience to control research instruments, (b) have undertaken similar post graduate courses, and (c) have statistical and analytical understanding and knowledge.

The teachers were supported by the objectives of the study besides the above listed items, (Bell, 1999: 128). The pilots gave the researcher confidence in the compatibility of the instruments to be used in the basic field of work. Moreover, it is believed that this procedure may help. After piloting the questionnaire, its order was refined so as to allow more reasonable stream open-ended response with enough space to note down their opinions freely.

Questionnaire procedures

After obtaining permission from the Saudi Ministry of Education to conduct the questionnaires among the teachers, the researcher travelled to Saudi Arabia to collect data. The questionnaire was distributed and collected personally from the head teacher at each school. The reason was to make sure that all questionnaires were completed. According to Peil et al. (1982) there is a greater likelihood of obtaining a higher response rate when questionnaires are handed out in person. Since the time of distributing and collecting the questionnaire was the time of pupils' exams, the researcher faced difficulties in gathering the data as all teachers were busy in marking the exam. However, most of the interviewees were helpful and cooperative because they were excited about the topic.

Alternative research instruments

Diaries

In this survey, the researcher rejected using the diaries as research instruments because there was no requirement in this study.

Additionally, diaries oblige a quite heavy demand on the teachers who accept to co-operate and was rejected for research being conducted for this purpose. Collecting data from diaries is not feasible and consume the teachers' time consuming (Bell, 1999: 147). Holly (1984) cited in Bell (1999: 150) states that the diary method is a problem as:

"...diary writing is interpretative, descriptive, on multiple dimensions, unstructured, sometimes factual and often all of these, it is difficult to analyse, and it is not easy to separate thoughts from feelings from facts".

Observation

Observation also can be a "powerful research tool" (Moyle, 2002: 172). A combination of the interview and observation is beneficial; as Marshall and Rossman note, "combined with observation, interviews allow the researcher to understand the meanings that people hold their everyday activities" (Marshall and Rossman 1999: 108). Moreover, "the body language is considered as a very important factor, which contributes to the understanding of the validity of the responses given in an interview" (Drever 1995: 3). However, these features of observation are not significant for the purposes of this study. It was decided not to use it due to lack of experience in the techniques and the "high demand of time", as noted by (Moyle, 2002: 174).

Reliability and validity

Bell (1987: 50-51) quoted in Bush, 2002: 60) states that reliability is "the extent to which a test or procedure produces similar results under constant conditions on all occasions" and demonstrates that 'the operations of a study can be repeated, with the same results'. Moreover, reliability is defined as "the probability that repeating a research procedure or method would produce identical or similar results" (Bush, 2002:60). According to Cohen et al. (2007: 151) "One way of controlling reliability is to have a highly structured interview, with the same format and sequence of words and questions for each respondent".

In contrast, validity, according to Sapsfords and Evans (1984: 259) quoted in Bush, 2002: 65) is "the extent to which an indicator is a measure of what the researcher wishes to measure". It shows "us whether an item or instrument measures or describes what it is supposed to measure or describe" (Bell, 2005: 117). Cohen et al. (2007: 151) add that "The most practical way of achieving greater validity is to minimize the amount of bias as much as possible. The

sources of bias are the characteristics of the interviewer, the characteristics of the responder, and the substantive amount of questions”.

About trust and reliability, the researcher used semi-structured interviews in the current study. This kind of interview has a general structure that is explained clearly in the interview, moreover, it includes open-ended and close-ended questions. This kind of interview enables the researcher to collect real and true information about people's opinions and circumstances and to discover their motives and experiences deeply (Dever, 2003: 1). Because of this, the researcher developed a schedule based on the research questions for the leaders to achieve trust and reliability (appendix 2).

Bias

Bias can be reduced by using a schedule for an interview. Using a schedule can guide the interview and remind the researcher of the state and condition of the discussion. It also as Dever (2003: 18) notes “guarantees consistency of treatment across a set of interviews, which allows you to compare peoples' answers to questions which you have posed in the same way to everyone”.

Additionally, the schedule of interview was managed to ensure its fineness. The previous objective was realised by eliciting interviews from volunteers that would not take part in the study. In this method, the author had the opportunity to get rid of obscure, perplexing or insensitive questions and to check the time needed for each interview considering the importance of not being monotonous, and being sure that trust and privacy were emphasised (Opie, 2004: 115). Within this pilot study, the researcher decided to produce more indications and decrease the number of questions so as to accomplish a more structured interview, hence, decreasing alignment and the needed time in order not to make the leaders to be annoyed, (Appendix 2).

Statistical design method

For the objective of this study, the questionnaires were designed by following the Likert Scale system. The questionnaire was intended to measure the attitudes and strengths of the respondents' feelings on the subject area. Every statement had a five-scale, point system; for example (1) strongly disagree, (2) disagree, (3) undecided, (4) agree and (5) strongly agree. The questions for each statement were coded and data-coded tables of the findings were inserted into the computer using Excel spread sheet, tables and bar charts. The findings were also analysed and produced in computer printout and frequency table formats from which the researcher obtained some of the following data:

1. Totals
2. Averages
3. Frequencies

For the interviews, statements of the respondents were analysed and compared to find similar key phrases and words. After that, a comparison was made between the findings of the questionnaire and the schedule of the interview (Bell, 1999; Johnson, 1994), to show trends.

Ethical issues

Some ethical issue will be followed in this study in order to avoid any risks to the participants involved in the investigation as Bell

(1999: 38) states that there are: “... Different types codes of practice or protocols which require researchers to ensure that participants are fully aware of the purpose of the research and understand their rights”. General agreement is protected by the researchers as “the interests of the participants by ensuring the confidentiality of information that is given to them” (Denscombe, 2005: 136).

Therefore, letters with each transcript of the interview questions (appendix 1) and with each questionnaire (appendix 3) were forwarded to each respondent. Knowledge of the researcher's identity is provided in the letter with brief information about the research study, its purpose and what are the possible benefits gained from it.

In addition, the participants' identity and the name of the specific schools in which the research will take place will not be given in, all information was coded for filing in order to maintain the anonymity of the investigation. Johnson (1994: 81) suggests that: “...job titles rather than names should be referred to, as this stresses the professional rather than the personalized input which individuals have made to your research”.

However, the study of value-added data made it possible to observe which schools were effective or ineffective. It would have been valuable and interesting to not only identify the effective schools but also ineffective, and make comparison between them. Furthermore, Busher (2002) states that “Questionnaire and surveys like interviews are intrusive and their questions can be distressing for participants if they are asked to confront aspects of their work or lives they may find uncomfortable” (ipid: 81).

Therefore actions were taken, (for example, explanatory letter, gaining permission) to ensure willing response and to create a research study with reliable and valid outcomes.

The next section will present analysis which will discuss factors that help or disrupt the effectiveness of the schools, some suggestions as to how teachers and leaders can be helped and supported in creating effective schools, and then a conclusion will sum up the findings of the research.

FINDINGS

The aim of this study is to assess whether or not the state schools in Saudi Arabia are effective. In this section the evidence gathered from the various research tools employed will be presented as well as detailed descriptions of the results from the questionnaire to show trends and summaries of the interview responses. Comparison is made between the results of the questionnaire and the information obtained from the interviews. The discussion will be informed by the literature reviewed earlier and the research questions.

Questionnaire findings

As previously noted, the questionnaire was distributed to teachers of 12 state schools chosen randomly. These included four schools of each level of boys and girls from different areas in Jeddah city in Saudi Arabia. Although around 240 questionnaires were distributed, only 179 of them were received as shown in Table 5.

Although, the main idea of this section is to discuss the

Table 5. A list of the schools concerned and number of correspondents.

Level of schools	Female schools	Male schools	Distributed questionnaire	Collected questionnaires
Elementary level	EGS1	EBS1	40	31
	EGS2	EBS2	40	27
Intermediate level	IGS1	IBS1	40	26
	IGS2	IBS2	40	37
Secondary level	SGS1	SBS1	40	28
	SGS2	SBS2	40	30
Total	6	6	240	179

Table 6. Distribution of the research sample by sex.

Level of schools	Female respondents	Male respondents	Total
Elementary level	35	23	58
Intermediate level	40	23	63
Secondary level	36	22	58
Total	111	68	179
percent	0.62	38	100

Table 7. The respondents' age.

Age	Frequency	percent
20-30	5	0.03
31-40	81	0.45
41-50	86	0.48
Missing value	7	0.03

Table 8. Respondents' qualification.

Qualification	Frequency	Percent
Master Degree	8	0.04
Ed BA Degree	101	0.57
Non-Ed BA degree	25	0.13
Higher Diploma	45	0.26
Total	179	100

factors that affect effectiveness of Saudi state schools in Jeddah city, a short section on respondents' personal and general information will be also presented. Therefore, the components of this section will be presented as follows:

1. Analysis of Respondents' Personal and General Information.
2. Resources and Facilities within the School.
3. Learning Environment

4. Factors to Teachers' Effectiveness
5. Leaders' Roles in the School Effectiveness.
6. Barriers to effectiveness

Respondents' personal and general information

Respondents' sex

In this part some information will be provided regarding respondents' age, sex, qualification, experience, and salary. Of the total sample of 179 teachers in twelve schools, there were 111 female teachers (62%) and 68 male teachers (38%) in the sample of respondents (Table 6).

Respondents' respondents' age

The respondents' age is shown in Table 7.

Respondents' qualification

Respondents' qualifications ranged from Higher Diplomas to Master Degrees. It was found that the great majority of the respondents held a Bachelor Degree. As shown in Table 8, of the 179 teachers who were surveyed, only 0.04% reported that they have a Master Degree, 0.57% reported that they have a BA/Ed Degree, 0.13 % have a Non-Ed BA degree and the last portion, who form 0.26%

Table 9. The respondents' experience.

Years of experience	Frequency	percent
1-5	6	0.03
6-10	60	0.33
More than 10	113	0.63

Table 10. The respondents' salary in Saudi Riyals.

Salary in Saudi Riyal	Frequency	Percent
6000-9000	54	0.30
More than 9000	114	0.64
Missing value	11	0.06

have Higher Diplomas.

Respondents' experience

The respondents reported varying amounts of previous teaching experience. More than half of them had more than 5 years experience. Only around 12% reported 15 years or more of experience.

Table 9 shows 6 teachers had less than 5 years of experience forming only 0.03% of the total sample, 33% reported 6-10 years of experience and 63 % reported more than 10 years of experience.

Respondents' salary

Regarding the respondents' salary, as it is shown in Table 10, apart from 11 of the surveyed teachers who did not respond to this part of the question, it was found that none of the respondents who were surveyed in this study receive less than 6000 Riyals a month while those whose salary are 6000-9000 make up 30 and 64% have more than 9000.

Just less than 19% of the teachers reported that they had received in-service training.

Presentation, explanation and interpretation of data

In this and the following three sections, teachers were asked to indicate their agreement or disagreement (or undecided) with each item of the questionnaire. Respondents were asked to rate their response according to an accompanying scale: Strongly Disagree (SD); Disagree (D); Undecided (U); Agree (A); Strongly Agree (SA). The results are summarized in Table 11 with both strongly agree and agree as a positive opinion and disagree and strongly disagree as a negative. For research purposes,

this section is divided into three parts:

The first part is concerned with factors related to the curriculum, financial resources, school buildings, facilities, laboratories and school libraries, and equipment and teaching aids (12 statements). The overall results are presented in Table 11.

Teachers' perception of resources and facilities within the school

Table 11 shows that the majority of teachers (39, 35 and 38%) disagree that the curriculum content, the adequacy of the teaching aids, the availability of the financial resources and the adequacy of the class size are good while only about one third of the respondents believed the opposite. Regarding the school building, although more than half of the sample agreed that the school buildings are good, 33% of them believed that the facilities in schools are not adequate for teaching and learning. 44% of the respondents strongly disagree that neither the school library has sufficient and appropriate books nor the school laboratory contains adequate equipment.

The situation of the insufficient resources in the concerned schools identifies with Bush and Middlewood (1997)'s opinion as it prevents teachers' motivation and affects their creativity. Moreover, an effective school will exist more easily with sufficient financial resources and time (Bush and Middlewood, 1997).

Teachers' perception of the learning environment

Table 12 reveals that the majority of the respondents (35%) strongly disagreed with the existence of the relationship between the schools and parents. Also 44% of the respondents disagree with the existence of the students' self-esteem while according to Mortimore et al. (1988) Levine and Lezotte (1990) and Sammons et al. (1996), the students' self-esteem and home-school partnership are considered important factors to school effectiveness.

On the contrary, 38, 51 and 36% of the respondents agree with having a collaborative environment, the existence of good school management and a good staff relationship in their schools. These agree with Hopkins et al. (1996: 177) who point out that, "successful schools create collaborative environments which encourage involvement, professional development, mutual support and assistance in problem solving". In addition, this situation is matched with Bush and Middlewood (1997) who note that by the unavailability and inadequacy of the teaching and learning facilities teachers are unable to focus on students' abilities to learn.

Table 11. Teachers' perception of resources and facilities within the learning environment.

The following are available in your school:	Strongly disagree (1%)	Disagree (2%)	Undecided (3%)	Agree (4%)	Strongly agree (5%)
Good curriculum content	0.29	0.39	0.01	0.15	0.15
Adequate teaching aids	0.25	0.35	0.01	0.30	0.07
Availability of the financial resources	0.32	0.35	0.01	0.20	0.10
Adequate class size	0.33	0.38	0.005	0.15	0.14
Good school building	0.29	0.33	0.02	0.51	0.11
School library has sufficient and appropriate books	0.44	0.31	0.01	0.11	0.11
School laboratory has adequate equipment	0.44	0.30	0.02	0.11	0.11

Table 12. Teachers' Perception of the learning environment.

The following are available in your school:	Strongly disagree (1%)	Disagree (2%)	Undecided (3%)	Agree (4%)	Strongly agree (5%)
Good school/parents relationship	0.28	0.35	0.03	0.21	0.10
Existence of the students' self-esteem	0.16	0.44	0.01	0.35	0.01
Collaborative environment	0.13	0.21	0.02	0.38	0.18
Good school management	0.10	0.18	0.01	0.51	0.18
Good staff relationship	0.18	0.21	0.01	0.36	0.21

Table 13. Factors to teachers' effectiveness.

In your work you are	Strongly disagree (1%)	Disagree (2%)	Undecided (3%)	Agree (4%)	Strongly agree (5%)
Provided with technical support to enhance your performance	44	16	2	24	11
Assisted in problem solving	13	16	6	23	40
Not over loaded	41	32	7	10	8
Granted autonomy in choosing what suits students	46	31	1	13	6
Recognized for your accomplishment	29	30	6	18	17
Shared in organizing the school	12	17	5	34	30
Provided with enough time to correct the pupils' work	53	28	5	6	6
Provided with enough time to be creative in your work	42	30	5	10	10
Receive in-service training to enhance your performance	41	36	2	10	8
Receive useful feedback from periodical evaluation	11	15	1	37	33
Obtain useful information and advice from your supervisor	8	11	2	43	34
Satisfied with your salary	11	16	5	33	32

Factors affecting teachers' effectiveness

Table 13 shows that the majority of the teachers strongly disagreed with being provided with the technical support

to enhance their performance (44%), not over loaded (41%), granted autonomy in choosing what suite students (46 %), provided with enough time to correct the pupils' work (53%), provided with enough time to be creative in

Table 14. Teachers' perception of their school leaders' roles to the school effectiveness.

c-Your leader:	Strongly disagree (1%)	Disagree (2%)	Undecided (3%)	Agree (4%)	Strongly agree (5%)
Establishes a clear and consistent vision for the school	6	7	4	42	38
Builds a learning community by trusting you	12	14	1	22	48
Monitors the students' progress	8	13	2	20	55
Is highly visible to both staff and students	6	11	4	39	37
Engages the teachers in the decision-making	24	18	3	25	39
Uses the financial resources with great care and efficacy	6	21	5	20	45
Solves problems of limited financial problems	12	18	2	23	43
Achieves success in continuing development of the school.	10	11	2	38	36
Focuses on building high morale	10	5	1	49	43
Raises the teachers' self- esteem	6	15	3	31	43
Monitors and evaluates teaching of the subject area	8	20	2	20	49
Offers adequate teaching resources	36	50	1	11	16
Ensures teaching rooms are suitable	13	16	3	25	40
Arranges useful meetings to teachers and the school as a whole	10	12	3	25	48

their work (42%) or receive in-service training to enhance their performance (41%) in respective while only 30% of them disagreed of being recognized for their accomplishment.

This situation of the teachers not being supported or satisfied with their work affects the students' learning as Bush and Middlewood (1997) note. By placing emphasis on securing the means for learning it enables teachers to focus on students' abilities to learn by creating the necessary environment, structures, resources and support to motivate staff and encourage creativity. Also, the lack of training has been identified to be a major cause of some of the biggest problems experienced by schools (Dunham, 1995).

However, 40, 34, 37, 43 and 33% of the teachers agreed with being assisted in problem solving, sharing in organizing the school, receive useful feedback from periodical evaluations, obtain useful information and advice from their supervisors and are satisfied with their salary. This situation is significant as it is considered one of the characteristics of a schools success as Hopkins et al. (1996: 177) points out, "successful schools create collaborative environments which encourage involvement, professional development, mutual support and assistance in problem solving".

It is important to support teachers to develop their abilities to perform effectively and motivate them in different ways to improve their performance attitude

towards work through non-financial aspects such as training. As the Teacher Training Agency (1998a: 4) states, the role of the leader is "to provide professional leadership and management for a subject (or area of work) to secure high quality teaching, effective use of resources and improved standards of learning and achievement for all pupils". In addition, supporting teachers to perform as effectively as possible, and motivating them to build upon their performance, can be achieved by means of successful and thorough training and rewards of a non-monetary nature. As Harris et al. (1998: 1) note "effective management should be central to the professional development of all teachers and lecturers irrespective of their position within the organization".

Teachers' perception of the school leaders' roles in school effectiveness

As it shown in Table 14, the majority of teachers agreed that being the leaders of their schools establishes a clear and consistent vision for the school, highly visible to both staff and students. Their leadership helps achieve success in continuing development of the schools and focuses on building high morale. These findings are significant because effective leaders as Sammons et al. (1997: 199) note, "...helps to establish a clear and

consistent vision for the school, which emphasizes the prime purposes of the school as teaching and learning and is highly visible to both staff and students maintaining a consistent set of targets is essential to success”.

The respondents also strongly agreed that the leaders of their schools build a learning community by trusting the staff, monitoring the students’ progress, engaging the teachers in the decision-making, using the financial resources with great care and efficacy, solving the financial problems, raising the students’ self-esteem, monitoring and evaluating teaching of the subject area as the rate rates shown in Table 14.

This agreement is linked to an argument raised by Cornforth and Evans (1996) that with the leader’s guidance, education professionals can learn the most effective teaching methods to enable effective learning. Teachers and students alike will be encouraged to achieve as much as possible and schools can develop a purposeful approach to their progress. Also these findings are similar with Harris (2002: 30) who points out that, “essential school improvement necessitates a re-conceptualization of leadership where teachers and managers engage in shared decision-making and risk-taking.”

However, half of the respondents disagree that the school leader is able to offer adequate teaching resources. This situation is significant as the leader of a school must be able to competently oversee resources. To ensure that their school is effective, leaders should use the resources at their disposal (both physical and financial) with great care and efficacy, maintaining a focus on sustaining the curriculum. Leaders should keep a check-list of resources and ensure they make allowances for differentiation and allow for the differences in requirements related to the ability levels and ages of pupils. In educational establishments, how they ration their money to cater for the human and material needs and meet their objectives is of paramount importance. However, to implement the changes schools need in order to provide adequate technical, professional and emotional support for teachers (Harris, 2002: 19). Moreover, an effective school will exist most easily with sufficient financial resources and time (Bush and Middlewood, 1997).

Findings of the open-ended questions

Need to enhance school performance

The first open question of the questionnaire was, “What does the learning environment of the school where you work need to enhance its performance”? The teachers responded to this question in depth stating some of the schools’ needs to enhance its performance such as:

The fulfilment of audio-visual aids inside the schools was convincing although, they represent only 10% of the sample. During the survey, SGS2 teacher A explained that “the condition of the facilities in the school is considered one of the most urgent and affecting factors for the teacher and the teaching process”. When the facilities are in a good condition, this improves the teaching process, while if they are poor or not sufficient the teaching process cannot be improved (3 teachers). EBS1 teacher B added that, “all schools should have adequate facilities before they open”. The fulfilment of teaching aids is considered essential and urgent for the efficiency of the teaching process. Schools should have special financial allocation to manage any shortage of resources or facilities (2 teachers).

Many teachers confirmed the necessity of school libraries to help students to enrich their opportunities for learning. Some teachers said that it is very important to get help and support from the parents in gaining knowledge of the pupils’ lives. IGS1 teacher C presented this idea: “collaboration with parents enables teachers to build a better relationship with the pupils and promotes the teaching process. This collaboration with parents makes teachers recognize any extra help needed because of the student’s own background at home”. Teachers believe that it is necessary for curriculum to be developed in a good quality and to fit the time available. Some teachers say that the curriculum should be shortened, and more relationships, should be made between the subjects taught and the pupils’ lifestyle.

The policies and attitudes management showed towards teachers and the ability of the teachers to teach effectively are strongly related. The better the relationship between teachers and management, the more effective teachers will perform. This can be a strong deadlock affecting the teaching measurements. In order to improve the current situation of teachers at governmental schools, continuous training programmes should be carried out. Most of the teachers agreed that it is an important matter for the teachers to have experience and knowledge, to possess good teaching skills, to have good training programmes and to use effective methods. Only the qualified teacher is the person who can help students quickly, and produce a better harmony for the class. If special rooms were at hand for teaching different subjects, teaching would be more beneficial. The teachers also informed the researcher that it would be better to integrate related subjects, like basic science, so as to outline the curriculum and to facilitate understanding it for the learners. Many teachers agreed that there should be a connection between the yearly utility and the ability and competence of teachers to develop the teaching level or between the wages and the level of teaching.

Concerning the curriculum, many of those surveyed

discussed that the relation between the curriculum and the real needs of the learners is unsatisfactory. Also they added that there is no equilibrium in the curriculum, and that the time assigned is insufficient to cover the entire syllabus. Three teachers of SBS1 thought that it is necessary to develop a curriculum of a good quality that is appropriate to the time available. EBS 2 teachers believe that if the curriculum was shortened it would be better, and to allow more relationships between the subjects taught and the real life of the pupils. The teachers suggested that it would be useful for the teaching process, and for the education generally, to ensure enough teaching aids, to encourage co-operation between parents and the school, to reduce the weekly teaching hours, to simplify the curriculum, to unify the relation between the knowledge and skills with the real needs of learners, to strengthen teaching ability by providing teacher-training programmes, and to enhance parental perceptions of the importance of school (7teachers).

Many teachers agreed that, to improve the level of teaching, teachers should be provided with residence and health insurance to enable them to focus on their work effectively (10 teachers).

To keep their dignity and to be respected by the students, teachers emphasized that they should be supported by the Ministry of Education. They could be by forming policies related to the relation between the teacher and students, instead of publishing teachers' mistakes in the public newspaper, in order to control the students' bad behaviour against their teachers within and outside the school (9 teachers).

Respondents suggested that it would be beneficial for the teaching process and for education in general to:

1. Provide sufficient teaching aids.
2. Foster co-operation between parents and school.
3. Reduce weekly teaching hours.
4. Simplify the curriculum.
5. Link the knowledge and skills with the actual needs of students.
6. Enhance teaching ability through teacher-training.
7. Raise parental awareness of the importance of school.

Barriers to enhancing teachers' performance

Teachers encounter some barriers to enhance their performance. The respondent teachers discussed, in depth, many issues presented as follows:

About 40% of the teachers confirmed that too many managerial and monotonous burdens waste the time available for preparation and teaching. Moreover, it makes it difficult for them to focus enough time on teaching. When time is divided between teaching and too many administrative assignments, this makes it very

difficult for teachers to teach effectively. The teachers are influenced directly by the shortage of time available for actual work (30%). After reviewing the factors related to pupils and parents which affect the teaching process, the researcher found that more than 80% of the sample regarded that collaboration between schools and parents is not enough and around the same ratio emphasised that there is not enough. Communication between parents and teachers as IBS1 teacher C raised this idea when he said, "collaborating with parents helps the school to develop a better relationship with the pupils and strengthens the teaching process... in many cases it makes teachers decide if any more help is needed because of the student's particular background at home".

Concerning class sizes, there was disagreement. Most teachers emphasised that they are too big. 60% of the teachers claimed that the classrooms are packed out and do not have enough equipment for effective teaching and learning. A few objections appeared as to what is a good class size. The majority of teachers agreed that the standard number of pupils inside the class should be between 20 and 23, while a few said only 20-25 is the ideal number. One experienced teacher of SBS2 stated that "paying attention to an individual's attention is difficult when the teacher is obliged to control a huge number of pupils. Both the teacher and the pupils lose some of the understanding which is important in the relationship between the teacher and the pupil". When the class is overcrowded by pupils, a lot of different problems occur. The teachers thought that they are unable to assess what pupils have learnt if they are responsible for a large number of pupils. Not attending the training programme can be considered one of the most serious problems. Most teachers thought that the training for teachers is not enough. Most of teachers said that they did not receive enough support and assistance from their school management. It was discussed by EBS1 teacher D that, "the training during-service is effective especially if a good time is chosen to carry out this work, not when the teacher is too busy". Most of the respondent teachers thought that the relationship between teachers and the school management is beneficial, nevertheless, the great majority also appealed that teachers are not enhanced sufficiently to progress and develop their teaching.

If there are problems between teachers and management, this hinders the teachers' capability to introduce effective teaching. Teachers may be more able to decide what assistance and support they need, and more attentive to the problems they face with the school management, which may be hidden on a short supervisory visit.

