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Can an Educational Activity Program Based on Feuerstein's Program and Gardner's Theory Increase Excellence and Creativity in Math in Omani Students?

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Excellence and creativity in mathematics are necessary requirements for the twenty-first century, and some countries have gone to build and develop new curricula for excellence and creativity. We prepared an activity program in mathematics based on Feuerstein's instrumental enrichment program and Gardner's multiple intelligences theory to increase excellence and creativity in mathematics for Omani students. We hypothesized that the success of previous programs based on the same foundations would generalize to Omani students. In an experiment, the experimental group received a special training and the control group did not. We then checked whether the pretest-posttest gain was larger for the experimental group than for the control group. The study sample was comprised of an experimental group of n = 35 8^{th}-grade girl students of class nr. 8/1 in Aesha bent Abu Bakr school in Salalah, Oman, and a control group of n = 36 of 8^{th}-grade girl students of class nr. 8/3 in the same school. The differences in pretest-posttest gains were analyzed using t-tests, significance levels, correlations, and effect sizes. There were large and significant experimental effects in favor of the experimental group, showing these educational outcomes can be generalized to Oman. We note various limitations of the study and give various recommendations .

***Keywords*:** educational activity program, instrumental enrichment, multiple intelligences, excellence in math, creativity in math.

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Education in the 21st century faces several challenges, such as preparing learners to use their knowledge gained in school, being able to use technology to control their environment, and being able to face and solve life's problems (Gravemejjer, et al., 2017).Many countries, including Oman, have reorganized and developed curricula and programs with the aim of increasing learners' creativity, so they are better able to face local and global challenges. Some countries have introduced new curricula, known as curricula for excellence, which focus on helping students to reach levels of excellence in achievement, so they are better able to serve their communities (Mintzes & Chiu, 2014); (Forgasz & Hill, 2013). They also relied on the use of modern assessment strategies such as the assessment as learning (AaL) strategy to contribute to raising the level of students' academic performance and raising their self-regulation (Hinduja, et al., 2020).

Excellence in education means that the students have the ability to achieve difficult goals, to show a high level of skills during activities, to have a high level of thinking abilities, and to possess special learning skills, which allow them to serve their society and, more broadly, humanity (Bansal, 2012). This is related to the good teaching style which provides an opportunity to let students of diverse abilities pair with each other to work on academic task in friendly environment (Ullah, et al., 2020). As for creativity, it is a process with successive stages aimed at producing multiple solutions characterized by diversity and novelty, and the various components being balanced (Almufty, 2005).Excellence and creativity are linked.

Learningmathematics is a good way to achieve excellence and creativity for students, because it depends on the use of imagination, mental images, logic, and supplying evidence for positions. Mathematics also has a special nature that can be described as experimental, practical, cumulative, deductive, and synthetic, and, when everything works well, it can be a source of pride and joy to learners (Elsayed, 2015a).

Dascalu (2012) states that achieving excellence and creativity in math helps students to succeed in their jobs later in life; to face practical problems in life; to develop abilities like inquiring, researching, and experimenting; and to increase their personal competences. The National Council of Teachers of Mathematics (NCTM) also states that achieving excellence and creativity in mathematics are essential nowadays, and that the setting of these goals represents a new trend in mathematics education. They also state there is a transformation from concentrating on traditional goals to more contemporary goals (NCTM, 2015), so, teaching mathematics evolved from concentrating on exercises, applications, and procedures to developing excellence and

creativity, and increasing a general understanding of math, in addition to developing mathematical thinking and math for life (William, et al., 2009).

To give an example, Scotland presented a pioneering experiment in preparing curricula based on excellence for students from kindergarten to university in all subjects, including mathematics. These curricula focused on four basic goals: successful learners, confident students, responsible citizens, and effective participants (The Scottish Government, 2008).Spain was 1 of the 17 countries that participated in the International Association for the Evaluation of Educational Achievement's Teacher Education and Development Study in Mathematics (TEDS-M 2008), by organizing the curriculum contents according to four areas of knowledge: school mathematics, advanced mathematics, general education, and physical education science (Cañadas, et al., 2013). Moreover, many conferences and national projects concentrated on developing excellence and creativity, and the importance of providing experiences and activities to train students on practicing these skills. To give some examples, there were two conferences on excellence in The Excellence Research Center in Science and Mathematics Education at King Saud University in Saudi Arabia in 2017 and 2018, respectively, and there were the Conference of Mathematics Education and Developing Creativity in 2003 by the Egyptian Council of Mathematics Education, and the Conference of Curricula and Thinking Development in 2000 by the Egyptian Council of Curricula and Instruction.

A potential for excellence in math and creativity in math needs to be activated and developed using different strategies and approaches, which depend on appropriate enrichment activities (Elsayed, 2015b).

Feuerstein's instrumental enrichment model aims to help students learn and increase their ability to adapt to the environment by changing their cognitive environment and acquiring new cognitive skills (Feuerstein et al., 1985). This model includes educational procedures and fifteen enrichment instruments that allow the opportunity to choose those suitable for math content and its concepts, generalizations, and skills.

Feuerstein's model's importance reflects in converting the learner from a negative recipient to an active producer for new information and producing real motivations of the learners to achieve the task in joy and pleasure, which leads to a positive attitude towards the subject taught. It aims to correct learners' low cognitive performance with weak cognitive functions and produce reflective thinking and insight. Finally, it helps them acquire

concepts, realizing relationships, and necessary skills to carry out their cognitive tasks (Bransford et al.,1985).

Gardner's theory is one of the educational theories based on cognitive psychology and growth psychology and revolted against the then reigning general intelligence theory. Gardner's theory states that human intelligence consists of several mental abilities other than mathematical and linguistic ones, and it describes how people use their multiple intelligences to solve problems (Elsayed, 2010).

The theory enables teachers to determine students' weaknesses and strengths, help their students to overcome their learning disabilities, and use technological tools in the educational process (Susan & Dale, 2004).

1. Literature Review

2.1 Feuerstein's Model and Gardner's Theory

Feuerstein's instrumental enrichment model aims to change from teaching with a strong focus on memorization to developing learners' mental skills, using these skills to understand problems in the present and future, and overcoming these problems (Strang & Shayer, 1993). Feuerstein's model is based on the hypothesis that mental functions can be developed through systematic mental challenge, which emphasizes reflection and basic development (Anita, 1997). It also aims to help students in their learning, and increases their abilities to adapt to the environment through changing their cognitive environment and acquiring new cognitive skills (Feuerstein, et al., 1980).

Feuerstein designed the Instrumental Enrichment Program in the early 1980s based on the idea that the mental capabilities of learners with low cognitive performance do not have fixed properties but that these characteristics can be changed and modified using educational programs aimed at bringing about modifications in the cognitive structure of these learners. Feuerstein called this process the concept of cognitive modification, by which learners can be helped to learn, are provided with new cognitive skills, and increase their ability to adapt to the environment (McCollum, 1996).

The Feuerstein program is based on four theoretical foundations. The first is the Mediated Learning Experience Theory. Feuerstein believes that if the learner is exposed to environmental stimuli directly, he may not interact with them because he does not have learning experience that enables him to deal effectively with those stimuli (Ben-Hur, 2000). He can also acquire that

experience through a mediator who works on modifying the stimuli and shaping them in a way that makes it easier for him to deal with them while directing him to the correct methods and methods from which he must start, thus enabling him to complete the task facing him successfully (Ben-Hur, 2000; Bransford et al.,1985; Strang & Shayer, 1993).

The second theoretical foundation is the learner's Cognitive Map. Feuerstein proposed a model for analyzing learners' mental performance with low cognitive performance, intending to identify the difficulties they face. Feuerstein called this model a cognitive map, and it includes seven dimensions (Blagg, 1991; Feuerstein et al., 1980, Feuerstein, et al., 1985): 1) The content of the assignment assigned to the student, 2) The means, which is how the mind deals with the task, 3) The process, which refers to the mental formation through which information is processed from simple mental processes to complex operations, 4) The form of mental performance, defined it in three forms: input, processing, and output, 5) Level of complexity, which refers to the quantity and quality of the necessary units of information from which to produce mental performance, 6) Level of abstraction – the more mental performance moves away from the physical events in which it is directed, the more abstract the performance, 7) The level of competence, which expresses the speed and accuracy in completing the tasks of mental performance.

The third part of the theoretical foundation is cognitive modifiability, which means modifying the learner's knowledge structure through an intentional intervention. These modifications are meant for the acquisition of a certain amount of knowledge or skills and the development of the learner's ability to respond and interact with situations that are in constant change (Feuerstein et al., 1980).

The fourth part of the theoretical foundation is the Learning Potential Assessment Device (LPAD).Feuerstein designed the LPAD, a clinical tool that consists of an interconnected set of tools to predict a learner's future ability to learn (Feuerstein et al., 1990; Feuerstein et al., 2003).

Gardner's theory is based on a set of at least fourteen principles, which will be shortly described below (Armstrong,2009;Fariborzi, 2017; Gardner, 1997; Nolen,2003; Shearer, 1997). First, most people can develop each intelligence to an adequate level. Second, the intelligences usually cooperate in a complex fashion. Third, the intelligences are multiple, not singular. Fourth, each person possesses all intelligences, all of which are dynamic, of equal importance, and present in every person, but to varying degrees. Fifth, the intelligences differ in their nature, development, and

growth among individuals. Sixth, the intelligences can be defined, described, and measured. Seventh, one type of intelligence can be used to enhance another type of intelligence. Eight, Intelligence is rarely seen abstractly. Ninth, individuals can express each intelligence in more than one way. Tenth, the human race should be described using multiple intelligences, regardless of age or circumstances. Eleventh, evolutionary theory applies to Gardner's theory of multiple intelligences. Twelfth, people learn well if education is matched to their aptitudes. Thirteenth, the cognitive mental abilities, skills, and sub abilities of each type of multiple intelligences can be measured and evaluated. Fourteenth, Gardner's model is only a temporary form, and further research may lead to the discovery of new intelligences.

Many studies have been conducted in mathematics education using Feuerstein's model and Gardner's theory to improve many outcomes, with some of them showing substantial effects. First, Feuerstein et al., (1979) found that instrumental enrichment strategy was effective in developing skills and mental abilities as measured by a mathematical skills test, a self-concept scale, and Thurstone's Test of Mental Alertness, which assesses one's ability to problem solve through a variety of levels. Second, Strang and Shayer(1993) found that an instrumental enrichment strategy effectively developed achievement and thinking skills for London high school students. Third, Elbana (2002) studied gifted students with learning disabilities and found that an instrumental enrichment strategy effectively developed achievement in science at the levels of recall, understanding, and application. Fourth, Sohn (2004) found that multiple-intelligences-based teaching helped develop students' multiple-intelligences profiles, contributing to a better understanding of mathematical problems. Fifth, Abdelsamie and Lasheen(2006) reported that multiple-intelligences-based strategies effectively developed students' attitudes towards mathematics and improved their mathematical thinking and abilities in solving mathematical problems. Sixth, Elsayed (2010) showed that a multiple-intelligences-based program effectively develops achievement and reduces mathematics-anxiety for basic education students in Oman. Seventh, Hong et al. (2020)studied the relations between students' naturalistic, bodily-kinesthetic, spatial, and logical intelligences and their hands-on making self-efficacy reflected in their attitude toward quality improvement in a science, technology, engineering, arts, and mathematics contest. The authors conclude that attitude toward quality improvement was crucial for students to win in the contest, which benefited those students with a high level of the four types of intelligence.

Educational Activity Program: Excellence in Math

Many educational researchers agree that excellence in mathematics is defined as the student's ability to achieve the highest score in performance and academic achievement, and high-level skills in school activities, and different researchers focus on different variables. William (2011) stated that excellence in mathematics refers to learner's possession of a varied set of skills: using imagination and reflection to understand math, performing arithmetic operations rapidly and efficiently, solving non-routine problems and understanding the important role that math plays in supporting technological, social, and natural sciences. In this regard, Farooq and Sayed (2008) stated that excellence in math refers to learner's smart behaviors related to three dimensions: the first represents a learner's cognitive abilities in math; the second focuses on mathematical-operations-related skills, such as communication, inference, and problem solving; and the third deals with learner's attitudes towards math learning. Also, excellence in math refers to the learners' mastering of mathematical knowledge and skills, and their ability to apply them in life, communicate with others, and create new ideas. It means that excellence in math differs from academic achievement, which concentrates on mastering mathematical knowledge and skills only (Elsaeed & Abdelhaye, 2015). Sayuri and Patrick (1998) determined excellence skills in math as follows: acquiring and building mathematical knowledge in different ways; acquiring communication, connection, and deduction skills; building relationships and mathematical representations; and flexibility of mathematical thinking.

In the construction of the present activities program in math, excellence in math is defined as students possessing a set of mathematical skills consisting of being able to reach an integrated understanding, being able to obtain an extreme extent of mathematical knowledge, being able to design a creative product in math, and being able to use math in daily life. The construct of excellence in math is operationalized as the score students receive on a self-created test of excellence in math.

Excellence in math can be achieved by using several approaches. Obeida (2013) developed excellence skills for gifted students at Tabouk University in Saudi Arabia by using an enrichment program based on the associative theory. Waisman, et al., (2014) examined the impact and the interplay of general giftedness (G) and excellence in mathematics (EM) on high school students' mathematical performance associated with translations from graphical to symbolic representations of functions, as reflected in cortical electrical activity (by means of ERP—event-related potentials—methodology).Elkahtany (2105) developed excellence skills for secondary

students using a program based on the communicative theory. While Elsaeed (2018) used an integrated multidisciplinary approach to develop academic excellence skills for middle school students in Egypt.

For our Omani students we used an educational activity program that was based on the work of Feuerstein and Gardner; it focused on the students reaching four objectives: integrated understanding, having the maximum mathematical knowledge of no less than 90%, designing a creative product in math, and using math in daily life. The program is described in detail in Method.

2.3 Educational Activity Program: Creativity in Math

The topic of students' creative process in mathematics is increasingly gaining significance in all countries of the world. Researchers often use Multiple Solution Tasks (MSTs) to foster and evaluate students' mathematical creativity (Schindler & Lilienthal, 2019).However, perspectives on creativity in mathematics education research are diverse and there is no single shared definition or even a shared conceptualization of mathematical creativity (Singer, 2018). Yet, research so far predominantly has a product-view and focused on solutions rather than the process leading to creative insights (Schindler & Lilienthal, 2019).

Creativity is characterized as a key component of the ability to find unique and manifold ideas (Guilford, 1967). This ability comprises four aspects: 1) fluency, the number of solutions;2) flexibility, the diversity of produced solutions; 3) originality, the uniqueness of produced solutions; and 4) elaboration, the level of detail of the descriptions.

Creativity is aimed to be investigated through paper and pencil tests. This approach has been transferred to mathematics education research by Leikin (2009), who introduced the concept of Multiple Solution Tasks (MSTs) within the domain of mathematics education. Creativity is evaluated based on the number, variety, and originality of students' solutions (Leikin & Lev, 2013).

Development of creativity is an aim in many educational programs. Almufti (2005) stated that creative thinking in math is reflected in the learner's ability to introduce non-routine or creative solutions to a problem. For our Omani students we used an educational activity program that was based on the work of Feuerstein and Gardner; it focuses on the students obtaining four skills, which are defined in the following way: 1) Fluency: the ability to find a maximum number of mathematical relationships and ideas related to a certain problem; 2) Flexibility: the ability to produce diverse ideas or methods of

proof for a mathematical problem, measured by the diversity of categories of ideas or methods of proof; 3) Authenticity: the ability of giving answers which are unfamiliar in the student community; 4) Sensitivity to problems: the ability of the student to observe problems in specific situations.

Creativity in math can be achieved by using several approaches. Schoevers, et al., (2019) conducted a study to evaluate the effects of the Mathematics, Arts, and Creativity in Education (MACE) program on students' ability in geometry and visual arts in the upper grades of elementary school. The program consisted of a series of lessons for fourth-, fifth-, and sixth-grade students in which geometry and visual arts were integrated, alongside with a professional development program for teachers. Results showed that students who received the MACE lesson series improved more in geometrical aspects perceived in a visual artwork than students who received regular geometry lessons only. Moreover, Kim (2019) conducted a study to investigate how teachers' implementation of innovative curriculum materials specifically designed to support formative assessment practices provides learning opportunities for teachers to become more responsive to student mathematical thinking. The findings discuss precisely how to promote teacher learning and improvement of teaching practices using formative assessment strategies guided by curriculum materials to develop mathematical thinking skills.

For our Omani students we used an educational activity program that was based on the work of Feuerstein and Gardner; it focuses on the students obtaining four skills: fluency, authenticity, flexibility, and sensitivity to problems; the program is described in detail in Method. The activities lead to all student improving their vocabulary and the eight types of intelligences in a balanced way. Many of Feuerstein's enrichment methods were used: Analytical Perception, Illustrations, Comparisons, Family Relations, Numerical Progressions, Syllogisms, Categorization, Instructions, Temporal Relations, and Transitive Relations. Following Gardner's theory and Feuerstein's model, educational activities and tasks were offered to learners organized in small cooperative groups; these activities and tasks were enriched with examples and additional information that allow students to understand information in depth and achieve excellence in achievement – besides, they allowed practicing creative thinking skills while learning.

The teaching strategies used in the program were determined based on the objectives and nature of each lesson, relying mainly on the most important strategies used in Feuerstein's program: introduction, independent work, discussion, summary, and evaluation. A minority of the lessons made use of

other strategies from Feuerstein's program: discovery, problem solving, inquiry, use of body language, collective singing, and audio recordings.

2. Study Problem, Question, and Hypotheses

What is the state of affairs concerning learning and creative skills in Oman? Rindermann (2018) analyzes outcomes of international studies on school achievement and shows there are large differences between countries. It is clear that Omani children score below the international mean; for instance, performance indicators of 8th-grade Dhafor students in TIMSS (2015) showed that their mean of 416 points is below the international mean of 500 points (Oman's Ministry of Education, 2018). Another example is a pilot study (Elsayed &A lbarami, 2019)on 250 students in the second stage of Oman's basic education, where the performance on higher-order questions in the final exams in math was clearly weak. So, it is concluded that Oman's basic education students have insufficient math skills and possibly also lower creativity skills.

The first author of the present study has extensive practical experience in supervising students in Oman's basic education schools, and it is clear that most teachers concentrate on traditional teaching methods and use memorization-based evaluation, which is unsuitable to develop excellence and creativity. He is of the opinion that the current mathematics curricula lack multi-level enrichment activities, and that introducing these would enhance math performance. In line with this, Oman's Ministry of Education aims to enhance students' math skills by developing math curricula similar to those used in the Cambridge University system (Oman's Ministry of Education, 2018).

The US Department of Education defined educational activity programs as all programs related to school life and its varied activities related to courses, or social and environmental aspects, which aim to achieve a school's educational goals (Abdelwahab, 1981). Educational activity programs supply learners with opportunities to engage in various activities suited to their interests and needs, which helps them in acquiring new knowledge, skills, and positive attitudes (Urhan & Dost, 2018). These programs also help students to discover facts, concepts, and mathematical generalizations, to develop positive attitudes towards math learning, to support self-dependence, and to increase the ability to discover and innovate (Wille, 2019). Through these activity programs the student can solve both mathematical problems and life problems, which leads to enriching learner's information and academic skills, and excellence and creativity in learning (Mowafy, 2011). Some activity programs are based on Feuerstein's instrumental enrichment model

and Gardner's multiple intelligences theory, so we discuss them below. Many educational activity programs in mathematics education based on Feuerstein's instrumental enrichment model and Gardner's multiple intelligences theory were successful in that they yielded substantial increases in math learning and creativity in math in various studies.

The current study focuses on a new educational activity program in mathematics based on the same foundations, namely Feuerstein's model and Gardner's theory.

The Research Question is if its effectiveness in improving excellence and creativity in mathematics for Oman's basic education students is comparable to that of previous educational activity programs based on the same foundations. So, we focus on the question whether the findings from previous research generalize to a new group, namely basic education students in Oman.

We test two hypotheses: Hypothesis 1: The educational activity program has a substantial effect on developing excellence in math skills for Oman's basic education students. Hypothesis 2: The educational activity program has a substantial effect on developing creativity in math skills for Oman's basic education students.

To empirically test our two hypotheses, we carried out an experiment with a pretest-posttest control-group design using two groups of 8th-grade Omani children. The eighth grade was chosen because the content of the mathematics curriculum for this grade includes important and basic topics for learning mathematics in the upper grades, and these topics are compatible with the skills of excellence and creativity to be developed. In addition, the mathematics curriculum for the eighth grade is one of the curricula targeted to be developed at the current stage in Oman according to the philosophy of the Cambridge curricula, which focuses on developing thinking skills, excellence, and creativity among students.

Method

We carried out an experiment where the experimental group received a special training and the control group did not. We then checked whether the pretest-posttest gain was larger for the experimental group than for the control group.

Sample

The study sample comprised an experimental group of n =35 8th-grade girl students (mean age is 13.5 years) of class nr. 8/1 in Aesha bent Abu Bakr school in Salalah, Oman, and a control group of n =36 of 8th grade girl students (mean age is 13.6 years) of class nr. 8/3in the same school. The study was carried out during the first term of the academic year 2018/2019.

Study Materials and Tools

We describe the study materials and the tools used in the study.

Preparing the activity program

The educational activity program was prepared to teach 8th-grade students to develop excellence and creativity skills according to the following four steps.

Analyzing program content and verifying its validity and reliability. The initial learning aspects of the program were listed and this list was presented to three faculty members specialized in math education, and it was modified according to their suggestions. To check the list's reliability, it was re-analyzed after 3 weeks, and the value of the Cooper reliability factor was 91.15 %, which means a high level of reliability (Allam, 2006).

Preparing the program activities. We analyzed the literature on comparable training programs which led to the following choices:

- The activities covered all learning aspects of the program.
- The activities were prepared according to Feuerstein's model and Gardner's theory.
- The activities covered all targeted excellence and creativity skills.
- The activities were put in logic sequence.
- The activities were dependent upon the available equipment and tools of the school.
- The activities were based on the active participation of the students.

Preparing the initial version of the program. The program in its initial version included the following components:

- The program introduction included the program's philosophy, and a theoretical background focusing on Feuerstein's model, Gardner's theory, and excellence and creativity skills. It also included instructions on how the teacher could use this program.
- The program aims are developing excellence and creativity skills for 8th-grade Omani students, operationalized in a set of

behavioral objectives that cover all learning aspects of the activity program.

- The program content consists of a set of activities based on Feuerstein's model and Gardner's theory, and includes the content of the activity program and the excellence and creativity skills.
- The program's teaching strategies were determined according to the objectives of each lesson, and the excellence and creativity skills in question. These strategies were instrumental enrichment, brain storming, role playing, discussion, discovery, problem solving, inquiry, cooperative learning, and educational scaffolding.
- The educational means and tools were chosen according to each lesson's objectives and its activities. These tools include white board, smart board, slides, paper cards, figures, photos, graphs papers, PowerPoint presentations, and geometrical tools.
- The program assessment tools were determined according to the aims and learning aspects of each lesson and considering the different program activities. These tools are sets of activities prepared according to Feuerstein's model and Gardner's theory, and also include the excellence and creativity tests.
- The time schedule for the program was prepared in light of the time schedule prepared by Oman's ministry of education for the activity program; the program consisted of 17 lectures.
- The program lessons included the following: lesson number and title, number of classes, learning outcomes, learning aspects, teaching strategies, educational means and activities, lesson procedures, lesson evaluation, and homework.
- Books that the teacher can use.