The schools' management climate

Regarding the third open question of the questionnaire,

“Do you think that the management climate of this school could support the success of the education process?” it is found that the great majority of the respondents think that the management climate of this school could support the success of the education process. However, 0.09% of the respondents claimed that they are not satisfied with it and they explained the reasons by saying:

1. Most of leaders, in general not only in this school, had the job by favouritism as they are not qualified to deserve this position (1 teacher).
2. The leader is limited by rules and systems that he will be blamed by the Ministry of Education if he does not follow. All he has to do is follow and implement these rules even he has no knowledge about them and without have a look at the legal side (4 teachers).
3. The management is not built on scientific basis but always use bureaucratic means and the leaders believe that their ideas are the best. There is no chance for the teacher to introduce an opinion that does not match with theirs or he/she will be considered as an enemy or even a terrorist and should be fought (2 teachers).
4. The management is centralised and does not listen to the teacher's voice and there does not exist real solutions to school problems (5 teachers).
5. The financial resource is only used for what the management wants (4 teachers).
6. No availability of increments for good teachers as the hard worker and bad one are equal (7 teachers).
7. The management uses a routine system (2 teachers).
8. Leaders are not opened minded in the way they deal with teachers as future builders (3 teachers).
9. The effective teacher is not recognized by the management to be encouraged to continue his/her good work (6 teachers).
10. Because the rules are issued from the ministry without giving the school leader any power, all instructions are issued to show only the success of the school and not related to the educational process (5 teachers).
11. Any efforts from the management are done only for the leader's show and money is spent on the wrong places and no matter if that affects the teachers or the pupils (3 teachers).
12. The school leader does not attend the school regularly as he/she busy in doing some matters outside the school and believe that the existence of his deputies is enough after distributing duties between them (1 teacher).
13. The leader duty is only to satisfy the Educational Coordinator as he/she follows what he/she is ordered without looking at the teacher overload (3 teachers).
14. Most leaders watch teachers and reports any mistake to the Ministry of Education while the creative teacher does not receive any reward or recognition (4 teachers).
15. Leaders are stuck with the traditional methods and

Table 15. The respondents' experience.

Years of experience	Frequency
Less than one year	1
1-5	2
6-10	1
More than 10	6
Missing value	1

they are not ambitious or do not think creatively.

Clearly, if teachers are not satisfied with the management work, this impedes the teachers' effectiveness. Teachers are presumably more able to identify what help and support they need and are affected by the problems they have with the school management which may not be mentioned on a brief supervisory visit.

Interview findings

The analysis of respondents' personal and general information

The first section contained closed-ended questions about respondents' work status, qualifications, work experience, and related to the leaders' developmental performance training and authority supporting agents. The aim of this section is to obtain a clear picture of leader characteristics and to examine an independent demographic variable (9 items).

The findings of this section are as follows.

All the respondents had a Bachelor Degree. The respondents reported varying amounts of previous experience in leadership. More than half of them had more than 10 years experience. Only around 12% reported 15 years or more of experience (Table 15).

Regarding training in school management, eight of the leaders reported that they had received various in-service training in strategic and administrative leadership, while three of them did not mention that they had received any in-service training.

Nine of the interviewees stated that they have enough support from the Ministry of Education to help them run their schools properly while the rest said that do not.

Regarding the level of the power and the authority that school leaders have, it was found that 5 of them are able to get good staff in their schools who can serve the particular needs and wishes of their community while 6 leaders stated that they do not have this ability. Moreover, only 3 of them stated that they have the power and authority they need to make the changes in the school while the other 8 stated the contrary.

Improving staff performance

EBS2 leader ensures this procedure by saying, "it is necessary to reward the good teacher with a bonus incentive or at least by estimating his work and inform him that who does not work well to improve his work". IBS2 leader declared "If a teacher works to a higher standard than her workmates, it is necessary to show approval, her work should be estimated by gifting her extra salary or by giving a thanking certificate as an enhancement. This way can urge the teacher to go on working harder".

Another method that was presented by a leader is that by explaining to the team the new spreading of the presidency of education and allowing them to implement it (2 leaders). A good relationship amongst the staff, have confidence in them and work faithfully (3 leaders). Recognising and providing teachers with any new knowledge and assisting them with any equipments or tools that assist them to motivate their performance (1 leader). Transmitting teachers and staff to other schools to motivate their performance, introduce standard lessons and workshop inside the school, attend lessons notices and make discussions with teachers about their efficiency (3 leaders). Consider teachers' circumstances and collaborate with them to the most extent (4 leaders). Be trustful and allot works among the staff equally as possible (1 leader).

The majority of leaders agreed that in order to enhance the standard of the teachers' and their work, they need to be provided with residence and health insurance to enable them to focus on their educational goals effectively.

These findings gathered from interviews confirm Harris et al's opinion "effective management should be central to the professional development of all teachers and lectures irrespective of their position within the organization" (1998:1). Bush and Middlewood (1997) also argue that leaders have a responsibility to limit teaching loads to allow for more effective teaching and learning. School leaders must employ their motivational skills to sustain good performance, build high morals and avoid overload.

Actions to enhance staff contribution

The second broad question posed to the leaders was, "If a teacher is not contributing adequately to the school, what action are you able to take?"

Answering this question, three of the leaders recommended meeting the teacher alone and explaining some negative aspects related to his work for the first time and informing him/her officially for the second time if he/she does not change. Supervise and encourage him (5 leaders) and observe him/her (2 leaders). Creating a corporation of the efficient staff to find those who don't

participate enough and find solution to encourage and assist their work (1 leader).

After presenting the findings, it seems that leaders' actions towards inadequate staff contribution are supported by Cornforth and Evans (1996), who suggest that teachers must be encouraged to understand how the learning process occurs, and how to use effective teaching approaches to create an effective learning so that pupils and teachers are able to fulfill their potential. In addition, the leaders' actions with Reynold and Cuttance (1996) of the effective leader who adds value to the work of their staff, as well as being responsible for it by contributing to outcomes and giving direction to help the group and that of Cornforth and Evans (1996) who claim that under the leader's guidance, education professionals can learn the most effective teaching methods to enable effective learning, so that teachers and students alike will be encouraged to achieve as much as possible and schools can develop a purposeful approach to their progress.

Resources and facilities

The school building

School buildings are perceived to be inadequate for effective teaching and learning. EBS2 explained: "The facilities available for teachers did not give them the opportunity to use different teaching methods and strategies". 3 leaders found it poorly designed, without a scope for adding science facilities. SBS1 leader emphasised that by saying "Where schools are based in rented building, classrooms are small and overcrowded and are not equipped adequately for efficient teaching and learning". Some leaders complained about other facilities of the school buildings such as poor quality of toilet and washing facilities (3 leaders). Most of the leaders claimed that there are no conference or lecture halls, praying area or entertainment equipments (7 leaders).

The school library

All respondent leaders agreed that school libraries are necessary to help students to extend their chances of learning. However, only one of them was convinced by it while the rest leaders complained that the school library has not enough books. EGS2 leader introduced this idea by stating:

"There is a place for a library, but unluckily there is no person who is responsible for managing it. As a result, its role is insufficient and only a few students benefit from it".

There are not enough books to assist the students (4 leaders). Many of the books are inconvenient to the subject and age-rate (10 leaders). Resources for studying inside the school libraries need to be developed to encourage students to read (7 leaders).

The teaching aids

Concerning the teaching aids, only 4 of the managers found them enough while the other 7 managers were not convinced. They pointed to the shortage of teaching aids, and SBS1 leader stated: "even when the teaching aids are found, there is shortage of training on their usage".

Seven of the leaders mentioned that practical activities in laboratories lack of equipment and materials. Another critical problem is the facility of audio-visual aids inside the schools, which only 4 of the sample were satisfied with. Another problem was stated by the manager concerning the teachers which is the problem of work burden.

A need for additional human and material resources

Apart from one of the leaders who said that there was no need for additional human or material resources, the rest claimed that they need human resources such as deputy principal and tutors. Two leaders identified that they need some teachers to teach specific subjects and some to help teachers to work effectively, while another leader needs some administrative staff, computer processors and a general physician to take care of health problems within the school. Although human resources are considered a very important element within the school, material resources seem to have significant influence too. Eight leaders stated that they need material resources such as financial resources, computers to all students, English language laboratory, science subject laboratory, support from the Ministry of Education, students' parents and from wealthy members of the community(5) Leader SGS2 claimed that:

"All schools should be provided with adequate facilities before they are opened" and added "The school needs a high amount of money to be improved that can only be provided by business men or rich students' parents".

These findings seem to confirm the Teacher Training Agency (TTA) (1998a: p.4) report that to achieve an effective school it is important to "provide professional leadership and management for a subject (or area of work) to secure high quality teaching, effective use of resources and improved standards of learning and achievement for all pupils." Bush and Middlewood (1997)

also suggest these findings because all leaders noted that by placing emphasis on securing the means for learning, they can help all teachers to focus on students' abilities to learn by creating the necessary environment, structures, resources and support to motivate staff and encourage creativity.

Barriers to school effectiveness

The interviewees discussed in depth many issues regarding barriers to this kind of effectiveness in their schools. EGS1 leader emphasised that "The effectiveness and development of the school are impeded by lazy and careless teachers". SBS1 explained "Uncooperative and careless teachers delay the development of the school as they do not recognize the importance of changing".

Two other problems were mentioned by the leader regarding the teachers, one is the problem of work overload.

"By following the current methods of teaching, teachers have to stand for 18 h to explain 24 lessons each week as they have to speak for the same length of time which make them exhausted and uncreative", said IGS2 leader. There is a lack of cooperation between the parents and the school as IBS2 leader stated,

"there is insufficient financial and nonfinancial support from the parents and the society in general" and EGS1 leader explained "to gain information of the pupils' lives, it is necessary to create a good relation with the parents".

There are some other barriers mentioned by the leaders that are related to school facilities and resources such as financial resource (3leaders), quality of the school, shortage of administrative staff and expert staff who could enhance the level of the school (2 leaders), unavailability of supervision staff and halls to practise activities or sport exercises (2 leaders), unauthorised make training courses for students without obtaining an authority from the Coordinator of Education (2 leader), shortage of human resources (3 leaders) and that barrier mentioned by only one interviewed leader which was teachers' absenteeism.

Barriers to school effectiveness leaders can not do anything about

Regarding the barriers to effectiveness that the interviewed leaders can not do anything about were ineffective teachers who do not enjoy teaching but work for the money only (2 leaders), some routine regulation (3 leaders), the curriculum which is not linked to the actual needs of the students (4 leaders), the leaders lack of

autonomy to change things in the school (3 leaders), unavailability of a deputy leader.

"Teachers are obliged to stand for 24 lessons (18 h) per week and under the present procedures of teaching, they have to talk and discuss for the same length of time which makes him/her exhausted and uncreative", stated IGS2 leader.

"the deputy leader of the school is a very important member in the school and his absence cause a big obstacles to the leader's educational performance as the leader has to do all administrative and supervision works", EGS2 leaders claimed.

The other barriers mentioned by the interviewees are the financial resources, mandating teachers to another school by the Ministry of Education, teachers' position change and the teachers working hours (3 leaders).

The leaders' answers come to agreement with Bush and Middlewood (1997) that an effective school will exist most easily with sufficient financial resources and with Harris (2002) who notes that the lack of external agents in schools can be a major barrier to effectiveness.

The findings from these interviews helped the researcher to construct her questionnaire as the main instrument of the study. Also taken into account in the preparation of the questionnaire were findings from previous literature.

Conclusion

This study focuses on investigating issues that are currently raising serious concerns in the education system in Saudi Arabia with regard to school effectiveness. In order to understand the factors that prevent its efficiency and to enable reliable policy recommendations to enhance the quality of Saudi education and ensure greater efficiency, the researcher conducts this research on the effectiveness of the schools by creating a comprehensive framework that helps to explain why efforts to increase effectiveness succeed or fail, and what promotes or hinders effective school improvement.

In order to fulfil the aims and objectives of this study the researcher used the following methods and procedures. A survey approach was used, with a sample of 179 teachers and 11 school leaders. Research instruments included a questionnaire (quantitative data) and interviews (qualitative data), a cover letter and consent forms. The schools leaders were interviewed. The research instruments were piloted by three experienced teachers. Ethical procedures were strictly adhered to. To analyse findings which are presented in this report, the Likert scale method was used alongside charts and table formats.

This exploratory study highlighted some key issues likely to affect teaching in Saudi schools. It appeared that the main problems facing the state schools are as follows:

1. The centralized curriculum
2. The lack of facilities and educational resources.
3. The deficiency in teacher training, including in-service.
4. The dual burden of teaching and administrative duties.
5. The lack of teachers' motivation.
6. The lack of co-operation between parents and schools.
7. The limitation of the school leader's power and authority.
8. The lack of autonomy among leaders and teachers.

The main findings of the survey and the interview can be summarized as follows:

It is perceived that the school library is not adequate for learning and teaching. The majority of teachers believe that the audio-visual materials are inadequate or unavailable in the schools. The most serious problem is lack of facilities and educational resources in schools which could impede teaching and the learning standard. State schools are perceived as having insufficient equipment, laboratories and inadequate materials. The available facilities for teachers are insufficient and did not give them the autonomy to use different teaching methods and strategies. The deficiency of the libraries is another problem as both leaders and teachers agreed that it is seriously deficient and lacks sufficient or appropriate books.

Regarding the school buildings, the majority of teachers agreed that they are inadequate and the classes are too big. It is felt that although the time to cover the syllabus is sufficiently adequate, the respondents disagree that the curriculum provides enough weight to skills and practical work. Also the curriculum is found to be insufficiently modern and not relevant to the students' present lives. Teachers and pupils do not have enough autonomy to develop their own ideas as the curriculum is highly centralized. Respondents claimed that in the curriculum of the state schools, pupils' ideas were ignored. Among curriculum content efficiency, this item received the majority of negative answers, which suggests that giving insufficient autonomy for pupils' ideas is one of the main deficiencies of the current curriculum.

Most of teachers agreed that there is collaboration between them and parents, while many of them felt that there is insufficient co-operation between schools and parents. It was claimed by teachers that pupils' absenteeism is the more serious problem because they have much more contact with them. Both teachers and leaders agreed that there is a need for a training either pre or in service, as they believe that there are shortcomings in the performance of teachers. Although teachers' responses agree that there is a satisfied relationship between teachers and school leaders, most teachers felt that they are supported and helped sufficiently from their school leaders. This point was emphasised by teachers because of the length of time

they spend in the school and the fact that they are best placed to identify what support and help they need, rather than by school leaders.

Clearly there is overall agreement among both leaders and teachers that too many managerial and routine duties affect the preparation and teaching time which make it difficult for teachers to teach adequately. Moreover, teachers are not encouraged sufficiently to improve the quality of their teaching. There is overall agreement between leaders and teachers that teachers need to be provided with residence and health insurance to enable them to focus on their educational goals effectively. The majority of teachers claimed that they should be supported by the Ministry of Education by forming some policies relating to the relation between the teacher and students to regain their dignity and be respected by the students and, to control the students' bad behaviour.

It is unfortunate that the findings of this investigator's study were negative. According to characteristics of effective schools, there are three main factors to effectiveness; effective leaders, effective teacher, and effective environment. These factors are explored through the interviews and the questionnaires and found that they were inefficient and insufficient to effectiveness. The purpose of the study was to find answers that would answer the inquiry as how these schools can be improved.

Before forming any firm conclusions here, further research is definitely needed by using a larger sample of the whole state schools, students' inclusion and conducted over a longer period of time and adopting other possible instruments.

Limitations

In spite of the fact that there were time and resource constraints which did not allow the researcher to gain the perceptions of the entire staff in state schools and a lack of more scientific methods to quantify the effectiveness of the schools, the findings of the study point to the following recommendations.

RECOMMENDATIONS

From the analysis of the data and based on the findings of the study, the following recommendations would be made:

1. Facilities and resources need to be sufficient, modern and relevant to life outside the school. As many state schools in Saudi Arabia have poor facilities and resources that are insufficient, it would seem very important to pay attention to the provisions such as materials,

equipment, library and laboratories and provide adequate and regularly renewed audio-visual aids.

2. The curriculum must be improved to leave adequate space for teachers' own creativity and pupil's ideas to have a better relationship between skills and the knowledge needed by the pupils' personal needs.

3. The school time-table needs to be modified to give sufficient time for professional and practical aspects of the curriculum.

4. There is a need for material and nonmaterial incentive to encourage effective teachers to continue being effective and encourage the others to improve the standard of their work.

5. Access to quality in-service training is required as the great majority of the teachers need in-service-training during their career.

6. School leaders and school teachers should be supported by external agents to train them to enhance their relationships within the school community.

7. Teachers overloaded with too many routine administrative tasks beside the teaching work. These need to be reduced to enable teachers to have free time for effective teaching.

8. Policies within the schools need to be developed to enhance the relation and co-operation with parents. This may solve the problems of students' absenteeism and motivation.

9. Leaders and teachers need to be provided with residence and health insurance to enable them to focus on their educational goals effectively.

10. To maintain their dignity and be respected by the students, teachers and they should be supported by the Ministry of Education.

In conclusion, it is hoped that the recommendations above could be achieved to facilitate an effective, developmental learning environment where teaching and learning can take place.

Suggestion for further studies

1. More research needs to be conducted into each factor mentioned in the study that affects effectiveness of state schools in Saudi Arabia.

2. Similar studies are needed to investigate the factors that affect effectiveness of state schools in other cities in Saudi Arabia.

3. Special studies could be carried out to investigate the factors affecting teaching in state schools in individual subjects such as maths, science, religious education, languages, etc. in both girls' and boys' schools in Saudi Arabia.

Conflict of Interests

The author has not declared any conflict of interest.

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Full Length Research Paper

Analyzing the relationship of organizational trust and organizational culture with knowledge sharing behavior in teachers of second intermediate period

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The present paper aims to study the relationship of organizational trust, organizational culture with knowledge sharing behavior among teachers of Second Intermediate Period in the City of Isfahan. Research method was correlation and statistical population included all teachers of Second Intermediate Period of Isfahan in academic year 2013-2014 (N=3016). Sample size was 340 people according to Krejcie and Morgan Table (1970). Sample members were selected by multistage random sampling method. The required data were collected using 3 questionnaires. The collected data were analyzed by descriptive statistics (mean, standard deviation, frequency and percentage) and inferential statistics (Pearson correlation coefficient, stepwise regression, and regression-enter). The findings of this study showed that organizational trust and organizational culture have a significant relationship with knowledge sharing behavior ($p < 0.01$). According to the results of stepwise regression analysis, in the first step (trust between employees), in the second step (mission) and the third step (organizational trust) have the ability to predict the behavior of knowledge sharing. Results of regression-enter analysis showed that trust between employees and organizational trust, of the three components of trust, and mission, among the components of organizational culture, can significantly predict knowledge sharing behavior ($p < 0.01$).

Key words: Organizational trust, organizational culture, knowledge sharing behavior, high school teachers.

INTRODUCTION

Vital importance of knowledge, as a source for strategic restructuring of organizations, in today's complex and changing environment cannot be denied. Knowledge enables organizations to acquire wisdom more quickly and efficiently than before and apply it; so it provides a basis to maintain a sustainable competitive advantage. The present era is the era of technology; the era that its

intellectual structure is full of deepening the information and regarding the participation of creative and knowledge-oriented manpower rather than functional ones. Hence, the alert managers strive to use a tool named knowledge to deal with the causes of uncertainty, maintain their own position, and create creativity and innovation in order to expand the competitive arena of

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their organization (Yousefi et al., 2010).

Studies have shown that lack of knowledge sharing culture and lack of understanding of the myriad benefits of knowledge management among the employees are the most important obstacles to the effective execution of management in organizations (Rahnavard and Sadr, 2009). Knowledge sharing is a set of behaviors that can lead to exchange of information with the help of others (Godarzi et al., 2009). Nowadays, the ability and willingness of individuals to share knowledge is an important issue for any organization, as one of the critical constraints of managers in organizations is the inability or unwillingness of employees to share and distribute the new knowledge. It should be noted that it is not easy to encourage employees to share knowledge voluntarily and many factors affect the willingness of employees to share knowledge (Mohamadi, 2007). However, culture of knowledge sharing in organizations depends on the attitude of those who have created it. If employees are not willing to share their knowledge with other members of an organization, it would be very difficult to promote the culture of knowledge sharing among them through a system of reward or legal obligations. Creation of a culture of knowledge sharing within an organization requires training of managers and staff and change management process. Leaders can play a key role in changing the attitude of employees, successful creation of culture of knowledge sharing, and institutionalizing knowledge management in organizations (Cheng, 2005).

Knowledge sharing is an approach that is rapidly evolving and progressing and emphasizes on increasing the efficiency and improving the effectiveness of organizational processes accompanied with continuous innovation. The need for knowledge sharing stems from the fact that knowledge is regarded as an important element in organizational performance and achieving a sustainable competitive advantage (Lotfimanesh, 2011).

Knowledge sharing behavior is associated with many variables, as it can be stated that today's organizations require new knowledge to increase the robustness and make a healthy organizational atmosphere, and acquisition of new knowledge is subjected to the presence of a knowledge-based management in organizations. In fact, a knowledge-based management is road to empowerment of employees and increasing organizational trust, efficiency, effectiveness, and organizational health (Ghiasi, 2011).

This is evident in knowledge management that trust is a prerequisite for learning of organizational knowledge sharing (Dyer and Nobeoka, 2000). Trust plays an important role in deeper facilitation of exchange relationship such as knowledge sharing (Moller and Svahn, 2004) and it is also considered as an important factor for knowledge sharing (Ebrahimi, 2012).

Organizational trust is actually a mutual trust between management and employees and without which, an organization has little or no chance to achieve its

strategic objectives (Khanifer et al., 2009).

Trust is associated with behaviors such as organizational citizenship behavior, willingness to future interactions, team performance, and sharing of knowledge and information. Trust is one of the basic principles of effective interactions (social relations) and plays a major role in knowledge sharing, because applicators of knowledge and information need to ensure that their colleagues provide them with accurate and useful information and, similarly, providers of knowledge and information should be confident that the shared information is used properly. Without trust, individuals will be reluctant to participate in social relations and consequently knowledge sharing will not happen (Staples and Webster, 2008).

A strategic measure in order to improve the ability of individuals to transfer knowledge to others is to create confidence among people and promote it. Team activities, job rotation, and so on are of factors that create organizational trust in the process of knowledge sharing (Mohammadi et al., 2011).

Accessibility to specified critical sources of knowledge such as political objectives, sensitive information, and organizational rumors require political intelligence and their contingent confidence. Trust can be directed towards both the managers and the staff and become a prerequisite for exchange in knowledge sharing. Knowledge receiver must be able to trust the accuracy of the information and knowledge sender should also ensure that his/her information is used properly. An environment of trust should be the director knowledge sharing, because without it, an organization has to lay down a set of laws to govern any balance (Rahnavard and Sadr, 2009).

Organizations should create an environment full of trust for knowledge sharing, transfer, and conflict among the members and train the individuals in order to make the interactions meaningful. It is possible to gradually change the pattern of interaction between employees in an organization and get use of knowledge sharing as a competitive advantage only through by studying, changing, and creating an appropriate and flexible organizational culture. Creation, transfer, application, and sharing of knowledge require the presence of an organizational culture in which individuals and groups are willing to collaborate with each other and share their knowledge with each other to the benefit of their own interests. Domination of individualism culture in an organization causes the employees not to share their knowledge. In contrast, presence of trust, cooperation, and knowledge sharing culture among employees increases knowledge creation and sharing (Kouchaki et al., 2012).

Due to the high environmental dynamicity, organizations must adapt themselves to environmental changes. For a more adaptation with the environmental conditions, managers must get use of modern technology

and knowledge and move towards a management based on knowledge sharing. This can be the outcome of a strong and positive culture and organizational trust (Rading, 2004). In fact, organizational culture is a requirement for knowledge sharing. Culture represents the beliefs, values, norms, and social customs and rules the behaviors and conducts of employees in an organization. Generally, organizational culture is a supporter of knowledge sharing behavior (Wong, 2005).

Goudarzi et al. (2009) studied the relationship between organizational culture and knowledge management in directors of Physical Education Organization and concluded that there is no significant relationship between the culture of knowledge sharing and knowledge creation, but there is a significant relationship between culture of knowledge sharing and knowledge transfer. They also found that existence of culture of knowledge sharing and continuous learning and training of managers is an important step towards the creation and transfer of knowledge and application of knowledge management.

The results of studies conducted by Bidokhti et al., (2011) in studying the relationship between organizational culture and knowledge management in Education Organization of Semnan showed that there is a positive and significant relationship between organizational culture and knowledge management and the results of other hypotheses indicate different types of organizational culture have a positive and significant relationship with knowledge management and its components like perception and sharing of knowledge.

Kouchaki et al. (2012) study the relationship between organizational culture and knowledge management in Iranian Gas Transmission Company and came to the conclusion that there is a significant positive relationship between organizational culture and the creation and sharing of knowledge.

Ebrahimi et al. (2012) conducted a study entitled "The role of trust in sharing of job knowledge in employees of Tarbiat Moddares University" and showed that three dimensions of organizational trust (trust in organizational capabilities, trust in organizational integrity, and trust in organizational altruism) have a positive impact on the willingness of employees to share knowledge. The results of a study entitled "The effect of perception of justice and trust on social balking at knowledge sharing by working teams" carried out by Mortazavi et al. (2011) showed that distributive and procedural justice and altruism-based trust have a negative impact on balking at knowledge sharing. This reflects the fact that knowledge sharing behavior is influenced by honest behavior, respecting the interest of others, fair allocation of resources, and setting transparent and discrimination-free procedures. Holotezi (2002) reported that the use of knowledge management is an important factor in the success of large organizations and believed that implementation of knowledge management will lead to the creation of a strong and dynamic enterprise culture, followed by organizational

empowerment and increased efficiency and effectiveness.

Hong et al. (2008) studied trust and knowledge sharing in green supply chain and concluded that organizational cooperation is maximized by trust and knowledge sharing and showed that the members of green chain of Taiwan have a positive and significant relationship with trust and knowledge sharing behavior.

Lee and Kim (1999) found a positive relationship between trust and knowledge sharing. Knowledge sharing suggests that the knowledge of employees is the most valuable resources of any organization. This emphasis and focus are based on increasing acceleration of changes in organizations and society in general. Nowadays, almost all affairs require knowledge-based measures and employees should become knowledge-oriented workers. This means that creation, sharing, and application of knowledge is one of the most important activities of any person in any organization. With a close look at the nature of state organization, it can be found that many of employees of the public organizations and agencies will retire over the next few years. Clearly, many of these people are experts in different fields and sharing and use of knowledge of these people before retiring would be one of the main challenges of governmental organizations. So, the need for execution of knowledge sharing behavior in education organizations is felt more than ever. Hence, the author aims to find the relationship of trust and organizational culture with knowledge sharing behavior among the teachers of Second Intermediate Period in the City of Isfahan and answer to what extent trust and organizational culture can encourage knowledge sharing behavior.

Hypotheses

1. There is a significant relationship between trust (and its components) and knowledge sharing behavior among teachers of Second Intermediate Period.
2. There is a significant relationship between organizational culture (and its components) and knowledge sharing behavior among teachers of Second Intermediate Period.
3. Components of trust and organizational culture are capable of predicting knowledge sharing behavior of high school teachers.

METHODOLOGY

The present study was a correlation research and statistical population included all teachers of Second Intermediate Period in the City of Isfahan in academic year 2013-2014 (N=3016). Sample size was 340 people according to Krejcie and Morgan Table (1970). Sample members were selected by multistage random sampling method. The required data were collected using 5 questionnaire and 300 completely filled out questionnaires were delivered to the authors. The collected data were analyzed by descriptive statistics

Table 1. Descriptive indices and correlations between variables.

Variables	Mean	Standard deviation	Knowledge sharing behavior
Total organizational trust	3.255	0.487	0.181
Trust between employees	3.394	0.546	0.311
Employees' trust in their manager	3.076	0.591	0.181
Organizational trust	3.288	0.598	0.004
Total organizational culture	3.103	0.474	0.218
Culture engaging in work	3.211	0.592	0.202
Culture of consistency	3.108	0.564	0.153
Culture of adaptability	2.920	0.577	0.129
Culture of mission	3.185	0.617	0.215

(mean, standard deviation, frequency and percentage) and inferential statistics (Pearson correlation coefficient, stepwise regression, and regression-enter). Age of the respondents fluctuated between 24 and 50 with a mean of 40 and a standard deviation of 6.17. Among the 300 respondents, 167 people (55.7%) were males and 128 people (42.8%) were females. Also, 16 of them (5.3%) were single and 273 people (91%) were married.

Research tools

Knowledge sharing behavior questionnaire: The questionnaire used in this study was Wong (2008). This questionnaire contains 7 questions on a Likert's scale and has been prepared to assess the level of knowledge sharing behavior among teachers. Face and content validity of this questionnaire was evaluated by a number of academics and professionals and its reliability coefficient has been reported to be equal to 0.67 by Cronbach's alpha.

Organizational trust questionnaire: Based on dimensions of interpersonal trust and organizational trust proposed by Meyer and Davis (1995), this questionnaire measures trust in three levels of horizontal trust (among the staff), vertical trust (among the subordinates), and institutional trust. This questionnaire consists of 48 questions on a Likert's scale. Because of being standard, the validity of this questionnaire was previously approved and its reliability coefficient was obtained as 0.89 by Elonen et al. (2008) and 0.94 in the present study using Cronbach's alpha.

Organizational culture questionnaire: Denison Organizational Culture Questionnaire was used to measure organizational culture. The original version of this questionnaire contains 60 questions, but the version used in the present study had 38 questions and included dimensions of engaging in work, consistency, adaptability, and mission. The validity of this questionnaire was already approved and its reliability coefficient was reported to be 0.87 by Alizadeh and Salimi, and it was calculated equal to 0.89 using Cronbach's alpha in the present study.

FINDINGS

1- There is a significant relationship between trust (and its components) and knowledge sharing behavior among teachers of Second Intermediate Period.

2- There is a significant relationship between organizational culture (and its components) and knowledge sharing behavior among teachers of Second Intermediate Period.

Table 1 presents descriptive indices and correlations between variables.

According to Table 1, there is a positive relationship between trust and knowledge sharing behavior ($r=0.181$). Among the components of trust, trust between employees ($r=0.311$) and employees' trust in their manager ($r=0.181$) have a significant and positive relationship with knowledge sharing behavior ($p<0.01$). But no significant relationship was found between organizational trust and knowledge sharing behavior ($r=0.004$). Shared variance of trust, trust between employees, and employees' trust in their manager with knowledge sharing behavior is equal to 3.24, 9.61, and 3.24%, respectively. Organizational culture has a positive ($r=0.218$) and significant ($p<0.01$) relationship with knowledge sharing behavior. It can be seen in Table 1 that four components of organizational culture including engaging in work ($r=0.202$), consistency ($r=0.153$), mission ($r=0.215$), and adaptability ($r=0.129$) have a positive and significant relationship with knowledge sharing behavior ($p<0.01$). Shared variance of knowledge sharing behavior and engaging in work, consistency, adaptability, and mission, respectively, is equal to 4.08, 2.25, 1.44, and 4.41.

3- Components of trust and organizational culture are capable of predicting knowledge sharing behavior of high school teachers.

According to Table 2, in stepwise regression analysis, in the first step, trust between employees with a beta coefficient of 0.310, accounts for 9.6% of variance of knowledge sharing behavior. In the second step, organizational culture mission, with a beta coefficient of 0.138, is added to trust between employees and together account for 11.4, 1.8% of which is the share of organizational culture mission.

In the third step, organizational trust, with beta coefficient of -0.311, is added to two previous components and the explained variance of knowledge sharing behavior reaches 16.9%. Stepwise regression equation for prediction of knowledge sharing behavior is shown in Table 2.

Table 2. Results of stepwise regression analysis for prediction of knowledge sharing behavior

Steps	Predictor variables	Beta coefficient	Standard deviation error	Standardized beta coefficient	Multiple correlation coefficient	Square of multiple correlation coefficient
–	Constant value	2.199	0.186	–	–	–
1	Trust between employees	0.303	0.054	0.310	0.310	0.096
–	Constant value	1.939	0.214	–	–	–
2	Trust between employees	0.268	0.056	0.274	0.337	0.114
2	Culture of mission	0.120	0.049	0.138	–	–
–	Constant value	2.153	0.213	–	–	–
3	Trust between employees	0.327	0.056	0.334	0.411	0.169
3	Culture of mission	0.276	0.059	0.318	–	–
3	Organizational trust	-0.277	0.063	-0.311	–	–

CONCLUSION AND RECOMMENDATIONS

According to the results of the present study, there is a positive relationship between trust and knowledge sharing behavior, which is consistent with findings of Cheng, (2005) and Lee and Kim (1999). Among the components of trust, trust between employees and employees' trust in their manager have a positive relationship with knowledge sharing behavior. This is consistent with the results of Ebrahimi et al. (2012) and Mortazavi et al. (2011).

Other findings showed that there is a positive relationship between organizational culture and knowledge sharing behavior. This result is consistent with the findings of Goudarzi et al. (2009) Kouchaki et al. (2012) and Holotezi (2002). All components of organizational culture (engaging in work, consistency, adaptability, and mission) have a positive relationship with knowledge sharing behavior, which is consistent with the findings of Bidokhti et al. (2011).

In stepwise regression analysis for prediction of knowledge sharing behavior, it was found that trust between employees and organizational trust, of the components of trust, and mission, of the components of organizational culture, are capable of predicting knowledge sharing behavior.

The results of the present study revealed the role of trust and organizational culture in knowledge sharing behavior of teachers. This indicates that existence of trust and organizational culture directly improves knowledge sharing behavior of teachers. By contrast, low level of trust and organizational culture decreases the extent of knowledge sharing behavior in teachers and thereby increases job reluctance. This issue requires substantial and serious considerations by officials of education organizations. It can be generally stated that managers can increase the level of trust between employees and

pave the way for knowledge sharing between them by some measures. In fact, creating a friendly atmosphere based on cooperation rather than competition can

promote a more sustainable organizational trust and culture among the employees, enhance their solidarity and consensus, and finally encourage knowledge sharing behavior among them.

Some other issues that are very effective in promoting knowledge sharing behavior and are needed to be specially taken into account by officials and authorities are as follows:

1. Establishment of scientific or professional associations in order to create and share job knowledge and also to learn from successful experiences of working and retired staff.
2. Providing the conditions to increase informal communications between employees. This makes it possible for employees to access information, increase exchange of new knowledge and information, and ultimately cause the emergence of new and creative ideas in an organization.
3. Getting the employees involved in decision-making and using their experiences create the mindset in employees that individual and organizational goals are aligned and achieving each of them is a prerequisite for achieving the other.
4. Increasing the awareness and information of employees about the changes and advantages that knowledge sharing behavior brings about. Creating an environment full of trust in organizations in which individuals can openly talk about and discuss on problems.

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Conflict of Interests

The author(s) have not declared any conflict of interests.

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Full Length Research Paper

An analysis of the academic achievement of the students who listen to music while studying

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This study's aim is to examine the correlation between the study type, the type and quality of the music students listen to while studying as well as their educational level. The participants of the study are 481 students on a scale of different ages listening to music while studying. The data of the study were collected through a survey questionnaire. Frequency and percentage and the chi-square tests were used. The study data indicate that Turkish pop music is the mostly listened to music genre and students tend to listen to music mostly while studying social courses.

Key words: Student, music, type of music.

INTRODUCTION

The case of listening to music while studying has been a study topic for a long time. These studies have focused on two major questions: does listening to music while studying inhibit the learning or does it facilitate the learning? These questions are hard to answer since the situation is affected by many variables.

LITERATURE REVIEW

Related studies analyzed this correlation in terms of intellect, perception and attention span and different results were found.

Odabaş et al. (2008) argued that external factors including listening to music should be controlled and avoided while reading, trying to comprehend, thinking and interpreting. Other studies argued similar views as well. For instance, Aktaş and Gündüz (2004) suggested

that if music is listened to improperly, there are two negative effects on focusing on the topic. Firstly, allocating time for listening to music reduces the time spent for studying. It is mostly common among younger learners. Secondly, listening to music while reading inhibits the individuals' critical reading skills and deeper understanding of the text (Aktaş and Gündüz, 2004: 42). Odabaş et al. (2008) did not support the view that listening to music facilitates the understanding of the text that is being read. Instead, like other external stimuli, listening to music inhibits the concentration during the process of reading and understanding, and that listening to music while reading inhibits the individuals' focus on the text and impairs the setting of the critical reading (Odabaş et al., 2008: 438).

Wilson and Brown found that limited support for the previously obtained enhancing effect of listening to Mozart's music was revealed in measures of

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performance accuracy on spatial task, whereas no effect was found (1997: 1).

Nantais and Schellenberg (1999) aimed that Mozart's effect described by Raucher et al. (1994) is supported by authors. Mozart's effect indicates that spatial-temporal abilities are enhanced after listening to music composed by Mozart (1994:4). Authors replicated and extended the effect. They reasoned that performance on a spatial-temporal task was better after participants listened to a piece composed by Mozart or by Schubert than sitting in silence.

Çelikkaya and Kuş (2010: 326) argued that students' preference whether to listen to music or to have a silent setting while studying should be evaluated as part of the socio-affective learning strategies. In other words, students prefer what is proper for their strategy to learn. The effects of the music type listened to on these influences were also studied. For instance, Yılmaz (2006) and Köksoy (2009) concluded that the type of music listened to affects the correlation between listening to music while reading and the understanding of the text that is being read.

Yıldırım et al. (2007) found that the participants often choose to listen to instrumental or classical music while reading a book. Regarding the tempo of the music they listen to, they reported that "slow" tempo was preferred the most.

In the 1960s, Lozanov developed a learning and teaching method called Suggestopedia where baroque music was employed. It was mostly used for language learning. The method was tested by UNESCO in the 1970s and established as an effective method. In this method, teacher reads the texts while the music is playing. Students may also read the text with teacher. When teacher stops reading the text, they go on listening to music together (Akbiyık, 2007: 10).

As stated by Gökşenli, foreign language and music are linked to each other closely in terms of rhythm and syntax (2011: 17). Öztürk (1999) argued that if the music listened to while studying is a relaxing one, it leads to affective harmony and does not cause shift of interest. However, if the rhythm is changed frequently, then the music is focused on rather than reading or learning. Therefore, as a result of such concerns individuals may not prefer listening to music while studying. For instance, İspir and Aykol (2010: 8) found that 21.7 % of the participants (n=38) prefer listening to music while studying.

Research suggests that some rhythms of classical music and Turkish classical music have the ability to activate the brain waves in the alpha region that is one of the significant brain regions associated with learning (Selçuk et al., 2003: 59). Research found that there is a significant positive correlation between students' studying habits, study skills and academic achievement (Bay et al., 2004: 224). All kinds of external factors during studying process, including music in the environment, can change the outcome of the study.

The research question of this study is "at which level

is the academic achievement of the students who listen to music while studying?" Is there any relationship between the study type students do while listening to music, the type and quality of music they listen to and the educational level of students listening to music while studying?

METHOD

A quantitative descriptive method was employed in the study. The participants are 481 students on a scale of different ages listening to music while studying. The participants who voluntarily took part in the study were from different provinces of Turkey.

The study data were collected through the administration of a questionnaire developed after a literature review and was developed with the opinion of three experts. Questionnaire items were concerning the music type listened to while studying, during the study process of which course the music was listened to, the form of the music listened to (instrumental or song). Regarding the music types listened to, the details such as music group/singer and song were asked. The city in which the participants live was also asked. The types of the music listened to were given to the participants, and they were asked to choose among them. After this, an open-ended question, "give examples of group/singer and song?" was added.

1. "What kind of music is listened to while the students are studying?"

To evaluate this question, frequency and percentage of the answers were analyzed.

2. "What type of study is preferred by students while listening to music?"

To evaluate this question, frequency and percentage of the answers were analyzed.

3. Is there any correlation between the music type students listen to while studying and the type of study?

To evaluate this research question, the Chi-square test was used. The test results showed that there was a significant difference [$p > .05$] for all dimensions.

4. Is there any relationship between the type of music students listen to while studying and the type of study?

To evaluate this research question, the Chi-square test was used. The test results showed that there was a significant difference [$p > .05$] for all dimensions.

5. Is there a relationship between the music type listened to while studying and the educational level of the students?

FINDINGS

Findings on the types of music listened to while studying

The participants mostly listen to Turkish pop (n=113) and pop music (n=90) while studying. The other two frequently listened to types of music by the participants

while studying are found to be Turkish folk music (n=66) and classical music (n=57). Rock-metal music is found to be listened to by 11.6 % of the participants while studying (n= 56). It is found that the rate of the students who listen to either authentic music or Turkish classical music is the same (5.8 %). Rap music is found to be listened to by 4.6 % of the students while studying (n=22). Arabesque (n=9), religious music (n=8) and jazz (n=4) are found to be less listened to music types while studying. Gür et al. (2012), in their research with 10.174 participants, found that the most listened to music types are Turkish (52.4%) and foreign (22%) pop music. Arabesque (%21.9%), Turkish folk music (21.8%), rock (%14) and Turkish classical music (10.3%) follow these most listened to types.

Findings on the course types

The rate of the students listening to music while studying numerical courses is found to be 51.1% (n=246). The rate of those who listen to music while studying social courses is found to be 48.9% (n=235). Therefore, students mostly listen to music while studying numerical courses.

Findings on the correlation between the music type listened to while studying and the study type

According to the findings, there is no relationship between the music types listened to while studying and the type of study ($\chi^2=18,219$, $p=0,51$). It is seen that the monitored and expected values are notably close to one another.

Findings on the correlation between the music type listened to while studying and the study type

As seen from the study, there is no relationship between the music types listened to while studying and the type of study ($\chi^2=2,052$, $p=0,163$). It is seen that the monitored and expected values are notably close to one another.

Findings on the correlation between the music types listened to while studying and the education level of the students

It is seen that, there is a notable correlation between the music types listened to and the school type of the students ($\chi^2=82,114$, $p=0,000$).

DISCUSSION AND CONCLUSION

The findings of the study show that the participants mostly listen to "Turkish pop music" (n=113) and "pop music" (n=90) while studying.

The word pop is an abbreviation of the word "popular." It is thought that this word was derived from Latin word Populous which means populace. This type of music refers to a music type liked by many people (www.tdk.gov.tr), and it is found that it is listened to by the participants mostly while studying.

Research suggests that young people listen to pop music not only while studying but also most of the time (Ekinci, 2005; Kotsopoulou and Hallam, 2010; Bulut and Altay, 2012; Umuzdaş, 2012). This finding is consistent with the findings of this study. Therefore, it is proper to argue that students prefer pop music while studying as well.

The rate of the students who listen to music while studying numerical courses is determined to be 51.1% (n=246). The rate of those who listen to music while studying social courses is determined to be 48.9 % (n=235). Therefore, students listen to music mostly while studying numerical courses.

Since students listen to music mostly while studying numerical courses, such as mathematics, geometry, etc., it can be argued that music they listened to facilitates concentration on the topics they study. On the other hand, they seem to avoid listening to music while studying social courses, such as Turkish language, history, etc., due to their view that music would inhibit their comprehension of the topics. Research established that there is a similarity between language and music in terms of mental activities (Akbiyık, 2007; Gökşenli, 2011). That is why music is used as a teaching device in foreign language teaching.

As argued by Çelikkaya and Kuş (2010: 326), students' preference on whether to listen to music or to have a silent setting while studying should be evaluated as part of the socio-affective learning strategies. In other words, students prefer what is proper for their learning strategy.

In the consequence of the research, no significant relationship is found between the type of music and the study, as well. Based on this, it is understood that students do not change the type of music they prefer to listen to while studying according to the type of study. Even though it is found that students tend to listen to music while studying science, no connection could be made with a certain type of music.

Yıldırım et al. (2007) found that students prefer slow and medium level of music while studying since they believe that music with higher tones inhibits their understanding. Öztürk (1999)'s study supported this hypothesis.

The type variable may present no importance as long as the volume of the music listened to while studying is set not to decrease student's perception. The fact that there is no relationship between the type of study and the type of music gives rise to the thought that any form of music does not prevent students from studying.

Research states that classical music is used as a teaching device or method in teaching process (Selçuk et al., 2003; Akbiyık, 2007). As stated in the study, any type

of music can be used while studying and may affect the study differently.

It is also found that there is no relationship between the music forms listened to while studying and the type of study.

As stated in the introduction, the results of the studies in the literature have discussed music suitability for use during the learning process and come up with conflicting results. One should determine the characteristics of the music listened to as a variable to interpret these results. It is possible to say that whether the music has lyrics or not is not related to the type of study for the participants of this study. An experiment is needed to be able to assess the positive or negative effects of the music with lyrics to reading and comprehension. An experiment conducted with a certain group may not result in a general conclusion because there are variables affecting this situation such as musical life, skills, education of musical aptitude. Given there is no relationship in the related finding of the research, it is not possible to determine that students listen to the music with lyrics or vice versa while studying numerical courses. Consequently, students who listen to music while studying do not choose the type of music according to the type of study.

A significant relationship is found between the type of music students listen to while studying and their educational levels. Accordingly, the music type students prefer to listen to while studying varies according to their educational levels. The higher students' educational levels are, the more they tend to listen to Turkish classical music and classical music. The other way round was observed for rock and rap music. The higher educational level is the lower tendency to listen to rock and rap music becomes. Rock and rap are music types preferred to be listened to fast and loudly. Students with higher educational levels may also have difficulty in perception while listening to these music types due to their older ages. Or they may already prefer to listen to these music types in their daily lives. Similarly, the fact that the higher the educational level is, the more the tendency to listen to Turkish classical music and classical music may be related to a general preference. Or students may be thinking that these music types affect the perception and learning positively through their calm and rather simple structure.

According to Kotsopoulou and Hallam (2010), music played while studying was most strongly reported to relax, alleviate boredom and help concentration. Students reported that they mainly played music while studying when they were happy or bored and that their mood was a determinant of their decision.

Most turned off the music when they felt that it was interfering with their concentration (Kotsopoulou and Hallam, 2010). These findings therefore must be interpreted with some caution.

Consequently, students prefer the music which they generally listen to while studying. A type may not be chosen for studying by developing a certain strategy.

Therefore, the situation analysis conducted in this study may not be used to change the current situation, but to improve the learning environments that are planned strategically by educationists.

Conflict of Interests

The author has not declared any conflict of interests.

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Full Length Research Paper

Efficacy of Montessori education in attention gathering skill of children

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The aim of this study is to evaluate the efficacy of Montessori education which is offered to upskill the attention gathering skill of children with attention-deficit/hyperactivity disorder. In total fifteen pre-schooler participants, six girls and nine boys who are diagnosed with ADHD (7 of the children with ADHD, 8 with only AD), joined to this research. This is a research designed with pre-post test design study with a control group of experimental design. In this research with the aim of improving the attention gathering level; eye-hand coordination, development of tactile, visual and auditory senses and for improving their acquired distinctiveness “tactile boards, sound boxes, binomial cubes and color tablets” are used from Montessori materials. FTFK Attention test is applied to children before and after the intervention. After the training, when scores are compared, the significant improvement is seen in their post test scores.

Key words: Attention, hyperactivity, learning disability, visual sense, early childhood.

INTRODUCTION

Attention concept, which has an important place in human development, also has an important role in person's success in the course of live. Attention is not a habit innate but it is gained and developed by exercises. Attention span is different for each individual. For example; for children, attention span is shorter than adults. Problems of attention span and concentration are seen more in individuals who have difficulties in learning than the individuals normally developed. Difficulties about attention are both seen in visual and auditory areas. It is known that children with attention deficit and hyperactivity disorder are more easily distracted than children who develop normally and this affects their academic success

(Ataman, 2003).The role of attention gathering in behavior regulation and organization has a real importance. Moreover, because distractibility and attention deficit is frequently seen in childhood specialists of this field (doctors, psychologists and educators) are intensely dealing with the matter (Roth and Schlottke, 1991).Especially for academic success attention concept is emphasized. In student-centered education, it is aimed to determine all the factors that can cause student's failure, minimize the probability of their occurrence and take precautions before they exist and affect the student negatively. Attention skills develop children's reading, writing, syllabication, math skills and help to improve all

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other abilities that are necessary for academic success.

Children who have difficulty in attention gathering generally cannot pay attention to details and have careless mistakes in their homework or other activities. Therefore, attention and concentration improver activities should be included. To improve the attention gathering skill, different learning and teaching models are brought out. One of those is Montessori Method. Specialists of this field indicate that this method is planned to form students who have sense of mission and are motivated even for the hardest task (Rathunde and Csikszentmihalya, 2005: cited in. Holfester, 2008).

Development of attention consists of the skills which have important effects on child's preparation to school and should be developed until the age 6. Montessori counts the first 6 years as the teacher's most intensive period (Schafer, 2006: cited in. Durakoğlu, 2011). Games played with educative toys especially in early ages enable the child perceive, focus his attention to a subject, find solutions by trial and error method (Aral et al., 2001; Oğuzkan and Oral, 2003). In attention gathering and concentration of child's interest, learning environment and external stimuli have a great importance (Karaduman, 2004; Özdoğan, 2004; Lillard, 2011). In Montessori approach, children are given an opportunity to search, try, make mistake and correct their own mistake on their own; also, Montessori materials are designed to help children find these mistakes (Temel, 1994-2005). To develop this competence, education environments should be arranged by taking these properties into consideration. Montessori Method enables that. When examining the studies in this field; in a study done by Lopata et al. (2005), it is found out that concentration and focusing skills of Montessori students are better and they are show better academic success. As a result of his studies, Özdoğan (2001) emphasizes that problems about attention gathering are generally spotted while in elementary school years. In this period the child is asked to focus on a subject, sit in his seat for a long time and engage in a task. Thus, especially in elementary school years subject of attention gathering comes into prominence and the attempt of preventing to have a problem because of attention gathering problems gains importance. And by the study of Kayılı and Arı (2011), they infer that Montessori Method makes a positive contribution to the pre-schoolers' school readiness. By his research Bortolio (2000) infers that as an early intervention program, social contract model improves attention skills of children with intellectual ability loss and hearing disorders. Köster (1974), in his study, used Frostig Visual Perception Test and Montessori Material as educational tool and searched the effect of this education to children's development of attention. At the end of the education program, significant difference in perception and attention gathering is seen for the experimental group. In fact, no significant difference between pretest-posttest occurred for control group.

The purpose of the study

The objective of this research is to evaluate the efficacy of Montessori Education which is offered to upskill the attention gathering skill of children with learning disability. In this direction responses of these questions will be searched:

1. Is there a difference between the points of the children who receive Montessori Education and who do not?
2. Is there a significant difference between the Attention Gathering Test (FTF – K) points of the children who receive Montessori Education and who do not?
3. Do the sensorial materials used in Montessori Education affect children's attention gathering skills?
4. Does the effect of offered Montessori Education proceed to 3-5 and 7 weeks after the training?

METHODS

Research model

In this research pretest-posttest design study with a control group research model is used among the experimental designs.

Participants

In total 15 5-6-aged-participants, 6 girls and 9 boys joined this research. While 7 of these children are with attention deficit and hyperactivity disorder, eight of the students only have attention deficit. There is no combining problem according to their auditory, visual and tactile senses of the subjects. 8 of the children form the experimental group, while 7 form the control group. For assigning the children medical and educational evaluation results are taken into consideration. According to this, the children who are diagnosed in psychiatry clinic of full-fledged state hospitals considering DSM-V criteria form the target population of the research. By using the criterion-related sampling method the children are expected to have the following skills:

1. Making an eye contact (min. 5-10 sec),
2. Contributing regularly to the research,
3. Following the verbal instructions,
4. Having imitation skill,
5. Finishing the task.