Verifying the program's validity, and preparing the final version. The first version of the program was presented to five faculty members specialized in curriculum and mathematics education, and it was modified according to their suggestions of re-designing some activities and eliminating others. So, this led to the final version of the program, which was then applied to the children in the experimental group.

Preparing the test of excellence in mathematics. The test of excellence in math was prepared to measure the level of possession of 8^{th}-grade math skills. This test consists of 22 questions related to the four excellence skills depending on the relative importance of each skill and the number of sub-skills. So, the test consisted of eight essay questions with two questions for each of the four skills, and fourteen multiple-choice questions divided over the four skills as follows:

- 4 questions pertaining to comprehensive understanding of math
- 4 questions pertaining to possessing the extreme extent of mathematical knowledge
- 3 questions pertaining to designing an innovative product in math
- 3 questions pertaining to using math in daily life.

To ensure the validity, this test was presented to six faculty members specialized in curriculum development, teaching methods, and technology, and some items were modified based on their suggestions. The agreement between the specialists was high at 89%. To verify the reliability of the final version of the test, it was taken by a sample of $N = 35$ 8^{th}-grade students of Manbaa Elhekma in Saada school in Salalah, Oman. To gauge the reliability of the test, we computed Cronbach's alpha (Cronbach, 1951), which yielded a value of0.92,which means the test has a high level of reliability. Each multiple-choice question yielded one point for the right answer and zero points for the false one, and each essay question yielded, respectively, 3, 2, or 1 points for the right answer depending on the student's contributions to solving the question, and zero points for a false answer. So, the maximum score on the test was 38 and the minimum score was 0. The children were allowed a maximum of 70 minutes to finish the test.

Preparing the creativity in mathematics test. The test of creativity in math was constructed to measure the level of possession of 8^{th}-grade students' creativity skills. This test consisted of 20 questions related to the four creativity in math skills (authenticity, fluency, flexibility, and sensitivity to problems) depending on the relative importance of each skill and the number of sub-skills. So, the test consisted of five essay questions for each of the four skills. To ensure the validity of the test, it was presented to the same six specialists mentioned above, and some items were modified based on their suggestions. Again, the agreement between the specialists was high at 91%. To gauge the reliability of the test, it was taken by the same sample that also took the excellence in math test described above. The value of Cronbach's alpha was0.90, indicating that the test has a high level of reliability. Each question yielded one or two points for the right answer depending on the student's contributions to solving the question, and zero points for a false one. So, the maximum test score is 40 and the minimum score is 0. The student was allowed a maximum of 80 minutes to take the test.

Study Design

The study variables are the activity program as the independent variable, and the excellence and creativity in mathematics as two dependent variables, as described in Table 1. The study was based on an experimental

design, where two parallel groups were assigned at random to the experimental condition and the control condition; the experimental group and the control group both took pre- and post-measurements, as described in Table 2.After selecting the study sample, they were divided randomly into an experimental and a control group. The study was carried out during 6 weeks in a class that met five times a week, so there were 30 lessons in all. The experimental and control groups were pretested, and then only the experimental group was taught the Groups and Relations program by the mathematics teacher (Mrs. Samira Sangour), and the control group was taught the same topics by the same teacher, but now using traditional educational techniques. Knowing that the above mentioned teacher is the senior mathematics teacher in the school, and has extensive experience in teaching mathematics up to eighteen years. At the end of the training period, the students were post-tested in excellence and creativity in mathematics.

Table 1

Independent and dependent variables

Independent Variables Dependent Variables	Activity Program [experimental]	Traditional Education [control]
Excellence in Mathematics	A1	A2
Creativity in Mathematics	A3	A4

Note. A1: Excellence for the group taught by activity program (experimental group)
A2: Excellence for the group taught by traditional education (control group)
A3: Creativity for the group taught by activity program (experimental group).
A4: Creativity for the group taught by traditional education (control group).

Table 2

Design of the study

Experimental	A1	S1	M1	M2
Control	A2	S2	M1	M2
Experimental	A3	S3	M1	M2
Control	A4	S4	M1	M2

Note. S1: Treatment for the experimental group (excellence - activity program)
S2: Treatment for the control group (excellence - traditional education)
S3: Treatment for the experimental group (creativity -activity program)
S4: Treatment for the control group (creativity - traditional education)
M1: Performance on the pretest of (excellence or creativity)
M2: Performance on the posttest of (excellence or creativity)

Statistical Analysis

In this study we employed a pretest-posttest control-group design, and the central measurement is the effectiveness of the activity program, which can be operationalized as the difference between 1) the gain between pretest and posttest of the experimental group and 2) the gain between pretest and posttest of the control group, where it is expected that the experimental group has a larger pretest-posttest gain than the control group. However, when the mean scores on the control group and the experimental group are very similar on the pretest, the experimental effects can be simply computed as the difference of the control group and the experimental group on the posttests. So, we tested whether two groups were equivalent on the pretest, allowing us to use this second approach.

Data were analyzed using means, standard deviations, *t*-tests, significance levels, effect sizes, and η2,employing SPSS version 22.We used *t*-tests to check whether there was a significant difference between the means of the two groups. Statistical significance is the likelihood that the value of a correlation or an effect size is not a coincidence. The significance level is the probability that the hypothesis being tested will be erroneously rejected, and we choose the traditional value of 5%. To arrive at an effect size value, the difference between the experimental group and the control group needs to be divided by the correct standard deviation. In their book on computing effect sizes for research, Grissom and Kim (2012, pp. 90-92) advise to use the pooled *SD* of the pretest for both the control and the experimental group. Pooling the four *SD*s of both pretest and posttest for both the control group and the experimental group is discouraged, as treatment often increases variability, leading to dissimilar values of *SD* for the posttests for the control and experimental group.2η is a two-way correlation between the independent variable and the dependent variable, and it measures the magnitude of the effect of the independent variable on the dependent variable, and hence the actual effect of experimental treatment on search results. It is calculated from the following formula: $2\eta = \frac{2t}{2t+DF}$, DF is the Degree of Freedom (Winer, et al., 1991, p.235). There is a relationship between 2η and the Cohen's effect size as shown in the formula: $d = \frac{2\sqrt{2\eta}}{\sqrt{1-2\eta}}$ (Grissom & Kim, 2012, p. 512).

Results

Equivalence on Pretest for Experimental and Control Group

Tables3 and 4 show the results of the experimental group and the control group on the pretests of excellence skills and creativity skills in mathematics: the differences between the two groups are without exception miniscule and non-significant, so there is strong equivalence of the two groups in excellence and creativity in mathematics. This means we can simplify our analyses, by comparing the scores on the posttests of the experimental group and the control group.

Table 3

Difference between the means of the experimental and control groups on the excellence in mathematics pretest

Skills	Group	*N*	Mean	*SD*	*t-value*	value-*p*
Comprehensive	Experimental	35	1.65	0.90	1.24	0.901
Understanding of Math	Control	36	1.67	1.33		
Possessing extreme extent	Experimental	35	1.66	0.93	1.22	0.900
of mathematical Knowledge	Control	36	1.69	1.33		
Designing an innovative	Experimental	35	1.64	0.91	1.23	0.902
product in Math	Control	36	1.68	1.35		
Using Math in daily life	Experimental	35	1.63	0.92	1.23	0.903
	Control	36	1.67	1.33		
The whole test	Experimental	35	6.58	2.19	0.94	0.363
	Control	36	6.71	2.42		

Table 4

Difference between the means of the experimental and control groups on the creativity in mathematics pretest

Skills	Group	*N*	Mean	*SD*	*t*-value	value-*p*
Fluency	Experimental	35	1.68	0.91	1.25	0.902
	Control	36	1.69	1.30		
Authenticity	Experimental	35	1.70	0.96	1.24	0.905
	Control	36	1.69	1.33		
Flexibility	Experimental	35	1.67	0.90	1.23	0.903
	Control	36	1.71	1.34		
Sensitivity for problems	Experimental	35	1.66	0.95	1.24	0.901
	Control	36	1.65	1.29		
The whole test	Experimental	35	6.71	2.19	0.92	0.365
	Control	36	6.74	2.42		

Effectiveness of the Program

What is the effectiveness of the activity program in developing excellence skills and creativity for Omani pupils? The first hypothesis states

that when the activity program has a substantial effect on developing excellence in math skills there should be a substantially higher scores for the experimental group. Table 5 shows that the effect sizes vary from $d = 2.26$ to $d = 3.77$ and 2varies from 0.56 to 0.78, soηthere are substantial differences on all dimensions, and also on the total score; the *t*-values and the *p*-values show that all the difference scores are highly statistically significant. Overall math skills showed a very large effect, and there were also very large effects for all the individual skills. So, the first hypothesis is clearly supported.

Table 5

Difference between the means of the experimental and control groups on the excellence in mathematics posttest

Skills	Group	*N*	Mean	*SD*	*t-value*	*p*	2η	ES
Comprehensive Understanding of Math	Experimental	35	8.07	2.42	13.27	0.000	0.72	3.20
	Control	36	2.28	1.58				
Possessing extreme extent of mathematical Knowledge	Experimental	35	8.9	2.86	10.42	0.001	0.61	2.50
	Control	36	3.1	1.74				
Designing an innovative product in Math	Experimental	35	9.52	2.71	11.64	0.001	0.66	2.79
	Control	36	2.34	1.32				
Using Math in daily life	Experimental	35	7.52	1.98	9.29	0.002	0.56	2.26
	Control	36	2.9	1.57				
The whole test	Experimental	35	34.0	3.69	15.56	0.000	0.78	3.77
	Control	36	10.62	2.93				

Note. ES = Effect size

The second hypothesis states that the activity program has a substantial effect on developing creativity in math skills, so there should be a substantially higher posttest score for the experimental group. Table 6 shows that the effect sizes vary from $d = 2.17$ to $d = 3.29$ and 2η varies from 0.54 to 0.73, so there are very large effects on all dimensions, and also the effect on the total score is very large; the *t*-values and *p*-values show that all the difference scores are highly statistically significant, so there is clear support for the second hypothesis.

Table6

Difference between the means of the experimental and control groups in the creativity in mathematics posttest

Skills	Group	*N*	Mean	*SD*	*t*-value	*p*	2η	ES
Fluency	Experimental	35	8.17	2.40	8.91	0.003	0.54	2.17
	Control	36	3.14	1.67				
Authenticity	Experimental	35	8.88	2.90	9.1	0.002	0.55	2.21
	Control	36	2.93	2.00				
Flexibility	Experimental	35	9.49	2.69	10.28	0.001	0.60	2.45
	Control	36	2.86	2.14				
Sensitivity for problems	Experimental	35	7.54	1.99	11.5	0.001	0.66	2.79
	Control	36	2.36	1.34				
The whole test	Experimental	35	34.15	3.71	13.55	0.000	0.73	3.29
	Control	36	11.29	2.50				

Note. ES = Effect size

Discussion

Various educational activity programs in mathematics were based on Howard Gardner's multiple intelligences theory and Reuven Feuerstein's instrumental enrichment model and yielded substantial improvements in educational outcomes. We tested whether the math scores of Omani children could also be improved by applying an educational activity program based on the same foundations. So, we focused on the question of whether the findings from previous research generalize to Omani school children. The first hypothesis that the activity program has a substantial effect on developing excellence in math skills was strongly confirmed: the group that received the special training scored much better on the posttest of excellence in math; the effect was very large. The second hypothesis was that the activity program has a substantial effect on developing creativity in math and it was also strongly confirmed: the group that received the special training scored much better on the posttest of creativity in math. So, in both cases effects of the training that can only be described as very strong. The strong, experimental design increases the faith we have in these conclusions.

These results are consistent with the results of several studies using the strategies and approaches based on Feuerstein's instrumental enrichment model and Gardner's multiple intelligences theory, such as Nolen (2003), Bender et al. (2002), Gardner (1997), Shearer (1997), Anita (1997), Kenney (1984), and Feuerstein et al. (1979). So, we can therefore answer the research

question positively: an educational activity program based on Feuerstein's and Gardner's work not only leads to increases in learning in Western countries but can also be generalized to a country in the Arab world.

The present study has at least two added values. The first is that use was made of an experiment, which means that we present a strong research design allowing strong conclusions based on relatively simple statistical analyses. This contrasts with a study with a weak research design, often requiring complex statistical analyses and yielding weak conclusions. The second added value is that the overwhelming majority of studies are carried out in Western countries, but that we present a study from a culturally and historically very different country, namely Oman, and that we use samples from one of its least-developed regions. In this way, we offer a unique way of testing for generalizability. This may be due to the activities included in the program and the great interest of the Omani society to advance mathematics education in recent years.

In both posttests, the *SD*s are clearly larger for the experimental group, specifically for the scores on the whole test. This means that both distributions were highly skewed, and that there were some students in the experimental group who did not manage so well. Indeed, it is a well-established fact that experimental groups generally have larger *SD*s than control groups and that is a reason why the *SD* of the pretest is often used when computing effect sizes in a study with a pretest-posttest design (see: Grissom and Kim, 2012, pp. 90-92).

Explaining the Effects

How to explain the very strong effects of the educational activity program? We can think of five reasons. First, the students built their own knowledge through their participation in several enrichment activities related to their different intelligences, which made their learning meaningful. Theirfull understanding of what they learned, lead to a deepening of their knowledge, an ability to relate their knowledge to other information, and its use in daily life. Second, the program included a variety of enrichment activities, covering a wide number of excellence in math skills and math creativity skills, and was based on students' multiple intelligences, which helped the students to go the extra mile in mastering all skills. So, the excellence and creativity skills were developed as a result. Third, the students in the experimental group were split into small collaborative groups during the activities, which lead to the creation of a suitable educational environment, which helped them in understanding the information, applying it in new situations, analyzing it, synthesizing it, and finally assessing it. Fourth, each

lesson in the program and in each enrichment activity included one or more of the excellence in math and math creativity skills, which helped the students to master the program content, excellence skills, and creative skills in an integrated way, which suggests the program has its maximum effect in developing excellence and creativity skills as a whole, even more than its strong effects in developing individual skills. Five, providing instant feedback to the students during their participation in the program helped the teacher to discover their weak points and to start working on improving them instantly, while at the same time discovering their strengths and enhancing them. Providing instant feedback also helped in stimulating the children's enthusiasm and encouraging them to participate in the lessons continuously, which influenced their excellence and creativity skills positively.

Limitations of the Study

The study has several limitations. First, the sample size was limited, with 35 children in the experimental group. Limited sample sizes are quite common in the literature on educational programs, but to be able to draw strong conclusions it is necessary to have larger sample sizes. Having said that, the effect sizes in the present study are very large. Second, the sample was from Dhoar region which is located in the south of Oman, and it would have been good to have a second sample from a more developed part of the country, for instance from the capital. However, the sample was representative of eighth-grade female students in the Dhofar community, because the sample was randomly selected from one of the schools in the city of Salalah, a city with different demographics representing the entire Dhofar region. The teacher of the experimental and control groups was an Omani teacher. She was the school's senior mathematics teacher, and had extensive experience teaching mathematics up to eighteen years. It would also be nice to have studies from various other countries, in various states of economic development, to see whether the results are stable across the various settings. The study was conducted on only one teaching program, namely the Groups and Relationships program, but this could be the beginning of a research program trying to apply programs with similar foundations to other mathematics education areas.

Finally, the testing was carried out with self-developed instruments, but what would have happened to the effect sizes if standardized tests would have been applied? Low reliability of an instrument is known to lead to smaller differences (Schmidt & Hunter, 2015). We tested for internal consistency, which was very good, but we did not empirically establish the test-retest reliabilities' value. A high-quality standardized test could be expected to have excellent test-retest reliability, arguably better than of a self-

developed test. Suppose the tests measure the same construct to the same degree, then a more reliable standardized test would yield larger effect sizes than a self-developed test. We add that in this kind of research it is quite rare to see standardized tests being used, as researchers differ substantially in the variables they focus on, leading to an abundance of self-developed instruments.

Recommendations

We finish the paper with five recommendations. First, we should work on developing the math curriculum to develop all excellence and creativity skills rather than concentrating on lower-order thinking skills. Second, we should provide a suitable educational environment based on stimulation, encouragement, searching, and accepting different opinions and ideas, in order to develop creativity. Third, we should train mathematics teachers to use approaches and strategies of active learning by providing several enrichment activities related to multiple intelligences, which will lead the students to be self-reliant when working as individuals or in teams making use of their various mental abilities and interests. Fourth, we should train the students to use their thinking skills in their practical life, and creating a habit of using questions with the goal of raising their thinking level, such as "What if …..?" , "Is it possible that ….?" , "What happens if …..?", etc. Fifth, we should be conducting studies similar to the current study, focusing on using other approaches and strategies based on an active-learning philosophy to develop other aspects and variables for students in different educational stages.

References

Abdelsamie, A. M. & Lasheen, S. A. (2006). The Effectiveness of a Program based on Multiple Intelligences to Develop Achievement, Mathematical Thinking, and the Tendency Towards Mathematics among Middle School Students. *Studies in Curricula and Teaching Methods, Egyptian Association of Curriculum and Teaching, College of Education, Ain Shams University, 118*, November,131- 167.

Abdelwahab, G. (1981). *The School Activity; Its Concepts, Fields, Researches*. Kuwait: Elfalah Bookshop.

Allam, S. (2006). *Educational and Psychological Measurement and Evaluation*. Cairo: Arab Thought House

Almufty, M. (2005). *The Role of School Mathematics in Developing Learner's Creativity (Creativity and General Education).* Cairo: The National Center for Educational Researches.

Anita, C. (1997). The Effect of Instrumental Enrichment on The Reasoning Abilities, Achievement and Behavior of Elementary Alternative Education Students (Elementary School Students). *Diss., Abst., Int., 58*(2), 373- A.

Armstrong, T. (2009). *Multiple Intelligences in the Classroom(Third edition)*. New York: ASCD.

Bansal, S. (2012). Creating of Academic Excellence in Higher Education. *International Journal of Communication Research, 2*, 56-60. `

Bender, J., Coughlin, J., Evans, E. &Sievers T.(2002). Improving Student Motivation and Achievement in Mathematics through Teaching to the Multiple Intelligences. *ERIC, ED 466408.*

Ben-Hur, M. (2000). Feuerstein`s Instrumental Enrichment: Better Learning for Better Students. New Horizons for Learning. *http://www.newhorizons,org.*

Blagg, N. (1991). *Can we Teach Intelligence? A comprehensive Evaluation of Feuerstein's Instrumental Enrichment Program.* Hillsdale, N.J.: Lawrence Erlbaum Associates Publishers.

Bransford, J. et. al. (1985). *Improving Thinking and Learning Skills (Analysis of Three Approaches).* In: Segal, J., Chipman, S. and Glaser, R.: Thinking and Learning Skills, V. (1), Hillsdale, N.J.: Lawrence Erlbaum Associates Publishers.

Cañadas, M., Gómez, P. & Rico, L. (2013). Structure of Primary Mathematics Teacher Education Programs in Spain. *International Journal of Science and Mathematics Education, 11*, 879–894.

Cronbach, L. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika, 16*, 297-334.

Dascalu, E. (2012).Academic Excellence Versus Strong Skills:The Be or Become Compatible Paradigm.*International Journal of Communication Research,2*,278-280.

Elbana, H., A. (2002). The Effectiveness of Instrumental Enrichment in Achievement and Modification of Cognitive Preference Patterns for High-Achieving Students with Difficulties in Learning Science at the Preparatory Stage. *Journal of the Education College, Mansoura University, 43*, May, 3- 50.

Elkahtany, O. (2015). A Suggested Teaching Strategy in Light of the Communicative Theory to Develop the Excellence Components, and Its Effect on Academic Achievement and Attitudes Towards Mathematics for Secondary Students. *Journal of Educational and Psychological Studies, Sultan Qabous University,9*, 431- 451.

Elsaeed, R. &Abdelhaye, Z. (2015). Excellence Based Curricula, a Modern Approach to Develop Education in Egypt and Arab World. *The Third International Conference of the Egyptian Council for Curricula and Instruction, Programs of Teachers Education in The Universities for Excellence,* August 12-13, Ain Shams University.

Elsaeed, R. (2018). STEM, A Modern Multidisciplinary Integrated Approach for Educational Excellence and 21st Century Skills. *Journal of Mathematics Education, 21*, 6-42.

Elsayed, A. M. &Albarami, Y. A. (2019). The Effectiveness of a Proposed Strategy in the Development of Creative Thinking Skills and the Trend Towards Mathematics among Students of Basic Education in Oman. *Journal of Mathematics Education, 22*(8), 99-145.

Elsayed, A. M. (2010). The effectiveness of an educational activities program based on Gardner's multiple intelligences theory in developing the academic achievement and reducing the mathematical anxiety for Oman's basic education students. *Journal of Mathematics Education, 13*(1), 57-126.

Elsayed, A. M. (2015a). Effectiveness of using Elaboration Theory in Teaching Mathematics to Develop Academic Achievement and Critical Thinking for Primary Students in Oman. *International Journal of Humanities and Cultural Studies, 2*(3), 851, 865.

Elsayed, A. M. (2015b). The Effect of using a Strategy Based on Brain Compatible Learning Theory in the Development of Numerical Sense Skills of the Basic Education Students in Oman. *European Journal of Social Sciences,47*(2),183- 195.

Fariborzi, E. (2017). The Relationship Between Gardner's Multiple Intelligences and the Field of Study with Self- Efficacy and Job Satisfaction of Secondary School in Mashad Ashraf Alipor, Iran. *Journal of Innovative Research in Education & Management, 1*(1), 1-50.

Farooq, M. & Sayed, Z. (2008). Students' Attitude Towards Mathematics. *Pakistan Economic and Social Review, 46*, 75-83.

Feuerstein, R., et al. (1980). *Instrument Enrichment: An Intervention Program for Cognitive Modifiability.* Baltimore: University Park Press.

Feuerstein, R., et al. (1985): *Instrument Enrichment (An Intervention Program for Structural Cognitive Modifiability- Theory and Practice).* In; Sagal, J.&Chipman and Claser, R.: Thinking and Learning Skills, V. (1), Hillsdale, N.J.: Lawrence Erlbaum Associates Publishers.

Feuerstein, R., et al. (1990). *The Theory of Structural Cognitive Modifiability.* In: Presseisen, B., Learning and Thinking Skills: Classroom Interaction. Washington, D.: National Education Association.

Feuerstein, R., et al. (2003). *The Dynamic Assessment of Cognitive Modifiability.* Jerusalem: ICELP Press.

Feuerstein, R., Rand, Y. &Tennen, A. (1979). Effects of Instrumental Enrichment on The Psychoeducational Development of Low- Functioning Adolescents. *Journal of Educational Psychology. 71*(6), 751- 763.

Forgasz, H. J. & Hill, J. C. (2013). Factors Implicated in High Mathematics Achievement.*International Journal of Science and Mathematics Education,11*, 481– 499.

Gardner, H. (1997). Multiple Intelligences as a Partner in School Improvement. *Educational leadership, 55*(1), 20- 21.

Gravemeijer, K., Stephan, M., Julie, C., Lin, F. &Ohtani, M. (2017). What Mathematics Education May Prepare Students for the Society of the Future?*International Journal of Science and Mathematics Education,15*,105–132.

Grissom, R.J., & Kim, J.J. (2012). *Effect Sizes for Research: Univariate and multivariate applications.* (2nded), New York: Routledge.

Guilford, J. P. (1967). *The nature of human intelligence*. New York: McGraw-Hill.