To identify if the subjects have the mentioned prerequisite behaviors, subjects are observed while in individual work, asked for information from class teacher and it is determined that five of the subjects are fulfilling these prerequisite behaviors.

Data collection tools

FTFK Attention Test: With the purpose of data collection "Frankfurter Test for Five Years – Concentration (FTF – K)" was used. In this test, the children are expected to find and mark pears among a mixture of apples and pears. The instruction lasts for 8 min and the exercise lasts for 90 s. The instructions should be given verbally. The test was developed by Möhling (1971). In 1968 the test was applied to the 5;0-6;3 years old children, n=266. In 1970, it was applied to the five-six years old children, n=1170. In

the latest application, age, sex, social economic level were taken in consideration. Lastly test – retest was applied $n=100$, with a half-hour break in Frankfurt; $n=29$, with three weeks break in Nordschein29; $n=66$, with seven months break in Westfalen. In Turkey, this test was applied to 30 children of five-six years old by senior students of University of Ankara, Faculty of Educational Sciences in Clinical Psychology Applications course in terms of understanding the instructions and applying the tests. Besides, it was applied in province Giresun by the researcher with preliminary study. The reliability of the FTF – K test was determined by test – retest method. In autumn of the year 1969, FTF- K test was applied in 20 nurseries $n=100$ to 5 years old children with a half-hour break with test – retest method. The correlation of 1st and 2nd applications was $r=0.79$. In 1971, it was applied in 2 nurseries $n=29$ to 4 years old children with three weeks breaks. The correlation between two application was found as $r=0.85$ (Kaymak, 1995). "The scale is applied individually by each researcher to each student".

Intervention process

Environment and materials: The research is applied in an independent pre-school educational institution. In each phase a table for practitioner and student, another table to put the materials and chairs, "tactile boards, sound boxes, binomial cubes and color tablets" from Montessori materials are used. Other stimuli that could distract children's attention are left out. And to record data a camera was kept in the class. 30% of each phase is recorded.

Testing Process: To determine the attention gathering level FTFK attention test is applied. Children are trained by using "tactile boards, sound boxes, binomial cubes and color tablets" from Montessori materials. Educations are realized in 4 stages and three each sub-stages. In first sub-stage of the 1st stage children are asked to match and sort by intensity of the sounds by using sound boxes. In second stage, they are asked to differentiate rough and smooth surfaces by using tactile boards and lay them together to form very rough to nearly smooth. In third stage, they are expected to do the ordering of primary colors, intermediate colors and tones of the colors by using color tablets. In fourth stage by binomial cubes material, a training to form a cube by putting together the geometric figures in various colors is done. These trainings are held on from simple to complex. In each session at least three examples are used. At the end of the education, FTF-K attention test is applied to the children. Studies are done in sessions of 45 min a day (three sessions from 15 min) and three days a week. Study continued for two weeks for each material, eight weeks in total. After three, five and seven weeks from the end of the study permanence of the gained behavior is tested.

Analysis of data

SPSS Statistics Program is used for the scores of Frankfurter Test for Five Years – Concentration (FTF – K). For analyzing data Mann Whitney U Test and Wilcoxon Signed Rank Test are used. Interpretation of data is done by the help of these methods.

RESULTS

Data of the research are gathered before and after the education of pretest-posttest with control group model. The result of the subjects' of pretest-posttest FTF-K attention test is given in Table 1.

Table 1. Descriptive rate of experimental and control group scores of FTF-K Attention Test.

	Pretest			Posttest	
	n	x	SS	x	SS
Experimental group	8	28.60	11.78	38.50	9.36
Control group	7	27.30	9.01	27.10	9.76

Result of the "Is there a difference between the points of the children who receive Montessori Education and who do not?"

Looking at the scores that students of experimental and control group get from FTF-K Attention Test in Table 2, it is seen that the lowest rank is 27.10 for posttest of control group and the highest rank is 38.50 for posttest of experimental group. For participant number of less than 10 in Experimental and also Control Group, non-parametric techniques are used for gap analysis.

There is no significant difference between the pretest scores Experimental and Control Groups get from FTFK Attention Test ($z=0.49$, $p>0.05$).

Result of the "Is there a significant difference between the Attention Gathering Test (FTF – K) points of the children who receive Montessori Education and who do not?"

There is no significant difference between experimental group and control group on behalf of experimental group in comparison to the scores they get from posttest of FTF-K Attention Test ($z=2.55$, $p<0.05$) (Table 3). The significant difference between the pretest and posttest of experimental group and between posttests of experimental and control groups reveals the success of the experiment.

Result of the "Do the sensorial materials used in Montessori Education affect children's attention gathering skills?"

When Figure 1 is examined, it is seen that subjects get from pretest of Montessori materials' utilization 26.19% for tactile boards, 19.27% for sound boxes, 16.66% for binomial cubes and 21.42% for color tablets. When posttest scores are examined, it is seen that subjects get 76.02% for tactile boards, 75.38% for sound boxes, 47.14% for binomial cubes and 73.80% for color tablets.

Result of the "Does the effect of offered Montessori Education proceed to 3-5 and 7 weeks after the training?"

When Table 4 is examined, it is seen that there is no

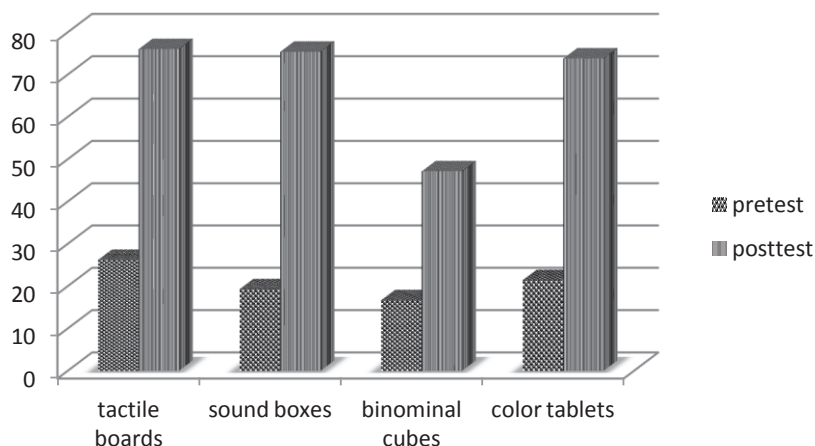
Table 2. Results of Mann Whitney U test done between pretest scores of FTF-K attention test for experimental and control groups.

Group	n	Mean rank	Mean rank	u	z	p
Control	7	9.85	98.50	43.50	-0.49	-
Experimental	8	11.05	111.50			

Table 3. Results of Mann Whitney U test of the experimental and control group children's FTF-K attention test pretest and posttest scores.

Pretest-posttest	Mean rank	Rank sum	u	z	P
Control	7.20	72.00	17.00	-2.55	p<0.05
Experimental	13.80	138.00			

*p<.05.

**Figure 1.** Data of the subjects utilization of Montessori materials baseline and after the experiment tests.

statistical difference between children's FTF-K Attention Test general attention level posttest scores and the maintenance test scores applied 3 weeks later ($z=-.368$, $p=.713$, $p>.05$). There is also no statistical difference between the scores of the children's posttests and maintenance test done 5 weeks later ($z=-.406$, $p=.684$, $p>.05$). Besides, there is no statistical difference between posttest scores and maintenance test scores done 7 weeks later ($z=-.542$, $p=.588$, $p>.05$). According to these statistical data, it can be said that the training program applied to experimental group still maintains in 3rd, 5th and 7th weeks.

DISCUSSION

In this research, the efficacy of using "tactile boards, found boxes, binominal cubes and color tablets" which are used in Montessori Education to upskill the attention

gathering skill of children with attention deficit and hyperactivity disorder is evaluated. As a result of the research, it is found out that offered education is effective in children's attention development (There is no significant difference on behalf of experimental group between the posttest of FTFK-K Attention Test in comparison to the experimental group and control group scores ($z=2.55$, $p<0.05$)). The result of the research coincides with the principle of polarization which is origin of Maria Montessori education. The research verifies that Montessori materials make a major contribution to attention gathering skills of five-six years old children with attention deficit.

When literature of this subject is examined, Hale (1993) examined the inclusion of children with retarded development to Montessori school pre-school class. 5 children with retarded development were put in two pre-school classes of Montessori school. In that research, first situations of children with retarded development were

Table 4. Results of Wilcoxon signed ranks test of the experimental group children's FTF-K Attention Test Posttest and maintenance scores.

	FTF-K attention level	Posttest-maintenance test	N	Mean rank	Rank sum	Z	p
Posttest- 3 wks after	General attention level	Negative rank	6	2.00	6.00	-.368	.713
		Positive rank	1	4.00	4.00		
		Equal	1	4.00	4.00		
Posttest- 5 wks after	General attention level	Negative rank	6	2.0	6.00	-.406	.684
		Positive rank	2	4.50	9.00		
		Equal	0	4.50	9.00		
Posttest- 7 wks after	General attention level	Negative rank	6	3.17	9.50	-.542	.588
		Positive rank	2	3.17	9.50		
		Equal	0	2.75	5.50		

determined. Afterwards, Montessori Education was applied to those children. Parents were informed simultaneously while children were having the education. According to the research results, it is seen that because of the positive effect of Montessori materials on children with retarded development, other children take those children in Montessori classroom environment. In addition, it is determined that children with retarded development improve their skills and social relations (cited in. Erben, 2005). The research of Chattin – McNichols (1981) that investigates the effects of Montessori Method emphasizes that Montessori Method contributes to attention gathering skills of children. Wagner (1990) also indicates the positive effects of Montessori materials on children's attention gathering skills. As a result of Beken's research (2009) which examines the effect of Montessori Method on 5-6 years old children's manual skills (Scratching-Painting and Using the Objects Skills) improvement, it is found out that the children of experimental group who get Montessori Education acquisition of manual skills is higher than the children of control group who get the education of Ministry of National Education Pre-school Education Program.

In attention gathering and concentrating child's interest, learning environment and external stimuli have a great importance (Karaduman, 2003; Özdoğan, 2004). In Montessori Method children turn into an activity towards their interest. A child himself chooses the material he wants to work on and goes to the place he wants to work, and work there. By this way, the child can more easily focus on a work that he is interested in and he can concentrate on it for a longer time. An experimental study is done by Lillard (2005) which aims to reveal the Contributions of Montessori Education against Traditional Education on Development of 3-6 Years Old Children. In this study, cognitive, academic, social and behavioral skills of the children of experimental group who attend

Montessori school and of the children of control group who attend a school with traditional method are compared and supremacy is seen on behalf of experimental group. These studies resulted in a positive way of children's social, academic, cognitive and behavioral skills improvement. Besides, children easily oriented their selves and find solution ways for complex problems. After gaining these experiences their success in school and in life increased (cited in. Yiğit, 2008). In another research done by Lillard and Else-Quest (2006), school readiness of the children who get Montessori Education in early childhood is examined. As a result of the research, it is put forward that children who get Montessori education in early childhood show higher performance from the point of orientation skills and coping with increasing complex problems skills than the children who are traditionally educated.

The effect of Montessori Method on attention gathering skills for five-six years old children is analyzed by Koçyiğit et al. (2010). The research is done by experimental method and posttest with control group model is used. According to the results of the research, significant difference is found out on behalf of experimental group in comparison of attention gathering skills of five-six years old children in control group who get the Ministry of National Education Pre-school Program education and the children in experimental group who get Montessori education.

According to Özdoğan (2004), one of the essential principals of attention gathering training is child's finding his mistake himself and correcting it. Child should check himself and find his mistakes and correct them. The teacher should never show child's mistakes. In Montessori Method the teacher only explains how to use the materials. The teacher guides the child in forming his own experience by using the material and learning on his own. Montessori materials are prepared considering the opportunity of children finding the mistake they did and

correcting them on their own. To ensure that, generally, for each material there is only one problem that will be solved. For example; one of the most common materials of Montessori cylinders are different either in color or in size. There is not a task to line up cylinders different in color and in size at the same time (Oğuz and Köksal Akyol, 2006). According to this, children can notice their mistakes more easily and correct these mistakes fast. This keeps a child's attention on the subject for a longer time. When all these factors are taken into account, it can be thought that attention gathering skills of the children who have Montessori education can be positively affected by these factors.

CONCLUSION AND RECOMMENDATIONS

At the end of the study, by attention training, improvement in Attention Test (FTF-K) is seen. Besides, it is determined that the efficacy of the offered attention training continues 3-5-7 weeks after the intervention as well. According to these, following points may be suggested:

1. It is thought that using Montessori Education Program as a supportive program of general education will be beneficial for the education of the children with attention deficit and hyperactivity disorder.
2. Using attention training as a supportive program, for the children who have problems with learning and attention to upgrade children's attention and concentration can be suggested.
3. By the thought of negative effects of attention deficit in children's elementary school life, especially reading-writing and math skills, popularizing activities that improve attention skills in pre-school period can be suggested.
4. In-service or special training courses can be arranged for pre-school teachers about Montessori Method. Educators can be informed about the importance of attention gathering and improve their selves in how to support children's attention skills.
5. In this study from among the Montessori materials only sensorial materials are used. Future studies can be done by other kinds of materials and can be applied to children with other specialties.

Conflict of Interests

The author has not declared any conflict of interest.

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Full Length Research Paper

Relationship between spiritual intelligence and job satisfaction among female high school teachers

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The present paper aims to study the relationship between spiritual intelligence and job satisfaction among female high school teachers in Isfahan. It was a descriptive-correlation research. Population included all female high school teachers of Isfahan in academic year 2013-2014. Sample size calculated was 320 teachers by Krejcie and Morgan's table and using multi stage random sampling method. Pearson correlation coefficient, stepwise regression, and multivariate analysis of variance were used for data analysis. Evidence from this study showed that spiritual intelligence and some of its components creating personal meaning and transcendent consciousness have a significant relationship with job satisfaction. Regression results showed that transcendent consciousness is capable of predicting job satisfaction.

Key words: Spiritual intelligence, job satisfaction, female teachers.

INTRODUCTION

Organizations do not operate in a vacuum, but are constantly under the influence and pressures which are imposed upon them from within themselves and outside. These changes and developments in the modern era always create opportunities and threats to organizations. In such a situation, successful organizations are those that adapt themselves to the circumstances and comply with changes (Sharifzadeh, 2009).

Only organizations can act in such a way that their employees enjoy high spiritual intelligence. Hence, some theorists of management recommend the issues of spirituality in work and spiritual intelligence to cope with changes of today's complex world (Cavanagh, 1999).

Some believe that spirituality involves the highest levels of cognitive, moral, and emotional, and personal growth.

In other words, spirituality itself is a growth area and an attitude requiring the extreme human experiences (Samadi, 2006). Intelligence is a concept that human has long been interested to investigate and study about its dimensions, protests, characteristics, and types. One of the dimensions of intelligence entitled "Spiritual Intelligence" is an area that few coherent and systematic studies have been conducted to explain and understand its features and factors which can boost this type of intelligence in people (King, 2001).

The concept of spiritual intelligence was firstly proposed by Stevens in 1996 and later expanded by Emmons in 1999. Emmons defines spiritual intelligence as the adaptive use of spiritual information to solve everyday problems and the process of achieving the

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goals. He also adds that spiritual intelligence can be defined as an intelligence giving meaning and value to problem solving and through which life and actions can be applied to a context that is deeper and wider in terms of meaning; and it can be assessed that that way of life is more efficient, effective, and meaningful than other ways (Sohrabi, 2008). Spiritual intelligence is defined as a set of mental capacities which contribute to the awareness, integration, and adaptive application of the nonmaterial and transcendent aspects of one's existence, leading to such outcomes as deep existential reflection, enhancement of meaning, recognition of a transcendent self, and mastery of spiritual states. Four core components are proposed to comprise spiritual intelligence: 1) critical existential thinking, 2) personal meaning production, 3) transcendental awareness, and 4) conscious state expansion. Personal meaning production is a person's ability to stimulate both physical and psychological experience of the person with personal meaning that comes with a sense of satisfaction (King, 2008). Transcendental awareness is the ability to understand one's relationship with a higher power, all the creatures, man and the environment (Vaughan, 2002). Conscious state expansion is the ability to enter a state of spiritual awareness or higher (King, 2008).

According to George (2006), the most important function of spiritual intelligence in the workplace is to provide peace of mind, create mutual understanding and rapport between colleagues, increase job satisfaction, and reduce job stress.

Creativity, honesty, trust, a sense of personal engagement, organizational commitment, job satisfaction, job involvement, job consciousness, and motivation level of employees can be increased with the growth of spirituality in an organization. All of these directly lead to improved organizational performance and effectiveness (Farhangi et al., 2006).

Feldman and Arnold (1983) showed that respect for employees increases their job satisfaction and capabilities, causing lower absenteeism and job stress. Increased job satisfaction resulting from spirituality in the workplace can be said that is mostly due to job changes and absenteeism. Job satisfaction is an important factor to increase productivity, sympathy of staff with the organization, sense of belonging and attachment to the workplace, quality and quantity of work, humanistic and good relationships in the workplace, correct communications, and morale and enthusiasm and also to reduce job stress (Houman 2002).

Decreased job satisfaction leads to high absenteeism, low efficiency, and transfer and movement of employees (Rafiee 2003).

LITERATURE REVIEW

Okpara and Wynn (2008) studied the relationship of work

ethics with job satisfaction and organizational commitment in Nigeria and concluded that work ethics has a significant relationship with job satisfaction and organizational commitment.

Khorshidi and Ebadi (2011) studied the relationship between spiritual intelligence and job satisfaction and stated that there is a significant positive relationship between spiritual intelligence and job satisfaction.

Yahyazadeh and Lotfi (2012) studied the relationship between spiritual intelligence and job satisfaction in teachers. Their findings showed that there is a significant relationship between spiritual intelligence and job satisfaction in teachers and also there is a significant relationship between spiritual intelligence of teachers and their scientific levels. They reported a significant relationship between spiritual intelligence and five components of job satisfaction (awareness of job nature, attitude towards supervisors, relationships with colleagues, opportunity for promotion, and working conditions), but they observed no significant relationship between spiritual intelligence and another components of job satisfaction (salary and benefits).

Rastegar et al. (2012) studied the relationship between spiritual intelligence and job satisfaction of employees in banking industry of Iran and found no significant relationship between these two variables.

Soleymani et al. (2012) conducted a study entitled "Relationship of job ethics with job satisfaction and job stress of employees in vocational education organization of Tehran". Their findings showed that there is a significant positive relationship between employees' perception of work ethics and job satisfaction, while there is a significant negative relationship between employees' perception of work ethics and job stress.

Kauor (2013) studied spiritual intelligence in high school teachers and its relationship with job satisfaction. The results indicate a significant positive relationship between spiritual intelligence of teachers and their job satisfaction. No significant difference was reported between private and state high school teachers in terms of spiritual intelligence and job satisfaction. The results of this study also showed that spiritual intelligence and job satisfaction are not affected by gender. Diharma and Lakshmi (2014) also reported a significant relationship between spiritual intelligence and job satisfaction.

According to several studies on the relationship between spirituality and variables such as job satisfaction, creativity, trust, and commitment, most leading organizations and institutions are paying more attention to improve spirituality, capability, creativity, spiritual intelligence, and job satisfaction employees in order to develop human resources and enhance job performance. In this context and given the growing volume of scientific and educational activities in schools, having an efficient, creative, and capable organization seems to be essential for promotion of scientific and educational level of schools. Hence, the present paper

Table 1. Mean and standard deviation of the components of spiritual intelligence and job satisfaction.

Statistical index	Mean	Standard deviation
Critical-existence thinking	28.21	4.03
Creating personal meaning	19.67	3.20
Transcendental consciousness	27.67	3.88
Creating an alert status	20.29	2.47
Job Satisfaction	114.01	12.20

aimed to study the relationship between spiritual intelligence and job satisfaction among female high school teachers in Isfahan in order to propose necessary strategies to improve educational conditions and job satisfaction, enhance spiritual intelligence and also to what extent spiritual intelligence is the ability to predict job satisfaction and high school teachers. For this purpose, the researcher sought to examine the following hypotheses:

- 1- Spiritual intelligence and its components have a relationship with job satisfaction in female high school teachers.
- 2- Components of spiritual intelligence are capable of predicting job satisfaction of female high school teachers.

METHODOLOGY

Participants

Population of this study included all female high school teachers of Isfahan in the academic year 2013-2014. Sample size was calculated as 320 teachers by Krejcie and Morgan (1970). Age 49/7 percent of participants in the study were between 31 to 40 years. 0/45 percent of participants in the study were graduate education and work experience 33/8 percent of the participants were between 16 and 20 years.

Instrument

Spiritual Intelligence Questionnaire: Spiritual Intelligence scale was developed by King in 2008; this questionnaire contains 24 items and is answered based on 5-point Likert scale (high scores indicate high spiritual intelligence and vice versa). The questionnaire consists of four components which are critical existential thinking, personal meaning production, transcendental awareness and conscious state expansion. Cronbach's alpha coefficient (reliability) of the questionnaire was obtained; it was 0.89 by Marzabadi et al. (2011, 2012) and 0.85 in this present study.

Job Satisfaction Questionnaire: Job Satisfaction Questionnaire, which is developed by Spector in 1998, includes 38 questions and is answered based on 5-point Likert scale. Cronbach's alpha coefficient (reliability) of the questionnaire in the present study was 0.79.

Procedures

The present study was a descriptive correlation research. Statistical

population included all female high school teachers of Isfahan (2015) in academic year 2013-2014. 302 questionnaires of total 320 were completely filled out and given back.

Data analysis

Collected data were analyzed using descriptive statistics (mean, standard deviation, frequency, and percentage) and inferential statistics (Pearson correlation coefficient, stepwise regression, multivariate analysis of variance).

RESULTS

Spiritual intelligence and its components have a relationship with job satisfaction in female high school teachers.

Descriptive indices of studied variables are shown in Table 1.

According to Table 1 mean of critical-existence thinking, creating personal meaning, transcendental consciousness, creating an alert status and job satisfaction was 28.21, 19.67, 27.67, 20.29 and 114/01 respectively.

** $p \leq 0.01$

Table 2 showed that the correlation coefficient of spiritual intelligence and the components of creating personal meaning and transcendental consciousness with job satisfaction were significant. This means that there was significant relationship between spiritual intelligence and job satisfaction ($r = 0.218$). According to the coefficient of determination (r^2), variance of spiritual intelligence was shared with variance in job satisfaction by 4.8%. So, the hypothesis that spiritual intelligence and its components (creating personal meaning and transcendental consciousness) had significant relationship with job satisfaction was confirmed. The relationship of critical-existence thinking and creating an alert status with job satisfaction is not significant. Components of spiritual intelligence are capable of predicting job satisfaction of female high school teachers.

As Table 3 showed, among the studied variables in regression, transcendental consciousness was the best predictor of job satisfaction in the first step. Accordingly, coefficient of transcendental consciousness in the first step explains 10% of job satisfaction variance.

Results in Table 4 indicated that one unit increase of beta coefficient in transcendental consciousness

Table 2. Correlation coefficient of spiritual intelligence and its components with job satisfaction.

Dependent variables		Job satisfaction		
Statistical index				
Predictor variable	Correlation coefficient	Squared correlation coefficients	Significance level	
Spiritual Intelligence	0.218**	0.048	0.001	
Critical-existence thinking	0.131	0.0173	0.051	
Creating personal meaning	0.226**	0.051	0.001	
Transcendental consciousness	0.314**	0.098	0.001	
Creating an alert status	0.117	0.014	0.080	

** $p \leq 0.01$.

Table 3. Multiple correlation coefficient of spiritual intelligence components and job satisfaction.

Statistical index						
Dependent variable		Predictor variable	R	R2	F	P
Job Satisfaction	Step 1	Transcendental Consciousness	315.0	100.0	24/200	0.001

Table 4. Beta coefficient of spiritual intelligence components in predicting job satisfaction.

Statistical index							
Dependent variable		Predictor variable	B	Std. Error	Beta	T	P
Job satisfaction	Step 1	Transcendental consciousness	1.053	0.214	0.315	4.919	0.001

increases job satisfaction by 0.315 units. Equation of prediction for the research hypothesis was as follows:

Transcendental consciousness (1.053) + Constant coefficient (84.290) = Job satisfaction

DISCUSSION

According to the findings of the present study, correlation coefficient of spiritual intelligence and its components with job satisfaction indicates a significant positive correlation between these two variables. This is consistent with findings of Yahyazadeh and Goodarzi (2012), Khorshidi and Ebadi (2011), Soleymani et al. (2012), Kauor (2013), Diharma and Lakshmi (2014), Okpara and Wynn (2008) and McVicar (2003). This indicates the importance of considering the role of spiritual intelligence in organizations. Typically, a person with high spiritual intelligence is more satisfied with his/her job. The

increasing studies on the relationship between these variables suggest the expansion of paying attention to the role of spiritual factors in managing today's organizations. Hence, managers try to use them to approach organizational goals. In fact, a spiritual workplace directly affects the success of organizations and their employees, because such an environment reduces employees' transfer, stress, fatigue, and absenteeism. In addition, transcendental consciousness causes job satisfaction. In contrast, this result is inconsistent with the findings of Rastegar et al. (2012) and Marzabadi et al. (2012), who state that there is no relationship between spiritual intelligence and job satisfaction. Several factors may be involved in this result. For example, if the present study had been conducted in another time and place, the relationship between spiritual intelligence and job satisfaction would have been significant. Additionally, components of spiritual intelligence and job satisfaction would be rooted in different philosophical and cultural contexts, so the relationship between intelligence and

satisfaction could not be manifested.

The findings of the present study revealed the role of spiritual intelligence on job satisfaction of teachers. The results indicate that spiritual intelligence of teachers can directly heighten their job satisfaction level, while low level of spiritual intelligence reduces job satisfaction level somewhat, causing job dissatisfaction and reluctance. This issue should be taken seriously by the officials of Education Ministry. Generally, it can be stated that managers can improve the teachers' perception of their job through measures such as job enrichment, empowerment of teachers, and adding joy to work. In fact, creating a friendly atmosphere based on cooperation instead of competition can increase job satisfaction and a sense of solidarity and unity among the staff which is kind of investment in an organization. Managers should also be aware of the spiritual needs of their teachers and try to create a dynamic organizational atmosphere. With such measures it can be hoped that teachers enjoy doing their tasks and be more satisfied.

According to the results of the present study, some of the things that are very effective in promoting spirituality in educational organizations and require managers to pay special attention to are as follows:

1. The use of appropriate material and spiritual triggers in order to improve employees' spiritual intelligence in organizations. One of the most common of these triggers is the attempt to provide the minimum material needs of employees.
2. Solving common problems in organizations such internal disputes, violation of the rights of teachers and students, and neglecting the clients (parents) in order to create job security and peace for employees and satisfaction for parents.
3. Establishment of spiritual supporter groups (Religious workers) among the teachers in order to provide advice in the event of problems for each teacher and improve personal spirituality.

Results of this research are only for educational organization (among female High School teachers) of Isfahan, therefore similar studies in other organizations or between male High School teachers cannot be compared. Finally, it should be noted that the present study is limited to teachers in Isfahan in academic year 2013-2014, therefore the results should be generalized to different time and other organizations should be very cautious. Other limitation of this study is variables were assessed by self-report. The variable of the study can be studied on different sample groups by using qualitative research methods.

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Conflict of Interests

The author(s) have not declared any conflict of interests.

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Full Length Research Paper

Self-esteem in decision making and decision-making styles of teachers

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The aim of the study was to examine the self-esteem in decision-making and decision-making styles of the teachers in various branches of Çat town of Erzurum Province, Turkey in terms of some variables in 2014-2015 year. A total of 153 teachers (84 females and 69 males) (age ($X = 1.6536 \pm 0.72837$)) from different departments participated in the study. The data collection tool was the Melbourne Decision Making Questionnaire I-II. For detecting the differences, Analysis of variance (ANOVA) test, tukey test and t-test were used. According to the findings, buck-passing, procrastination and hyper vigilance in decisionmaking scores of male were higher than that of female. Significant difference was obtained in teachers' service year, lesson hours of the teachers and the father's occupation. On the other hand, no significant difference was obtained in the other variables.

Key words: Teacher, self-esteem in decision making, decision-making styles.

INTRODUCTION

Teacher is important (Boreham et al., 2006; Ngimbudzi, 2009; Seco, 2002; Skaalvik and Skaalvik, 2010). When teachers enjoy their work they do not want to leave their schools, they are committed to their job and their profession – they are stimulated to perform their job very well to achieve school goals. Teachers with high job satisfaction could outperform those without high job satisfaction (Sargent and Hannum, 2005; Klassen and Chiu, 2010). 'Satisfied teachers are likely to be more enthusiastic and to spend more time and energy on educating students' (Nguni et al., 2006, in Cerit, 2009). Accordingly, satisfied and productive teachers are a key factor in the success of education (Firman and Tola, 2008) and can contribute to students' achievement as a key indicator for school performance; see for exam-

ple, 'Gender and experience in job satisfaction' (Menon and Athanasoula-Reppa, 2011); and 'the relevance of "personal mastery" to leadership' (Retna, 2011). A teacher usually has to complete the following activities in teaching process: (1) explain the core knowledge of a problem; (2) show how to solve the problems with specific knowledge; (3) provide solutions and worked examples of a problem; (4) give targeted feedback to students in the process of their trying to solve the problem; (5) recommend related activities based on students' cognitive state. Student model is the core element of ITS, based on which ITS is able to select the most suitable teaching strategies, provide related examples according to the needs of students, and replace human teachers to some extent (Shi et al., 2002).

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Decisions made prior to teaching might relate to organizing the content material or designing activities to maximize students' interest and engagement. Decisions during teaching might focus on whether students are learning or the types of adjustments that are needed, and judgments made after teaching could determine the types of feedback or grades that students should receive or the need for follow-up activities. All of these decisions are influenced by the ongoing classroom context, as well as a teacher's experiences, values, and knowledge of content, pedagogy, and individual students (Bernstein-Colton and Sparks-Langer, 1993). The act of making instructional decisions during and after the act of teaching requires several skills. First, teachers must assess students' ongoing performance and learning by observing their responses, examining their writing, communicating, or interacting with students, and providing multiple choice, true/false, or similar forms of selected response assessments. These methods of formative assessment, which can be planned ahead of time or employed spontaneously, enable teachers to identify difficulties with students' participation and/or learning (Bell and Cowie, 2001; Shepard, 2005). Second, teachers must interpret and react to information about student learning by providing richer explanations or demonstrations, altering students' assignments, or adjusting their learning goals to add or subtract complexity from the lesson. Wilson et al. (1987) describe this process as "mediation" because the continuous adjustment of instruction enables the teacher to mediate students' current understandings and the goals of a lesson.

Decision-making is important in organisations including schools because the success of an organisation depends on the quality of the decisions taken (Robbins et al., 2009). Different decision-making contexts can encourage the use of a different decision-making style to achieve the most desirable alternative outcome (Scott and Bruce, 1995).

How decisions are effectively made in a school are usually reliant on principals because they are the ones who are usually in charge of setting up the decision-making process (Nutt, 2008). This decision-making process can help accommodate inputs from teachers and achieve effective decision-making. Effective decision-making, according to Rausch (2005), involves the following steps: defining issues to be addressed, identifying alternatives, finding relevant information, evaluating the alternatives, selecting the most desirable alternative, implementing the alternative and monitoring the progress of the implementation towards the desired outcome. Effective decision-making will help teachers fulfil their job satisfaction.

Literature suggests a positive correlation between participative decision-making and staff's productivity (Dickson, 1982; Driscoll, 1978). Extensively, many theories of job satisfaction have been proposed, but one of the most common and widely utilised in educational settings

has been that of Hersberg et al. (Saad and Isralowitz, 1992; Derlin and Schneider, 1994; Dinham and Scott, 1996; 1998; 2000; Lester, 1987; Mercer, 1997; Scott et al., 1999). In terms of Research Question 2 (Can the model of the teacher-perceived principal decision-making styles significantly predict teacher job satisfaction?), we found that rational, intuitive, dependent and avoidant decision-making styles are significant predictors of teacher job satisfaction. In terms of Research Question 3 (Can the model of the teacher-perceived principal decision-making styles still significantly predict teacher job satisfaction after the possible effects of gender, marital status, teacher certification and school location are controlled?), we found that teacher-perceived principal decision-making styles (except spontaneous decision-making style) are still significant predictors of teacher job satisfaction even after the possible effects of gender, marital status, teacher certification and school location are controlled.

METHODS

Study universe and sample

This study investigates the self-esteem in decision-making and decision-making styles of the teachers in various branches, like math, physical education and sports, history, music and English, in terms of some of variables. The study is a descriptive study. The result obtained was restricted to 153 teachers. The study group of 168 teachers from 310 working in the central schools depending on Ministry of Education in Cat town of Erzurum province in 2014-2015 academic year was reached; but 15 was excluded from evaluation. It consisted of a total of 84 females and 69 males (Age (1.6536 ± 0.72837)) in 153 different branches (Physical education and sports teachers, math teachers, history teachers, music teachers and English teachers).

Data collection tool

In the study, 153 teachers working in Çat town of Erzurum City in Turkey were given questionnaires. In this research, a Personal Information Form and the Melbourne Decision Making Questionnaire I-II, developed by Mann et al. (1998) and translated to Turkish by Deniz (2004) were used as a scale. A personal information form was developed in the study to determine participants' gender, age, marital status, education status, the number of years worked in a school, the place of the teachers' living, lesson hours of the teachers, the teachers' working schools, the father and mother's occupation, father and mother's education status, doing sports of the teachers and also the teachers doing individual or team sports

Decision making questionnaire

The Melbourne Decision-Making Questionnaire consisted of two parts. The Decision-Making Questionnaire I (DMQ1) measured self-esteem as a decision maker. It consisted of six items (sample item: "I think I am a good decision maker") to which the respondent checked "True for me" (score 2); "Sometimes true" (score 1); "Not true for me" (score 0). The maximum score was 12. Decision-Making Questionnaire II consisted of 22 items and used the same

response format as DMQI. One scale measured vigilance (sample item: "When making decisions I like to collect lots of information"). Each of the six vigilance items related to a step in sound decision making, such as defining goals, collecting information, considering alternatives, and checking alternatives. The buck-passing scale consisted of six items (sample item: "I prefer to leave decisions to others"). The procrastination scale consisted of five items (sample item: "I put off making decisions"). The hyper vigilance scale consisted of five items (sample item "I feel as if I'm under tremendous pressure when making decisions") (Mann et al., 1998). In data analysis, descriptive statistical methods, including frequency (n), percentage (%), mean (\bar{X}) and standard deviation (SD) were used for personal information. Normal distribution was used to highlight the differences using analysis of variance (ANOVA) test, tukey test, t-test, which are non-parametric tests, used because of effectuation of homogeneity conditions.

Data analysis and interpretation

To evaluate the statistics, Statistical Package for the Social Sciences (SPSS) Windows version 21,00 package programme was used. Analysis of variance (ANOVA) test, Tukey test, T-test, mean frequency distribution and standard deviation were done.

On the first phrase of the research, demographic characteristics were analyzed. This study was done with the aim of presenting teachers' making decision styles who were working in Cat town of Erzurum City in Turkey. The information obtained was interpreted as follows: in the first phase of the study, the demographic features of the participating teachers were determined. According to this, 84(54.9%) participants were females and 69(45.1%) were males. The age distribution of the teachers was as such: 76(49.7%) of them were between 20 and 25; 54(35.3%) of them were between 26 and 30, 23(15.0%) of them were between 31-35 and over (Age 1.6536 ± 0.72837). The marital status dispersion of the teachers was as such: 108(70.6%) were single, 35(70.6%) were married and 10(6.5%) were engaged. The education status dispersion of the participants was as such: 133(86.9%) of them had a master degree and 20(13.1%) of them graduated from university. The number of years worked in a school was as such: 130(85.0%) of them worked between 1 and 5 years, 23(15.0%) of them worked between 6 and 10 years. When the residence of the teachers was analyzed, rate of the teachers living in a metropole was 53(34.6%), in a city was 47(30.7%), in a town was 38(24.8%) and in a village and small town was 15(9.8%). Lesson hours of the teachers were; 17(11.1%) for below 15 h, 9(5.9%) for 15 and 18 h, 21(13.7%) for 19 and 22 h, 35(22.9%) for 23 and 26 h and last one was 71(46.4%) for 27 h and over. The rate of the teachers' working schools was; 40(26.1%) of them work in a primary school and 88(57.5%) of them work in a secondary school and 25 (16.3%) of them work in a high school. The father's occupation dispersion of the participants was: 26(17.0%) of them as an official, 29(19.0%) of them as a worker, 17(11.1%) of them as a tradesman, 18(11.8%) of them as a farmer and 63(41.2%) of them as a retired. The mother's occupation dispersion of the participants was: 15(9.8%) of them were farmers, 22(14.4%) of them were retired and great majority of them were housewives with the rate of 11.1% (116). The father's education status dispersion of the participants was: 22(14.4%) of them were illiterate, 46(30.1%) of them were primary school graduate, 23(15.0%) of them were secondary school graduate, 42(27.5%) of them were high school graduate and 20(13.1%) of them had four – year degree or two-year degree. The mother's education status dispersion of the participants was: 18(11.8%) of them were illiterate, 15(9.8%) of them were literate, 75(49.0%) of them graduated from primary school, 23(15.0%) of them graduated from secondary school and 22(14.4%) of them graduated from high school. Doing

sports rate of the teachers was: 60(39.2%) as Yes and 93 (60.8%) as No. The rate of the teachers' doing individual sports was 32(20.9%) and team sports rate among the teachers was 28(18.3). On the second phase of the research, teachers' problem solving levels were determined.

FINDINGS

In the second part of the study, making decision styles of teachers were tried to be determined.

In Table 1, making decision self-esteem, making decision sub-dimensions and total points of teachers participating in the search were analyzed. At the end of this search, self –esteem dimensions of the teachers was found to be $\bar{X} = 9,1046$ (min 0 – max 18). So self-esteem of the teachers' rate is mid-level. When sub-dimensions of the making decision were looked, vigilance making decision rate was $\bar{X} = 8,8301$ (min 0 – max 31). So it can be said that their points are low-level. Buck passing making decision rate was $\bar{X} = 10,6536$ (min 0 – max 15). So their points are high level. Procrastination making decision rate was $\bar{X} = 10,8627$ (min 0 – max 15). So it can be said that their points are high level. Hyper vigilance making decision rate was $\bar{X} = 13,8562$ (min 0 – max 18). From this result, their points were high level. The last one for the making decision of total points was $\bar{X} = 53,3072$ (min 0 – max 79). So, it could be said that their points were over medium level. Finally, making decision total point was $\bar{X} = 53,3072$. Making decision total point was regarding the minimum score of 0 and maximum score of 79 total point of the scale. When teachers' total point was $\bar{X} = 53,3072$ in the making decision inventory examined, it could be said that teachers participating in the research had over mid-level making decision styles.

Evaluation of decision making styles, according to gender, are presented in Table 2. According to "gender variable", the teachers' points of Buck-Passing in making decision styles were $\bar{X} = 11,1159$ for female and $\bar{X} = 11,1159$ for male, and there was a statistically meaningful difference in Buck-passing (t:-2,052 p<0,05).

The teachers' points in procrastination making decision style were $\bar{X} = 10,2381$ for female and $\bar{X} = 11,6232$ for male, and there was a statistically meaningful difference in procrastination (t:-3,368 p<0,05).

The teachers' points in hyper vigilance making decision style were $\bar{X} = 13,3810$ for female and $\bar{X} = 14,4348$ for male, and there was statistically meaningful difference in hyper vigilance (t:-2,019 p<0,05).

Table 1. Results of teachers related to \bar{X} and Ss values of making decision styles self-esteem, sub-dimensions and total point.

Sub-dimensions of making decision Inventory	n	\bar{X}	Ss	Min.	Max.
Self-esteem	153	9,1046	3,00036	,00	18,00
Vigilance	153	8,8301	3,33599	,00	31,00
Buck-passing	153	10,6536	2,55291	,00	15,00
Procrastination	153	10,8627	2,61589	,00	15,00
Hyper vigilance	153	13,8562	3,24528	,00	18,00
Total Point	153	53,3072	8,84462	,00	79,00

Table 2. Evaluation of decision-making styles of teachers, according to gender.

Decision making styles		n	\bar{X}	Ss	Sd	t	p-Value
Buck-passing	Female	84	10,2738	2,77402			
	Male	69	11,1159	2,18643	151	-2,052	,042*
Procrastination	Female	84	10,2381	2,81827			
	Male	69	11,6232	2,12894	151	-3,368	,001*
Hyper vigilance	Female	84	13,3810	3,59352			
	Male	69	14,4348	2,67603	151	-2,019	,045*

*p<.05.

Table 3. Evaluation of decision-making styles of teachers, according to teachers' service year.

Decision making styles	Service yr	n	\bar{X}	Ss	Sd	t	p-value
Buck-passing	1-5 y	130	10,8462	2,45095			
	6-10	23	9,5652	2,88926	151	2,247	,026*
	1-5	130	14,0846	3,06021			
Hyper vigilance	6-10	23	12,5652	3,97522	151	,038*	2,093

*p<.05.

Evaluation of decision making styles, according to teachers' service year, are presented in Table 3. According to "teachers' service year", the teachers' points of Buck-Passing in making decision styles were \bar{X} =10,8462 for between 1-5 years and \bar{X} =9,5652 for between 6-10 years, and there was a statistically meaningful difference in buck-passing (t:2,247 p<0,05).

The teachers' points of hyper vigilance in making decision styles were \bar{X} =14,0846 for between 1-5 years and \bar{X} =12,5652 for between 6-10 years, and there was a statistically meaningful difference in hyper vigi-

lance (t: 2,093 p<0,05).

Evaluation of self-esteem in decision making and decision-making styles of teachers, according to Lesson hours the teachers having are presented in Table 4. According to "Lesson hours the teachers have", the teachers' points of self esteem in making decision styles were \bar{X} = 10,4118 for less than 15 h, \bar{X} = 12,0000 for between 15-18 h, \bar{X} = 9,6667 for between 19-22 h, \bar{X} = 9,2286 for between 23-26 h and \bar{X} = 8,1972 for 27 h, and there was a statistically meaningful difference in self-esteem in decision making (F:5,254 p<0,05).

Table 4. Evaluation of self-esteem in decision making and decision-making styles of teachers, according to lesson hours the teachers have.

Self-esteem and decision making styles	Lesson h	n	\bar{X}	Ss	Sd	F	p-value	Meaningful differences Tukey test
Self-esteem	15 ten az	17	10,4118	3,12368				
	15-18	9	12,0000	3,35410				
	19-22	21	9,6667	2,90402				
	23-26	35	9,2286	2,57917	148	5,254	,001*	2-5
	27 ve üzeri	71	8,1972	2,82145				
Hyper vigilance	15 ten az	17	12,1765	3,28320				
	15-18	9	12,2222	2,77389				
	19-22	21	14,5238	2,04007				
	23-26	35	14,8857	2,38588	148	2,974	,021*	1-4
	27 ve üzeri	71	13,7606	3,72430				

*p<.05.

Table 5. Evaluation of decision-making styles of Teachers, according to the father's occupation.

Decision making styles	Father's occupation	n	\bar{X}	Ss	Sd	F	p-value	
Vigilance	Officer	2 6	8,5769	2,59497				
	Worker	2 9	9,2069	2,84579				
	Tradesman	1 7	8,7059	2,77859	148	3,221	,014*	4-5
	Farmer	1 8	11,1667	5,57568				
	Retired	6 3	8,1270	2,86521				

*p<.05.

The teachers' points of hyper vigilance in decision making styles were $\bar{X} = 12,1765$ for less than 15 h, $\bar{X} = 12,2222$ for between 15-18 h, $\bar{X} = 14,5238$ for between 19-22 h, $\bar{X} = 14,8857$ for between 23-26 h and $\bar{X} = 13,7606$ for 27 h and over, and there was a statistically meaningful difference in hyper vigilance in decision making (F:2,974 p<0,05).

Evaluation of decision-making styles of teachers, according to the father's occupation are presented in Table 5. According to the father's occupation, the teachers' points of vigilance in decision making styles were $\bar{X} = 8,5769$ for officers, $\bar{X} = 9,2069$ for workers, $\bar{X} = 8,7059$ for tradesmans, $\bar{X} = 11,1667$ for farmers and $\bar{X} = 8,1270$ for retired and there was a statistically

meaningful difference in vigilance in decision making styles (F:3,221 p<0,05).

RESULT AND DISCUSSION

This study was carried out to find out whether or not the self-esteem in decision-making and decision-making styles of the teachers differ according to the variables of gender, age, marital status, educational status, professional service year, the place where he/she lives the most, secondary education institutions they work, father's occupation, mother's occupation, parental education status, active sportive level of them, lesson hours they have entered in a the week and sports they have done.

As a result of study, the results obtained in this study in order to identify making decision self-esteem, making decision sub-dimensions and total points of the teachers

were as follows; self esteem dimensions of the teachers was found as $\bar{X} = 9,1046$ (min 0 – max 18). So self-esteem of the teachers' rate is mid-level. When Sub-dimensions of the making decision were looked, vigilance making decision rate was $\bar{X} = 8,8301$ (min 0 – max 31). So it could be said that their points were low-level. Buck passing making decision rate was $\bar{X} = 10,6536$ (min 0 – max 15). So their points were high level. Procrastination making decision rate was $\bar{X} = 10,8627$ (min 0 – max 15). So it could be said that their points were high level. Hyper vigilance making decision rate was $\bar{X} = 13,8562$ (min 0 – max 18). From this result, their points were high level. The last one for the making decision of total points was $\bar{X} = 53,3072$ (min 0 – max 79). So it could be said that their points are over medium level. Finally, making decision total point was $\bar{X} = 53,3072$. Making decision total point was regarding the minimum score of 0 and maximum score of 79 total point of the scale. When teachers' total point of $\bar{X} = 53,3072$ in the making decision inventory was examined, it could be said that teachers participating in the research had over mid-level making decision styles.

On the other hand, A meaningful relationship was not found according to the teachers' age, marital status, educational status, the place where he/she lives the most, secondary education institutions they work, mother's occupation, father and mother's education status and doing sports of the teachers. But, a meaningful relationship was found according to gender, teachers' service year, lesson hours of the teachers' having and the father's occupation. According to the evaluation of self-esteem in decision making and decision-making styles of teachers, we could say that self-esteem levels of teachers who entered lesson between 15-18 h were higher than teachers who entered lesson 27 h and over. Hyper vigilance levels of teachers who entered lesson between 23-26 h were higher than teachers who entered lesson less than 15 h. According to the evaluation of decision-making styles of teachers, levels of the vigilance approach of the teachers whose fathers were farmers were higher than the ones whose fathers were retired.

In the study of Mau (2000) on female students, it was reported that there was a difference on behalf of girl students. When other studies that were conducted with university students were analysed, for example: Sinangil (1993), Taşdelen (2002), Köse (2002), Kesici (2002), Deniz (2002), Avşaroğlu (2007) and Çetin (2009) they found no difference between students' self-esteem in decision making and decision-making styles in terms of sex/gender variable. We are of the opinion that the reason why our findings and findings of other studies

were different may be due to the fact that our study was carried out with taekwondo athletes.

Campos (1993), Ripoll et al. (1995), McPherson (1999), Fontana (2007) all conducted studies with fresh and experienced athletes from different sportive branches and found positive results on behalf of experienced athletes. The study of Kioumourtzoglou et al. (1998), which was made with a national water polo team, and amateur basketball team and the study of Egesoy et al. (1999), which was made with professional and amateur football athletes, indicated that no difference was found among the experienced athletes in terms of correct and quick decision-making. As for the study of Çetin (2009), made with elite and non-elite athletes; it was discovered that no difference existed in terms of self-esteem in decision making and using decision-making styles; which is in agreement with our findings. It may be concluded that self-esteem in decision making and decision-making styles of the taekwondo athletes were similar, whether they performed training with authoritarian, democratic, stressful and innovative or easy-going trainer types.

Conflict of Interests

The author has not declared any conflict of interest.

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Full Length Research Paper

Teaching facts of addition to Brazilian children with attention-deficit/hyperactivity disorder

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Storage and/or automatic retrieval of the basic facts of addition from the long-term memory seems to be impaired in children with ADHD presenting arithmetical difficulties. The present study was carried out to evaluate the effectiveness of an educational intervention model designed to teach basic facts of addition as a means of advancing from counting procedures to memory-based processes in 7 children with ADHD, divided into two groups (control and intervention). The main hypothesis was that the explicit teaching of decomposition strategies would lead to an advanced use of a memory-based procedure. It is an experimental study involving the use of a blind, parallel, randomized, controlled clinical trial. The intervention group participated in 10 one-hour sessions over a 10-week period, while the control group received the same quantity and distribution of teaching time. They carried out the kind of activities generally carried out in the classroom. Although there was no apparent statistical difference between the groups, our findings suggest that the tested educational intervention model is effective at promoting the retrieval of memory-based facts, since the intervention group came to predominantly adopt a memory-based strategy. A carefully designed educational program enhances memory-based processes in students with ADHD. These findings have important implications for further research considering interventions for both students with ADHD and those who perform poorly in arithmetic.

Key words: Special education, attention-deficit/hyperactivity disorder (ADHD), educational model, arithmetical difficulties, educational intervention.

INTRODUCTION

Learning difficulties are often associated with Attention-Deficit/Hyperactivity Disorder (ADHD), which has a great impact upon the child's educational development. During school years, the disorder is often associated with poor academic performance, grade retention, suspension, expulsion (Barkley, 2014; Lahey et al., 2004; Rohde et al., 1999) and difficulties in relationships (Lahey et al.,

2004), resulting in a worse quality of life (Klassen et al., 2004). Some authors (Faraone et al., 2001; Mayes et al., 2000) have related this worse performance with the high prevalence of comorbidity between learning disability (LD) and ADHD. Although several theoretical models have been proposed to explain this comorbidity, three of them received greater attention (Biederman et al., 2004;

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Martinussen et al., 2005; Rhee et al., 2005; Shanahan et al., 2006; Willcutt et al., 2005). The first one suggests that the two disorders share risk factors in common, that is, there is one (or more) cognitive deficit underlying both the disorders; for example, the working memory and the processing speed (Biederman et al., 2004; Martinussen et al., 2005; Shanahan et al., 2006; Willcutt et al., 2005). The second one proposes that the presence of one disorder increases the risk for the other, i.e., the three nuclear symptoms of ADHD, inattention, hyperactivity and impulsivity, have a strong impact upon learning (DuPaul and Stoner, 2003). The third model suggests that the comorbidity represents independent disorders (Rhee et al., 2005). Even though the causes of this comorbidity are not yet clear, there is evidence that, when the two disorders occur together, students have greater attention and academic deficits than when they occur separately (Barkley, 2014).