Hinduja, P., Thomas, M. & Siddiqui, S. (2020). The Effects of Assessment as Learning (AaL) on ESL students' Academic Performance and Motivation in the light of self-Regulated Learning (SRL) Theory. *FWU Journal of Social Sciences, 14*(4).

Hong, J. C., Hwang, M. Y. & Tsai, C. R. (2020). The Effect of Object-Free and Object-Related Intelligences on Hands-On Making Self-Efficacy and Attitude Toward Quality Improvement.*International Journal of Science and Mathematics Education*, May, *https://doi.org/10.1007/s10763-020-10093-7*.

Kenney, M.V. (1984). Effects of Feuerstein's Instrumental Enrichment on The Reasoning Non-Verbal Intelligence and Locus of Control of 12 to 15-Year-Old Educable Mentally Handicapped and Learning-Disabled students. *Diss, Abst., Int., 45*(8), (2452- A).

Kim, H. J. (2019).Teacher Learning Opportunities Provided by Implementing Formative Assessment Lessons:Becoming Responsive to Student Mathematical Thinking.*International Journal of Science and Mathematics Education,17*,341- 363.

Leikin, R. & Lev, M. (2013).Mathematical Creativity in Generally Gifted and Mathematically Excelling Adolescents: What Makes the Difference?*ZDM,45*(2), 183–197.

Leikin, R. (2009). Exploring Mathematical Creativity Using Multiple Solution Tasks. In R. Leikin, A. Berman, & B. Koichu (Eds.), *Creativity in Mathematics and the Education of Gifted Students* (pp. 129–145). Rotterdam, NL: Sense.

McCollum, T. (1996). The Effectiveness of Feuerstein`s Instrumental Enrichment Program in Teaching Thinking Skills to Learning Disabled Adolescents. *Diss., Abst., Int., 48*(2), 3210 – A.

Mintzes, J. J. & Chiu, M. H. (2014). Understanding and Conceptual Change in Science and Mathematics: An International Agenda within a Constructivist Framework. *International Journal of Science and Mathematics Education, 02*, 111– 114.

Mowafy, S. (2011). The Effect of using Feuerstein's Instrumental Enrichment Program in Introducing Developed Mathematics Activities on Developing Academic Achievement and Attitudes Towards the Activities for 1st Grade Middle Stage Students. *The Scientific Research in Education Journal, Faculty of Women for Art, Science and Education, Ain Shams University, 4*, 1097-118.

NCTM (National Council of Teachers of Mathematics) (2015). STEM- Gives Meaning to Mathematics. Retrieved from*: www.nctm.org, in 21/6/2018*.

Nolen, J. (2003). Multiple Intelligence in the Classroom. *Journal of Experimental Education. 124(*1), 23- 34.

Obeida, N. E. (2013). A Proposed Enrichment Program in the Light of the Associative Theory of Developing Habits of Excellence in Mathematics for the High and Talented Students at Tabuk University. I*nternational Journal of Specialized Education, 2*(4), 1- 34.

Oman's Ministry of Education (2018). The National Report for 4th and 8th Grades, The International Study in Math and Science (TIMSS 2015), Retrieved from: *www.moe.gov.om, in 20/10/2018.*

Rindermann, H. (2018). *Cognitive Capitalism: Human Capital and the Wellbeing of Nations.* Cambridge University Press.

Sayuri, T. & Patrick, G. (1998). *Pursuing Excellence: A study of U.S. Twelfth-Grade Mathematics and Science Achievement in International Context.* Washington, DC: U.S. Government Printing Office, National Center for Education Statistics and Office of Educational Research and Improvement.

Schindler, M. & Lilienthal, A. (2019). Students' Creative Process in Mathematics: Insights from Eye-Tracking-Stimulated Recall Interview on Students' Work on Multiple Solution Tasks.*International Journal of Science and Mathematics Education*, December.

Schmidt, F.L. & Hunter, J.E. (2015) *Methods of meta-analysis: Correcting errors and bias in research findings (Third edition).* Thousand Oaks, CA: Sage.

Schoevers, E. M., Leseman, P. P. & Kroesbergen, E. H. (2019). Enriching Mathematics Education with Visual Arts: Effects on Elementary School Students' Ability in Geometry and Visual Arts. *International Journal of Science and Mathematics Education*, December.

Shearer, M. (1997). Multiple Intelligences in Math. *Journal for Research in Mathematics Education. 55*(1), 15- 19.

Singer, M. F. (2018). Enhancing Creative Capacities in Mathematically-Promising Students. Challenges and Limits. In M. F. Singer (Ed.), *Mathematical Creativity and Mathematical Giftedness. Enhancing Creative Capacities in Mathematically Promising Students* (pp. 1–23). New York: Springer.

Sohn, S. (2004). A Method for Introducing Gardner's Theory of Multiple Intelligences to Middle School Students (Massachusetts, Howard Gardner).*Diss.,Abst,Int. 59*(3), 3104 - A.

Strang, J.&Shayer, M. (1993). Enhancing High School Students Achievement in Chemistry Through a Thinking Skills Approach. *International. Journal Science Education, 15*(3), 319- 337.

Susan,D.& Dale, S. (2004). Multiple Intelligences and Reading achievement: An Examination of the Teal Inventory of multiple Intelligences. *The Journal of Experimental Education, 73*(1), 41-52.

The Scottish Government (2008). *Curriculum for Excellence, Building the Curriculum 3: A Framework for Learning and Teaching*. Published by the Scottish Government, Edinburgh, June, 1-52.

Ullah, I., Kaleem, M. & Amir, S. M. (2020). Effectiveness of Peer Tutoring on the Academic Achievements of Tutors and Tutees with Respect to Knowledge, Comprehension and Application Levels of Cognitive Domain. *FWU Journal of Social Sciences, 14*(4).

Urhan, S. &Dost, S. (2018). Analysis of Ninth Grade Mathematics Course Book Activities Based on Model-Eliciting Principles.*International Journal of Science and Mathematics Education, 16,* 985- 1002.

Waisman, I., Leikin, M., Shaul, S. &Leikin, R. (2914). Brain Activity Associated with Translation between Graphical and Symbolic Representations of Functions in Generally Gifted and Excelling in Mathematics Adolescents. *International Journal of Science and Mathematics Education, 12*, 669– 696.

Wille, A. M. (2019). Activity with Signs and Speaking About It: Exploring Students' Mathematical Lines of Thought Regarding the Derivative.*International Journal of Science and Mathematics Education,* December.

William, D. (2011). *Excellence in Mathematics*. Report from the Mathematics' Excellence Group, The Scottish Government Raighaltas Math-Alba,7, 1-22.

William, J., Jonathan, L., Samantha, L., Rachel, L.& Charles, S. (2009). *Excellence, Then, is Not an Act, but a Habit.* Washington: National School of Distinction in Arts Education Award.

Winer, B. J., Brown, D. R. & Michel's, K. M. (1991). *Statistical Principles in Experimental Design.* (3rd ed.), New York: Me Grow Hill.

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Dynamics of Pakhtun Social Structure: Implications for Economic Development

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Every region and people has peculiar economic characteristics and these features largely have roots in that region's social structure, social psychology and its dynamics. The capitalist economy of the United States has roots in individualism and Protestant Work Ethic, influenced both by Protestant religion and the social character of the Americans; the Client Economy of Saudi Arabia has deep linkages to its tribal social structure and the so-called Bazaar Economy of Afghanistan is profoundly embedded in the Pakhtun social structure of the country. The Pakhtuns of Pakistan have a peculiar social structure and social psychology thereof having profound and extensive influence on the region's economy particularly its largely underdeveloped condition. The paper explores the characteristics of Pakhtun social structure and the interactive linkages between the social edifice and economic development or lack of it.

Keywords: **Pakhtun, social structure, Pakistan, economy, development, underdevelopment**

The Pakhtun ethnic group has the largest tribal setting in the world, which is profoundly structured in form (Tainter, Joseph, MacGregor, Donald; 2011). Pakhtun culture has certain peculiar elements which makes its social structure somewhat unique (Glatzer, 2002; Taj, Shah, Bilal, 2018). Pakhtun society has a few statuses as is a feature of any traditional society. Some of the main statuses include that of *malik* or *khan* (tribal leaders or elder), mullah or clergyman and *kasabgar* (artisan or menial worker). Likewise, the social roles in traditional Pakhtun society are also correspondingly a few because of the non-

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complexity of the society (Qazi, 2012). The stratification of Pakhtun society is not of western-type in the sense that it is not composed of socio-economic groups. Instead, social stratification of Pakhtun society is based on tribes, sub-tribes and clans (Glatzer, 2002). The social institutions of Pakhtun society mainly comprises of extended family or clans; subsistence economy; madrassas or Muslim education institutions, Islam as a predominant religion; interpersonal communication networks or linear group communication through public address system (loud speakers). The loud speakers are installed at each and every mosque to communicate with the local people instead of through developed media systems. Whereas, certain related administrative and cultural characteristics in Pakhtun society include: the settlement of disputes and feuds through tribal councils locally called Jirga presided over by chieftains or local elders instead by law-graduate judicial officers. The decisions of Jirga are taken either according to *Rivaj* (local customs) or *Shariat* (Islamic Laws). Other cultural characteristics of Pakhtun society include collective habitation of families and clans; individual subject to and bound by the decisions of the elders of clan or tribe even regarding his or her personal life and the absence of nuclear families in the region as the basic social institution. Besides these administrative and cultural characteristics and limited social statuses and roles, the miniscule social, economic and political mobility, taking pride in adherence to the traditional practices, ossified customs or change resistant social psychology and ultraconservative idiosyncratic viewpoints and behaviours towards women, reveal Pakhtun social structure rigidity and inflexibility (Qazi, 2012).

In the Khyber Pakhtunkhwa province of Pakistan, the rigidity of Pakhtun social structure is legitimized by the doctrinal construct of *Pakhtunwali*, which also provides a moral foundation and psychological justification to its social system. This construct in the shape of *Pakhtunwali* enjoins an individual to maintain his honour and shame as well as personal autonomy in society as a 'Pakhtun'. According to it, anyone who fails to comply with, is considered to have lost the spirit of 'Pakhtun-ness' (the aggrandized or elated status as 'Pakhtun'). 'Pakhtun-ness' compels Pakhtuns to the pursuit of power, status, and honour within the tribal genealogical framework. In this pursuit, hospitality becomes central to the value system, generosity to win followers and badal (revenge taking) and controlling women to defend honour (Ahmad, 1980; Lindholm, 1982). The state of Pakhtun-ness not only makes Pakhtuns to believe themselves superior to all other people but also contributes to the rigidity of Pakhtun social structure (Lindholm, 1982). Adherence to *Pakhtunwali*, in order to keep the Pakhtun-ness and aggrandizement intact, requires the utilization of the society's financial resources, time, and energies, which instead, can be effectively invested in the economic, political and social development of society.

Hence, adherence to *Pakhtunwali* for the sake of Pakhtuns pride results in rigid social structure which has large-scale implications for overall but specifically economic development in Pakhtun society. Myrdal (1958) argues that Pakhtuns love for traditions has been insurmountable. He wrote that an inflexible or rigid society is always in equilibrium of a static nature where status quo is highly cherished and thus institutionalized and all the elements and forces of the system are focused on the prevention of change. New information is prevented from entering channels of communication and perceived as endangering its static state. Therefore, a rigid or a closed society like that of Pakhtuns requires a class system based on ascribed roles and statuses or primordial criteria such as race, religion, caste or ethnicity to function and sustain itself. In a society with inflexible character, socioeconomic and political mobility is severely restricted, as well as the economic and social development of its individual members is obstructed as a result. Such a society has a centralized political-power structure in which the distribution of power including economic power and political dispensation are protected by a traditional doctrines and ideas. Thus, the idea of what is perceived as the truth is passed on unchangingly from generation to generation over centuries. A society with inflexible and rigid social structure may have industry which might require rudimentary technical training and ordinary technology instead of high-tech or state-of-the-art technology to function. In such physical settings and dominant social psychology the flourishing and whetting of personal talents and abilities have numerous hurdles leading to the prevalence of incompetence and lack of industriousness. Incompetence in turn reinforces the class system and discourages economic development.

Literature Review

Both economists and sociologists have identified a close relation between social structure and economy (Zukerman, 2003; Rauch & Alessaandra, 2001; Dutta, Jackson, 2003). In particular Granovetter has explored the relationship between social structure or for that matter sociology and economy extensively (Granovetter, 1985, 1988, 1995a, 1995b, 2002, 2005). His *Sociology of Economic Life* along with Richard Swedberg (Granovetter, Swedberg, 2001) has been a great contribution to the interrelationship between social and economic structures. However, scholarly studies on the relationship between the social structures and economic development are not numerous (Oakland, 1978) while there is skimp literature on the Pakhtun social structure and its economic implications. A sophisticated or even a developed economy could only flourish without an umbrella of a developed state structure. Pakhtuns mainly inhabit Pakistan and Afghanistan while majority live in Pakistan, where they are the second largest ethnic group. Pakhtuns constitute the largest ethnic group in Afghanistan but their number is less there than in Pakistan (Clements, 2003).

However, due to their largely tribal *modus vivendi* their sense of excessive pride in their ethnic origin and cultural values they could not completely assimilate in either multiethnic Pakistan or Afghanistan (Ahmed, 1976). Pakhtun social structure and the resultant tribal system of Pakhtuns have facilitated the local but traditional economy (Glatzer, 1992). However, Glatzer has failed to identify and explain the implications of the Pashtun tribal system for the establishment of a developed economy. Akbar S. Ahmed in his work on Pakhtun economy and society has tried to explain the internal socioeconomic dynamics of Pakhtun society (Ahmed, 1980). However, his work could not explain the relationship between Pakhtun society and economy from the standpoint that what implications the peculiar nature of Pakhtun social structure has for the economic development or under-development. Although the use of the 'tribe', 'tribalism' have become archaic and disparaging in most of the world but among Pakhtuns they are widely practiced and form the basis of their social structure (Glatzer, 2002). Nicholls (1960) explains that in an inflexible social structure and the social interactions and the social psychology it gives birth to are not innovative as sanctions are exercised against theories that challenge the traditional view of the truth. Moreover, such a society is simple or less differentiated in organization. Price (1957) in his work contended that the subsystems of a rigid society are tightly interlocked, and the pressures exerted on each by the others tend to make all throw up barriers to an outside stimulus (change) which could endanger the entire rigid system. Strikingly similar inflexible structure has been found in Pakhtun society (Barth, 1959). This society for centuries rather at least a millennium has had remained static and inflexible primarily and fundamentally because the rigidity of the social structure could not allow and facilitate the process of economic development which in turn could not transform the traditional society into a modern one. (See modernization approach for details).

Method

In order to carry out the study qualitative approach was employed and within that ethnographic research design was made use of. The study was carried out in districts Swabi and Charsadda of Khyber Pakhtunkhwa province of Pakistan that are considered as the heartland of Pakhtuns in Pakistan. As the purposive sampling technique was suited best for the collection of data for this purpose, 20 carefully selected respondents from the two districts were interviewed in depth and at length along with 02 Focused Group Discussion FGDs in each district to look for the major trends and themes regarding the features and characteristics of Pakhtun social structure and their implications for the economic processes resulting in progression or regression.

Economic Features of Pakhtun Region

Like the uniqueness of their social structure the economy of Pakhtuns is also quite distinctive. The Pakhtun regions' economy, whether in Afghanistan or Pakistan, has some key characteristics which need to be explained in order to understand the implications of the social structure for the economy (Berea, 2011). Following have been the key characteristics of Pakhtun regions' economy some of which are quite unique.

Land: Most Sought-After Economic Asset

The most valuable economic asset of Pakhtun tribal society is the land or real estate. It has much to do with the social psychology of the Pakhtuns. Possession of land is the determinant of the status in Pakhtun society and more often than not Pakhtun is another term for having vast land in possession. The tribes are in constant search for new land; once appropriated, the land becomes a collective good (Buchanan, 1965) that is rotated among the landowners of the tribes through the so-called *Wesh* (distribution) system. The *Wesh* system represents the rotation of the land every 10 years, as the initial land has specific different ecologies and thus some landowners might receive a higher comparative advantage. Thus, land is the most important cause for disputes, but also a source to settle conflicts and feuds (Alam, et al., 2014). The bargaining for the land ownership is a clear example of bargaining with the lowest transaction costs (Coase, 1937). As an essentially non-monetary system, the Pakhtun tribal system does not prefer considerable asset accumulation in capital but in the form of land.

Industry in Pakhtun Region

The Pakhtun regions in Afghanistan and Pakistan lack industrialization on a large-scale. While there is no reliable data available for industrialization in Afghanistan which is one of the most economically backward countries of the World while on the other hand the KP province has also been economically largely underdeveloped having a mere US $30 billion size of economy (Haider, 2020), which is just 10.5 percent of the total size of Pakistan economy that is around $304 billion (Industrial Policy, Khyber Pakhtunkhwa, 2016). Economically the province has been far behind the overall economic development indicators (Pakistan Development Update: Growth A Shared Responsibility, 2017). The KP is predominantly rural and small scale retail trade makes most of the province's economy instead of industry or agriculture resulting in insignificant incomes. In a nutshell industrial sector has no role in the society of the province (Industrial Policy, Khyber Pakhtunkhwa, 2016). There are several reasons for this lack of industrialization in Pakhtun areas of Afghanistan and Pakistan. One theory in this regard is 'locational disadvantage.' According to this theory as both KP province, which is situated contiguous and juxtaposed to

the Pakhtun-dominated regions of Afghanistan, are located far away from seashores and seaports, therefore establishment of large-scale industries have not been profitable. However, this is somewhat unreliable theory because then why the Central Asian States (CAS) particularly Kazakhstan, Turkmenistan, Kyrgyzstan and even parts of China, which are located farther than the Pakhtun regions from the seaports have developed extensive industrial infrastructure. In Pakistan, one explanation for lack of industrialization in the KP has been the Punjab-dominated federal government structure, which not only discouraged large-scale industrialization in the KP, former FATA but also in Balochistan province, partly inhabited by Pakhtuns, so that the Punjab may not lose its competitive economic edge within Pakistan. However, the lack of industrialization in Afghanistan, a country ruled since 1747 by Pakhtun rulers and dominated by Pakhtun population is incomprehensible within the context of state policy as could be the argument in case of lack of industrialization in Pakhtun regions of Pakistan. Therefore, one has to search for non-political particularly non-ethnic factors for lack of industrialization in Pakhtun regions of Afghanistan and Pakistan.

The only industry worth its name that has really thriven in the Pakhtun lands in Pakistan has been the firearms manufacturing particularly in the town of Darra Adam Khel on the road between Peshawar and Kohat. Hundreds of cottage firearms manufacturing units have been operating in Darra for more than 80 years (Mian, 2010). Since the weapons making technology was first secretly provided by Adolf Hitler ruled Germany to Pakhtun tribesmen to encourage a revolt against its arch-rival British Empire's in its greatest colonial possession in India. As Pakhtun tribesmen had very strong anti-British feelings the Germans under Hitler wanted to capitalize upon this emancipatory potential of the Pakhtuns to create problems for the British Empire in India so as to take military advantage out of the situation in Europe, where both the imperial powers were located. However, the Pakhtuns adapted the firearms manufacturing technology and went on with improving the craft even after the World War II when the Germans were decisively defeated by the Allied Powers including Great Britain and the United States. The thriving of crude weapons industry has not been due to the Pakhtun love for industry or craft but as the firearms manufactured in Darra have had a huge demand and market in the Pakhtun land. The foremost rather underlying reasons for Pakhtuns dislike for industries could be discovered in the social structure of the ethnic group. The interminable disputes and conflicts over land, honour and financial matters and the animosities and rivalries they have been producing have had made it mandatory for all the Pakhtuns to have firearms. Thus the flourishing of firearms industry in the Pakhtun mainland has also been deeply rooted in the group's social structure. Then this firearms

industry has a significant role in the society's dispute-filled environment and war economy which since the 1980s has flourished both in the Pakhtun-dominated Afghanistan and Khyber Pakhtunkhwa and Upper Balochistan, inhabited by the Pakhtuns in Pakistan.

War Economy in Pakhtun Lands

A war economy has thriven in the Pakhtun mainland, whether in Pakistan or Afghanistan, after the Soviet occupation of Afghanistan in 1979, followed by the Afghan Civil War (1989-1996), the Taliban regime (1996-2002) and since the US-led International Security & Assistance Force (ISAF) ouster of the Taliban regime and occupation of the country ensued by the Taliban insurgency (Rubin, 2000). The impact of the international and civil war as well as insurgency in Afghanistan has been grave on Pakistani side of the border especially on the Pakhtun inhabited areas foremost in the shape of the evolution of an extensive war economy (Rubin, 2000). War economy can be described as a phenomenon in which the productive resources of a country, region or area are mainly and increasingly allocated or are geared by war, conflict and local rivalries. This war economy in the Pakistan-Afghanistan region has much to do with the Pakhtun social structure and the economic landscape that evolved over centuries thereof.

Absence of Capital Formation Institutions

One of the key causes of economic underdevelopment and lack of industrialization in the Pakhtun regions of Pakistan and Afghanistan is the non-availability of much-needed capital to develop infrastructure and production units. The most effective way to raise capital for industrialization is to have a capital market or stock exchange where joint-stock companies could float their shares to the shareholders and in return have the required capital for establishment or expansion of industries. In the entire Afghanistan there has ever been a developed stock exchange due to which companies could not be formed and industries could not be established for want of capital. Likewise, in Pakhtun-dominated regions of Pakistan there has been no stock exchange while the need has been immense. In place of capital markets or stock exchanges Pakhtun regions of Pakistan and Afghanistan have been dotted with the traditional rather archaic institution of *Saraf* (the money-lender) who provides money in lieu of gold, land and other valuables mortgage. With the institution of *Saraf* has been associated two traditional and illegal methods of money transactions that are *Hundi* and *Hawala*. Pakhtun traders and workers have been making use of *Hundi* and *Hawala* to remit and transfer money from abroad particularly Arab-Gulf countries and other parts of Afghanistan and Pakistan.

The absence of any capital market or stock exchange in the Pakhtun regions of Afghanistan and Pakistan has primarily been due to the Pakhtun social disbelief in the institutionalized and modern economic institutions to raise capital for manufacturing and service sectors. This in turn has had roots in the unruly and stateless nature of common Pakhtuns. Because it is the state of Pakistan or Afghanistan which could establish capital markets in the Pakhtun regions, however, the very weak association of Pakhtuns with both the states despite dominating Afghanistan as rulers and also Pakistan to some extent have had prevented their leadership to organize their Pakhtun followers to make the political-policy demand of establishing capital markets. A leadership and people steeped in ultra-conservative social structure and making all efforts to reinforce this structure instead of reforming and replacing it could not envision the value of developed economic institutions like that of a capital market.

Lack of Urbanization

Afghanistan as a whole and Pakistan's Pakhtun regions are the most non-urbanized areas in the World. Although Afghanistan has had a number of cities but none including Kabul could qualify to be a truly urban centre. Same is the case with Pakhtun regions of Pakistan, where only the capital of KP province, Peshawar, could qualify to be a proper city with the inauguration of a city metro service in August 2020 and establishment of modern housing societies. Lack of urbanization in Pakhtun-inhabited regions of Pakistan and Afghanistan has largely been linked to the rural dominated landscape, a traditional agro-based economy and a social psychology where yearning for industrialization has been minimal while the institutions to raise capital non-available.