A set of investigations (Ackerman et al., 1986; Benedetto-Nasho and Tannock, 1999; Kaufmann and Nuerk, 2008; Lindsay et al., 2001; Casas et al., 2009) indicates that the main feature of the calculation problems associated with ADHD is the scarce representation and/or deficient inhibition in the access to the semantic memory of arithmetical facts. These mechanisms determine an overloaded process with interference effects, with a more generalized deficit when the ADHD appears associated with Mathematics Disorder (MD). Sella et al. (2012), comparing students with and without ADHD, concluded that ADHD students showed more difficulty than their peers in identifying the best counting procedure to use, choosing the easier one, which was the earliest one. Similar results were found by Costa et al. (2012a). Thus, difficulty in storing and/or accessing basic arithmetic facts is identified as a striking feature in students with ADHD. Therefore, it is necessary to teach such students' strategies that might facilitate access to basic facts from memory.

Recent research and reviews (Costa et al., 2012a; Costa et al., 2012b; Gersten et al., 2009; Hopkins and Lawson, 2006; Sella et al., 2012; Woodward, 2004) have shown that students with learning difficulties do not advance spontaneously to memory processes, requiring direct and explicit teaching situations that facilitate their acquisition. Moreover, practice, as the sole type of instruction, has proven to be ineffective (Baroody et al., 2009; National Mathematics Advisory Panel, 2008).

In recent years, one widely used method of teaching calculation in classrooms has been based upon the conceptual understanding of the facts, through manipulative materials, and on meaning-based teaching proposals. Miller and Hudson (2007) report that these practices are largely centered upon the student. Woodward (2004) noted that, within this teaching approach, the cognitive load of the curricular activities and materials is very challenging for students with learning difficulties, even more so for those with ADHD.

It is important to note that the characteristics of the students with ADHD, including memory deficits (Keeler and Swanson, 2001; Kroesbergen and Luit, 2003), difficulty in attending to the main aspects of tasks and a passive approach to concluding tasks (Greenwood et al., 2002; Junod et al., 2006) contribute to increasing the challenges that all students have to face.

A variety of interventions has been tested in order to reduce the academic and social difficulties that often accompany ADHD (Tirado et al., 2004). Consistently, studies (MTA COOPERATIVE GROUP, 1999; Chronis et al., 2006; DuPaul and Stoner, 2003; DuPaul et al., 2006; Raggi and Chronis, 2006) have indicated that the best treatment is based on a more comprehensive approach including the use of medication and behavioral and psychoeducational interventions. The two latter approaches are aimed at the student, the parents and the teachers. While, on one hand, there are many studies indicating the efficacy of medication and showing that productivity increases with its use; on the other hand, there are few studies which examine the long-term results of academic interventions (Piffner et al., 1998; Raggi and Chronis, 2006). Most of this research has concentrated on strategies related to handling social behavior and conduct in the classroom, but this is only one aspect of ADHD; another is related to strategies aimed at enhancing academic performance (DuPaul and Stoner, 2003; Iseman and Naglieri, 2011).

To the best of our knowledge, no investigations have attempted to assess efficient strategies for teaching basic arithmetic facts to students with ADHD, despite evidence that this group of students continues to use immature counting procedures up to more advanced grades (Benedetto-Nasho and Tannock, 1999; Costa et al., 2012a; Sella et al., 2012; Zentall, 2007). Thus, the present study is the first to investigate the efficacy of a pedagogical intervention model directed at teaching basic arithmetic facts, as a resource for advancing to memory-based processes.

METHODS

This is an experimental study using a blind, parallel, randomized, controlled clinical trial. The sample was enrolled from the ADHD Outpatient Clinic at the Child and Adolescent Psychiatric Division of Hospital de Clínicas de Porto Alegre (PRODAH). The research project was approved by the Research Ethics Committee of the *Hospital de Clínicas de Porto Alegre*, RS, Brazil (project number 07591). Written informed consent from parents or a legal guardian and assent from the child were obtained.

Subjects

Four boys and three girls from the ADHD Outpatient Program were randomly allocated, using a sequential allocation strategy balanced by prognostic factors (Fossaluzza et al., 2009), into 2 groups: 1) control group (CG) – two boys and 1 girl aged from 8 to 11 years ($M = 9.67$), within the average range of intelligence ($M = 98.34$, SD

= 13.87) based on the WISC-III (2002) vocabulary and cube subtests, and 2) intervention group (IG) – two boys and two girls aged from 8 to 10 years ($M = 9$), within the average range of intelligence ($M = 92.5$, $SD = 9.57$).

The inclusion criteria were: a) attendance at the second to the seventh grade of elementary school; b) diagnosis of inattentive or combined ADHD subtypes, confirmed by the clinical staff according to the DSM-IV criteria (APA, 1994); c) an estimated IQ (WISC-III, 1991) between 80 and 120; d) the use of counting-based procedures and e) not receiving special educational support. Subjects diagnosed as having any comorbid Mood Disorder and Anxiety Disorder were excluded, as they are psychiatric disorders that interfere greatly in scholastic performance.

Mathematical assessments

The participants were assessed in two mathematical measures by two qualified research assistants, both trained in Psychopedagogy and linked to the School of Education at the Federal University of Rio Grande do Sul (UFRGS). The senior investigator (BVD) duly trained the two assistants. The two instruments were always applied in the same session and the children were assessed individually. The tasks used were as follows:

a) Evaluation of the counting procedure and strategy: the sub-item Strategy Windows from the Numeracy Project Assessment (New Zealand, 2007a), which evaluates the strategy employed to resolve addition problems, was used. Strategy Windows consists of 9 tasks with an increasing degree of difficulty. The tasks, arranged one at a time on a sheet of paper, were presented as mathematical stories in which both the parts were greater than 0, and the second was smaller than the first. The investigator read the question, and the child was expected to reply orally as soon as he/she had the answer. The child was informed that he/she could resolve the question in the way he/she found easiest and that it was not permitted to use paper and pencil to avoid the child doing the calculation on paper. To avoid inducing their use, the term “fingers” was not used, but finger counting was allowed. Upon the conclusion of each task, the investigator determined the counting procedure (counting all; counting on the highest) or the memory process used (decomposition or retrieval), based upon the child’s answer and the investigator’s observation (Figure 1). If required, the student was asked if he or she had solved the calculation. At the end of the test, the investigator indicated the predominant memory process or counting procedure and the most advanced counting strategy (fingers, oral or silent) that had been accurately used.

b) Knowledge of basic facts (adapted from Hopkins and Lawson, 2006): the students were requested to answer 38 problems of addition, written in the form $a + b$ in which both the parts were greater than 0, and b , greater than or equal to a . Of the 65 (100%) problems proposed by Hopkins and Lawson (2006), 38 (59%) were chosen. It was decided to execute an abbreviated form of the original proposal, as the assessment was to occur in a single day and the subjects were tired at the end in the pilot study, which could interfere with the results. The problems were presented, one at a time, on a sheet of paper, and the investigator read the problem orally. The students were requested to solve the problems by trying to retrieve the answer from memory. They were told that they could not count on their fingers and should say the number that came to their mind. Memory was considered to have been used when the child answered immediately¹, upon being presented with the question.

Immediately after the intervention (post-test) and two months later (follow-up), the instruments were applied to assess the

counting procedure and memory-based processes, as well as the subject’s knowledge of the basic facts. It should be pointed out that 2 subjects failed to attend the second evaluation. Figure 2 illustrates the study design.

Diagnostic procedures

The procedure used to diagnose ADHD and comorbid disorders for children and adolescents in our unit has been extensively described (Rohde and Jellinek, 2002; Rohde et al., 2005). Briefly, the diagnosis of ADHD was obtained using a semi-structured interview, Schedule for Affective Disorders and Schizophrenia for School-Age Children, Epidemiological Version (K-SADS-E) (Orvachel, 1985) applied by trained research assistants, and clinical evaluation of ADHD and comorbid conditions using DSM-IV (APA, 1994) criteria used by child psychiatrists in interviews with the child and parents. For dimensional analyses of ADHD symptoms, we employed the Swanson, Nolan and Pelham – IV Questionnaire (SNAP-IV) (Swanson et al., 2001). Cognitive evaluation relied on the vocabulary and block design sub-tests of the Wechsler Intelligence Scale – Third Edition (WISC-III) (Wechsler, 1991) administered by a trained psychologist to estimate the children’s overall IQ.

Intervention

The intervention, regardless of the group, occurred over a three-month period (June, July and August). Ten sessions, lasting approximately 1 h, were organized, occurring once a week in the *Hospital de Clínicas de Porto Alegre*. The intervention was conducted in small groups, and the subjects in the intervention group participated in one individual meeting (the 5th session).

Instructional content. For the intervention group, in the pre-intervention assessment, two groups of basic facts were selected to be worked on: make 10 (cycle 1) and the doubles + 1/ - 1 (cycle 2). The principles for intervention were obtained from the Numeracy Developmental Project (New Zealand, 2007b,c), as that program complies with a set of theoretical and practical formulations in line with the most recent research in the area. Emphasis was given to the teaching of the part-all strategy as an alternative way of acquiring the basic facts (Hopkins and Lawson 2006; Hopkins and Egeberg, 2009). Hence, as activities were included to develop an understanding of the base 10 system (e.g., partitioning and grouping of tens; composing and decomposing numbers), to help students develop a conceptual understanding of addition facts and the mathematical properties that can be used to solve other arithmetical facts. Fluency in the use of the facts was also part of the intervention, since computational fluency includes efficiency, accuracy, and flexibility with strategies (Bay-Williams and Kling, 2014).

Care was also taken with the use of story problems. Van de Walle (2007) suggests that when students are involved in finding a new strategy, “raw” arithmetic problems (e.g. $8 + 5$) are more suitable; while when the goal is to practice a strategy, it is best to have the fact embedded in a simple context (e.g. John had 8 candies and bought 5 more. How many candies did he have then?). A new cycle only started if most of the group were using the taught procedure.

Instructional components. Each cycle involved four moments: 1) explicit teaching (for constructing the conceptual knowledge of each solving strategy to be taught); 2) practical (to encourage and automatize the procedure learned); 3) generalization (to expand the use of the procedure to other contexts not worked on) and 4) follow-up.

The general sequence of the moments constituting the

¹ The relevant literature (Andersson, 2008; Russell & Ginsburg, 1984) has indicated that 3 seconds is a good average.)

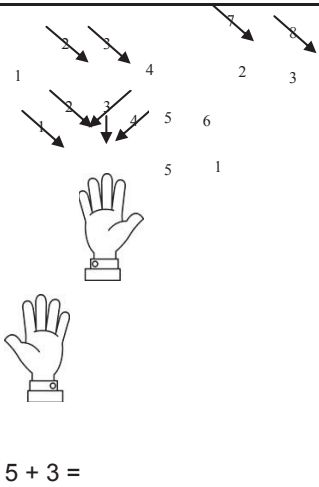
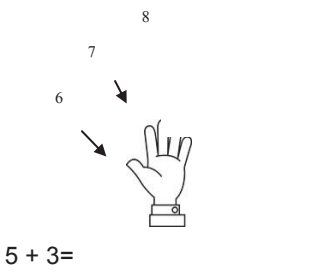
	<i>Procedures /processes</i>	<i>Definition</i>	<i>Example</i>
COUNTING PROCEDURES	<i>Counting all</i>	The student first represents each addend and after counts all.	 <p>5 + 3 =</p>
	<i>Counting on</i>	The student begins to count from one of the addends.	 <p>5 + 3 =</p>
MEMORY-BASED PROCESSES	Decomposition	The student applies a previously learned fact in order to arrive at an answer.	If $5 + 5 = 10$, then $6 + 5 = 5 + 5 + 1 = 11$
	Automatic retrieval	Simply knows the answer.	11

Figure 1. Counting procedures and memory-based processes. Source: Based on Hopkins and Egeberg (2009).

intervention is presented in Table 2.

Each lesson consisted of the following components: a Warm-Up (activating background knowledge by reviewing prerequisite concepts and skills and previously taught basic facts), Preview (providing an advance organizer), Modeled Practice (teaching the concepts and procedures while engaging students during instruction), Guided Practice (practicing as a group [choral and individual responding] with the interventionist), games designed to practice the taught procedure and Daily Check (Bryant et al., 2014; Cuillos et al., 2011), which assessed the content in each lesson. As can be seen, practice as a means of achieving automatization was greatly appreciated and, whenever possible, games were used for this purpose. Games provide opportunity for meaningful practice. The research about how students develop fact mastery indicates

that drill techniques and timed tests do not have the power that mathematical games and other experiences have. Appropriate mathematical activities are essential building blocks to develop mathematically proficient students who demonstrate computational fluency (Van de Walle, 2007).

Hence, the use of direct, explicit teaching, practice, constant feedback of the student’s performance, cumulative revision, and constant monitoring of his or her own progress (Fuchs et al., 2008) as practical principles.

The metacognition, i.e., the skills involving the understanding and control of cognitive processes, such as the monitoring and modifications of one’s own cognitive processes (Iseman and Naglieri, 2011) were emphasized. It is believed that in order to learn it is necessary to learn how to learn. Hence, the efficacy of the

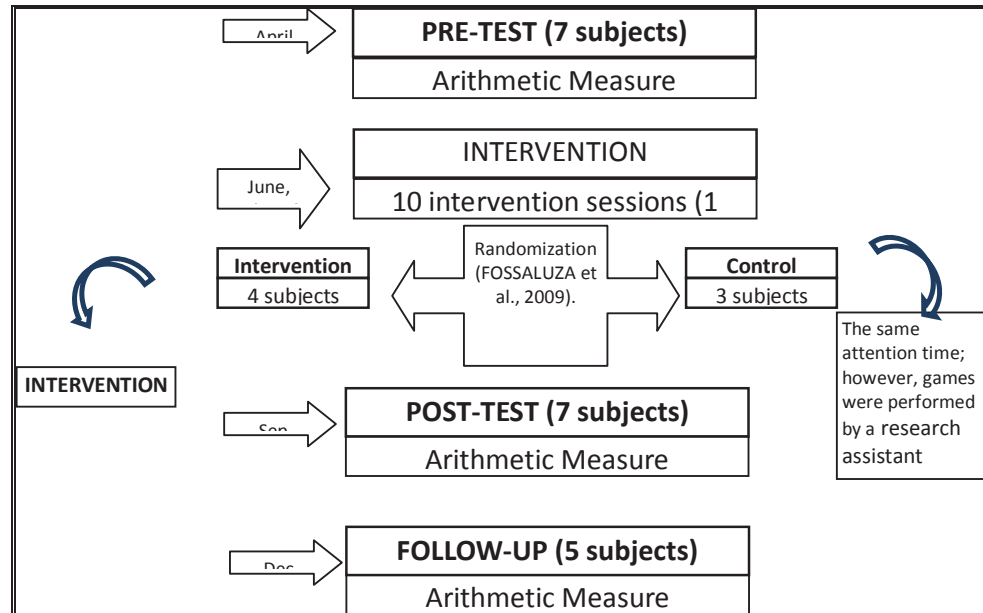


Figure 2. Representation of the study design.

learning is not dependent exclusively on conceptual knowledge, but also on the acquisition of metacognitive strategies that allow the student to plan and monitor his or her performance. Such strategies allow the student to consciously decide which processes he or she will use to learn and which learning strategy to adopt for each task, and furthermore, assess its efficacy, choosing an alternative when the desired results are not obtained.

In the fifth session, each child was seen individually for approximately 30 min. The main objective of this moment was to assess the child's progress. During the session, only those facts that would have to be solved using the make-10 strategy were selected (cycle1). The doubles were included with the purpose of introducing the new procedure (cycle 2). A calculation was shown to the child who was then expected to solve it in the manner he/she thought would be most efficient. They all used the make-10 procedure.

Control group

The control group received the same length of time of attention, although the games were supervised by a research assistant without pedagogical training. Reasoning games were chosen. In this group, the purpose was that, through the games, the subjects would have the opportunity to develop their emotional, cognitive, social and ethical skills. The emphasis was on the game as an instrument for mediating the relationship between the subjects. Thus, the proposed games were intended to help the subjects make decisions, find strategies for solving problems, learn how to deal with mistakes and develop awareness of their thought process. Some games were played in pairs, so that students could exercise the ability to cooperate with each other and work as a team, providing opportunities to cope better with emotions.

Thus, all the games involved rules, building relationships, developing strategies and negotiations between the participants. Some games were included deliberately to involve numbers (Prisoner – [original *El preso*] - marketed by Ruibal) and numerical sequence (Junior Profile [original *Perfil júnior*] - marketed by GROW and What's this? [original *Que bicho é esse?*] - marketed by Algarra). The card game, Uno (Mattel) was much appreciated by the group. All the games, with the exception of Prisoner [original *El*

preso], are made and easily found in Brazil.

RESULTS

The main objective of this study is to evaluate the effectiveness of a basic arithmetic facts education program as a means to advance the use of memory-based processes. The central hypothesis is that the explicit and direct teaching of the basic facts of addition would augment the repertoire of facts the student would be able to access, and that increase would be reflected in the use of a memory-based process.

In the statistical analysis, the variables were described in terms of the mean, median, minimum and maximum standard deviation, and compared within groups over time using the Friedman test and between groups using the Mann-Whitney test. The significance level for statistical tests was 5% (0.050).

The number of basic facts which each subject was capable of automatically retrieving at the three moments of the study (pre-intervention, post-intervention and in the follow-up) are presented in Table 1.

As can be seen, both the intervention group and the control group exhibited a gain in the number of basic facts they were capable of automatically retrieving from the long-term memory between the pre- and post-test. However, the difference was not significant.

It is important to note that the mean percent gain from pre to post-intervention was more than double in the intervention group compared to that of the control group. This improvement compared to the control group was maintained three months afterwards. The increase in the number of basic facts known allowed all the students

Table 1. Number of basic facts retrieved automatically at the three moments of the study.

		Pre-intervention	Post-intervention	Follow-up	P*
IG	Mean	20.50	33.00	26.67	0.050
	Median	20.00	33.00	24.00	
	Std. Deviation	2.52	3.37	5.51	
	Minimum	18.00	29.00	23.00	
	Maximum	24.00	37.00	33.00	
CG	Mean	24.00	29.33	21.00	0.223
	Median	26.00	26.00	21.00	
	Std. Deviation	5.29	5.77	11.31	
	Minimum	18.00	26.00	13.00	
	Maximum	28.00	36.00	29.00	
P**		0.400	0.400	0.800	

Significant values ($p < 0.05$) - *Friedman Test ** Mann-Whitney Test. Legend: IG = Intervention Group; CG= Control Group.

Table 2. General sequence.

Moments		Approximate time in min	Objective
	Warm-up	5-10	Explain which procedure will be taught and for what reason.
Explicit teaching	Teaching the new procedure	30 – 40	Seek to use solid materials in teaching a new procedure.
	Practicing the new procedure	10- 15	Suggest games in which the calculation can be resolved using the new procedure.
	Warm-down	5	Ask about what has been learned.
	Review	5-10	Remembering what was learned in the previous lesson.
Practice and generalization	Systematizing the new procedure	20 – 25	Performing paper and pencil-type activities using the new procedure.
	Practicing the new procedure	15 – 20	Suggest games in which the calculation can be resolved using the new procedure.
	Applying the new procedure in other contexts	10 – 15	Using the learned procedure in other, previously unworked, facts.
	Warm-down	5	Ask about what has been learned.
	Recalling	5-10	Remembering what was learned in the previous lesson.
Generalization and follow-up	Applying the new procedure	10 – 15	Using the learned procedure in other, previously unworked, facts
	Self-assessment	5 – 10	Checking whether I am using the learned taught/learned procedure. This self-assessment can be made by repeating the previous activities, or through arithmetic facts, where I should answer as quickly as possible.
	Warm-down	5	Ask about what has been learned.

Legend: In bold, most important steps, which may vary depending to the day.

from the intervention group to advance to using a memory-based counting strategy, a fact not observed in the control group, which continued using the same counting strategy. In the follow-up testing, all the subjects from the intervention group continued to use a procedure based upon memory.

Moreover, the Mann-Whitney test also showed there was no significant difference in the values of the automatically accessed basic facts within the groups.

DISCUSSION

To our knowledge, this is the first report investigating the efficacy of a pedagogical intervention model aimed at teaching basic facts to students with ADHD. The data from the present study indicate that direct teaching of decomposition added to a time of automation in this new procedure increases the number of basic arithmetic fact that the student is capable of accessing automatically.

This finding corroborates the findings of Hopkins and Lawson (2006), suggesting that confidence in automatic retrieval only occurs when the student has a significant number of basic facts in the long-term memory. Thus, the memory process requires the existence of at least some previously stored basic facts to assist the development of others. This would explain typical development, because the more facts the student is able to access automatically, the greater the incentive and satisfaction he/she will feel in engaging tasks and activities involving that skill. Consequently, most basic facts are stored in the memory, and so on successively.

For students with ADHD, the task is even more challenging because they have difficulty representing facts in the memory due to their attention and memory deficits (Kaufmann and Nuerk, 2008; Tannock, 1999). Thus, every time such a student attempts to solve a calculation, he/she needs to use a counting procedure, which is slow and often inaccurate. Consequently, the student is less inclined practice and, so is less capable of representing a larger number of arithmetic facts in the long-term memory. In addition to all this, ADHD students are known to have difficulty engaging in activities in general (Rogers et al., 2009). Thus, there is a real vicious circle of failure and frustration. Moreover, in such cases, practice becomes meaningless, making automatization slow. This is another of the important contributions provided by this study: highlighting the need of students with ADHD to practice the automatization of basic arithmetic facts. Therefore, it is important to find activities that engage such students (Rogers et al., 2009), an idea compatible with the findings of Zentall (1993) that students with ADHD require more instruction time and practice. Fletcher et al. (2009) suggest that an effective intervention program is one that substantially increases the student's exposure to situations that require mathematical thinking.

It should be noted that, at first glance, the control group showed an improvement, although it was inconsistent, since three months after, the results were lower than in the pre-test. The advance in the control group can be explained by the arithmetic tasks carried out, for example, the number line. Such activities, however, were unable to consolidate the taught knowledge, which was not the case in the intervention group. In the intervention group, there was also a decrease between the post-test and follow-up testing, but, compared with the pre-test, there was an advance. The decrease can be explained in two ways.

The first idea is to highlight the importance of practice. Possibly, after the intervention, the students did not practice anything other than what is commonly proposed in the classroom, which may have led to a diminished performance, as mentioned above.

The second explanation is related to the model of the response to the intervention (RtI) (Fletcher et al., 2009; Gersten et al., 2009). This model suggests that one

criterion for identifying learning disabilities (LD) should be the lack of a satisfactory response from the student to quality interventions. This criterion helps to distinguish a disorder from a difficulty, since, in the former case, studies (Dowker, 2004; Jordan et al., 2003) have indicated that the deficits are more persistent, which is not so in the case of difficulties. Thus, we may think that the students participating in this study presented a Learning Disorder (LD) as well as ADHD, which would make their response to the intervention even slower.

Research conducted in North America (Miller and Hudson, 2007; Powell et al., 2009) has indicated that in these countries the addition facts are part of the curriculum in preschools and in the first two years of elementary school. Probably then, students with typical typically development advance without any problems during those moments. However, studies in English (Baroody et al., 2009) and in Portuguese (Costa et al., 2012b) have demonstrated how difficult it is for students with difficulties in arithmetic to advance spontaneously from one procedure to another. To make matters worse, mathematics is characterized by a content hierarchy, in which new skills are built on those previously learned. Therefore, when students continue to use immature counting procedures, there is a need to develop teaching strategies suited to that level of knowledge, before moving on to new ones. The conclusion that this aspect is not considered in Brazilian schools provides an important contribution to the understanding of the subsequent arithmetic difficulties seen in this group of students. As they can be expected to have difficulty, for example, in understanding multiplication, a form of knowledge that implies an understanding the part-whole relation, which is not fully formed in this group of students. Furthermore, the lack of automatization in accessing simple addition facts also has an impact on the ability to solve multi-digit calculations, overloading working memory and favoring forgetfulness in the use of number grouping.

The data from the present study suggest decomposition/composition and commutativity are two difficult to understand principles, mainly for students with MD (Mathematical Disabilities). Similar findings were obtained by Baroody et al. (2009). Thus, understanding and explicitly teaching of these two principles can be crucial for the advance of a process based upon memory. Even so, this study suggests that this challenge can be overcome, depending on availability of suitable tools and opportunities.

While computer-based interventions may be more attractive to children, our main motives for using the present intervention model are twofold. The first is that some studies (Duhon et al., 2012; Ota and DuPaul, 2002) have shown there is no significant difference between computer-based and pencil and paper-based teaching. The second concerns the situation in the Brazilian education system, in which this study was conducted,

where using a computer as a teaching tool is not yet part of the educator's everyday life. Thus, the present teaching model has proven to be a promising path to be replicated in larger samples.

This finding confirms several intervention studies (Fuchs et al., 2005; Fuchs et al., 2006; Fuchs et al., 2008a; Fuchs et al., 2008b; Iseman and Naglieri, 2011; Tournaki, 2003; Woodward, 2006) showing that arithmetical skills are strongly susceptible to teaching. Iseman and Naglieri (2011) analyzed the efficacy of a ten days plan-based teaching with a group of ADHD students and concluded that there was an improvement in the students' performance, as assessed using math worksheets, and the students showed some knowledge transfer to standardized math tests.

The problem situations presented, being related to daily activities, may also have helped. Studies (Nunes and Bryant, 1997; Orrantia, 2006) have shown that linking mathematical problems to everyday life is capable of facilitating the learning of mathematical procedures and concepts by students. Orrantia (2006) reported that a large part of the arithmetical difficulties stems from the disconnection between the informal knowledge that students develop spontaneously and the formal knowledge that they learn in schools. Nunes and Bryant (1997) have postulated that this linking exerts a particularly strong influence in children with a low scholastic output. The effects of different teaching materials on students' performance, as well as the effects of pedagogical intervention time deserve a more detailed analysis in future research.

Conclusion

The main hypothesis is that subjects would advance from a procedure based upon counting to another relying on memory with both direct and explicit teaching of *decomposition* and moments of practice. This hypothesis was confirmed, indicating that the children in this study responded positively to explicit and direct teaching. The findings suggest two important pedagogical implications: 1) even interventions considered late may lead to changes, indicating that there is a delay in development and not a permanent deficit and 2) the need to pay greater attention to the teaching of basic arithmetic facts in order to facilitate the advance to memory-based processes.

The main methodological limitation of the present study was the sample size. Although the diagnostic criteria for ADHD were carefully controlled, the sample size was small, reducing the possibility of generalizing from the results obtained. Moreover, the small number of students with ADHD prevented comparison between subtypes of ADHD. Finally, the nonexistence of a group without ADHD meant that the comparison of the results found in children with ADHD with those described in children with

typical development could only be performed using data obtained from the relevant literature about the latter group (typical development). Another possible limitation is related to the control of the level of ADHD severity. It is likely that the most serious cases, and therefore the most difficult to remedy, were those who gave up or refused to take part in the study. However, it is important to emphasize an extremely innovative aspect of this study, which was to introduce the efficacy test model to the area of education. Further studies will be required to confirm the findings presented herein.

Due to the well-known clinical heterogeneity of ADHD, we cannot suggest that this teaching model would function for all children with ADHD. Nevertheless, a series of procedures can be described, which, as a whole, seem to be valid and should be taken into account in future studies:

1. Direct teaching in adding composition and decomposition using concrete materials, which should be gradually withdrawn.
2. Immediate feedback: during the intervention, students used an unsuitable procedure, because they did not know it was inefficacious.
3. Constant self-monitoring. Several studies (Biederman et al., 2004; Castellanos et al., 2006; Iseman and Naglieri, 2011; Shanahan et al., 2006) showed that students with ADHD use cognitive and metacognitive strategies less efficiently than their peers with typical development.
4. Time of practice in a determined procedure and not a mechanical practice, devoid of meaning. It should be borne in mind that, in order for the information to be transferred to the long-term memory and, consequently, to consolidate the knowledge, it is of paramount importance that the information be repeated (distributed practice) and organized.
5. The systematization and revision of what was studied, as well as the anticipation of what will be developed, are essential aspects, as students with ADHD have difficulty organizing, maintaining and using new knowledge.

Developing the strategy of quickly and accurately accessing the basic arithmetic facts of addition from the long-term memory is the result of a complex learning process. It should be pointed out that this is a cognitive construction process with different conceptual levels. The present study has shown that it is possible to develop teaching strategies that "destabilize" the student and make him or her advance more quickly to the next level.

In conclusion, it is important to point out that the progress shown by the intervention group suggests the importance and feasibility of executing short, easy-to-apply and low cost pedagogical interventions to improve learning. Moreover, it is important that educators, whether teachers or educational psychologists, pay more attention to the various moments of developing counting,

as each one involves different conceptual levels that should be respected.

Conflict of Interests

The author(s) have not declared any conflict of interests.

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Full Length Research Paper

Primary school students of 1980s' Turkey remembering their teachers

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Primary school students of 1980s' Turkey remember their teachers in various aspects. Uncovering their reminiscences lets researchers see what factors become decisive in reconstructing primary school teachers in the memories of their students. The priority of this paper is to discover the reasons why the 1980s primary school students remember their teachers and find out if the place (center-periphery as a variable) where they got their primary school education has any effect on their remembrances. The method of the study is oral history methodology that has a unique power because it allows the researchers to reach the experiences of masses whose voices have been hidden, excluded and living on the margin of power relations. The research group of the study is the primary school students of the 1980s in different regions of Turkey. The people chosen for the research group were reached by the snow ball method used in oral history. The structured interviews were performed with 15 men and 15 women via a recording device apart from two trial interviews in order to collect data for the study. During the formation of the text, despite using the original forms of the interviews, the original names of the interviewed people were changed. According to the findings, the students are able to recall their teachers in their narratives due to simply being their teachers, disciplined, punished, loved and discriminated by them. Moreover, even though the findings display that where they got their primary school education did not have direct effect on remembering their teachers, the contents of their narratives do differ to some extent because of the place where they got their primary school education.

Key words: Primary school students, oral history, educational experiences, primary school teachers.

INTRODUCTION

The course of the study is to expose the narratives of primary school students of 1980s' Turkey about their teachers. Children constitute a great part of societies. It is therefore, what they reminisce about their teachers during their primary education as part of their educational experiences becomes considerably significant not only for their past education, but also for child history and

history of education in general. Since it is almost impossible to reach to the educational experiences of children in the written documents, it is significant to uncover and reconstruct their experiences with their own words and relate their similarities and differences along with the place where they got their primary school education.

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The students who are the products of the prevailing social and cultural values of the milieu in which they are, reproduce these social and cultural values (İnal, 2008). They also actively involve in the construction of their own social lives, the lives of those around them and the societies in which they live (Wall, 2012, p. 90). Therefore, it is hardly possible to consider and comprehend their narratives regardless of considering their environment. Because the identities, personalities and behaviours of children reverberate their environment (West, E and Petrick, 1992, p. 42).

The researchers are partially able to reach the narratives of primary school students about their teachers in diaries, autobiographies, child literatures, periodicals. (Öztan: 2013, p. 4) For instance, Menali's *Bir Başka Dinazorun Anıları* (Memories of Another Dinosaur) and Öymen's *Bir Dönem Bir Çocuk: (A Period A Child)* are the books where they describe both their childhood and their school experiences (Menali, 2005, Öymen, 2002). Whereas; most of these diaries, autobiographies belong to the children being in upper income family groups and their number is so limited.

In Turkey, the academic studies on educational experiences comprising children's original words have emerged via oral history methodology lately. Çameli's *“Çağdaş Eğitime Geçişin Tüm Aşamalarının Tanığı Hüseyin Hüsnü Ciritli'nin Yaşam Anlatısı: 'Cumhuriyet Nasıl Bir Adam ki?': The Life Narrative of Hüseyin Hüsnü Ciritli, the Witness of All Stages of the Transition to Contemporary Education: What Sort of A Person Was Republic? (Çameli, 2005), Tan's "Cumhuriyet'te Çocuktular: They Were Children in the Republic" (Tan et al, 2007) are some these studies which introduce general details of educational experiences of primary school students at different periods of Turkish Republic.*

In these studies some of the students who got their primary school education at different periods of Turkish Republic remember their teachers as in the following narratives. Ciritli who was a primary school student during the transition from the Ottoman Empire to the Turkish Republic describes his teacher as “In the mosque, the teacher was sitting on the mattress. At Güneşli Mektep (Sunshine School) he stood up and walked through the desks” (Çameli, 2005, p. 92). İsmet Varol puts his memories about his teacher as “For us teacher means they were our mother and father. He/She was such a person we revered” (Tan et al., 2007, p. 76). Fahri Karadeniz recalls his teacher as “Particularly there was a teacher who incredibly dealt with us. I felt her intimacy like a mother” (Sağlam, 2014, p. 101).

Despite these general studies which picture primary school students' educational experience, there are no unique studies that stand from the point of students and rely on their own words. These are the words that reflect how they remember the details about their teachers, such

as, whether their teachers discriminated them in terms of gender and income level and recommended them anything for their future educations (Tan et al., 2007, p. 10). In this respect, reconstructing the 1980s' primary school students' educational experiences about teachers considering the place (center-periphery) where they completed their primary school education is prominent.

METHOD

The method of the study is oral history which basically writes the history of those who are being excluded from the prevailing way of historical understanding and associates their history with grand historical events and developments. Children who have an active and vital role in the formation of lives of their own, those taking place around them and their society are one of the social groups whose history and educational experiences have been ignored. For this reason, oral history methodology allows the voices of those that have been partially or totally ignored, marginalized or silenced within particular contexts to be heard (Haynes, 2006; Wall, 2012, p. 90).

Oral history is also a sort of alternative way of providing sources to collect data for both historical, sociological and educational studies (Danacıoğlu, 2001, p. 131). What it does is to discover the individual experience which is an emptiness in dominant classical historical approach (Tan et al., 2007). Alessandro Portelli puts oral history into words as “oral history tells us less about events than their meaning” (Portelli, 1998, p. 69). It has sought to cast the light of history on people who have occupied the lower rungs of various status hierarchies thus the phrase ‘history from the bottom up’ (Chan, 1994, p. 597).

To put it in Öztürkmen's words “listening to oral narratives of national holidays also enabled us to dig deeper than the official programs published in written sources. Although, the oral history approach provides the researcher with as much information as appears in the written sources. It is not just a method that simply brings us details not available in the written sources, the scope and promise of the field of oral history is much broader than that” (Öztürkmen, 2001, p. 53). Oral history is more than merely a supplement to other extant documents; it stands as an attempt at first interpretations of a series of events (Cutler III, 1971, p. 185). As Cutler puts into words (Cutler III, 1971, p. 186) “oral history can serve to fill information gaps in the written record and it can help the historian to understand the atmosphere or milieu of the period under his scrutiny. It can illustrate in vivid terms what it was like to live during the times in question.”

As Öztürk claims (Öztürk, 2010, p. 14) “while on the one hand oral history is a way to reach various information that is not available in the written sources, it also has the potential to reach the information that is away from the authority of written sources.” The oral evidence from ordinary people is an essential part of understanding total history. It is a method of gathering material, a contribution to the general process of making sense of past (Counce, 1994, p. 2, 11). McAdoo also (McAdoo, 1980, p. 420) puts in “the oral history method would benefit those of us in the educational community by providing rich data. It also provides insight often impossible to obtain with standardized instruments only, and gives us a check on the validity of the test data obtained.”

Moreover, for a democratic society oral history actualizes the share of knowledge through the power of reciprocal dialogues as Paulo Freire puts into words (McLaren, 2001, 2003). Oral history methodology which establishes a tie among various disciplines

also contributes to the development of a democratic historiography and understanding via splicing various parts of societies into historiographical process. With its critical and transformative function, it contributes to socialization of history through paying attention to the life styles of individuals and groups and their socialization patterns in historical studies (Thompson, 1998). Paul Thompson, as one of the pioneers of oral history, believes "oral history is an intersection between the sociologists, antropologists, historians or the ones who study literature and culture and the others (education etc.). I have seen how certain disciplines have transformed with new research methods. Here appears the power of oral history" (Thompson, 2006, p. 23).

Besides, according to Grele "oral history is a way of developing historical consciousness (Grele, 1991). It fosters historical consciousness and social awareness (Thomson, 1998, p. 595). Oral histories can be used to discover unfolding consciousness, to document the varieties of ideology, the criterion of meaning, and the more subjective aspects of historical experience (Grele, 1987, p. 570).

Study group

The universe of the research group is the primary school students of 1980s. The students to be interviewed with were chosen among those who went to primary schools in different regions of Turkey and belonged to different social and economic status.

Research instrument

The data collected for this study were derived from the structured interviews (Ekiz, 2013, p. 63) that were carried out with the primary schools students of 1980s via a recording device. For this study, totally 32 interviews including 15 women and 15 men were carried out. Two of them were for testing. The interviews were recorded by a recording device and then decoded via keeping their original form and the text reflecting their memories about their teachers was reconstituted.

The three basic open-ended questions that were expected to be responded by the interviewees were that; 1) Do you remember any primary school teachers of you and if you do why? 2) Do you think your teachers discriminated the students in terms of their gender, social and economic conditions? 3) What kind of recommendations did your teachers do for your future education and what sort of jobs did they recommend you for your future education?

Procedure

In this study, at the first stage, the author tried to reach the primary school students of 1980s. To fulfill this, the author reached the people he ought to have interviews with through either the people he knows or the ones he already had interviews with by the process called *snow ball* method in oral history methodology. Before each interview, an oral history document that gives us general information such as where he/she went to primary school, what his/her parents' educational and economic level was was filled. Just after the interview had been performed, an oral history interview story (memo) which reveals how the interview was actualized was written (Tan et al., 2007).

Data analysis

Descriptive analysis was used so as to analyze the interviews

(Büyüköztürk et al., 2013). Thus, the author could put what they were able to call up about their teachers into a context and establish a relation between their remembrances and the reasons that led to their recollections under the light of where they got their primary school education as a variable. Getting their education in the center (cities) and periphery (villages) can vary their narratives. The naratives are evaluated and their cause-effect relations are discussed thoroughly and hence, whether there are any similarities and differences among the narratives depending on studying in cities and villages. (Yıldırım and Şimşek, 2005; Balcı, 2004). The validity and reliability of interviews was proved both by getting the approval of the interviewees after decoding the interviews and the help of an academician about the framework provided previously in order to use the narratives in the text.

To Form a Framework for a Descriptive Analyze: Here a framework was provided along with the dimentionns of the conceptual framework of the study. Thus, it was determined to under which theme the data is to be used.

Data Reduction: An this stage, the data formed according to general framework of the previous stage were examined and organized and thus, the narratives which display the similarities and differences were classified accordingly.

Description of Findings: At this stage, the description of the organized data were directly quoted to the related place in the text in their original form by taking account the center-periphery variable.

FINDINGS

The findings part includes the reasons why the students remember their teachers regarding where they got their primary school education 1980s' Turkey and it is categorized into three parts depending on the contents of the reasons. The first one comprises the reasons like being disciplined, warm-hearted, nervous, taking care of them in general as the answers of why they remember their primary school teachers. The second part is about their teachers' discriminations in terms of their gender, social and economic conditions. The last part is about their teachers' recommendations about their future jobs and education.

As Students of 1980s, Remembering Their Teachers: Being Disciplined, War-Hearted, Nervous, Taking Care of Them, Being Realtives or in the Region, Loving Money and Being Beautiful...

When the students of the period were asked whether they remembered their teachers or not, all of those who were interviewed with recalled their teachers regardless of the place where they got their primary school education. However, the reason/s why they remembered them vary due to being so nervous and disciplined, being their teachers for five years, their affectionate behaviours, being friendly, soft and warm-hearted, nervous to them, taking care of them, their teaching method and their beauties etc.

The number of those who believe that their teachers were disciplined, and warm-hearted and did their best for their students is quite high. But, they do not complain about disciplinary attitude; they evaluate it positively and find it as a normal process in education. Turan Bölükçe, Özkan Özgür, Ercan Özçelik, Nil Nazlı, Aykut Mert Kuş, and Kadriye Yorulmaz and Yıldız Keçeci were students in the cities and indicate how their teachers were partially disciplined, warm-hearted and donated their lives to their students.

Turan Bölükçe depicts his teacher as; "I can recall my primary school teacher, Mürvet Aldemir. I remember her as a good teacher. She was a bit disciplined but warm-hearted. She did care about her students much." Ercan Özçelik describes his teacher as "Nursel Çoban was already my classroom teacher. She was both a tough and warm-hearted person. She was dealing with people. Her feedbacks were better since she knew the families. She was able to speak to each family and warm-hearted." Nil Nazlı puts it as "I had three different teachers. I remember one of them since she was such a benignant person. Her name was Yıldız Keçeci."

A few students of the period recall their teachers due to being nervous which influenced them negatively. To illustrate, Kadriye Yorulmaz who went to primary school in a city complains about her teacher's nervous behaviours. "I had a teacher for the first three years, Ayten Buharlioğlu. I did not like her much owing to being so nervous and aggressive and she was treating us harshly. I was unable to adapt to my school. Then a teacher called Nefise Kadir came at the third grade. She was so good. Later she left us and this influenced me badly as she was so good to us. I was tied to her. After that I could not become successful. I failed one year."

Musa Bıkmaz, Ayhan Sağ, Musa Erdoğan and Aykut Ay were students in the villages and believe that their teachers donated their lives to them. They also claim that their teachers were the only windows for them to see and comprehend the outer world. Aykut Ay who finished primary school in a village remembers his teachers as the person who shaped his future education and does not complain about his discipline.

"From the second grade to the end of the school there was another teacher. I can remember him much better. He was a very much disciplined teacher. When we could not answer his questions, we got beaten but he was the person who affected my future. It was impossible for us to know the testing technique. We each spent time solving questions with him. He helped us in this respect. At the end of school I took the Gratis Boarding State Exam. Hadn't he known it, I would not have been able to take it. Before the exam, an exam entrance form had been sent to school, however, in our village the son of the reeve also wanted to take the exam. We had difficulty in getting the form. Then we went to another village school and

found another form there. Thus, we both were able to take the exam. After I had won that exam, I could continue my education. For that reason I can say that my teacher had a great impact on me."

It is known that in the small towns and villages the students have closer relations with their teachers as the teachers come from the same regions and they have considerable influence on the children's lives so that they easily remember their teachers (Tan et al., 2007, p. 75). Murat Gül, Özkan Özgür and Özmen Ok are some of them. Özmen Ok puts it as "There was my teachers orange orchard near ours. We used to irrigate there together in the summers. There was an interesting teacher-student relation between us since we would work together with him incidentally in the summers. I remember him."

Berk Nur Nil and Ayşe Zor Duran call up their teachers on account of their teaching method. Ayşe Zor Duran who used to be a student in a metropolitan city was one of the students affected by her teacher's teaching method and recalls her teacher and puts it as "I had three teachers at primary school. I remember all of them. However, I best remember my teacher at fourth grade as though her teaching method had been a bit different from the others. What I remember is that the lesson was more exciting with her. What did she do differently from the others? She wanted us to be participatory during the lesson. That's why I can remember her more clearly. Birsen teacher, the other teachers were Nevi teacher and Ayhan teacher."

We confront with the students who recall their teachers because of their teachers' affectionate to MONEY, discriminating their students resulted from their parents' political views no matter where they got their primary school education. For instance, Gönül Özçelik recalls her teacher it is because she loved money a lot. "Our teacher was like a person who loved money much. I was drawing nice pictures. She wanted me to go her home since her daughter was going to attend to a drawing contest. She had me draw a picture for her daughter and got it sent for the contest. Her name was Sema Botur. I never forget her." There are also few students narrating that their teachers' beauties were influential on them to remember them. Vildan Asur and Gül Ak Karataş remember their teachers owing to their beauties. Vildan Asur: "I remember Mualla Tanır. She was such a beautiful woman. She was our idol. We always wanted to be like her."

Discriminating the Students Due to Their Academic Success, Social, Economic Conditions, Gender, Political Views And Being Their Parents

Fourteen of the students interviewed recollect that their teachers did segregate them. As it is observed from the

previous studies, the teachers discriminate their students on account of multifarious factors, such as academic success, their social, economic, political positions and simply being their parents. The discriminations can be observed from the narratives of those who were primary school students both in the cities and towns or village, yet their contents change to some extent due to the place where they got their primary school education. For example, the social and economic positions of the parents in the cities become more decisive in terms of discrimination rather than those of in the villages.

To begin with, some reminiscences illustrate how the students were segregated because of their academic achievements at school regardless of the place where they got primary school education. They even appreciate this discrimination. Dilek Öztürk, Gül Ak Karataş, Ayşe Zor Duran, Şeyda Ayhan emphasize how successful students were favoured by their teachers. Dilek Öztürk reconstructs how her teacher discriminated her. "They as a family were dealing with me since I was the most successful student in the classroom. Therefore, I was always privileged and she was thinking that I was very clever. I think my present self-confidence has been resulted from her great contribution." Gül Ak Karataş calls it up "I remember this at fourth and fifth grade better. Our teacher loved the successful students more."

Furthermore, in addition to the discrimination resulted from the students' success, we also come across the narratives displaying the teachers' discriminations because of their social, economic positions and parents' political views. The social and economic position of the parents in the cities become more decisive in terms of this discrimination. Gamze Çelik, Turan Bölükçe, Murat Gül and Nil Nzalı's narratives display this sort of discriminations. Gamze Özçelik who was a primary school students in the city center puts it "Yes, the teacher was definitely doing discrimination. She particularly was loving money much. She enjoyed those wearing nicely and giving her presents. She was paying more special attention to these children. Namely, you could notice it as a child that she was loving them. I sometimes had down on my teacher because of that. Even one day I forced my parents to buy a rose for her persistently. I felt I had to do something. So, she could love me too. She was especially loving money." Murat Gül connotes his teachers' discrimination regarding the social status of students' parents as well. "There was a discrimination among the income level groups. Expressly, the children of civil servants were more favoured during our time."

Despite the fact that there are not many narratives reflecting discrimination because of gender, it is also possible to confront with some examples. Ercan Özçelik puts it "My teacher Nursel Çoban was not doing such discrimination. she was a bit more treating harshly to the boys as the boys were more naughty. There was such a

discrimination. We as children did not feel that there was a discrimination led by poverty or richness." Ayşe Zor Duran denotes that "I always thought that obviously, the students belonging to upper income groups were behaved differently. Also the girls were behaved more rigorously. I think this was about the gender axis."

Aykut Mert Kuş who studied in a village at first then in a city center blames his teacher as she discriminated them owing to the students' parents' political views. "We had a teacher called Cahide. Since political views were so popular at that time she was reflecting her political views and a very tough lady. I had never been afraid of anyone else as I was afraid of her. In the village life there were no any discriminations due to the income level and gender. Yet, what I recall is that she was presenting approaches according to the political views. I know that."

Additionally, there are also some students who indicate that at school, the teachers' children were favoured by their classroom teachers. Their primary school teachers were their parents thus their teachers could discriminate them. Musa Bıkmaz and Özmen Ok's narratives are good examples to describe this case. Özmen Ok:

I was a teacher's son, a teacher from that school. I can remember that for example, I did not memorize the 23th April poem and so my own teacher was angry with me. I told my father that my teacher rebuked me since I had not memorized the poem. My father was the teacher who organizing the ceremony. After my teacher had scolded me I went to the school garden where the ceremony was going to take place and memorized the poem until it was my time to be called. He called me to recite the poem. I recited quite well and my teacher was surprised. I think that was a discrimination for example. It could not happen to another child. It is because you are defective. No any other child would have been called had he not memorized it on time. (Özmen Ok).

Unlike all these narratives revealing the teachers' discrimination based on certain reasons, half of the students of the period state that their teachers did not discriminate them due to their economic conditions and gender. Particularly, those who had their primary education in the villages believe that their families' economic conditions were almost at the same level; therefore, it was impossible to be discriminated. Özkan Özgür, Aykut Ay, Mahir Özyurt narrate that they did not face with such a discrimination. Özkan Özgür puts it "There was not such a discrimination on account of the income groups. Since everybody inhabited the village. Approximately, their income levels were the same. There was not such a discrimination by the teachers at that time. Today the conditions are different. Nevertheless, at that time everybody's lives' standards were the same."

Among those who completed their primary school

education in the cities, there are also narratives indicating that there did not appear any sort of discriminations. Berk Nur Nil, Kenan Coşkun and Vildan Asur explicate if there were any discriminations. Berk Nur Nil remarks that he did not witness any discrimination at school. “No, I do not have such a discrimination in my memories. Nazire teacher was a quite good lady. She was not doing any discriminations like this is a poor or rich child. Nothing like that remained in my mind.”

Teachers recommendations about professions and their future education

When they were asked about their teachers' recommendations for their future jobs and education, nearly all students of the period claim that their teachers suggested they study harder and read more books for their future education regardless of the place where they got their primary school education. This observation can be confronted with when the previously studies belonging to 1970s were taken into consideration (Sağlam, 2014, p. 119). Only a few students who got their primary school education in the cities reveal their teachers' recommendations about the professions.

The primary school students of the 1980's Turkey, mostly those studying in the villages, remember their teachers suggestions about studying harder and reading books rather than mentioning and recommending certain professions. Musa Bıkmaz and Ayhan Sağ, Aykut Mert Kuş, Aykut Ay, Gülcan Boy, Musa Erdoğan, Ercan Özçelik and Özmen Ok's narratives reveal that their teachers put emphasize on reading books, studying harder for their lessons. Özmen Ok whose parents were teachers puts it into words as “They were not warning us about the professions at that time. My parents were insisting on reading more books.” Musa Bıkmaz replies that “Her guidance was about reading. That is, continuing our next education stage but, she did not recommend any professions. What she was saying was to continue our education, study university. ‘No more can be acquired by staying here, continue studying.’ Ercan Özçelik who completed his primary school education in the city also depicts it as “It was more on repeating what was being thought at school. ‘We must study more and do our homeworks.’ She was telling us to listen to her carefully during the lesson.”

Additionally, among some of the narratives, we come across their teachers' suggestions about preparation for Anatolian High Schools' Exam to win for a better secondary and high schools so that they could win a good university and get better jobs in the future. Ayşe Zor Duran, Murat Gül, Dilek Öztürk, Seyhan Dörttyol, Vildan Asur and Berk Nur Nil who were students in the cities and Aykut Ay who was a student in a village partially report

their teachers' recommendations about jobs. Three of them mention their teachers' contributions to win the Anatolian High School which used to gather successful students.

Seyhan Dörttyol describes how their teacher helped them study for the exam. “I remember Meliha Hanım at the third grade. I remember her as she dealt with me a lot. She was living in the same district but we did not have a neighborly relation obviously. Additionally, I remember Yıldız teacher who prepared us for the Anatolian High School, Yıldız Göktekin. She was telling us the importance of Anatolian High School at every turn. They were suggesting the popular jobs of that time, such as being engineer, doctor etc.,” Berk Nur Nil's reminiscence also gives some clues about their teachers recommendations about jobs. “What did she say mostly? The jobs which bring money like being doctor, lawyer, engineer. They were saying such things. The jobs which let you earn a lot of money should be your targets, save your lives, get the jobs by which you can meet your needs, like doctor, lawyer, engineer, popular jobs of that time. Especially, being doctor and engineer was very popular at that time.”

Apart from the jobs, we encounter with the teachers' emphasis on some subjects to study harder, especially maths, science in Turan Bölükçe and Murat Gül's narratives. Murat Gül describes it as; “At our time, our teacher was mentioning that the students ought to have learnt maths, science and Turkish well.” This represents that the teachers cared more about positive sciences rather than the social ones as it would let them have well-paid jobs in the future.