Keeping in view the postulates of the *Modernization Theory* that economic underdevelopment or economic development has roots within that society particularly its traditional norms, values, institutions and technology, the lack of urbanization, industrialization, education and democratization are linked in a concatenated chain according to this theory. Thus this theory is very much applicable to lack of economic development in the Pakhtun regions of Pakistan and Afghanistan as a whole. So we have to look for the economic underdevelopment of Pakhtun regions of Afghanistan and Pakistan within the social structure. This variable is therefore, largely responsible for economic underdevelopment of Pakhtun regions of Pakistan. If these regions have to make economic development there is a need for internal change in the traditional norms, values, institutions and technology.

Pakhtun Social Structure and Implications for Economic Development

Social structure plays a critical and conditioning role in the functioning of the economy, distribution of productive resources, wealth, economic statuses and roles in a society. Like any society in Pakhtun society the relationship between social structure and economy has been intertwined. Empirically the rigidity and inflexibility of the social structure of Pakhtuns, whether in Afghanistan or Khyber Pakhtunkhwa (KP) province of Pakistan has been a great impediment to economic growth. A closer observation and analysis reveals that it is the unsupported ultra-tribal, profoundly-conservative reactionary (if one is not culpable of using so many adjectives but explaining complex societies necessitates their use in order to fully comprehend such societies) social structure of Pakhtuns which could not provide the supportive milieu for the thriving of industries. Such a social milieu could not make the people industrious and enterprising. Moreover, pervasive and prevalent conflicts as part of social life necessitate investment in weapon-making, selling and buying. Then industries could not flourish due to the absence of the supportive social ecosystem primarily continual peace and stability. This again has been due to the conflict-ridden and conflict-dictated social dynamics of the Pakhtuns. Then sustaining conflicts and rivalries require continuous income which only such a war-economy could provide. Consequently, a large number of Pakhtuns become associated with illegal economic activities primarily opium production, heroin manufacturing, goods smuggling and gun-running. The capital from these activities has over the years been invested into legal businesses providing great support to the war-economy in turn. Considering the land most valuable asset by majority of Pakhtuns as it is the biggest source of pride, in the vainglorious and conflict-ridden society, prevented Pakhtuns to value capital. This has had extensive implications for the economic development of Pakhtuns because the society could not focus on the accumulation of wealth and its importance for industrialization. Pakhtuns disdain for wealth accumulation prevented them from economic transformation which could have changed the complexion of society from agrarian to industrialist and from rural to urban as happened after the Industrial Revolution in England and rest of Europe in 18th, 19th and 20th Century or the path generally prescribed by modernist theorists in order to achieve higher level of development for every country and region.

Lack of industrialization in the Pakhtun lands has also been due to the very reason that the unsophisticated psychological feeling of freedom and the ethnic group members' proclivity to retain this freedom by any means develops a habit of disregarding rather hating legal authority of the state. Therefore, there has not been any strong policy demand(s) from the Pakhtuns in Afghanistan and

Pakistan from the state authorities to establish industries on a large scale and modernize and mechanize agriculture in their areas. In response the state could not play an instrumental role in the economic development of Pakhtun regions. Nevertheless the state of Pakistan also has had a policy to keep the Pakhtun regions economically underdeveloped as the state has been domineered by the Punjabi majority, thinking economic development of Pakhtuns as counterproductive to the economic interests of the Punjab. Moreover, the state in Pakistan also has had desisted from carrying out large-scale industrialization of the Pakhtuns thinking that the wealth thus created would make the inherently freedom-loving Pakhtuns more independent which may strengthen the centrifugal tendencies already strong among the Pakhtuns. Nevertheless, it has been the closed and traditional-dominant ossified Pakhtun social structure and the myopic leadership it has had produced which could not understand the value of transforming the social structure to make it more open to change and development. Instead the Pakhtun leadership concentrated on stirring up separatist tendencies raising the fears and alarms of Pakistani decision-makers not to economically develop the Pakhtun regions. However, the Punjab-dominated Pakistani policymakers overlooked the fact that more economically developed Pakhtun regions would get mainstreamed and would play their critical part in national development. In this whole process Pakhtun social structure could not give birth to genuine leadership and movements to ask for their genuine economic rights from the state of Pakistan.

On their part to survive economically instead of demanding from government to establish industry or to set industrial units themselves majority of Pakhtuns resorted to retail and cross border trade. In particular the smuggling across the Pakistan-Afghanistan border has been a source of succor for thousands of Pakhtun families. The smuggling itself demonstrates the anti-state or stateless proclivities of Pakhtuns, which obviously have their roots in the Pakhtun social structure (Rubin, 2000).

Flexibility of a social system can be determined by the openness of the social class structure, a sine qua non of the economic development of a society. An innovative or change oriented economic system is judged by the degree of technical competence, organizational complexity, productivity and mainstreaming of women, which claims to be essential for the development of a technically superior and a self-correcting economic structure. Innovation and technical competence are primary characteristics of a flexible economy and its most direct indicators. The rigid Pakhtun social structure embedded in the self-aggrandized nature of Pakhtuns has had largely influenced the economic growth (development) in Pakhtun society. Pakhtun society may be described as partially

atomized, reduced to the most basic element (the individual) that is, each man (but not each woman) considers himself as independent and self-sufficient. However, this atomization of Pakhtun is totally unlike western individualism, which entails a range of rights and responsibilities. Pakhtun men feel proud to present themselves as completely self---reliant (Lindholm, 1982, 1996). However, notwithstanding the cultural ideal of self---sufficiency, economic exchanges do occur in Pakhtun society. They are, however, awkward at best and often bound to fail. Because exchanges among Pakhtuns are meant to be balanced whereas in the world of business the ideal exchange occurs between equals, and must result in the exact and immediate return of what was given, or its equivalent. Most Pakhtuns, due to self-aggrandized attitudes and fear of losing pride, often do not tolerate loss in business. Even on domestic level, for example, while contracting a marriage, women members of the bridegroom's family bring cloths for the bride and their quality is kept track of so that to return exactly or with something of equal value. Failure to do so causes a loss of prestige, the preservation of which is deeply entrenched in Pakhtun social psychology. It is always difficult for majority of Pakhtuns to start a business due to the fundamental reason that one must wheedle and be obsequious to attract customers. (Lindholm, 1982) Such submissive and cajoling behaviour is totally incompatible with the aggrandized self of a Pakhtun.

Apart from business in professional occupations, Pakhtuns strive to avoid dependence on others Pakhtuns. A Pakhtun, for example, is always reluctant to accept another Pakhtun as his employer; only economic compulsions make him to unwillingly accept other's subordination. Majority Pakhtun men are unwilling to work for other Pakhtuns because of the rivalries endemic in their social system. To work for another Pakhtun is to admit one's inferior position, which negates the aggrandized self of the employed Pakhtun. For Pakhtuns, it is acceptable to work for foreigners and non-Pakhtun Pakistanis such as Punjabis because, although a Pakhtun thinks to 'demean' himself by working for them, as they are considered culturally inferior. Moreover, the researcher observed that, working for non-Pakhtun employer(s) is assuaging for the self-aggrandized self of a Pakhtun as in that case he would not be given a paighor (vituperated) by fellow Pakhtuns for groveling before his master, who is no one else but a fellow Pakhtun. That is the reason why most of the work for non-Pakhtun employers takes place outside the Pakhtun-inhabited regions and away from the Pakhtun cultural setting such employment becomes self-reconciling for a Pakhtun. This is the fundamental reason that the largest concentration of Pakhtun ethnic group anywhere in the World is in a non-Pakhtun territory that is the port city of Karachi, where of the 20.5 million population the portion of Pakhtuns is around 4.5 million. Karachi's Pakhtun population is far bigger than Peshawar, the capital

of KP province of Pakistan and Kabul, the state capital of Afghanistan.

A very few Pakhtuns develop skills so as to be competitive in the labour market, because learning skills mostly tends to be looked down upon by Pakhtuns and is against their aggrandized selves and identity. For them learning skills means to become a kasabgar (artisan) and kasabgar is perceived as a disparaging and contemptuous term and status within the Pakhtun psychological makeup. Hence, most Pakhtuns not only tend to be impractical but engross themselves in self-admiration. These personality features of a Pakhtun tend to make it difficult for him to develop the technical skills required for industry to flourish in the Pakhtun landscape. This shunning of technical skills along with tendency to avoid other Pakhtun(s) as an employer(s) have been the key reasons behind lack of industrialization in Pakhtun regions.

Gender Roles & Economic Development

Gender roles and statuses are also critical to determine the role of each gender in the economic sphere and its development and underdevelopment. Women are also not part of the entire Pakhtun economic landscape because it is against the honour and aggrandized selves of Pakhtuns to let women do business and work as employees (Gohar, Basit, Ayesha, 2018). Pakhtuns' males' self-aggrandized attitudes never let them recognize the potentialities and skills of their womenfolk (Gohar, Basit, Ayesha, 2018), resulting in a negligible contribution of women in overall economic development of society. Many women in Pakhtun areas may have been allowed by their male relatives to work in homes as helpers and cleaners but most of them under financial duress. Moreover, those Pakhtu-speaking women, who work at others' homes as cleaners, make the proud Pakhtun identity as highly questionable. To this, majority Pakhtuns reply in a manner that within the traditional Pakhtun cultural values, *kasabgar* (professional workers) and peasants have never been considered as 'Pakhtuns'. This is yet again an example of self-glorification, which even does not recognize fellow Pakhtu-speaking people as non-Pakhtuns because of their low socioeconomic status. Hence, the stumpy economic development in Pakhtun society has been the logical expression of self-aggrandizement that restricts flexibility of Pakhtun social structure.

Conclusion and Findings

The link between the social structure or a region, country or place and its economy is profound. The Pakhtun social structure largely having a rigid nature has had a huge role in keeping the ethnic group inhabited regions in Pakistan and Afghanistan economically extensively underdeveloped. The Pakhtun social structure very important aspect is vainglorious social attitudes of majority

members of the society. Some key aspects of Pakhtun economy include over possessiveness regarding lands, lack of industrialization, flourishing of arms manufacturing, thriving of a war economy including gun running, goods smuggling, absence of capital markets and lack of urbanization. Pakhtuns value land more than capital and traditionally only a small segment of Pakhtun society exchange land for capital in order to invest in industries so as to accumulate wealth and raise their standard of living. All these features of Pakhtun economy have extensive and profound linkages with the Pakhtun social structure. So as a policy recommendation if the long-cherished desires of Pakhtuns and the government of Pakistan and Khyber Pakhtunkhwa want to overcome economic development in the province the social structure has to be engineered in such a way that a situation could be created which could support industrialization, urbanization and democratization (particularly ease of doing business) and through it economic development.

Recommendations

On the basis of this research study following recommendations are put forward.

- The government of Khyber Pakhtunkhwa province and federal government of Pakistan along with non-governmental development organizations with help from international donor organizations must take measures for extensive industrialization and growth of the services sector in the province with the aim to change the complexion of the society. So as to make people more industrious, economically engaged, positively individualistic.
- Changing the social complexion of society would require rapid but planned urbanization in the Pakhtun-inhabited mostly rural, agrarian and remote areas. Planned urbanization would help positive the cognitive, affective and behavioural changes within the population.
- In order to make Pakhtuns industrious they have to be imparted technical skills and professionalism. In this regard government and non-governmental organizations must come up with programs for each and every district and village of Khyber Pakhtunkhwa province.
- Making Pakhtuns responsive to and participating in skills training programs could largely be possible if they are convinced of the importance of skills. In this respect a communication strategy telling the Pakhtuns that developing skills is something associated with prophets and as Muslims this is contingent upon them to learn skills.

References

Ahmed, A. (2012). Millennium and Charisma Among Pathans (Routledge Revivals). Hoboken: Taylor & Francis.

Akbar Salah al-Din Ahmad. (1980). Pukhtun economy and society. London: Routledge & Kegan Paul.

Barth, F. (1965). Political leadership among Swat Pathans. London: Athlone Press.

Berea, Anamaria. Economic Processes and Network Dynamics in the Pashtun Tribes. Center for Social Complexity George Mason University. February 2010 http://pashtunculturalinstitute.com/wp-content/uploads/2018/02/Economic-Processes-and-Network-Dynamics-in-the-Pashtun-Tribes.pdf

Buchanan, J. (1965). An Economic Theory of Clubs. Economica, 32(125), 1. doi: 10.2307/2552442

Clements, F. (2003). Conflict in Afghanistan. Retrieved 22 September 2021, from https://books.google.com/books/about/Conflict_in_Afghanistan.html?id=bv4hzxpo424C

Coase, R. H. (1937). The nature of the firm. Economica, 4, 386 405.

Dutta, B., & Jackson, M. (2000). Special Issue on the Formation of Groups. Review Of Economic Design, 5(2), 109-109. doi: 10.1007/pl00011166

Glatzer, B. The Pashtun Tribal System: In G. Pfeffer & D. K. Behera (eds.): Concept of Tribal Society (Contemporary Society: Tribal Studies, Vol 5). New Delhi: Concept Publishers, 2002, pp 265-282.

Glatzer, B. "From Refugee to Resident: Effects of Aid on Repatriation" in In: E.Eide & T. Skaufjord (eds) From Aid During Times of War to Aid for Reconstruction and Development. Seminar Report (Peshawar: Norwegian Afghanistan Committee) 1992, pp161-168

Gohar, Madiha & Basit, Asma & Abrar, A.. (2018). Growth aspirations of pukhtoon women entrepreneurs in the household context. FWU Journal of Social Sciences. 12. 180-189.

Granovetter, M. (1985). Economic Action and Social Structure: The Problem of Embeddedness. American Journal Of Sociology, 91(3), 481-510. doi: 10.1086/228311

Granovetter, Mark. (1988). The Sociological and Economic Approaches to Labor Market Analysis: A Social Structural View, in Industries, Firms and Jobs: Sociological and Economic Approaches. George Farkas and Paula England, eds. New York: Plenum Press, pp. 233– 63.

Granovetter, Mark. (1995a). The Economic Sociology of Firms and Entrepreneurs, in The Economic Sociology of Immigration. Alejandro Portes, ed. New York: Russell Sage Foundation, pp. 128 – 65.

Granovetter, Mark. (1995b). Getting a Job: A Study of Contacts and Careers. Chicago: University of Chicago Press. Granovetter, Mark. 2002. "A Theoretical Agenda for Economic Sociology," in The New Economic Sociology: Developments in an Emerging Field. Mauro F. Guillen, Randall Collins, Paula England and Marshall Meyer, eds. New York: Russell Sage Foundation, pp. 35–59.

Granovetter, Mark. (2005). Business Groups and Social Organization, in Handbook of Economic Sociology, 2nd Edition. Neil and Richard Swedberg Smelser, eds. New York and Princeton: Russell Sage Foundation and Princeton University Press, forthcoming.

Granovetter, Mark and Richard Swedberg. (2001). The Sociology of Economic Life, 2nd Edition. Boulder, Colo.: Westview Press. Granovetter, Mark and Charles Tilly. 1988. "Inequality and Labor Processes," in Handbook of Sociology. Neil Smelser, ed. Newbury Park, Calif.: Sage Publications, pp. 175–221.

Haider, Mehtab. (2020, May 19). Pakistan Economy Size Shrinks to $264 bn. The News

Lindholm, C. (1996). Frontier perspectives. Karachi: Oxford University Press.

Lindholm, C. (1982). Generosity and jealousy. New York: Columbia University Press.

Mian, Asif. (Apr-June, 2010). FATA: Tribal Economy in the Context of Ongoing Militancy.
Conflict and Peace Studies, Vol-3, No-2.

Myrdal, G. (1958). Lands and Poor: The Road to World Prosperity. New York: Harper.

Nicholls, W. H. (1960). Southern Tradition and Regional Progress. University of North Carolina Press.

Oakland, W. H. (1978). Local Taxes and Intraurban Industrial Location: A Survey (G. F. Break, Ed.; pp. 13–30). The University of Wisconsin Press.

Price, H. D. (1967). Negroes and the new southern politics. By Donald R. Matthews and James W. Prothro. (New York: Harcourt, brace & world, 1966. Pp. Xvi, 551. $12.50.). The American Political Science Review, 61(3), 779–780.

Qazi, Raza Rahman Khan, (2012). Extremism-Terrorism in the Name of Islam in Pakistan: Causes & Counterstrategy. PhD Thesis, University of Peshawar, Pakistan (Unpublished)

Reclaiming Prosperity in Khyber-Pakhtunkhwa: A Medium Term Strategy for Inclusive Growth. International Growth Centre Working Paper (April 2015) Available at

Government of Khyber Pakhtunkhwa. Industrial Policy, Khyber Pakhtunkhwa 2016 p. 8

Rauch, J. E. (1999). Networks versus markets in international trade. Journal of International Economics, 48(1), 7–35.

Rubin, B. R. (2000). The political economy of war and peace in Afghanistan. World Development, 28(10), 1789–1803.

Tainter, Joseph A. & MacGregor, Donald G. (2011). Pashtun Social Structure: Cultural Perceptions and Segmentary Lineage Organization, Understanding and Working within Pashtun Society. A project funded by the Office of Naval Research, Human Social Cultural Behavioral Program to MacGregor Bates, Inc. Retrieved from SSRN: https://ssrn.com/abstract=1934940 or http://dx.doi.org/10.2139/ssrn.1934940

Taj, S., Shah, Z., & Bilal, M. (2018). Politics of ethnicities and federating issues in Pakistan: Changing geopolitical perspective of the region. Global Political Review, 3(1), 101–11).

Pakistan Development Update: Growth A Shared Responsibility. World Bank Report (2017) Available at: https://documents1.worldbank.org/curated/en/536431495225444544/pdf/115187-WP-PUBLIC-P161410-77p-Pakistan-Development-Update-Spring-2017.pdf

Zuckerman, Ezra. (2003). On Networks and Markets by Rauch and Casella, eds. Journal of Economic Literature. 41:2, pp. 545– 65.

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Rehabilitation of Inmate Young Offenders and the Education system:Offenders' Perspective in South Africa

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Unemployment, lack of education and few opportunities are, but few of the factors that lead to young people in South Africa and elsewhere turning to crime. These young people face the law after being caught and they get incarcerated in the correctional service centres. It seems that many of educational programmes aimed at rehabilitating young inmate offenders seem not being effective as some of these young inmate offenders become hardened criminals through institutionalization in correctional service centres. This paper thus, explored the views of inmate young offenders of the benefits of educational programmes they derived while incarcerated in South Africa. The young inmate offenders' age ranged from 17 years to 27 years, 5 females and 8 males. A qualitative phenomenological research method was used with a sample of 6 inmate young offenders to describe young inmate offenders' views of benefits they derive from educational programmes in correctional centres. Based on the available and access to the participants a purposive sample was employed for this research study. An open-ended questionnaire instrument which contained a set of a variety of questions on benefits of educational programmes were completed by the research participants. To conduct this study in line with ethical considerations, permission was given by the university's ethical committee and later the Department of Correctional Services allowed the study to be conducted in their correctional centres. Data that was thematically analysed discovered educational programmes offered and availed to inmate young offenders to be beneficial. The study showed that although formal education was offered, the educational programmes faced many other challenges which were also mentioned in other studies and even in this study the offenders pointed them out, e.g. lack of resources and shortage of staff. The study also revealed that the rehabilitation programme played a critical role inreducing gang formation and fights in the entire inmate community. The collaboration of the state, community, family members of the offenders, churches, traditional leaders and non-profit organisations is required in rehabilitation of the IYO .

***Keywords*:**inmateyoung offenders, rehabilitation support, educational programme

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In his research, Ngobeni, (2015:88) mentions that in correctional centres offending juveniles who have turned into criminals have a chance of being turned into law-abiding citizens. Du Plessis and Lombard, (2018) point that in accordance with the Department of Correctional Services' aim of "correcting" and "rehabilitating" inmate young offenders various vocational and training programmes are offered, especially to under-privileged young adult offenders. Cilliers and Smit, (2007 and Moore, (2016)remind that correctional centres are by their nature places of punishment, rather than a learning environment or centres. This imply that, instead of being reformed or rehabilitated, many inmate offenders become hardened criminals while incarnated. Haney, (2003) warns that many inmates doing time in many prisons in the world experience psychological trauma. According to Haney, (2003) many incarcerated inmates struggle to adapt and adjust to life in prison. For example, Cook, Smith, Tusher and Raiford, (2005) in their study on self-reported cases of inmates in prisons 'traumatic experiences refer to emotional pain, stigmatization, homelessness, unemployment, to mention but a few. Despite these scenarios drawn in the above, the correctional centres are tasked with rehabilitating young inmate offenders through various educational programmes.

According to the Correctional Services Act, 1998 rehabilitation or correction is combination of correcting behaviour that led to the offence, developing the human potential for service to the community and the self with aim of promoting social responsibility and accepted values in the society. Mdletye, Coetzee and Ukpere, (2014) further highlight that the processes of rehabilitation encompass the departmental responsibilities of government and the social responsibilities of the nation. Cullen, Johnson and Mears, (2017), state that rehabilitation "is the way of determining how an offender can be offered treatment to deal with his/her future behavioural patterns regarding his future criminal life". Mdletye, Coetzee, and Ukpere, (2014similarly, demonstrate that focus of rehabilitation should be focused on how incarcerated inmates in a correctional service are exposed to various development services and vocational training programmes. Murhula, (2019)augments by suggesting that the DCS should look at rehabilitation programmes as a way of reducing future criminality and producing a productive member of the community.

The above statement indicates that the problem of young offenders is not a recent issue; it has been a serious issue for years and it is alarming, to say the least. According to Nethavhani (2002), young males between the ages of seventeen and twenty-five were engaged in more serious crimes such as housebreaking, murder, robbery, rape, and car hijacking. Recently, Makhurane, (2014) reported that in a period of less than two years, 75435 young offenders were on the wrong side of the law for various crimes that includes aggressive and

violent crimes. Makhurane (2014) shows the danger and involvement of young people by pointing out that theDepartment of Correctional Services (DCS) reportedbetween 2012and 2013 close to a thousand youth aged between seventeen and younger were reminded in correctional centres. In a more recent study, Makhurane, (2019) states that half of incarcerated youth offenders tend to fall into recidivism.

Makhurane (2014), projects that eighty percent of young offenders released in South African Correctional Services (SACS) are likely to return to crime due to high unemployment rate and lack of opportunities available to released inmates. To compound the problem, Matshaba (2011) further points that the number of awaiting trial or unsentenced young offenders is alarming and a cause for concern.

Literature Review

Tangney *et al.*, (2016)indicate that research is on-point when stating that education received by inmates' offenders while incarcerated seem to be effective in changing their lives after prison life. Manger, Eikeland, Asbjørnsen, and Langelid, (2006) mention that literacy programmes, job-training programmes, and college programmes offered to inmates reduce recidivism significantly. This view is confirmed byBerry, (2018) and Terry, (2010), that education in prison was the best alternative approach because it reduced recidivism. Arguing for educational programmes in prison, Bayliss, (2003) states that educational programmes lessenreoffendingby reducing crime and saving taxpayers' money and on a social benefit creates a potential safe and secure society.

Malouf*et al.*,(2014) suggests that educationis not onlyhelpful by helping the incarcerated inmate to reorganize his or her life after prison but can play a pivotal developmental role for access to higher education such as universities and colleges. Moore (2016) showed that the inherent importance of prison education programmes wasnoticeable in the sense it affirms self-dignity, self-worth of the person and develop critical thinking.

According to Makhurane (2014), the likelihood of reoffending rate among incarcerated people who received education while incarceratedwas lower than for those who did not receive education at all. These findings by Makhurane, (2014)demonstrates that a positive relationship between re-offending and the nature of education received by an inmate offender. Consequently, it is preferable to offer inmate prisoners education and reduce the levels of re-offending to create a sustained safe community.Quan-Baffour and Zawada (2012) concluded that education programmes for prison education in South African context was a fundamental human right and it was proper to fulfil the

rights of inmate offenders. further argued that education had socio-economic value. Below are justifications for education for inmates' offenders.

- Xavier,Stephan and Brazier, (2019) and Green and Preston, (2001) posit that prison education encourages social unity because it allows prisoners to learn to become humane by developing cooperative skills that can sustain communal interdependence and concern for the welfare of others in the community.

- On the other hand, Magadze, Roelofse and Oliver, (2017) and Zondi, (2012) motivatethat education facilitates the re-integration of offenders into the community as reformed members. And,
- Wiafe, (2021) states that former prisoners with relevant skills were likely to be employed in formal businesses.

The Nature of Education Found in Correctional Services

Behan, (2014) posits that there are mainly two forms of learning education programmes in prison, that is,formal and informal education programmes. Bhatti (2010) describes informal learning in prison as learning through experiences of other prisoners through storytelling to one another.Bhatti, (2010), states that learning informally in prison can be a daunting task as it requires self-directed learning such as reading and reflecting. Bhatti, (2010) and Manger, Eikeland, Asbjørnsen and Langelid, (2006) point that space as a commodity is restricted in prison and as such a prison who intends to learn needs a lot of resilience. Davies, (2000) states that formal learning takes place through the provision of formal education programmes that are accredited in one form or the other. In view of Moore, (2016) formal education programmes are recognized officially by the correctional centre or prison and as such may lead to the certification of the inmate. According to Moore, (2016), the philosophy of the correctional centre is critical in determining the conditions and attitudes towards teaching and learning of the offered educational programmes. For, example, it may be deduced that if the correctional centre or prison sees the valued embedded in the offering of such educational programmes, inmates or prisoners will be motivated to enrol in those programmes. However, if the view of correctional centres is that prisons are fully for punishment, it will likely deter prisoners from learning. García and Madrid, (2004), Nations, (1991) mention that organizations such as The European Network for Research, Action and Training in Adult Literacy and Basic Education suggested that in teaching offenders, the curriculum should be broad and follow a holistic approach. Again, Nations, (1991) points out that the intervention programme should link offenders with the community. The suggestion is that teachers in correctional centres should strive

for the development of the offender's personality, education should be relevant to offenders' needs and abilities, and facilitate re-socialization into the society.

Keen and Woods, (2016) andMagos, (2014) are of the view that worldwide education has become a norm and compulsoryparticularly for those prisoners who are still at the school going age. Keen and Woods (2016) mentions that in the United States of America in Vermont City, schooling is made compulsory for incarcerated offenders under twenty-two years of age who lacks a high school diploma. Like in many countries in the world, Makhurane, (2014) confirms that the Department of Correctional Services South Africa has also prison education compulsory for all offenders of school-going age. Moore and Mokhele, (2017) and Magano (2015) states that in South African correctional centres a holistic approach to access of formal education for juveniles is important for their later reintegration into the society and avert recidivism. Mdletye, Coetzee and Ukpere, (2014) and Pike and Irwin, (2008) augment that the holistic approach to access to formal education is an enabler to facilitate better livelihoods of juvenile inmates with suitable social skills and technical skills. Behan (2014)is of the opinion that offenders' holistic development addresses important competencies for the purpose of rehabilitation such as social development,social consciousness, vocational and technical training, recreation, sport that will enable offenders to effortlessly reintegrate into communities and function as productive citizens.

Formal Curriculum

McKay and Quan-Baffour (2009), Pike and Irwin, (2008) state that formal education in correctional centres is part of the mainstream school and university education. For juveniles who have not completed their basic education and training and further education, mainstream education, they will fall under mainstream school curriculum whereas, those prisoners with basic, post-primary or secondary, high school will pursue college or university certificate, diploma or degree curricula (Pike and Irwin, 2008).Bohloko, (2006) describes formal education as the process of teaching and learning provided, regulated and controlled by governments. This therefore means that offenders in formal educational programmes, and tertiary education, follow a certain set curriculum. Mbanjwa and Johnson, (2018) mention educational programmes offered by the Department of Correctional Services in South Africa for juvenile offenders include Basic Education and Training (ABET), literacy, ABET level 1 - 4, and Further Education and Training. ABET which deals with lifelong learning and development of adults and leads to nationally recognised certificates. Mbanjwa and Johnson, (2018) point that ABET focuses on imparting knowledge, skills and attitudes required for social, economic and political participation and all inmates are legally compelled to complete ABET programme. Johnson, (2015) warns that

while correctional education is said to be highly integrated with mainstream education, the high unemployment rate, particularly amongst the youth and school-leavers leaves much to be desired in terms of whether the education is responsive to society's needs or whether there is a balance between demand and supply.

Informal Education Programmes for Inmates

Cilliers and Smit, (2007) state inmates should choose an alternative life from crime to face the harsh of life. As a result, neither formal nor informal education programmes are never sufficient. Magano, (2015) mentions that to buy time, the inmates routine varies from being involved in the informal curriculum which includes sport, recreation, arts and cultural activities, life-skills and library. Makhurane (2020) contends that if juvenile prisoners are provided with the sustainable life skills it would be an easy task to reintegrate them back into their respective communities. Anger management is one of the important programmes for juvenile inmates to undergo to prepare them for different life confrontations. Watts, 2010, Woodward, Sloth-Nielsen & Mathiti, (2007). Furthermore, Cullen, Jonson and Mears, (2017 and Johnson (2015),inform that informal correctional education programmes include life-skills activities that embrace re-socialisation where offenders are provided with skills that help them to do self-examination of their lives. Meek and Lewis, (2014) state that some of the recreational or informal training facilities that are catered for include sport such as soccer, cricket, rugby, card games, table tennis, boxing, chess, pool, volleyball, as well as library, needlework and hairdressing. It is hoped by the correctional services authorities that these activities will be able to stimulate new ideas and perspectives about life outside the prison or correctional centres.

A practical example of a life skills programme or training according to Woodward *et al*., (2007)is a collaborative effort between the universities of South Florida and Western Cape. The ideas behind this inventiveness were threefold, namely, to improve the capacity and skills of young offenders,to enable their successful integration into the communityand to provide them with positive personal and social opportunities.

Woodward et al, (2007) found that immersion in music assist pathways for young inmates to make music and be tolerant and respectful ofdiversity along racial lines. A similar programme done by Sloth-Nielsen, Woodward and Mathiti, (2007) demonstrated that informal education programme like music has the potential to enhance the life skills of juveniles and reduced the likelihood of association with delinquent peers and of becoming involved in activities which are against the law.

Studies done by Tangney, Folk, Graham, Stuewig, Blalock, Salatino, Blasko and Moore, (2016) sexuality education, substance and drug abuse programmes building of a healthy self-esteem, dealing with anger or management are some of the core informal programmes that offered to inmates to take responsibility of themselves and that of others. Masina, (2019) and Murhula, (2019) add that conflict resolution, civic training and citizenry based on human rights ethos through street law or legal education are correctional services programmes thatfosters personal responsibility, active involvement in decision-making, taking responsibility for own progress, fostering of leadership and community involvement.

Aimand research question of the study

The aim of this research study was to discover the views of inmate young offenders of benefits they derived from educational programmes offered by correctional services. This stance was purported by the aim to improve on educational programmes deemed to be beneficial to young inmates' offenders when they are released from correctional centres. The research question which guided this study was how young inmate offenders view correctional services educational programmes towards the improvement of their livelihoods in line with their future when they have served their time.

Method

Maree, (2007)'s approach to qualitative research which focuses on the phenomena that occur in the real world was used in this study. In the context of this study the natural setting was the perceptions of inmate young offenders' views on the benefits of educational programmes offered in correctional centres. To meet these requirements, researchers used open-ended questionnaire at the different sections at DCS to obtain a real understanding of how they perceive education and training curricula programmes.

Research context, participants, setting

This research study was conducted in the Department of Correctional Services in the Bizzah Makhate centre. Thus, the findings of this research study are limited, and context based on the information provided by inmate young offenders of benefits of educational programmes. The population in this research study consisted of a convenience sample of 13 inmate young offenders. Their ages ranged from 17 to 27 years and there 5 female and 8 male young inmate offenders.

Data collection

According to LeCompte, (2000), McMillan and Schumacher, (2010) researchers need to consider which data collection method is the most

appropriate for the population in the research question. In this research, the research utilized open-ended questionnaire. The open-ended questionnaire used with the intention to intention to explore the participants 'views, ideas, beliefs, and attitudes about benefits of educational programmes while incarcerated.

Data analysis

Data was thematically analysed using open-coding procedures (Maguire & Delahunt, 2017). These procedures involved systematically organising, categorising, and summarising data; followed by describing it in meaningful themes. Themes were assigned codes to condense the data into categories. For the data reporting we used randomly assigned numbers as de-identifiers.

Ethical consideration

According to Ryen, (2011)research ethics are universal and concern issues such as honesty and respect for the rights of individuals. The researchers obtained permissions to conduct the research both from the University Faculty of Humanities and the Research Directorate of the DCS and Department of Education (BMMA). It was noted that correctional centres are highly controlled facilities for safety and security reasons; hence ethical issues were taken very seriously for this study. One can only reach confidentiality, anonymity, the right to participate and withdraw between research participants and the researcher in a normal free world. Contrarily, in correctional facilities, such principles are highly controlled, compromised and affected by various factors (Luyt, Muller, Bruyns & Jonker, 2010).

Results and discussion

The number of male inmate young offenders was more than female young offenders.This was the observation that was evident at the site of data collection where this study was conducted. This revealed to the researcher that male lawbreaking seems to be more frequent than female law-breaking, especially in youths. This finding seems to be consistent with Shagufta, (2020) and Heidensohn, (2013) finding in terms of genderwhich indicated that male criminality was more popular than female criminality in all the criminal justice systems around the world. In the South African correctional system, more than 96% of sentenced offenders are male. Female youth offenders constitute only 2% of the general population of youth offenders. Inclusion of only male inmate young offenders for this study was the more feasible option for the researcher.The thematic analysis resulted in four*themes*:(i)Benefits to the individual, (ii), benefits to the correctional centre when it comes to educational programmes,(iii) Benefits to the society and (iv) Improvement of educational programmes.

Theme 1: Benefits to the Individual

Theme one was a result of the question 'how do you see educational programmes at the DCS benefiting you'. The responses of inmate young offenders were mildly positive. For example, they felt that was a little benefit on that part. However, the following responses were a bit positive as they focused on the character of the individual inmate young offender: Some of the responses were:

> *"The programmes uplift me morally, spiritually and make me feel more responsible adult in future, when I am released, I see that the educational programmes will keep me away from my old ways, for example, away from participating in gangster activities and other negative acts. The programmes will help me from offending again and that will shape my future"*

An 18-year-old inmate young offender mentioned that there was a need to improve on delivery mode of the educational programmes being offered:

> *"Currently the educational programmes offered are ABET and are part-time, it will be better if these programmes were done on full time schooling for young offenders. The educational programmes are meant to equip inmate young offenders to be able to face the outside world when they are released from the correctional centre. After a period attending the programme, I feel more rehabilitated and my attitude and behaviour have changed"*

However, a 20-year-old inmate young offender cautioned that the current formal educational programme is one size fits all. He mentioned that:

> *"Currently the formal educational programme for young offenders is not relevant but waste of time for them because they are doing ABET instead of full-time schooling"*

A salient point finding from the above excerpts was the ability of the educational programmes to force inmate young offenders to introspect positively. For, example, to be able to discern from good and bad, being responsible adults in the future, keeping away from gangsterism activities. This assertion is consistent with literature it revealed education aids inmates to get skills and knowledge necessary to take economic responsibility of their lives and that of their families and avoid criminal activities (Fitz, 2013; McAree, 2011).

Theme2: Benefits to the Correctional Centre

When asked on how the educational programmes benefit the correctional centre both the educators and officials the responses were the same on things as it reduces gangs and fights. A 16-year-old responded that educational programmes:

> *"Educational programmes reduce things like gangs and crime in the correctional centre, it distracts offenders from participating in gangster related activities, as a result assaults become less. They empower the offenders and helps the correctional centre to meet their targets and they benefit both the officials and inmates because it develops them educationally and socially"*

Another 17-year-old inmate young offender mentioned that:

> *"It develops the system from punitive to become real correctional centre, 'It helps in reducing the number of offenders in correctional centres"*

The finding seems to be relevant to Sultan, Khurram and Hussain, (2018), Moore and Mokhele, (2017) stating that educational programmes benefits the correctional centre greatly, reduces gangs leading to less assaults, the centre gets to meet its targets most especially if they able to rehabilitate fully it reduces offenders in correctional centre. This means the less offenders the better the resources and money can be used for other purposes. The findings of the study are like what Moore, (2016) stated recidivism is an enabler to reduce crime and safe government expenditure.

Theme 3: Benefits to the Society

The inmate young offenders also mentioned that educational programmes are of benefit to the society. Many young offenders are released on parole, thus educational programmes give an advantage when the offender goes to the parole board. It is also the duty of the officials from time to time to visit the offenders in their homes to check for progress on their education. Agba, Okpa, and Ogar, (2020), Nagin, Cullen and Johnson, (2009) mention that many cases there seem no synergy between educational programmes offered in prison and those outside prison. This shortcoming leads to inmate young offenders being cases of recidivism (Cullen, Jonson & Mears, 2017). Most responses were positive stating points on it improves the economy because the inmates who are fully rehabilitated can go back to their communities and use their skills to even create jobs using skills learnt while in the correctional centre. An 18-year-old offender response was as follows:

> *"The offenders will come back and educate the society about what is taking place in correctional centres and by that they will be useful to the society, rehabilitation and social re-integration of offenders" the "skills that I receive from the correctional centre*

> *will assist society in creation of jobs and the development of livelihoods. I think, educational programmes give a positive feedback to our communities, reduces acts of crime and violence and the offenders become positive law-abiding citizens"*

Education reduces recidivism which translates to crime reduction and a safe society where ex-convicts return. This perspective is centred around the notion of prisons being referred to as centres of corrections (Republic of South Africa, 1998).

Theme 4: Improvement of Educational Programmes

In this theme, inmate young offender participants seemed to have a vision for correctional centres on how they can improve the educational programmes. The following responses were form a 23-year-old and 21-year-old inmate young offenders:

"Extra educators should be employed and have a system like in schools, were you have HOD'S controlling the files of all educators and facilitators should be followed, Offer educators workshop. There is a need to build a proper structure within the centre whereby offenders who attend educational programmes will go during normal school time. There is a lot of disturbances for cells to be converted to classrooms." Security officials and educators should have a common understanding that education, just like other programmes offered at the prison facility is just as important for rehabilitation of offenders". Install internet for offenders to research on google because they are not allowed to go outside the correctional centre" (E6).

The responses of inmate young offenders in the above passage are not in line with correctional services or prison life. Moore, (2016:89) warn of the notion that the time spent in correctional centres should not regarded as anindulgence, but inmate young offenders should feel that their freedom is limited and controlled all the time.

Limitations of the study

As accessibility is one of the possible problems in conducting research in correctional services with its security procedures and regulations are rigorous. This unintentionally might affect the how data and type data collected; it is uncertain what the response rate will be on completion of the open-ended questionnaires through the various correctional services (Apa, Bai, Mukherejee, Herzig, Koenigsmann, Lowy & Larson, (2012). This means that depending on how the responded was affected or touched by what the study is trying to investigate the researchers must consider that different respondents process ideas

differently and the situational elements also must be considered indicating the complexity of the research. Also, there may be inhibiting factors in carrying out this research (Makhurane, 2014), states that the human instrument is as fallible as any other research instrument. The researcher as human instrument is limited by being human – mistakes are made, opportunities are missed, personal bias interferes.

Conclusions

The findings of this study discovered that one of the major challenges faced by the IYO when it came to educational programmes, was that they were always surrounded by various risks at the correctional centre,for example, gangsterism, fights, etc. that hindered their studies. In order to combat this, it was recommended that the centre should allocate a section specifically for inmates who are participating in educational programmes full time.Results of this study showed that the family of one the participantshad seen a change in him and that participants were rehabilitated after attending educational programmes. It is recommended that the DCS implement parents and family preservation programs in collaboration with all the other major stake holders, i.e. the police, correctional officials, social workers and community members. For inmate young offenders who are participating in educational programmes and showing rehabilitation, the DCS should provide additional forms of incentives. This study showed that they currently have an incentive of early parole.The DCS can add special awards or implement a merit system to encourage mass participation.

Recommendations

The recommendations presented in this section are based on the findings of this study. The educational programmes for offenders within Correctional Centres are taking place in various correctional centres, though not perfect, evidence shows that do nurture rehabilitation of learner inmate young offenders. None of these recommendations are prescriptive but will be relevant to the South African correctional system, in terms of potential implementation. The following recommendations were made:On arrival the young inmate offenders' induction about educational programmes needs to be improved by the DCS. Enhanced understanding of the fundamental aspects of educational programmes will encourage offenders to participate. This will facilitate the DSC objective for offender rehabilitation though the educational programmes in correctional centres.

References

Agba, A. M., Okpa, J. T., & Ogar, J. A. (2020). Amnesty programme and skills training among ex-militants in Nigeria. *FWU Journal of Social Sciences*, *14*(3).

Apa, Z.L., Bai, R., Mukherejee, D.V., Herzig, C.T., Koenigsmann, C., Lowy, F.D. & Larson, E.L., 2012. Challenges and strategies for research in prisons. *Public Health Nursing*, *29*(5), 467-472. https://doi.org/10.1111/j.1525-1446.2012.01027.x.

Ary, D., Jacobs, L.C., Razavieh, A. & Sorensen, C. (2009). Introduction to Research in Education (pp 426–427). *Wadsworth: Engaged Publishing*.

Bayliss, P. (2003). Learning behind bars: time to liberate prison education. *Studies in the Education of Adults*, *35*(2), 157-172.

Behan, C. (2014). Learning to escape: Prison education, rehabilitation and the potential for transformation. *Journal of Prison Education and Re-entry*, *1*(1), 20-31. http://dx.doi.org/10.15845/jper.v1i1.594.

Berry, P. W. (2018). *Doing time, writing lives: Refiguring literacy and higher education in prison*. SIU Press.

Bhatti, G. (2010). Learning behind bars: Education in prisons. *Teaching and Teacher Education*, *26*(1), 31-36. https://doi.org/10.1016/j.tate.2009.06.020.

Bohloko, G. (2006). The in-service training of Correctional Services Staff at the Kroonstad satellite campuses of the Central University of Technology, Free State (CUT) and the Department Correctional Services (DCS). *Interim: Interdisciplinary Journal*, *5*(2), 10-20.

Cilliers, C., & Smit, J. (2007). Offender rehabilitation in the South African correctional system: myth or realty. *Acta Criminologica: African Journal of Criminology & Victimology*, *20*(2), 83-101.

Cook, S. L., Smith, S. G., Tusher, C. P., & Raiford, J. (2005). Self-reports of traumatic events in a random sample of incarcerated women. *Women & Criminal Justice*, *16*(1-2), 107-126. https://doi.org/10.1300/J012v16n01_05.

Cullen, F.T., Jonson, C.L. & Mears, D.P., (2017). Reinventing community corrections. *Crime and Justice*, *46*(1), 27-93. https://doi.org/10.1086/688457.

Davies, P. (2000). Formalising learning: the impact of accreditation. *The necessity of informal learning*, 54-63.

Du Plessis, J., & Lombard, A. (2018). Challenges for rehabilitation of sentenced offenders within the framework of unit management in the Department of Correctional Services: Bethal Management Area. Social Work, 54(4), 481-492. http://dx.doi.org/10.15270/54-4-674

Fitz, L. G. (2013). *Penological investigation of the offender rehabilitation path* (Doctoral dissertation, University of South Africa). http://hdl.handle.net/10500/13752.

García, AB, and to the Community, SS, & Madrid, IBDB (2004). SOCIOCULTURAL POLICY OF A PUBLIC CHARACTER: NEEDS AND ALTERNATIVES. In *Sociocultural services: the culture of leisure* (pp. 31-58). Subdirectorate General for Information and Publications.

Green, A., & Preston, J. (2001). Education and social cohesion: Recentering the debate. *Peabody Journal of Education*, *76*(3-4), 247-284.

Haney, C. (2003). The psychological impact of incarceration: Implications for post-prison adjustment. *Prisoners once removed: The impact of incarceration and reentry on children, families, and communities*, *33*, 66.

Heidensohn, F. (Ed.). (2013). *Gender and justice*. Routledge. https://doi.org/10.4324/9781843926122.

Johnson, L.R. (2015). *Offenders' Perceptions of Correctional Education Programmes in the Correctional Facilities of Tshwane* [Unpublished doctoral dissertation]. Pretoria. University of South Africa. http://hdl.handle.net/10500/19958.

Keen, C.H., & Woods, R. (2016). Creating activating events for transformative learning in a prison classroom. *Journal of Transformative Education*, *14*(1), 15-33. https://doi.org/10.1177/1541344615602342.

LeCompte, M.D., (2000). Analyzing qualitative data. *Theory into practice*, *39*(3),146-154. https://www.jstor.org/stable/1477546.

Luyt, W.F.M., Bruyns, H. & Jonker, J., (2010). *Unit management & legal principles in prisons*. Unisa Press.

Magadze, T. O., Roelofse, C., & Oliver, C. (2017). The participation of Vhembe District Community Corrections Forum (CCF) members in the re-integration of ex-offenders. *Acta Criminologica: African Journal of Criminology & Victimology*, *30*(4), 124-144.

Magano, M.D., (2015). Empowering educators who work with juveniles in correctional centres: A wellness perspective. *Journal of Psychology*, *6*(1), 49-56. https://doi.org/10.1080/09764224.2015.11885523.

Magos, K. (2014). Reflections behind bars. Transformative learning inside the prison. In *International Conference of European Society for Research on the Education of Adults:"What's the point of Transformative Learning* (pp. 209-218).

Maguire, M., & Delahunt, B. (2017). Doing a thematic analysis: A practical, step-by-step guide for learning and teaching scholars. *All Ireland Journal of Higher Education*, *9*(3).

Makhurane, F. (2014). *Inclusion as a Strategy for Promoting Social Wellness of Juveniles in Gauteng Correctional Centre* [Unpublished Master's thesis]. Johannesburg. University of South Africa. http://hdl.handle.net/10500/18697.

Makhurane, F. (2020). The Involvement of Stakeholders in Promoting the Wellness of Juvenile Offenders in Selected South African Correctional Schools. *European Journal of Education*, *3*(2), 39-51. https://EconPapers.repec.org/RePEc:eur:ejedjr:88.

Malouf, E.T., Schaefer, K.E., Witt, E.A., Moore, K.E., Stuewig, J., & Tangney, J.P. (2014). The brief self-control scale predicts jail inmates' recidivism, substance dependence, and post-release adjustment. *Personality and social psychology bulletin*, *40*(3), 334-347. https://doi.org/10.1177/0146167213511666.

Manger, T., Eikeland, O. J., Asbjørnsen, A., & Langelid, T. (2006). Educational intentions among prison inmates. *European Journal on Criminal Policy and Research*, *12*(1), 35-48.

Maree, K., (2007). *First steps in research*. Van Schaik Publishers: Pretoria.