The number of those who state that their teachers did not orient them both about jobs and their future education is quite high. About twenty four students claim that they were not recommended any jobs and anything special about their future education. Kaya Ordulu, Özer Tunç, Gül Ak Karataş, Gamze Özçelik, Mahir Özyurt, Nil Nazlı and Kaya Ordulu' narratives support this statement. Gamze Özçelik reveals that “No, they did not recommend any jobs; like you are good at this or that and we should orient you to this field. Neither did they warn me nor my family. Nothing like that happened. They did not tell to my friends as well. It did not happen at primary school.”

DISCUSSION AND CONCLUSION

All these narratives as part of this study and the ones performed in the previous studies reveal that there has been a continuity in terms of the similarities and differences of children's educational experiences about their teachers. The reasons why they remember their teachers, whether their teachers discriminated them and gave them any recommendations about their future education are common. Highlighting the narratives of

primary school students about their teachers helps us see that all the students interviewed with could recollect their teachers due to their teachers' disciplinary, affectionate behaviours, being friendly, taking care of them, and also being so nervous. The studies actualized before display familiar reasons that are decisive in remembering their teachers as well.

To illustrate, if the teachers are very disciplined and have strict rules, they are easily remembered. In Cumhuriyet'te Çocuklar, Saadet Bağcı as one of the primary school students during the early years of Republic describes her teacher as "Korkut teacher, he was extremely formal. I repent God! Our teacher was just after God!". İsmail Talay: "as if he had been İsmet İnönü, he was Atatürk. At that time there was no Atatürk, he was Kemal Pasha. As though he had been Kemal Pasha" (Tan et al., 2007, p.75-76). Also the students of 1970s also take our attention to the teachers' disciplinary behaviors. Mahmut Ersan puts it as "During our primary school education there was a strict school director. I remember him well" (Sağlam, 2014, 106).

The teachers' affectionate behaviors result in taking place in the memories of their students. This has been observed from the narratives belonging to previous studies as well. For example, İsmet Varol who was a primary school student in the early years of Republic evaluates his teacher as if she had been his parents. "She was our mother." Haluk Tataroğlu puts it "Not like a teacher but they were like our mothers and fathers" (Tan et al., 2007, p. 76). Moreover, Kadriye Kodaman as one of the students who got her primary school education in 1970s calls up her teacher as "His name was Hakkı. He did not get angry with his students easily. He approached to his students with love." The teachers approach to their students Neşe Asi: Nazım Gökbayrak, I never forget his name. I did love my teacher a lot. He was like a father. Our teacher was great" (Sağlam, 2014, p. 102, 105).

Next, half of the students claim that their teachers did not discriminate them owing to their economic levels and gender. It is clear that the families in the villages seem to be at the same economic level and this has reduced the discrimination of students in terms of their social and economic positions. The narratives of the primary school students in 1970s present the same tendency. Particularly, Ayla Işık who completed her primary school education in a village in 1970s believes that there was no segregation among the students because of the economic conditions. "I did not feel such a discrimination. We were all from the same region. Since everybody's economic level was almost the same there was no such a discrimination" (Sağlam, 2014, p. 108).

However, there have appeared a sort of segregation on account of their academic achievement, their family relationship with the teachers and their social and economic positions. The students in the cities face with

more discriminations resulted from their parents' social and economic status. Similar discrimination has been seen in the previously performed studies about primary school students. To illustrate, Ahmet Bozok who was a primary school student in 1970s puts it "Yes, definitely they discriminated. Namely, They let the successful students sit at the frontier desks." Furthermore, Naciye Dertli as a 1970s' period primary school student and completed her primary school education in a city remember her teachers discrimination resulted from their social, economic and political position. "I think he was doing a discrimination. He was behaving according to children's parents' professions and political views" (Sağlam, 2014, p. 109).

Lastly, their teachers did not suggest them about the professions except for few examples. They were mostly told to read books and study harder. It is clear that teachers did not need to recommend and orient the children about the jobs and their future education. Only a few narratives of those who were in the cities recall what their teachers told them about certain jobs, such as being doctor, engineer or teacher. The same case has been observed in the previously performed studies. To illustrate, Yasin Aksu, a primary school student of 1970s, puts it "He did not suggest any professions. We were more advised to read books. The successful students were given books as gift by our teacher." However, those who were in the cities were mostly reminded to study hard and win Anatolian High Schools as it can be seen in a few narratives of 1980s. Also, some of them were suggested to be doctors, engineers in the future. Suphi Kahraman, a primary school student in 1970s, describes how they were advised about jobs as "At that time, there were talks about being doctor, engineer, lawyer etc" (Sağlam, 2014, p. 120).

Moreover, in the villages students did not hear much about jobs except for being recommended to study for their courses. Additionally, as another conclusion that would be derived from the students' narratives it seems that in the rural areas the students have closer relations with their teachers as they either live there or are relatives of them. Besides, in the rural areas they find their teachers as the only person who enlightens them (Tan et al., 2007).

As a result, the more studies are performed on the educational experiences of children, the more sensible conclusions will be derived from them. Therefore, while executing new regulations on primary school education, these conclusions are to be benefited. Additionally, it is believed that this study will contribute to the sociology of education and history of children and that of education. The study renders that the students' reflections shaped with their narratives about their teachers are crucial so as to see how they become influential in the formation of memories of the children when they were at primary

school. More studies are to be materialized to dig students' memories with oral history methodology so that we can behold how necessary the relation between the students and teachers as two prominent parts of educational system while being reconstructed in the memories of children during process of teaching and learning.

Conflict of Interests

The author has not declared any conflict of interest.

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Full Length Research Paper

An image study on the rich and poor perception

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The aim of this study is to project people's perceptions about the rich and poor. In this descriptive study, a questionnaire developed by the researcher and caricatures were used to collect data. The questionnaire composed of seven items including questions directed to adjectives related to the participants' perceptions about the rich and poor as well as questions of gender, age, and socio-economic status. The study composed of 973 participants (653 males and 320 females), sampled conveniently among people living in the Central Black Sea Region of Turkey in 2014. 76.74% of the participants characterized the poor by using seven adjectives: honest, moral, happy, legal, sincere-friendly, empathetic-modest, and fair-objective. On the other hand, 77.41% of the participants characterized the rich by using eleven adverse adjectives; arrogant, defrauder, bribe-taker, immoral, unfair-subjective, imposter, penny pincher, liar, aggressive-oppressive, shrewd-evil minded, and insensible. The study reached inferences and offered suggestions based on the results.

Key words: Image study, the rich and poor perception.

INTRODUCTION

Every person is eager to share his or her life, to survive, to be happy and to be satisfied with life despite problems, contradictions, failures, and drawbacks. Humans as psychosocial beings try to maintain healthy and well-balanced relations; so, they need to recognize their thoughts and emotions, which are the mirror their inner world. It is difficult for the individuals who are not aware of their own inner world to maintain healthy and well-balanced relations with other individuals. On individuals' thoughts and emotions, Dökmen (2000) stated "a living being needs its emotions to maintain a normal and ordinary life; however, human beings need emotions in two points: Firstly, in maintaining their daily life as an incentive source, and secondly, in improving their existence level and have a quality and extraordinary life."

Emotions, behaviors, language, and consciousness are in coherence, and people need to put them in harmony in their existence process. Actually, who we are and how we react to events depends on the relationship between our emotions, thoughts, and behaviors.

Problem statement

How people react to the stimulus around them has been an issue on which scientists think and try to explain. How we react to our colleague passing by without saying 'hello', the news that we watch on TV and sad event we witness on street depends on our emotions and thoughts from past experiences. Our emotions, thoughts, and

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behaviors follow a cyclical process in interaction with each other. The etiologic relation (cause and effect relationship) among the emotion, thought, and behavior of human beings has not been unearthed yet. However, the most satisfying and assertive explanation is the concept of primacy of cognition proposed by Beck (1995). Beck argues that even though the cause and effect relationship between emotions, thoughts, and behaviors has not been proven yet, cognition has a primary position in terms of time. No one can exhibit a behavior without first envisioning it in mind. Therefore, which attitude and reaction people will display in the face of events depends on cognitive processes, that is, how they perceive the events. As Ellis (cited in Köknel, 1989, p. 196) pointed out in ABC Personality Theory, it is not the events that prepare human behaviors but instead their thoughts about those events.

It is not important which event you have experienced, it is important how you perceive it

Cognitive process involves *cognitive activities such as sensation, attention, perception, recognition, comprehension, understanding, thinking, interpretation, questioning, remembering, organizing, coding, and criticizing* (Solso et al., 2013). The most basic difference between cognitive approaches and others is the importance given to the cognitive processes between the stimulus and response. According to behaviorist theories, there is a response to each stimulus. In other words, the behaviors of an individual are generally determined by the stimuli coming from the environment. People are passive beings responding to stimuli around them. All people respond in similar ways by their biological structures (Clark et al., 2002; Morris, 2002). However, cognitive theorists reject this notion strongly by stating that an individual is not a simple creature by only responding to stimuli. According to the cognitive theory, people can respond to similar stimuli in different ways depending on their perception and interpretation in their cognitive processes. People can respond to the same stimulus in different ways and can experience different emotional states (Bruning et al., 2014).

Cognition is a way of perceiving and interpreting the outer world along with the inner emotions, impulses and thoughts. Perception is one of the processes that help an individual recognize and interpret a stimulus that he/she encounters (Solso et al., 2013). People develop specific basic thinking and belief systems, assumptions, implications, and generalizations during the socializing process from the beginning of their life (Lane and Schwartz, 1987).

These basic assumptions create schemata by repeating themselves. These schemata are used by individuals to organize perceptions and interpret and understand the outer world and events. According to Lazarus (1982), cognitive assessments including perceptions, schemata,

generalizations, and implications are the source of human behaviors and emotions.

In conclusion, how a person reacts or feels when encountered with the words rich or poor depends on the meaning he/she attributes to these concepts in cognitive processes and his/her perceptions. Images are based on perceptions. In recent years, perception, image, and identity concepts have been used together in order to explain, especially, behavior and attitude. Image is described as “an image created during a serial of enlightenment” (Christensen and Askegaard, 2001; as cited in Cerit, 2006; Özenç, 2002). Like all living creatures, people struggle to create their own existence and having a more peaceful and happy lives. For this purpose, it is natural to make an effort to make money and get rich, which is the most important tool. However, people have to make this effort within the moral boundaries unlike other creatures. It is not moral for people to get rich by making use of every opportunity and power they have because they have a thinking mind and will unlike other creatures. Therefore, he knows the reasons behind his behaviors and he takes responsibility of what he does.

Whether people will stay within the moral boundaries for the aim of getting rich is not independent of their perceptions about rich and poor. If a person approves every way as legitimate and violates moral and religious rules, rules of law and even the universal principles, it means that he/she has a problem in his/her perception system. The main aim of this research is to project people’s perceptions about the rich and poor and try to understand which adjectives come to their minds and which figures appear when the words *rich* and *poor* are mentioned.

One of the most effective ways in expressing this projection is the use of caricature. Caricature is an art form, which involves different contemporary meanings. It can be expressed as humorous drawings of a number of descriptions in a sense. The reason why the caricature has been used in technical and scientific papers and why it attracts attention is its effectiveness in making it possible for the desired information and message to arrive at the desired place and its permanence (Arıkan, 2004; Uslu, 2004).

The concept caricatures used in this study are paintings in the caricature style which involves daily events and they make it easier to understand the characters by bringing in a different perspective on scientific issues (Uğurer and Morali, 2006; Uslu, 2004). Caricatures are in a different format from the ordinary caricatures structurally and they focus on interpreting events in a humorous and exaggerated style.

Finding out which adjectives come to people’s minds when the words *rich* and *poor* are mentioned or which adjectives are chosen for them, and then caricaturing their images related to the points mentioned above is the basic aim of this study. Within this general aim, the

following research questions are answered.

Research questions

1. *What are the participants' perceptions about their own economic conditions and what is the distribution of their monthly income?*
2. *Which adjectives do the participants use for rich and poor people and how do they caricaturize their images about rich-poor people?*
3. *Is there a significant difference between the participants in terms of their beliefs on the proverb "there is no palaver without lie, there is no lucre not gained illicit"?*
4. *Is there a significant difference between the participants in terms of their responses to the question "do you want to be rich?"*

METHOD

This is a descriptive study. Concept caricatures were used in the research. The caricatures are the pictures in caricature style, which involves daily events and experiences and they present a different perspective by drawing attention to the scientific issues. Caricatures have recently been used in the research in countries such as England, Russia, Slovenia, and Norway (Keogh and Naylor, 1999). In order to draw attention to the findings and make it easier to understand, participants' images about rich and poor people were caricaturized in the study.

Participants

The study was conducted with a total of 973 participants (653 males and 319 females), randomly selected among people from different occupations living in a province located in the Central Black Sea Region in Turkey. The distribution of the participants in terms of gender, occupation, and age is indicated in Table 1.

Table 1 shows that 653 of the participants are males and 320 are females. On the other hand, the age of the participants varies from 15 to 70, but there is a density in the range of 20-45. As for the occupation, most of the participants are students (N= 218, 22.4%) and the rest are teachers (N= 161, 16.5%), civil servants (N= 82, 8.4%), workers (N= 66, 6.8%), tradesman (N= 25, 2.6%), policemen-soldiers (N= 21, 2.2%), industrialist (N= 17, 1.7%), and doctors (N= 16, 1.6%).

Procedure

In this study, a questionnaire, which was developed by the researcher with the help of experts' opinions was used as the data collection tool. The questionnaire was composed of seven items, directed to adjectives related to the participants' perceptions about rich-poor and gender, age and economic status. The data were collected through the questionnaires with the help of master and doctoral students. A total of 1005 individuals participated in the research; however, 32 participants were excluded because of missing data. Therefore, this study was completed with the data obtained from a total of 973 participants, 653 of whom were males and 319, females.

Data analysis

Statistical Package for Social Sciences software was used for the

Table 1. The distribution of the participants in terms of gender, occupation and age.

Variables	Variable categories	N	%
Gender	Female	320	32.9
	Male	653	67.1
	Total	973	100
Occupation	Civil Servant	82	8.4
	Doctor	16	1.6
	Worker	66	6.8
	Tradesman	25	2.6
	Industrialist	17	1.7
	Policeman-soldier	21	2.2
	Teacher	161	16.5
	Student	218	22.4
	Others	367	37.7
	Total	973	100

analysis of the data. During the data analysis, frequency and percentage analyses, along with the X^2 (Chi Square) analysis, which is a non-parametric test, were performed. One sample Chi-Square test was used in experimental or screening studies, which investigate the variability of a single variable in one sample studies (Büyükoztürk, 2011, p. 145). The concept caricatures which characterize the images and adjectives determined as a result of the research were drawn by Bülent OKUTAN (Member of Caricaturists Association, 2014).

RESULTS

In this section, the aim of the research, the sub-problems in accordance with this aim and the analyses along with the findings related to the analyses are explained with the help of tables.

Problem 1. What are the participants' perceptions about their own economic conditions and what is the distribution of their monthly income?

When Table 2 examined, it can be observed that 13.1% (N= 127) of the participants express their economic conditions as poor, 81.2% (N= 790) as average and 5.8% (N= 56) as rich. On the other hand, 26.3% (N=263) of the participants have a monthly income below 1000 Turkish liras (TL), 39.1% (N= 380) have a monthly income between 1000TL and 2000TL, 27% (N= 263) have income between 2000TL and 3000TL, 5% (N= 49) have income between 3000TL and 5000TL and 1.2% (N=12) have income of 5000TL or above.

Problem 2. Which adjectives do the participants use for rich and poor people and how do they caricaturize their images about rich-poor people?

The data related to frequency and percentage values about this problem are explained with the use of tables

Table 2. Participants' perceptions about their own economic conditions.

Variables	Variable categories	N	%
Perception about economic condition	Poor	127	13.1
	Average	790	81.2
	Rich	56	5.8
	Total	973	100
Monthly average income	Below 1000 TL	256	26.3
	Between 1000-2000 TL	380	39.1
	Between 2000-3000 TL	263	27.0
	Between 3000-5000 TL	49	5.0
	5000 TL and Above	12	1.2

and concept caricatures.

When Table 3 is examined, it can be observed that the majority of participants use positive adjectives for poor people such as honest (85.8%), moral (81.7%), happy (79.9%), legal (78%), sincere-friendly (72.9%), emphatic-modest (72.4%), and fair-objective (66.5). However, it is determined that the participants use negative adjectives for rich people such as arrogant (89.7%), fraudster (87.3%), bribe taker (85.6%), immoral (80.1%), unfair-subjective (78.9%), dishonest (76.7%), courageous (75.9%), penny pincher (75.1%), liar (72.3%), aggressive-oppressive (70%), shrewd-evil minded (68.9%), and insensible (67%). On the other hand, the number of participants using hardworking and helpful for rich and poor people are close to each other (44% and 55%) (Figure 1).

When the findings are examined thoroughly, it is possible to state that the distinctness between poor and rich in terms of the adjectives of hardworking and helpful. However, it is concluded that 76.74% of the participants used 7 positive adjectives such as *honest, moral, happy, legal, sincere-friendly, emphatic-modest, and fair-objective* for poor people. On the other hand, 77.41% of the participants used 11 adjectives such as arrogant, fraudster, bribe taker, immoral, unfair-subjective, dishonest, penny pincher, liar, aggressive-oppressive, shrewd-evil minded, and insensible for rich people. Besides, these negative adjectives, 75.9% of the participants used the adjective courageous for the rich people (Figure 2).

In conclusion, it can be observed that people tend to use positive adjectives for poor people while they tend to use negative ones for the rich people except for one adjective- courageous.

Problem 3. Is there a significant difference between the participants in terms of their beliefs on the proverb "there is no palaver without lie, there is no lucre not gained illicit"

The distribution of frequencies and percentages related to this problem was determined and Chi-Square test was conducted. The findings are interpreted with the use of Table 4.

When Table 4 is examined, it is observed that 44% (N=428) of the participants state that the proverb is "absolutely true, 43.4% (N=422) as "it may be true", 11.5% (N=112) as "not true" and 1.1% (N=11) as "absolutely not true". Chi-Square results show a significant difference between these opinions ($**p=.000$). Depending on this finding, it can be stated that the majority of the participants (87.4%, N=850) believe that the proverb "*there is no palaver without a lie, there is no lucre not gained illicit*" is true while 12.14% (N=123) do not.

Problem 4. Is there a significant difference between the participants in terms of their responses to the question "do you want to be rich?"

The distribution of frequencies and percentages related to this problem was determined and Chi-Square test was conducted. The findings are interpreted with the use of Table 5.

When Table 5 is examined, it is observed that 6.5% (N=63) of the participants responded to the question as "no", 73.9% (N=719) as "yes", 19% (N=185) as "neutral" and 6% (N=6) as "others". Chi-Square results show a significant difference between the responses of the participants ($**p=.000$). In conclusion, the majority of the participants (719 out of 973) responded to the question as "yes".

DISCUSSION AND CONCLUSION

It is observed that 13.1% (N=127) of the participants perceive their economic state as poor, 81.2% (N=790) as average, and 5.8% (56) as rich. Moreover, it is found out that the majority of the participants (65.4%, N=636) had a monthly income below 2000 TL. This finding is in parallel with the average income distribution of Turkey. Depending on this, it can be said that the sample represents the general population.

When the findings are examined thoroughly, it can be stated that the discrimination between poor and rich is not clear on the use of two adjectives – hardworking and

Table 3. Frequency and percentage values of the adjectives used by the participants for the poor and rich people.

Adjectives	Variable categories	N	%
Hardworking	Poor	431	44.3
	Rich	541	55.5
Honest	Poor	835	85.8
	Rich	137	14.1
Liar	Poor	270	27.7
	Rich	703	72.3
Foxy-Clever	Poor	253	26.0
	Rich	720	74.0
Helpful	Poor	501	51.5
	Rich	471	48.4
Dishonest	Poor	227	23.3
	Rich	746	76.7
Fraudster	Poor	124	12.7
	Rich	849	87.3
Aggressive-Oppressive	Poor	292	30.0
	Rich	681	70.0
Legal	Poor	759	78.0
	Rich	214	22.0
Shrewd-Evil Minded	Poor	303	31.1
	Rich	670	68.9
Emphatic-Modest	Poor	704	72.4
	Rich	268	27.5
Sincere-Friendly	Poor	709	72.9
	Rich	264	27.1
Penny Pincher	Poor	242	24.9
	Rich	731	75.1
Arrogant	Poor	100	10.3
	Rich	873	89.7
İnsensible	Poor	321	33.0
	Rich	652	67.0
Moral	Poor	795	81.7
	Rich	178	18.3
İmmoral	Poor	194	19.9
	Rich	778	80.1
Bribe Taker	Poor	140	14.4
	Rich	833	85.6
Fair-Objective	Poor	647	66.5
	Rich	326	33.5
Unfair-Subjective	Poor	204	21.1
	Rich	768	78.9
Happy	Poor	777	79.9
	Rich	196	20.1
Courageous	Poor	234	24.1
	Rich	738	75.9

helpful. However, the majority of the participants (76.74%) used seven positive adjectives for poor people such as *honest, moral, happy, legal, sincere-friendly, emphatic-modest, and fair-objective*. On the other hand,

the majority of the participants (77.41%) used 11 negative adjectives for rich people such as *arrogant, fraudster, bribe taker, immoral, unfair-subjective, dishonest, penny pincher, liar, aggressive-oppressive,*



Figure 1. Distinctness between the poor and rich in terms of the adjectives of hardworking and helpful. Caricatured by Bülent OKUTAN.



SEN ÇALIŞ BİZ YERİZ

Figure 2. Positive and negative adjectives used for the poor and rich.

shrewd-evil minded, and *insensible*. This finding is important and worth to be examined because while the positive adjectives such as honest, moral, happy, legal,

sincere-friendly, emphatic-modest, and fair-objective come to the participants' minds when they think of a poor person, negative adjectives such as arrogant, fraudster,

Table 4. The opinions of the participants on the validity of the proverb “there is no palaver without a lie, there is no lucre not gained illicit.”

Variable	1		2		3		4		\bar{X}	Sd	$\chi^2 P$
	Absolutely True		It may be true		Not True		Absolutely not true				
	N	%	N	%	N	%	N	%			
To what extent do you think the proverb “there is no palaver without a lie, there is no lucre not gained illicit” is valid?	428	44	422	43.4	112	11.5	11	1.1	1.70	.714	564.23**

**p=.000.

Table 5. The responses of the participants to the question “do you want to be rich?”

Variable	1		2		3		4		\bar{X}	Sd	χ^2
	No		Yes		Neutral		Other				
	N	%	N	%	N	%	N	%			
Do you want to be rich?	63	6.5	719	73.9	185	19	6	.6	2.14	.511	1309.38**

**p=.000.

bribe taker, immoral, unfair-subjective, dishonest, penny pincher, liar, aggressive-oppressive, shrewd-evil minded, and insensible come to their mind when they think of a rich person. Moreover, the majority of the participants (87.4%, N=850) believe that the proverb “there is no palaver without a lie, there is no lucre not gained illicit” is true, and this finding also supports the negative image of rich people.

These findings are extremely important because this negative opinion held by the people of a society on rich people is a dangerous situation in terms of public health and future. The question “who is responsible for such a negative image?” may arise. We are all responsible for this image but in the first place, broadcasters in mass media, administrators from village headman to the top, educators, teachers, and parents are responsible since they are not a good role model about how to be an honest, fair, respectful to the law and rules but at the same time rich.

It is observed that there is a significant difference between the responses (yes, no, neutral, others) of the participants to the question “do you want to be rich?” as a result of the Chi-Square test (**p=.000). In conclusion, 719 out of 973 participants (74%) responded “yes” to the question “do you want to be rich?” This finding is especially important. Every person wants to be rich and it is totally natural. Now, let us ask ourselves this question: “do you want to be rich? But how? Actually, the answer is in the previous finding. In people’s mind, there is an image of rich people who are *arrogant, fraudster, bribe taker, immoral, unfair-subjective, dishonest, penny pincher and liar*. In this situation, people may start to think

that running a scam, taking bribe, leaving justice and lying is a way of getting rich. Some clichés such as “everybody does that; it is not that bad as it seems; this isn’t even bribe; there is no other way to be rich” are an evident to this situation. The failure in preventing bribe, corruption and stealing can be sourced from this thought and perception because it is not realistic to expect the behavior of people to change unless their mentality and perspective changes. According to cognitive psychology, cognitive assessments including perceptions, schemata, generalizations and implications are the source of human behaviors and emotions (Lazarus 1982). Therefore, in order to prevent bribes, corruption, fraud and stealing in a society, the cognitive structure of people, which includes the perception and image about the rich people should be changed. Whether the people will stay within the moral boundaries for the aim of getting rich is not independent of their perceptions about rich and poor. If a person approves every way as legitimate and violates moral and religious rules, rules of law and even the universal principles, it means that he/she has a problem in his/her perception systematic.

Many of us have heard the charity stones in Ottoman Empire. Charity stones were situated in social places such as mosque, library and hospice. They were one and a half or two meters high and its top was carved.

Especially the Muslims, going to the mosque for the night prayer used to put some money in the stone without anyone seeing. Similarly, another person who needs it and cannot ask from anyone took the money but only the amount he/she needed. Therefore, no one knew neither the man who put the money nor the man who took it. The

cognitive structure of the thoughts and emotions that let people perform those behaviors was definitely different from that of today's. It is not easy to explain the evolution of the society from such a point to the state of today.

RECOMMENDATIONS

Social changes are possible through education. Therefore, a reform starting from kindergarten is required. We need to leave the notion which glorifies the academic achievement and blesses the knowledge behind and develop a notion which glorifies and rewards the basic moral values and behaviors.

In order for the positive moral values to replace the negative ones, it is necessary to change the negative perception and image about rich people. To do that, role models who are rich but at the same time honest, hardworking and loyal to laws and rules should be presented in mass media tools such as radio, TV and newspapers.

It is necessary that the administrators, teachers, educators, and parents should behave responsibly about the moral values and they should produce efficient projects related to this.

Conflict of Interests

The author has not declared any conflict of interest.

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