Matshaba, T.D. (2011). *A Penological Perspective on Unit Management as A Rehabilitation Tool for Youth Offenders* (Unpublished doctoral dissertation). Pretoria. University of South Africa. http://hdl.handle.net/10500/5748.

Mbanjwa, K. C., & Johnson, L. R. (2018). Strategies in overcoming teaching and learning challenges in correctional facilities in South Africa. *Current Politics and Economics of Africa*, *11*(2/3), 129-160.

McAree, T. 2011. Prisoner rehabilitation in South Africa: A case study of Phoenix Zululand's work in Eshowe Correctional facilities. Available: http://phoenixzululand.org.za/wp-content/uploads/2012/01/tommy-ISP-_2_.pdf.

McKay, V. (2007). Adult basic education and training in South Africa. *Review of adult learning and literacy*, *7*(9), 285-310.10.51709/fw1272j/fall2020/2.

McMillan, J.H., & Schumacher, S. (2010). *Research in Education: Evidence-Based Inquiry* (7th ed.). New York. Pearson Education, Inc.

Mdletye, M. A., Coetzee, J., & Ukpere, W. I. (2014). Exploring the triggers of transformational change in the South African Department of Correctional Services. *Mediterranean Journal of Social Sciences*, *5*(10), 596-596.

Meek, R., & Lewis, G. (2014). The impact of a sports initiative for young men in prison: Staff and participant perspectives. *Journal of Sport and Social Issues*, *38*(2), 95-123.

Moore, C.A., & Mokhele, M.L., (2017). Learning behind bars: the experiences of undergraduate students in a South African prison. *e-Bangi*, *14*(6). http://hdl.handle.net/10500/20114.

Moore, C.A., (2016). *Learning in bars: the experiences of undergraduate students in a South African prison* (Doctoral dissertation). http://hdl.handle.net/10500/20114.

Murhula, B. B. (2019). *A criminological investigation into the South African correctional services approach towards offenders' rehabilitation: a case study of the Westville Correctional Centre in Durban, KwaZulu-Natal* (Doctoral dissertation).

Nagin, D.S., Cullen, F.T. & Jonson, C.L., (2009). Imprisonment and reoffending. *Crime and Justice*, *38*(1), 115-200. https://doi.org/10.1086/599202.

Nations, D. (1991). The European Network for Research, Action and Training in Adult Literacy and Basic Education (Dublin, Ireland, May 25-30, 1991). A Seminar Organised by EUROALPHA. Adult Basic. *Education*, 137p.

Nethavhani, M.J. (2002). *A phenomenological study of rehabilitation of serious juvenile offenders* {Doctoral dissertation, University of Johannesburg).

Ngobeni, S.C., (2015). *Intervention strategies for improving vocational rehabilitation programme for young adult offenders: a case study* (Doctoral dissertation). http://hdl.handle.net/10386/1347.

Pike, A., & Irwin, T. (2008). Improving access to higher education and distance learning.

Quan-Baffour, K.P., & Zawada, B.E. (2012). Education programmes for prison inmates: reward for offences or hope for a better life? *Journal of Sociology and Social Anthropology*, *3*(2), 73-81. https://doi.org/10.1080/09766634.2012.11885567.

Republic of South Africa, *Department of Correctional Services Annual Report for the 2006/07 financial year*, Department of Correctional Services: Pretoria.

Ryen, A., (2016). Research ethics and qualitative research. *Qualitative research*, *3*, 31-48.

Shagufta, S. (2020). Criminal Friends' Influence on Criminal Behavior of Adult Offenders Moderated by Psychopathic Traits. *FWU Journal of Social Sciences*, *14*(2), 108-116. https://www.proquest.com/scholarly-journals/criminal-friends-influence-on-behavior-adult/docview/2434410730/se-2?accountid=15731.

Sloth-Nielsen, J., Woodward, S. C., & Mathiti, V. (2007). South Africa, the arts and youth in conflict with the law.

Sultan, S., Khurram, S., & Hussain, I. (2018). Determinants of Life Meaningfulness among Recovering Substance Users. *FWU Journal of Social Sciences*, *12*(2). https://www.proquest.com/scholarly-journals/determinants-life-meaningfulness-among-recovering/docview/2160339883/se-2?accountid=15731.

Tangney, J.P., Folk, J.B., Graham, D.M., Stuewig, J.B., Blalock, D.V., Salatino, A., Blasko, B.L., & Moore, K.E. (2016). Changes in inmates' substance use and dependence from pre-incarceration to one-year post-release. *Journal of criminal justice*, *46*, 228-238. DOI: 10.1016/j.jcrimjus.2016.05.002.

Terry, C. L. (2010). Prisons, pipelines, and the president: Developing critical math literacy through participatory action research.

Watts, J.H. (2010). Teaching a distance higher education curriculum behind bars: challenges and opportunities, *Opening Learning*, *25*(1), 57-64. https://doi.org/10.1080/02680510903482256.

Wiafe, E. A. (2021). Willingness of employers to employ ex-convicts among selected SMEs in the western region of Ghana. *Cogent Social Sciences*, *7*(1), 1868670.https://doi.org/10.1080/0161956X.2001.9682001.

Woodward, S. C., Sloth-Nielsen, J., & Mathiti, V. (2007). South Africa, the arts and youth in conflict with the law. *International Journal of Community Music*, *1*(1), 69-88. https://doi.org/10.1386/ijcm.1.1.69_0.

Xavier, F, Stephan, L., & Brazier, F. (2019) Social cohesion revisited: a new definition and how to characterize it, Innovation: The European Journal of Social Science Research, 32:2, 231-253, DOI: 10.1080/13511610.2018.1497480.

Zondi, C. Z. (2012). Community participation in community correction operation and offender re-integration. *International Journal for Cross-Disciplinary Subjects in Education*, *3*(3), 763-771.

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Problem Behaviors of Children from Multicultural and Monocultural Families in Korea: Differences in Behavior Evaluations between Parents and Teachers

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In recent years, multicultural families are increasing in Korea. In such multicultural families, there may be language and interpersonal difficulties that affect the children. Given the possibility of real problems affecting academics and the potential for bias, the perceptions of parents and teachers is of vital importance. In this study, parents' and teachers' evaluations of problem behaviors of 405 elementary school students were collected on the Korean Child Behavior Checklist and the Korean Teacher's Report Form. Studies have shown that parents in multicultural families tend to rate their children's problems more seriously than in monocultural families in the areas of Withdrawal/Depressed, Attention Problems, and Rule-Breaking Behaviors. Teachers rated boys from multicultural families as more problematic with Withdrawal/Depressed, Attention Problems, Rule-Breaking Behaviors, and overall scores than boys from monocultural families. Parents tended to take their child's problematic behaviors more seriously than teachers. In general, younger students were found to be more vulnerable to behavioral problems. This may indicate that an intervention is needed to help the children acculturate .

***Keywords**:* multicultural family; parents; teachers; problem behavior of children; behavior evaluations

Highlights

- Parents in multicultural families tend to rate their children's problems more seriously than in monocultural families in the areas of Withdrawal/Depressed,

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Attention Problems, and Rule-Breaking Behaviors.

- Teachers rated boys from multicultural families as more problematic with Withdrawal/Depressed, Attention Problems, Rule-Breaking Behaviors, and overall scores than boys from monocultural families.
- Parents tended to take their child's problematic behaviors more seriously than teachers.

A recent phenomenon in Korean society is an increase in the multicultural population. Multicultural society can be classified into two types. The first type is an immigrant country composed of various races and cultures from the early days of the founding of the country. Although social integration problems still remain, they are relatively familiar with a multicultural society. In the second form, countries with a relatively homogeneous culture face the challenges of a multicultural society due to the influx of migrant workers and heterogeneous cultures following globalization, and lack of preparation or awareness for a multicultural society. As a situation similar to the second type, Korea has the potential to become a serious social problem due to lack of preparation or awareness for a multicultural society.

Korea has maintained a homogeneous racial society until recently, but the number of immigrants has recently increased. The multicultural population in Korea includes families formed by international marriage, foreign workers, international students, and North Korean refugees. As a result, in Korean society, children with both Korean parents(Mono-cultural) and children whose parents are foreign(Multi-cultural) are growing together. Of these, this study is concerned with the children of international marriages. These families are usually formed when immigrant women come to Korea to get married to Korean men. These women s tend to face various adversities in adjusting to life in Korea due to drastic cultural differences. Moreover, these women usually get married without having had sufficient time in getting to know their husbands -- who are typically much older than the women, and are of low socioeconomic status. The women move to Korea without having had sufficient time to learn about Korean society or language. Such conditions intensify the culture shock experienced by female marriage immigrants.

About 539,567 multicultural women (2000-2019) currently residing in Korea (Ministry of Gender Equality and Family, 2020) are from other Asian countries such as China, Vietnam, the Philippines, Japan, Cambodia and Thailand. Although women came to Korea to escape the poverty of their home country, they soon found themselves in various unsatisfactory situations. Because

they are struggling themselves, many of these women are not in the best position to provide stable parenting for their children. As a result, their children are likely to grow up in conditions where it is difficult to receive suitable parental care (Kang, Kim, Yoon, & Lim, 2012). These children acquire Korean citizenship by birth, and are likely to live as Korean citizens for a lifetime. Helping them grow into adults who can fulfill their rights and responsibilities as citizens of the Republic of Korea should be an urgent task for the country.

In 2020, the number of children from multicultural families reached 868,464 (2012-2020). This accounts for more than 16% of the total number of students in Korea in 2020 (multicultural students: 868,464, total students: 5,346,874) (Ministry of Gender Equality and Family, 2020). Living as an ethnic minority in Korea, students from multicultural families have different experiences than children from monocultural families.

Theoretical Background

A recent comparative analysis of 24 studies involving children from multicultural families revealed that children were exposed to various problems. Elementary school students tended to show depression, anxiety, and hyperactivity, and high school students experienced additional problems (Lee, 2013b). In addition, previous studies reported that children from multicultural families are more likely to experience problems in career development, academic achievement, emotional and behavioral domains, and self-concept (Cho, 2010; Cheon & Park, 2012; Lee, 2013a; Nam & Kim, 2011; Shagufta & Shaista, 2021). Nevertheless, some studies assert that children from multicultural families actually adjust well to their environment. For example, when compared to students from monocultural families, students from multicultural families were found to be more resilient (Park, 2009), their level of school adjustment was not significantly different (Jeon, 2010), and they were less prone to problem behavior (Kang et al., 2012). Han (2012) found that social support and open communication with parents can reduce the likelihood of problems among children from multicultural families.

These inconsistent findings may be due to the relatively short history of children from multicultural families entering Korean schools. In addition, the country of origin of female marriage immigrants is different, and the composition of immigrants is changing frequently according to the change of immigration policy by country. Therefore, in order to improve the understanding of multicultural students, research should be conducted to continuously evaluate the adaptation level of students from multicultural families.

The Korean government is implementing policies to eradicate social discrimination and remove barriers to better achievement, education and employment opportunities faced by married immigrants (Ministry of Education, 2014). These policies will be more effective if they are based upon an accurate understanding of relevant issues and problems. As such, survey studies that look at the families formed by international marriages from various angles should be conducted. In this context, the present study sought to investigate the possible differences in problem behaviors between elementary school students from multicultural families and those from monocultural families. Elementary school is the developmental stage where students begin their social life, and proper prevention and intervention for problem behaviors commonly seen in this period can have a huge impact on students' subsequent school adjustment and behavior.

The evaluations on children's problem behavior were conducted by parents and teachers, as they are the most significant adults for children. Exploring differences in parent and teacher perceptions of problematic behaviors in children can improve understanding of student problems and provide useful insights when creating parenting guidelines and pedagogies for parents and teachers. Both parents and teachers are important adults who interact directly with students during development. If their evaluations about a student differ, they should be attentive to each other's evaluations, and respectfully communicate the differences to draw up integrated parenting and teaching guidelines.

The research literature suggests that parents and teachers have different strengths and shortcomings when evaluating students. Because parents are usually the primary caretakers and devote long hours attending to their children, they are able to provide the most detailed information about their children (Lee & Choi, 2012; Kerr, Lunkenheimer, & Olson, 2007). However, parents typically do not have much experience observing other children, and may not be able to provide objective evaluations about their own children. Moreover, parents tend to evaluate their children differently depending on their own psychological states (Al-Awad & Sonuga-Barke, 2002). Parents of multicultural families, in particular, tend to experience frequent family conflicts or identity confusion, and such stress may affect their evaluations of their children (Kim, Moon, Kim, & Park, 2010). Teachers, on the other hand, interact with diverse students and have abundant opportunities to directly observe interactions among students. Thus, teachers are fit to evaluate student behaviors more objectively (Shin, Park, Park, & Lyu, 2006; Campbell, 1995; Satake, Youshida, Yamshita, Kinukawa, & Takagishi, 2003). However, teachers are limited in individually engaging with each student to build deep relationships to the point of apprehending the underlying meanings behind students' emotional or behavioral problems (Green, Beck, & Vosk, 1980; Lee & Choi, 2012).

Studies that have investigated the level of agreement between parent evaluations and teacher evaluations reported mixed results. First, Kaner (2011) found that teacher and parental evaluations are similar, and that parent and teacher evaluations on the ADHD problem assessment measure for 837 adolescents aged 15 - 18 tended to be consistent with each other. Specifically, parent-teacher agreement was higher for inattentiveness scales than for hyperactivity scales. According to Tepper, Liu, Guo, Zhai, Lie, and Li (2008), parents and teachers were similar in their evaluation of children's level of depression. In contrast, many other research findings have suggested that parents and teachers differ in their evaluations. For example, Llario et al., (2013) found that foster parents tended to view the externalizing behavior problems of minority children, aged between six and 12, to be more serious than did teachers. Rosas, Chaiken, and Case (2007) found that parents gave more negative evaluations than teachers when evaluating children's protective factors and problem behaviors. Jo and Seu (1998) and Kang and Cho (2008) found parent-teacher discrepancies across all areas of children's problem behaviors, and Lee and Choi (2012) also reported that parents perceived students' protective factors and problem behaviors to be more negative than did teachers.

As such, parent and teacher evaluations have been studied extensively. However, a study that specifically looks into informant discrepancies in problem behavior evaluations for students from multicultural families in Korea is yet to be carried out. With the rise in the number of multicultural students in Korean schools, we need to examine the possible differences in perceptions on these students between parents and teachers. If discrepancies exist, it is important to consider both perspectives together in order to develop a more complete picture of students. Therefore, this study compared the viewpoints of parents and teachers on problem behaviors of multicultural children, and further explored whether perspective differences exist for students from monocultural families. The study also explored the effects of grade levels and sex of students on the results. The findings of the study will be useful for developing effective interventions for advancing personal growth for multicultural students in Korea. Specifically, the research questions were:

1) Do parents of multicultural and monocultural families differ in their perceptions of their children's problem behaviors?
2) Do teachers differ in their perceptions of children's problem behaviors depending on whether the child is from a multicultural or a monocultural family?
3) Do parents and teachers perceive children's problem behaviors differently?

Method

Participants

The participants included 405 elementary school students (188 from multicultural families and 217 from monocultural families) across South Korea. To recruit a nationally representative sample of children from multicultural families, 29 schools in Seoul, Incheon, Daejeon, Gyeonggi, Chungbuk, Gyeongnam, and Jeonbuk were contacted. For generalization, sampling was carried out targeting schools in various regions. Then children of monocultural families with a similar background to the multicultural children group were recruited. For this, we asked the school teachers of multicultural children to recruit monocultural children with similar achievement levels, as well as parents of similar socioeconomic status, as their counterpart multicultural children. Participants were told about the purpose of the study individually, and participated in the survey once they provided written consent. The sex and grade level distributions of participants are shown in Table 1.

Table 1
Participant sample

		From multicultural families		From monocultural families		
		Boy	Girl	Boy	Girl	Total
Grade level	1	13	17	16	28	74
	2	23	12	14	16	65
	3	12	24	10	22	68
	4	24	17	25	28	94
	5	16	15	16	27	74
	6	8	7	5	10	30
Total		96	92	86	131	405

Measures

Teacher evaluations of children's problem behaviors

Originally developed to assess children's internalized problem behaviors, the Teachers Rating Form was revised by Achenbach and Rescorla (2001) into TRF 6-18. This form was translated and standardized by Oh and Kim (2010) for Korean users. The K-TRF is composed of 120 items (α=.97). The subscales are 13-item Anxious/Depressed (α=.80), 8-item Withdrawn/Depressed (α=.81), 11-item Somatic Complaints (α=.71), 11-item Social Problems(α=.75), 15-item Thought Problems (α=.62), 10-item Attention Problems (α=.94), 17-item Rule-

Breaking Behavior (α=.83), 18-item Aggressive Behavior (α=.92), 17-item Other Problems (α=.39), 32-item Internalizing (α=.87), 35-item Externalizing (α=.94) (Oh & Kim, 2010).

Parent Evaluations of Children's Problem Behaviors

To measure parents' evaluations about children's sociality, Achenbach and Rescorla (2001) had revised the Child Behavior Check List. This study used the CBCL (6-18) translated and standardized for Korean users by Oh & Kim (2010). The K-CBCL (6-18)'s empirically based syndrome scales are composed of 119 items (α=.95). The subscales are 13-item Anxious/Depressed (α=.76), 8-item Withdrawn/Depressed (α=.73), 11-item Somatic complaints (α=.72), 11-item Social Problems (α=.70), 15-item Thought Problems (α=.62), 10-item Attention Problems (α=.81), 17-item Rule-Breaking Behavior (α=.70), 18-item Aggressive Behavior (α=.84), 17-item Other Problems (α=.39), 32-item Internalizing (α=.87), 35-item Externalizing (α=.94) (Oh & Kim, 2010).

Results

Differences in problem behaviors between children from multicultural families vs. monocultural families: Parent report

Independent sample t tests, with sex and grade levels as independent variables, were conducted to observe the distribution of scores parents rated for children's problem behaviors (Table 2). Significant differences between groups (multicultural vs. monocultural) were found in Withdrawn/Depressed, Attention Problems, and Rule-Breaking Behavior domains. Specifically, children from multicultural families received higher scores for Withdrawn/Depressed, Attention Problems, and Rule-Breaking Behavior problem behaviors than those from monocultural families. Also, for male students, the differences in parent evaluations between multicultural and monocultural families appeared in Withdrawn/Depressed and Rule-Breaking Behavior domains, where the problem behavior scores were higher for boys from multicultural families. For female students, there were no significant differences in problem behavior scores between groups. Group differences in Rule-Breaking Behavior scores appeared significant for students in grades 1~2. This means that multicultural children in grades 1 and 2 had higher scores for Rule-Breaking Behavior than monocultural children in grades 1 and 2. Score differences between groups in other grade levels were not statistically significant. Table 2 shows only the problem areas that had statistically significant group differences.

Table 2
Group differences on the problem behaviors reported by parents

		Withdrawn/ Depressed	Attention Problems	Rule-Breaking Behavior
Total Average		11.00(1.22)	2.83(2.92)	1.25(1.87)
Total	Multicultural	1.43(1.77)	3.19(3.17)	1.49(2.31)
	Monocultural	1.05(1.74)	2.52(2.66)	1.04(1.35)
	t	2.18*	2.26*	2.36*
Boy	Multicultural	1.36(1.56)	3.43(3.40)	1.66(2.43)
	Monocultural	.84(1.51)	2.58(2.62)	1.07(1.33)
	t	2.31*	1.89	2.05*
Grades 1~2	Multicultural	1.11(1.59)	2.94(3.08)	1.82(2.72)
	Monocultural	.85(1.51)	2.28(2.45)	1.02(1.52)
	t	.97	1.41	2.08*

* p<.05
- Multicultural-monocultural group differences for female students were not statistically significant.
- Between-group differences for Anxious/Depressed, Somatic Complaints, Social Problems, Thought Problems, Aggressive Behavior, Other Problems, Internalizing, Externalizing, and Total Score were not statistically significant.
- Multicultural-monocultural group differences for 3~4, 5~6 grade students were not statistically significant.

Differences in problem behaviors between children from multicultural families vs. monocultural families: Teacher report

Independent sample t tests, with gender and grade levels (1~2, 2~4, 5~6) as independent variables, were conducted to observe the distribution of scores teachers rated for children's problem behaviors (Table 3). Withdrawn/Depressed, Attention Problems, Internalizing, and Total Score were all higher for multicultural children than monocultural children. Also, for male students, multicultural students received higher scores in the Withdrawn/Depressed and Attention Problems domains than monocultural students. For female students, there were no significant differences in problem behavior scores between groups; thus, this information was not presented in Table 3. Additional analyses with grade level as the independent variable revealed that group differences existed for students in grades 1~2 in the Withdrawn/Depressed domain. In other words, multicultural students in grades 1 and 2 had higher Withdrawn/Depressed scores than monocultural students in the same grade levels. For grades 3~4, multicultural-monocultural group differences existed in the Attention Problems domain, indicating that multicultural students in grades 3~4 had higher Attention Problems scores than monocultural students in the same grade levels. Lastly, for grades 5~6, group differences existed in the Withdrawn/Depressed and

Internalizing domains, indicating that multicultural students in grades 5~6 had higher Withdrawn/Depressed and Internalizing scores than monocultural students in the same grade levels.

Table 3
Group differences on the problem behaviors reported by teachers

		Withdrawn/ Depressed	Attention Problems	Internalizing	Total Score
Total average		.17(2.93)	.20(.29)	.11(.15)	.13(.16)
Total	Multicultural	.22(.34)	.24(.32)	.13(.16)	.14(.17)
	Monocultural	.13(.24)	.16(.25)	.09(.14)	.11(.14)
	t	3.21**	2.76**	2.35*	2.28*
Boy	Multicultural	.23(.34)	.29(.33)	.13(.16)	.16(.18)
	Monocultural	.11(.21)	.20(.27)	.10(.13)	.12(.14)
	t	2.90**	2.00*	1.52	1.65
Grades 1~2	Multicultural	.19(.28)	.22(.32)	.11(.14)	.13(.16)
	Monocultural	.10(.19)	.16(.26)	.09(.14)	.11(.13)
	t	2.19*	1.37	1.02	1.08
Grades 3~4	Multicultural	.19(.36)	.24(.35)	.11(.16)	.14(.18)
	Monocultural	.14(.29)	.15(.22)	.09(.14)	.10(.13)
	t	.96	2.00*	.93	1.60
Grades 5~6	Multicultural	.32(.35)	.27(.29)	.17(.18)	.16(.19)
	Monocultural	.15(.23)	.19(.28)	.10(.12)	.12(.15)
	t	2.90**	1.42	2.33*	1.33

* t<.05, ** t<.01

- Multicultural-monocultural group differences for female students were not statistically significant.
- Between-group differences for Anxious/depressed, Somatic Complaints, Social Problems, Thought Problems, Aggressive Behavior, Other Problems, Externalizing scores were not statistically significant.

Parent-teacher Perception Differences

Table 4 shows the parent-teacher perception differences regarding children's problem behaviors. Due to the limited paper space, the table only shows the problem behavior domains that had statistically significant parent-teacher discrepancies. Overall, parents seemed to perceive their children's problems more seriously than teachers did. This tendency seemed more consistent for the monocultural group. Parents of monocultural families perceived their children's Somatic Complaints, Social Problems, Thought Problems, Rule-Breaking Behavior, Aggressive Behavior, Other Problems,

Internalizing, Externalizing, and Total Score to be more serious than teachers did. Parents of multicultural families perceived their children's Somatic Complaints, Rule-Breaking Behavior, Aggressive Behavior, Other Problems, and Externalizing to be more serious than teachers did. As for Attention Problems, teachers gave higher scores than parents did for both multicultural and monocultural students.

Table 4

Comparison of parent and teacher evaluations for the same child

Problem Behavior	Group	Parent	Teacher	t
Somatic Complaints	Total	1.18(1.87)	.29(.91)	8.65***
	Multicultural	1.27(1.97)	.28(.95)	6.15***
	Monocultural	1.10(1.77)	.30(.88)	6.08**
Social Problems	Total	2.13(2.41)	1.58(2.62)	3.31**
	Multicultural	2.20(2.44)	1.82(2.85)	1.40
	Monocultural	2.08(2.38)	1.37(2.38)	3.44**
Thought Problems	Total	1.15(1.89)	.35(.94)	7.57***
	Multicultural	1.16(2.14)	.42(1.17)	4.21
	Monocultural	1.14(1.66)	.30(.70)	6.83***
Attention Problems	Total	2.83(2.88)	4.67(4.57)	-17.12***
	Multicultural	3.19(3.17)	5.26(5.15)	-11.11***
	Monocultural	2.52(2.66)	4.17(3.95)	-13.86***
Rule-Breaking Behavior	Total	1.24(1.85)	.84(1.64)	3.48**
	Multicultural	1.45(2.27)	.94(1.80)	2.59*
	Monocultural	1.05(1.36)	.75(1.50)	2.33*
Aggressive Behavior	Total	3.41(3.77)	2.27(4.03)	4.44***
	Multicultural	3.62(4.25)	2.38(3.99)	3.01**
	Monocultural	3.23(3.30)	2.17(4.07)	3.29**
Other Problems	Total	1.99(2.41)	.86(1.11)	8.63***
	Multicultural	2.17(2.80)	.90(1.14)	5.64***
	Monocultural	1.84(2.00)	.83(1.08)	6.84***
Internalizing	Total	4.53(5.31)	3.51(4.88)	2.89**
	Multicultural	4.85(5.52)	4.13(5.26)	1.26
	Monocultural	4.26(5.12)	2.97(4.46)	2.92**

Externalizing	Total	4.65(5.19)	3.10(5.34)	4.47***
	Multicultural	5.07(6.02)	3.32(5.48)	3.08**
	Monocultural	4.28(4.33)	2.92(5.22)	3.29**
Total Score	Total	17.29(17.09)	14.07(13.51)	3.67***
	Multicultural	18.61(19.02)	15.80(14.65)	1.92
	Monocultural	16.13(15.18)	12.56(12.26)	3.45**

***p<.001

Gender

To investigate how parent-teacher evaluation discrepancy plays out depending on gender, further analyses were done after classifying the participant sample into male and female groups (Table 5). For boys, parents tended to perceive students' Somatic Complaints, Thought Problems, and Other problems to be more serious than teachers did (for both multicultural and monocultural boys). As for Social Problems, parents of multicultural families and teachers did not differ in their evaluations, whereas parents of monocultural families evaluated the problem more seriously than teachers did. Attention Problems was considered more severe by teachers than parents for both multicultural and monocultural groups.

For girls, there were significant discrepancies between parent and teacher evaluations across all problem behaviors, but the way the differences played out varied according to the problem type. In other words, for most problem areas, both multicultural and monocultural groups had parents rating students' problems to be more serious than teachers; only for Anxious/Depressed, Social Problems, and Internalizing were the parent-teacher discrepancies not statistically significant.

As for Rule-Breaking Behavior, parents and teachers did not evaluate monocultural students differently. Similar to boys, girls' Attention Problems was perceived to be more serious by teachers than parents for both multicultural and monocultural groups. The parent-teacher evaluation discrepancies were greater for girls than boys, and greater for multicultural girls than monocultural girls.

Table 5

Parent and teacher evaluations for children's problem behavior: gender comparison

Problem Behavior	Group	Male			Female		
		Parent	Teacher	t	Parent	Teacher	T
Anxious/ Depressed	Total	1.98(2.57)	1.95(2.71)	.08	2.29(2.88)	1.78(2.82)	2.02*
	Multi	1.98(2.48)	2.08(2.94)	-.24	2.40(3.06)	2.08(2.89)	.75
	Mono	1.98(2.67)	1.82(2.46)	.37	2.20(2.73)	1.57(2.76)	2.12*
Somatic Complaints	Total	.91(1.54)	.39(1.17)	3.84***	1.39(2.08)	.21(.62)	8.02***
	Multi	.93(1.62)	.34(1.16)	2.92**	1.60(2.23)	.23(.68)	5.70***
	Mono	.88(1.45)	.44(1.19)	2.45*	1.24(1.95)	.20(.58)	5.66***
Social Problems	Total	1.90(2.12)	1.51(2.49)	1.60	2.33(2.60)	1.65(2.72)	2.99**
	Multi	1.90(2.16)	1.78(2.72)	.33	2.50(2.67)	1.86(3.00)	1.61
	Mono	1.89(2.09)	1.20(2.20)	2.19*	2.21(2.55)	1.50(2.49)	2.65**
Thought Problems	Total	1.10(2.04)	.49(1.16)	3.42**	1.20(1.77)	.24(.72)	7.61***
	Multi	1.16(2.23)	.54(1.38)	2.23*	1.16(2.05)	.29(.90)	3.96***
	Mono	1.89(2.09)	1.20(2.20)	2.74**	1.22(1.54)	.20(.55)	6.91***
Attention Problems	Total	3.02(3.00)	4.82(4.73)	-10.87***	2.68(2.79)	4.57(4.45)	-13.19***
	Multi	3.43(3.40)	5.39(5.35)	-7.50***	2.93(2.90)	5.23(4.95)	-8.19***
	Mono	2.58(2.62)	4.19(3.85)	-8.40***	2.50(2.70)	4.18(4.04)	-10.90***
Rule-Breaking Behavior	Total	1.34(1.95)	1.03(1.76)	1.72	1.16(1.77)	.68(1.53)	3.18**
	Multi	1.58(2.35)	1.24(1.93)	1.15	1.33(2.19)	.64(1.61)	2.59*
	Mono	1.08(1.34)	.80(1.53)	1.38	1.04(1.38)	.72(1.47)	1.88
Aggressive Behavior	Total	3.25(3.76)	2.83(4.65)	.99	3.56(3.79)	1.83(3.40)	5.53***
	Multi	3.26(4.11)	2.95(4.60)	.50	3.99(4.39)	1.82(3.20)	4.20***
	Mono	3.24(3.35)	2.70(4.74)	.95	3.25(3.27)	1.83(3.55)	3.64***
Other Problems	Total	1.98(2.43)	.95(1.13)	4.97***	2.00(2.40)	.79(1.09)	7.22***
	Multi	2.08(2.75)	.96(1.19)	3.46**	2.26(2.87)	.85(1.10)	4.52***
	Mono	1.88(2.04)	.94(1.08)	3.68***	1.82(1.99)	.75(1.08)	5.90***

Internalizing	Total	3.97(4.53)	3.73(4.95)	.44	5.00(5.84)	3.34(4.83)	3.47**
	Multi	4.21(4.64)	4.27(5.40)	-.08	5.49(6.25)	3.99(5.15)	1.81
	Mono	3.70(4.43)	3.14(4.37)	.79	4.65(5.53)	2.87(4.54)	3.13**
Externalizing	Total	4.59(5.31)	3.86(6.13)	1.28	4.72(5.10)	2.51(4.53)	5.25***
	Multi	4.84(6.03)	4.18(6.32)	.74	5.30(6.03)	2.46(4.36)	4.03***
	Mono	4.32(4.41)	3.50(5.94)	1.15	4.29(4.29)	2.55(4.67)	3.41**
Total Score	Total	16.56(16.12)	15.33(14.03)	.90	17.93(17.87)	13.10(13.04)	4.29***
	Multi	17.58(17.93)	17.04(14.96)	.25	19.65(20.10)	14.57(14.31)	2.55*
	Mono	15.45(13.89)	13.45(12.75)	1.17	16.68(16.03)	12.03(11.98)	3.56**

***p<.001

Grade levels

We investigated whether parent-teacher evaluation discrepancies differ by grade level (Table 6). Parents and teachers showed differences in their perceptions of students' problem behaviors for grades 1~2 and 5~6, but not for grades 3~4. Thus, results for grades 3~4 were not included in Table 6. For monocultural children, their Anxious/depressed was not evaluated differently by parents and teachers in lower grade levels, but teachers perceived Anxious/Depressed more seriously than parents in upper grade levels. Somatic Complaints was evaluated more negatively by parents than teachers consistently for both lower and upper grade levels. Social Problems had parent-teacher discrepancies for both multicultural and monocultural students in grades 1~2, but in upper grades, such discrepancies existed for monocultural students.

Table 6

Parent and teacher evaluations for children's problem behavior: grade level comparison

Problem Behavior	Group	Grade 1~2			Grade 5~6		
		Parent	Teacher	t	Parent	Teacher	t
Anxious/ Depressed	Total	2.27(2.84)	1.89(2.79)	1.45	2.01(2.62)	1.81(2.75)	.71
	Multicultural	2.47(3.03)	1.94(2.44)	1.41	1.87(2.45)	2.23(3.37)	-.79
	Monocultural	2.09(2.65)	1.85(3.10)	.66	2.11(2.76)	1.47(2.06)	2.00*
Somatic	Total	1.23(1.96)	.32(.87)	6.13***	1.12(1.76)	.26(.95)	6.10***

Complaints	Multicultural	1.39(2.32)	.27(.82)	4.56***	1.13(1.48)	.30(1.09)	4.22***
	Monocultural	1.08(1.56)	.37(.92)	4.16***	1.11(1.97)	.23(.84)	4.42***
Social Problems	Total	2.31(2.50)	1.51(2.36)	3.60***	1.94(2.29)	1.66(2.87)	1.14
	Multicultural	2.61(2.68)	1.73(2.47)	2.48*	1.73(2.05)	1.92(3.25)	-.45
	Monocultural	2.04(2.29)	1.30(2.24)	2.63*	2.11(2.47)	1.45(2.52)	2.23*
Thought Problems	Total	1.25(2.15)	.37(.80)	5.55***	1.05(1.56)	.34(1.08)	5.17***
	Multicultural	1.47(2.67)	.33(.81)	4.10***	.81(1.20)	.52(1.47)	1.49
	Monocultural	1.05(1.52)	.40(.80)	3.94***	1.24(1.79)	.19(.56)	5.69***
Attention Problems	Total	2.85(3.06)	4.81(4.86)	-12.18***	2.81(2.78)	4.54(4.24)	-12.13***
	Multicultural	3.39(3.36)	5.79(5.68)	-8.48***	2.95(2.94)	4.63(4.40)	-7.42**
	Monocultural	2.34(2.66)	3.88(3.73)	-10.06***	2.70(2.66)	4.46(4.14)	-9.68***
Rule-Breaking Behavior	Total	1.39(2.15)	.92(1.63)	2.77**	1.07(1.43)	.75(1.65)	2.11*
	Multicultural	1.81(2.70)	1.00(1.79)	2.77**	1.05(1.56)	.87(1.81)	.68
	Monocultural	1.01(1.39)	.84(1.47)	.90	1.10(1.33)	.65(1.51)	2.43*
Aggressive Behavior	Total	3.50(3.81)	2.33(3.53)	3.54**	3.31(3.73)	2.20(4.51)	2.79**
	Multicultural	4.02(4.40)	2.52(3.76)	2.82**	3.16(4.06)	2.22(4.25)	1.47
	Monocultural	3.03(3.13)	2.16(3.31)	2.14*	3.44(3.46)	2.18(4.73)	2.49*
Other Problems	Total	2.08(2.51)	.87(1.09)	6.54***	1.90(2.30)	.85(1.13)	5.64***
	Multicultural	2.46(3.01)	.97(1.21)	4.46***	1.84(2.43)	.83(1.06)	3.45**
	Monocultural	1.74(1.78)	.78(.96)	5.32***	1.94(2.20)	.88(1.19)	4.51***
Internalizing	Total	4.62(5.57)	3.45(4.94)	2.36*	4.43(5.04)	3.57(4.82)	1.70
	Multicultural	5.17(6.27)	3.79(4.76)	1.78	4.48(4.54)	4.52(5.79)	-.06
	Monocultural	4.12(4.81)	3.14(5.11)	1.55	4.40(5.43)	2.79(3.69)	2.60*
Externalizing	Total	4.89(5.50)	3.25(4.70)	3.61***	4.39(4.83)	2.95(5.96)	2.75**
	Multicultural	5.83(6.53)	3.52(5.12)	3.07**	4.21(5.27)	3.09(5.89)	1.29
	Monocultural	4.04(4.20)	3.00(4.28)	1.95	4.53(4.46)	2.83(6.04)	2.65**
Total Score	Total	17.97(18.56)	14.18(12.96)	3.12**	16.55(5.39)	13.95(14.10)	2.06*
	Multicultural	20.87(21.77)	16.02(13.84)	2.41*	16.05(15.03)	15.56(15.61)	.23
	Monocultural	15.32(14.63)	12.50(11.91)	1.98	16.96(15.74)	12.63(12.67)	2.88**

***p<.001

Thought Problems, Rule-Breaking Behavior, Aggressive Behavior, Externalizing, and Total Problem Behavior of children from multicultural families were all perceived more severe by parents than teachers in lower grades. However, such discrepancies in the evaluation appeared no longer statistically significant in upper grades.

Rule-Breaking Behavior, Internalizing, Externalizing, and Total Score of children from monocultural families received similar evaluations from both parents and teachers in grades 1~2, but in grades 5~6, parent-teacher evaluation discrepancies appear. This suggests that these 5th and 6th graders do not reveal such problems in school. In the case of Withdrawn/Depressed, parent-teacher discrepancies were insignificant for all grade levels, so the values were not shown in Table 6.

Discussion

The appearance of multicultural children in South Korean schools will become more frequent as time passes. In times such as these, comparing problem behaviors of multicultural children with those of monocultural children, and investigating the differences between teachers and parents in their evaluations on children's problem behaviors will provide useful information for developing effective teaching plans. As such, this study sought to understand problem behaviors of multicultural and monocultural students in Korea, and explored differences in the perceptions of parents and teachers regarding children's problem behaviors. For this, 188 students from multicultural families, and 217 students from monocultural families with similar backgrounds as their multicultural peers participated in the study. These 405 were sampled from across the nation, and parents and teachers were asked to provide their evaluations on these students. Major findings and their implications are discussed as follows.

First, parents of multicultural boys evaluated the children's Withdrawn/Depressed, Attention Problems, and Rule-Breaking Behavior to be more serious than the parents of monocultural boys. A possible explanation for this can be derived from findings from previous studies on the parenting attitude of parents from multicultural families; female marriage immigrants tend to experience parenting difficulties due to several reasons and may end up perceiving their children's problem behaviors more severely. Their difficulties may arise from their young age, the fact that they are not accustomed to the parenting culture of Korea, and the lack of detailed information on parenting or help from nearby others (Lee, 2007; Nam & Kim, 2011). Female marriage

immigrants struggle to rear their children due to lack of information and experience, but tend to be especially attached to their children and end up exercising a controlling parenting style (Kang & Sohn, 2011). Because they also strongly hope that their children will successfully adjust to Korean society better than they did (Song, Jee, Cho, & Lim, 2008), they may view Rule-Breaking Behavior and adjustment issues in school more seriously.

Only in grades 1~2 did parents of multicultural families report their children's Rule-Breaking Behavior problem to be more serious than parents of monocultural families. Considering that children of multicultural families tend to have lower school adjustment levels than their peers (Han, 2014; Chin & Yu, 2008), the current finding may be reflective of the reality. On the other hand, immigrant mothers may feel anxious about their ignorance of the rules in Korean schools, and such anxiety may affect their perception of their children. Female marriage immigrants usually have a great zeal for their children's education (Kim & Oh, 2013), and may be overly worried about their children's ability to abide by the rules.

Second, teachers seemed to perceive Withdrawn/Depressed, Attention Problems, Internalizing, and Total Score to be more severe among multicultural boys than monocultural boys. Also, teachers evaluated that multicultural students have greater Withdrawn/Depressed problems compared to monocultural students in grades 1~2. In the case of grades 3~4, teachers perceived multicultural students to have greater Attention Problems, and in the case of grades 5~6, teachers evaluated Withdrawn/Depressed and Internalizing to be more severe among multicultural students than monocultural students. Students' Attention Problems may lead to academic underachievement, and students' Internalizing may lead to lack of participation in school activities (Kim, Lee, & Min, 2014). The elementary school time period is a critical period for self-esteem, and self-esteem interventions should be implemented to prevent such problem behaviors from developing into a sense of inferiority.

Third, Parents tended to rate their children's problems more seriously than teachers did. This could be explained from several different perspectives. For one, this discrepancy may be reflecting informant bias. In other words, this may be due to the tendency to view children's problems or symptoms more seriously when the caretaker is experiencing difficulties (Chi & Hinshaw, 2002; Eric, Carroll & Brian, 1999). Typically, parents as the main caretaker spend a great amount of time with their children, and are able to observe their children's behaviors closely; they can provide the most essential information on the children (Oh & Lee, 1990). However, parents tend to base their responses on

socially expected behaviors instead of evaluating their children objectively (Merydith, Prout & Blaha, 2003). Moreover, if parents are emotionally unstable or depressed at the time of evaluation, they may perceive normal behaviors as hyperactive behaviors and evaluate more negatively (Sonuga-Barke, Dalen, Remington, 2003). As the current results suggest, children's Externalizing is viewed as more serious by parents than teachers. This is aligned with previous findings (Jo & Seu, 1998; Rosas, Chaiken & Case, 2007), but it would be necessary to explore whether such a tendency is due to the parents' characteristics. In particular, parents of multicultural families are exposed to family conflicts due to cultural differences, language barriers, children's identity crises, and exclusion experience in a foreign cultural context (Kim et al., 2010), and all these can make parents perceive their children's problems more seriously.

Another explanation would be that such discrepancies are reflective of children who behave differently in different environmental and relational contexts (Kerr, Lunkenheimer, & Olson, 2007). As such, children may not abide by rules in homes as compared to in schools, and may frequently engage in aggressive behaviors. If parent-report is indeed informing us of realistic data on children's problem behavior, we need to consider the types of problem behaviors that can be better detected at home than at school, and examine the reasons for that. For instance, a child who lacks self-confidence may repress his own needs and seem apprehensive at school, but then show an outburst of negative emotions in front of parents.

For most of the problem areas, parents tended to perceive children's problem behaviors more seriously than teachers did, with the exception of Attention Problems. Only for Attention Problems did teachers evaluate more severely than parents did, across gender and grade levels for both multicultural and monocultural students. Sample items for Attention Problems are 'The student cannot finish what he has started,' 'The student does not have the ability to concentrate and cannot focus on a task for a long time.' Thus, Attention Problems items measure a student's lack of the ability to concentrate or hyperactive behavior styles, and the difficulty to plan ahead. When a student lacks the ability to concentrate, her basic school life, academic achievements, and peer relationships are greatly affected. Continuous negative feedback from others may activate derivative psychological problems such as depression. Attention Problems is usually expressed in the learning context, so this problem behavior may have been recognized more sensitively by teachers.

In contrast to assertions that parent reports are the most reliable, there are other robust research findings that suggest teachers to be more adequate and valid evaluators of students' behaviors (Lee, Lee, & Kim, 2013; Rosas, Chaiken,

& Case, 2007). Unlike parents, teachers can compare a student to other diverse students more objectively, and teachers are considered to be in a better position to observe and evaluate a student's interpersonal relationships and sociality (Shin, Park, Park, & Rhy, 2006). However, if teachers are not aware of the experiences and cultural aspects of multicultural families, they may not be able to accurately evaluate multicultural students' problems or strengths. Therefore, evaluations based on generalized criteria without sufficient understanding of students' diverse backgrounds should be avoided.

Informants of children's problem behaviors may typically include various persons such as the student himself, parents, teachers, and clinicians. Of them, parents and teachers are thought to be the most significant adults for children, and their evaluations are both very valuable. For one, children and adolescents are in developmental periods when they are easily affected by their environment, and their behaviors at home and at school may be different in types, intensity, and frequency (Lee & Kim, 2010; Venn, 2000). Thus, instead of relying on one informant, comparing parent and teacher evaluations with each other and integrating the information derived from each informant will help us to gain a more complete understanding of a child's adjustment issues and better solve the problems (Lee, Lee, & Kim, 2013; Rosas, Chaiken & Case, 2007; Azhar, & Ahmad, 2020). When examining data from various informants, it is helpful to find out which information seems consistent or inconsistent, and scrutinize how to best interpret each piece of information according to its particular context (Kang & Oh, 2009).

Conclusion

This study was significant in that it delved into the perception differences between multicultural vs. monocultural parents and parents vs. teachers on children's problem behaviors. Nevertheless, future studies should further investigate the causes of such perception discrepancies. Also, since parents tend to perceive children's problem behaviors more seriously than teachers, various programs that can help alleviate excessive anxiety of parents and facilitate communication with teachers regarding children's school adjustment seem necessary. In particular, parents of multicultural families appear to be more anxious about their children's adjustment issues. Thus, special support should be given to these parents so that they can be better informed about their children's school life. At the same time, teacher training programs should focus more on promoting multicultural sensitivity in teachers, and help them find ways to help multicultural students and parents through active communication.

References

Achenbach, T. M., & Rescorla, L. A. (2001). *Manual for the ASEBA School-Age Forms & Profiles.* Burlington, VT: University of Vermont, Research Center for Children, Youth, & Families.

Al-Awad, E. A., Sonuga-Barke, E. J. (2002). The application of the Conners' Rating Scales to a Sudanese sample: An analysis of parents' and teachers' ratings of childhood behavior problems. *The Journal of Psychology and Psychotherapy. 75*(2), 177-188.

Campbell, S. B. (1995). Behavior problems in preschool children: A review of recent research. *Journal of Child Psychology and Psychiatry, 36*(1), 113-149. http://dx.doi.org/10.1111/j.1469-7610.1995.tb01657.x

Cheon, H. S., & Park, G. S. (2012). A study on the school life of children of multicultural families. *Modern Society and Multi-Culture. 2*(2), 416-443.

Chi, T. C., & Hinshaw, S. P. (2002). Mother-child relationships of children with ADHD: The role of maternal depressive symptoms and depression-related distortions. *Journal of Abnormal Child Psychology, 30*(4), 387-400. doi: 10.1023/A:1015770025043

Chin, J. M., & Yu, S. (2008). School adjustment among children of immigrant mothers in Taiwan. *Social Behavior and Personality, 36*(8), 1141-1150. https://doi.org/10.2224/sbp.2008.36.8.1141

Cho, B. H. (2010). Self-concept and career development of children from multicultural families and general families. *The Korean Journal of Elementary Counseling, 9*(2), 235-250.

Deater-Deckard, K., Dodge, K. A., Bates, J. E., & Pettit, G. S. (1998). Multiple risk factors in the development of externalizing behavior problems: Group and individual differences. *Development and Psychopathology, 10,* 469-493.

Eric, Y., Carroll, I., & Brian, A. (1999). Dysphoria-related bias in maternal ratings of children. *Journal of Consulting and Clinical Psychology, 67*(6), 905-916. https://doi.org/10.1037/0022-006X.67.6.905

Furrer, Carrie., Skinner, Ellen. (2003). Sense of relatedness as a factor in children's academic engagement and performance. *Journal of Educational Psychology, 95*(1), Mar 2003, 148-162. https://doi.org/10.1037/0022-0663.95.1.148

Green, K., Beck, S., & Vosk, B. (1980). Validity of teacher nominations of child behavior problems. *Journal of Abnormal Child Psychology, 8*(3), 397-404.

Ha, H. S. (2011). The counseling strategies based on analysis of teacher's bias toward multicultural students. *Korean Journal of Counseling, 12*(6), 2065-2083.

Han, H. S. (2012). The relations between parent-child communication in multicultural families and school adjustment: focusing on the mediating of ego resiliency and the moderating of effect social support. Master's Thesis of Ewha Womans University.

Han, S. C. (2012). Analysis of influence factors on resilience of adolescents in multi-cultural family. *Journal of Future Oriented Youth Society, 9*(4), 239-258.

Azhar, I., & Ahmad, S.M. (2020). Teacher Educators' Epistemological Beliefs and their Implications for Teacher Education. *FWU Journal of Scocial Sciences, 14*(4), 12-25.

Jeon, P. R. N. (2010). A comparative study of school adjustment of children from multicultural families and racially homogeneous families. Master's Thesis of Daegu

Catholic University.
Jeong, K. W. (2007). A study on the sociocultural identity of migrant women with special reference to obstructive factors of identity construction. *Journal of Asian Women, 46*(1), 97-139.
Jo, H. S., & Seu, S. I. (1998). Relation between maternal and teacher's perceptions of behavioral problems of children. *Journal of Early Childhood Education, 8*(1), 165-181.
Juliano, M., Werner, R. B., & Cassidy, K. W. (2006). Early correlates of preschool aggressive behavior according to type of aggression and measurement. *Journal of Applied Developmental Psychology, 27,* 395-410. http://lps3.doi.org.proxy.jbnu.ac.kr/10.1016/j.appdev.2006.06.008
Kaner, S. (2011). ADHD symptoms in national samples of Turkish adolescents: self, parent, and teacher reports. *Procedia Social and Behavioral Sciences, 15*, 3342-3348. doi: 10.1016/j.sbspro.2011.04.297
Kang, H. K., & Cho, H. S. (2008). A comparison between parents' and teachers' ratings on preschoolers' behavioral problems. *Early Childhood Education Research & Review, 12*(2), 171-193.
Kang, J. H. & Oh, K. J. (2009). Developmental trajectories of Externalizing perceived by teachers in preschool settings: A short term longitudinal study with applied latent growth curve modeling. *The Korean Journal of Child Studies, 30*(4), 69-85.
Kang, J. H., Kim, J. C., Yoon, K. H., & Lim, E. M. (2012). The effects of multicultural family, gender, parents, and individual capacity on elementary students' internalizing-externalizing latent class. *The Journal of Educational Research, 10*(4), 201-224.
Kang, J. H., Yeo, T. C., Kim, J. C., Kim, J, H., & Im, J. Y. (2013). Comparison of sociality between children from multi-cultural families and children from non-multi-cultural families: Latent mean analysis in behavioral problems and social abilities. *Journal of Education and Culture, 19*(2), 31-62.
Kang, S. J. & Sohn, S. M. (2011). A Case Study on the Marital Satisfaction and Child-Rearing Perception of Four International Marriage Migrant. *The Journal of Korea Open Association for Early Childhood Education, 12*(16), 161-188.
Keiley, M. K., Bates, J. E., Dodge, K. A., & Pettit, G. S. (2000). A cross-domain growth analysis: Externalizing and internalizing behaviors during 8 years of childhood. *Journal of Abnormal Child Psychology, 28*, 161-179.
Kerr, D. C. R., Lunkenheimer, E. S., & Olson, S. L. (2007). Assessment of child problem behaviors by multiple informants: a longitudinal study from preschool to school entry. *Journal of Child Psychology and Psychiatry, 48,* 967-975. https://doi.org/10.1111/j.1469-7610.2007.01776.x
Kim, E. G., & Oh, S. B. (2013). A qualitative study of married immigrant mother's enthusiasm for their children's education. *Korean Educational Problem Research. 31*(3), 135-160.
Kim, E. Y., Moon, M. K., Kim, M. H., Park, S. Y. (2010). Plan research toward efficiency of infant and child support from multi-cultural families. *Korea Institute of Child Care and Education Research Report,* 2010-04.
Kim, J. Y. & Suh, Y. S. (2011). The comparative of the relationship between the

academic achievement and career development for elementary schoolers by school year and gender. *The Journal of Child Education, 20*(3), 103-120.

Kim, Y. S., Lee, M. J., & Min, K. Y. (2014). Research on elementary school teacher's experience of students from multicultural family. *The Journal of Elementary Education, 27*(4), 231-257.

Lee, J. E., Kim, C. K. (2010). The Comparison with Effectiveness of Parents education program and Teachers education program for children with ADHD. *The Journal of Special Education: Theory and Practice, 11*(1), 253-276.

Lee, J. H., Lee, S. M., Kim, J. W. (2013). Relationship between ADHD Assessment by Parents and Teacher and Family Functioning. *The Journal of Emotional & Behavioral Disorders, 29*(1), 197~211.

Lee, J. S. (2007). A Study of Childcare and Education, Fathers' Childcare Participation in an International Marriage Family. *The Journal of Korea Open Association for Early Childhood Education, 12*(12), 21-42.

Lee, J. W. (2013a). An analysis on social studies academic achievement of multicultural background students: Based on 2011 National assessment educational achievement results. *Theory and Research in Citizenship Education, 45*(2), 257-291.

Lee, S. Y., & Choi, J. A. (2012). A comparison study of parent and teacher ratings on protective factors and behavioral concerns of young children from multicultural families. *Educational Science Study, 43*(3), 59-84.

Lee, W. R. (2013b). A review on emotional and behavioral problems and related variables of children from multicultural families. *Journal of Emotional & Behavioral Disorders, 29*(3), 409-431.

Llario, M. D. G., Ceccato, R., Man~es, R. M., & Arnal, R. B. (2013). Socioemotional characteristics of minors in foster care: A comparison between the estimation of parents, teachers and children. *Children and Youth Services Review, 35,* 664-667. https://doi.org/10.1016/j.childyouth.2013.01.013

Merydith, S. P., Prout, H. T., & Blaha, J. (2003). Social desirability and behavioral rating scales: An exploratory study with the Child Behavior Checklist/4-18. *Psychology in the Schools, 40*(2), 225-235. https://doi.org/10.1002/pits.10077

Miner, J. L., & Clarke-Stewart, K. A. (2008). Trajectories of externalizing behavior from age 2 to age 9: Relations with gender, temperament, ethnicity, parenting, and rater. *Developmental Psychology, 44*, 771-786. https://doi.org/10.1037/0012-1649.44.3.771

Ministry of Education (2014). Report material: Supporting 215 hundred million won for multicultural education in 2014. Retrieved August 11, 2015, from http://www.moe.go.kr/newsearch/search.jsp.

Ministry of Gender Equality and Family (2014). Statistics about multicultural family. Retrieved August 11, 2015, from http://www.mogef.go.kr/korea/view/policy/policy0205.

Ministry of Security and Public Administration (2013). 2013 Foreign resident statistics from local governments. Retrieved August 11, 2015, from http://www.mospa. go.kr/.

Nam, B. H. & Kim, Y. Y. (2011). Study on academic achievement of multicultural family students compared with those of other students. *Multicultural Education, 2*(3), 19-58.

Oh, K. J. & Lee, H. L. (1990). Development of Korean Child Behavior Checklist: A Preliminary Study. *Journal of the Korean Neuropsychiatric Association, 29*(2), 452-462.

Oh, K. J., & Kim, Y. A. (2010). *Manual for the ASEBA School-Age Forms.* Huno Consulting Inc.: Seoul.

Oh, K. J., & Lee, H. R. (1990). Analyses of child behavior checklist data from clinic referred boys aged 4-5, 6-11, and 12-16: Empirically derived syndromes of Korean children and adolescents. *Korean Journal of Clinical Psychology, 9*(1), 33-55.

Park, S. H. (2009). *A study on resilience in children of multicultural families*. Doctoral Thesis of Dongshin University.

Rosas, S., Chaiken, L., & Case, J. (2007). Devereaux Early Childhood Assessment ratings from parents and teachers in Delaware. Retrieved April 24, 2012, from http://static.nemours.org/www-filebox/nhps/deca.pdf.

Sang, A. N. & Baik, J, S. (2011). The Effects of parenting attitude on school adjustment and self-esteem of child and early adolescent from multi-cultural families. *Journal of the Korea Institute of Youth Facility and Environment, 9*(1), 3-12.

Satake, H., Youshida, K., Yamashita, H., Kinukawa, N., & Takagishi, T. (2003). Agreement between parents and teachers on behavioral/emotional problems in Japanese School Children Using the Child Behavior Checklist. *Child Psychiatry and Human Development, 34*, 111-126. https://doi.org/10.1023/A:1027342007736

Shin, H. S., Park, J. H., Park, Y. J., Rhy, J. H. (2006**).** Developoment and validation of the Teacher Rating Scale of School Adjustment Behavior for Elementary School Students. *The Journal of Korean Psychological Association: School. 3*(2), 1-26.

Shin, M. J., & Lee, B. M. (2015). The relationship of the children's elementary school adaptation and the participation in parenting education for multi-cultural family focus on home visits by multi-cultural family support centers in Southern area of Gyeonggi Province. *Journal of Future Oriented Youth Society, 12*(1), 1-24.

Shagufta, S., & Shaist. (2021). Self-esteem and psychopathic traits among undergraduate students: A structural equation modelling approach. *FWU Journal of Scocial Sciences, 15*(2), 117-131. http://doi.org/10.51709/19951272/Summer-2/7

Song, M. K, Jee, S. H, Cho, E. K, & Lim, Y. S. (2008). A Study on the Parental Experience of a Foreign Mother in a Multicultural Family. *The Korean Journal of Counseling and Psychotherapy, 20*(2), 497-517.

Sonuga-Barke E. J., Dalen, L., Remington, B. (2003). Do executive deficits and delay aversion make independent contributions to preschool attention deficit/hyperactivity disorder symptoms? *Journal of the American Academy of Child & Adolescent Psychiatry, 42*(11), 335-342. doi: 10.1097/01.chi.0000087564.34977.21

Tepper, P., Liu, X., Guo, C., Zhai, J., Liu, T., & Li, C. (2008). Depressive symptoms in Chinese children and adolescents: Parent, teacher, and self-report. *Journal of Affective Disorders, 111*, 291-298. https://doi.org/10.1016/j.jad.2008.03.013

Venn, J. J. (2000). *Assessing students with special needs (2nd ed.).* Upper Saddle River, NJ: Nerrill.

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Effect of Activity-Based Games on Students' Academic Achievement in Social Sciences

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The purpose of the research was to investigate the effect of activity-based games on the academic achievement of graduate-level pupils in social sciences. An experimental research design with a pre-and post-test control group was used in this study. As pre-test and post-test, MCQ achievement tests containing 70 items were used as research methods for data collecting. The initial stage in this initiative was to collect data on what inspires children to learn. Both groups took a pre-test, and the results were tallied. The project's second phase was to study the effects of various activities on academic achievement. Both groups were given an MCQ performance test. The T-test was used to analyze the data. The findings of this study demonstrated that, compared to the control group, most pupils' marks improved in the experimental group. The mean value showed that experimental group participants scored 18.77 on the post-test, while control group students scored 16.21. According to a post-lesson poll, most students regarded activity-based games to be more engaging than lecture-based instruction.

***Keywords*:** activity-based games, social sciences, experimental group, the control group

Among the most significant difficulties confronting educators worldwide is determining how to certify good, enthusiastic learners who are ready for a job. As a result, instructors must seek out the most effective techniques for engaging students in classroom active learning. Active learning is possible if teachers will emphasize comprehension of the supplied knowledge and problem-solving and critical thinking skills (Younis, 2018).

There are two methods of learning in the classroom, i.e., active or passive learning. In the classroom, passive learning is the result of the traditional lecture method. Teachers use creativity and critical activity to teach knowledge,

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skills, habits, and values. Teachers use Activity-based games (ABG) as an alternative to traditional lecture methods in schools and colleges. Students' engagement and motivation, which affect their achievement, can be improved using activity-based games in lectures. Games have a considerable positive impact on learning, with improvements in cognition, psychological, affective, and social dimensions (Granic, Lobel, Rutger, & Engles, 2014). Learning sciences, particularly constructivist learning settings, in which learners attempt to use existing beliefs to generate new knowledge, are associated with games (Gerace, Dufresne, & Leonard, 1999).

Research on activity-based games (now onwards; ABG) has become popular since 2006(Tsai & Fan, 2013). Games are an effective instrument to teach students so that they can learn well in the classroom (Tobar-Muñoz, Baldiris, & Fabregat, 2017). Games are supportive of broadening pupils' creativity and developing the problem-solving ability of learners. All this is done in an environment where achievement and failure are acknowledged within the framework. (Whitton, 2012). GBL is where "specific problem scenarios are placed within a play context" (Tsai & Fan, 2013, p. 115), even though it has been primarily shown through the prism of the computer game. In an educational context, research proved that games are implemented in education through three methods. In the first approach, the students will be the developer, which means that the study of the content and problem-solving abilities to develop a video game. The second approach, commonly known as the gamification design process, is about identifying, extracting, and applying particular game features or limited, meaningful groupings of those elements (Landers, 2014). The most widely studied approach is third that the researchers or a commercial game developed the integration. The game supports, provides, and evaluates the learning process (Nadolny & Halabi, 2016). But, the concern of this research is the use of ABG (activity-based games) in education. In ABG, The teacher pretends to be a game developer. It is not just the design of the whole structure of the game, but the game provides, in the context of education in the society. This is different from gamification, where only a single or combination of games are specific to the element to which the broader context of the game (Landers, 2014).

Researchers have proved that learning through ABG has benefits over conventional teaching strategies. In a traditional classroom, pupils assume that their success is contingent on the failure of their classmates. Games help to create an excellent learning environment. The contact that occurs throughout group work and the debate and description of the topic all contribute to a deeper understanding of the content. Interactive activities and games are effective teaching tools. Participating in an activity raises a student's activity level to the point where they are more attentive and aware of the class's activities.

Participating in an activity increases a student's activity level, causing them to become more alert and aware of the class's activities. Students who participate in an activity are thinking about and implementing the learning material. Students are asked to apply ideas independently in the lecture approach (Bhalli, Sattar, & Asif, 2016).

Games are not only suitable for science subjects but are also important for social sciences. This approach allows students to use and develop their creativity, engage in relevant contexts to improve their problem-solving skills, even while studying in a secure setting where errors and failures are involved in learning (Whitton, 2012). In Psychological context, Khan, Kazmi, and Maroof (2019) concluded that 3D- games are helpful in reducing depression. Several studies have examined the impact of games on student learning. However, one significant study by Hake (1998) looked at student accomplishment in basic physics classes using active engagement and lecturing techniques. In the sciences and business, games are employed as a teaching technique(Kumar & Lightner, 2007).

The current research considers Vygotsky's task and constructivist contexts. As they work through progressively complex issues, students maintain a satisfactory level of performance. There has been no significant research into the impact of ABG on pupil achievement in the humanities. The social sciences, particularly the theoretical subjects, are deprived of activity-based teaching. One of these subjects is "education," which is offered as an elective subject at graduation level. The present study examined the effect of activity-based games on students' achievement at the graduation level in social sciences.

Rationale

In general, traditional teaching methods are used to accomplish the majority of classroom instruction. In the classes, the students stay quiet in rows, the teacher speaks most of the time in the classroom, and the students passively listen to the trainer. They only speak when approached and do exactly what is asked of them. In a classroom setting, most students' learning abilities are limited to copying what is written on the board. They are unable to handle facts through thought, evaluation, and exploration efficiently. Learners lose interest in learning as a result of their limited intellectual capabilities. The concept of activity-based games is built on the idea that students should participate in activities. A teacher teaches through activities during activity-based education, allowing pupils to intervene in their learning. It's the process of effectively including the child in rational and interest-taking games. Activity-based learning is a meaningful classroom learning environment in which pupils contribute dynamically to co-

creating ideas. Controlling physical materials, playing games, or participating in physical object experiments are examples of this approach.

In Pakistan, traditional methods of teaching education or social sciences are still used in many educational institutions. Except for the whiteboard, instructors use activity or AV aids in this technique. Students dislike this method, but social sciences/ education teaching can be made more successful by incorporating activities. With this in mind, the researcher set out to "determine the effects of activity-based games on the academic achievement of graduate-level students in the education subject."

The outcomes of related research showed that the ABG strategy significantly impacts students' achievement and attitudes toward activity-based learning. Previously, many research studies were conducted in mathematics, computer sciences, and physics, but no significant research has been done in the area of social sciences. Yet, little research has looked into the impact of this learning strategy on students' achievement levels and perceptions of activities. As a result, there is a need for more research on this topic. This study is significant in that it fills a gap in the literature. According to the linked literature evaluated, no one has looked into students' attitudes on participating in science activities that are thought to improve students' grades in science classes. The findings of the study will help in the analysis of data collected in related surveys. Making the study results available to stakeholders to implement the proposal will help to improve learning quality and promote awareness about achieving long-term learning goals.

Literature Review

The development of the body, mind, and spirit is referred to as education. As a result, the mind without activities cannot fully develop the personality. Activity-based learning is the task that is presented in the classroom (Prince, 2004). Activity-based learning engages the students to carry out the tasks and think about what they are doing (Bonwell & Eison, 1991).Learners can benefit from activity-based learning because it acts as a problem solver. It enhances the unique aspect of the experience and provides a realistic learning environment. It provides learners with various encounters to promote the acquisition of knowledge, experience, abilities, and traits (Noreen & Rana, 2019).

The foundation for improving creative and critical thinking skills is activity-based games. This strategy, however, will not work if students are not sufficiently motivated to reach their full potential. Engaging students in active learning, which is also the core of ABG, is the most 9valuable and successful way to teach complex subjects (Anwer 2019).The extensive usage of games in

young people's social lives has piqued educators' interest in creating and researching game-based learning (GBL) systems (Ebner, & Holzinger, 2007). Teachers are looking for ways to incorporate games and game patterns within formal educational contexts. Yet, there is a scarcity of information about how to create games in formal education (An & Bonk, 2009). College pupils frequently engage in game-based learning. Academic achievement as a result of activity has been researched extensively. The purpose of this study was to see how successful Game-Based Learnings are at motivating college students to achieve academic success.

In this study, ABG-like fishbowl, think-pair-share, and quizzes are used to teach the experimental group. TPS (Think-Pair-Share) activity is a participatory, learner-centered technique in which students work independently (Think), then in pairs (Pair) or groups (Group), and lastly with the entire class (Share) on a problem set by the instructor (Banerjee, Patwardhan, & Mavinkurve, 2013). After the think pair share activity, students participated in quizzes related to the topic, which were taught through TPS activity. Fishbowl games were also conducted in the classroom related to the topics. TPS activity has some benefits which lead to creative thinking. Some benefits are: The quality of pupils' responses improves when they are given adequate "think time." Students are actively involved in the process of thinking. When thinking is discussed with a partner, it gets more concentrated. Another game is a fishbowl game. Fishbowl is a fun, student-centered technique for improving understanding while also practicing discussion capabilities. Students in the close sanctum, or "fishbowl," hold a text-based debate and practice response to diverse points of view, while students in the outer circle learn to take notes (Anistantia, Sudirman, &Huzairin, 2017). Moreover, to see the effect of fishbowl games in the speaking ability of pupils, Anistantia et al., (2017) found that "there was a statistically significant difference of the students' speaking ability before and after the implementation of fishbowl technique with the significant level $p < .005$ ($p = .000$)" (p. 1).

The literature review provides various findings on the effects of activity-based games on learners' school progress and attitudes toward the subject it is being used. Birgin, Baloglu, Catlioglu, and Gurbuz (2010) examined the impact of conventional and activity-based learning on students' success in mathematics subjects. According to the findings, activity-based learning improves the teaching of theoretical topics. This method of learning not only made learning fun but also made it personal. Another study found that learning through games significantly enhances learners' achievement in all the areas, and it is suited to be utilized in all types of programs (Karakoç, Eryılmaz, TuranÖzpolat, & Yıldırım, 2020). Furthermore, Alasi (2018) examined the effect of activity-based learning

practices on second-grade pupils' marks. Pupils were better able to comprehend the relations between data sets and thoughts as a result of the activities.

Through the use of activities, students describe the connections that result from the issues presented in the activities in an appropriate and timely manner. When compared to traditional instruction, activity-based teaching boosted students' achievement in a separate study of students (Kupcu 2012). Celik (2018) studied the impacts of activity-based teaching on sixth-grade kids' mathematical attitudes and achievement toward learning activities compared to traditional learning strategies. He discovered that both the control and experimental groups improved their school achievement. To encourage innovative teaching and learning practices, the role of leadership is critical. David and Abukari (2019) looked at the role of leadership in assisting teachers in delivering innovative teaching and learning approaches. Staff engagement is critical for good teaching (Al Samkari & David, 2019). According to Al Husseini & David (2017), instructional leadership is critical in fostering new instructional approaches. Technology integration is critical for vibrant teaching and learning practices (Daraghmeh & David, 2017).

The majority of game-based learning studies have found that using games as a learning environment boosts both student interest and learning (Hidi, 2000). In Pakistan, Noreen and Rana (2019) examined "activity-based learning vs. traditional teaching methods in Mathematics. "It was revealed that pupils who were taught using an activity-based approach performed higher in the post-test. It is suggested mathematics be learned through activities at the elementary stage. Teachers of mathematics may be given kit materials for activities.

Moreover, in public schools of Oman, Albadi, and David (2019) conducted a study and concluded that students' achievement improved as a result of activity-based learning. Students feel AB Gup surges comprehension, builds responsibility, creates a pleasant learning atmosphere, and boosts achievement. As a result, the study concludes that activity-based learning (ABL) has a considerable impact on student's academic success.

In Pakistan, educators must recognize the value of ABG since it allows for a better grasp of topics. Many underdeveloped countries, like Pakistan, require significant educational assistance due to a lack of basic teaching strategies. Teacher training will increase the amount of information available to students (Anwer, 2019).If teachers are provided training, they will be more equipped to incorporate progress on an individual and societal level. As a result, it will help teachers and students improve their motivational qualities as well as their critical thinking abilities and creativity. Activity-based learning combined

with peer education produces an optimal scenario for teaching science disciplines, particularly physics. Students participate in practical work and have the opportunity to connect abstract ideas and theories to actual observations in an activity-based learning session(Hussain, Anwar, & Majoka, 2011).According to Singal et al., (2018), ABG strives to provide rigorous active learning, focused learning, and changes will happen. Students benefit from activity-based instruction because it supports and connects them to their peers, increasing strength and enthusiasm.

Moreover, in New Zeeland, Harfield, Davies, Hede, Panko, and Kenley (2007) led research regarding activity-based teaching. They found that teachers' opinion on pupil commitment in the classroom and terms of end assessment was positive. Furthermore, the connection between activities-based teaching and student learning was demonstrated by a significant enhancement in marks compared to the preceding class.

Games had a favorable influence on academic achievement in general. They found significant differences in their investigation comparing survey and experimental studies on educational games in Turkey to reach some similar conclusions (Cop & Kablan, 2018). Nadolnyand Halabi (2016)stated that in university education, the use of game-based learning methodologies has looked promising to increase students' achievement. The impact of a big lecture course developed with game-based learning on sharing and achievement was investigated in their study. Findings revealed that learners in a big course using game-based learning showed high involvement and tenacity in achieving prerequisites. Furthermore, results had no strong relation with age, gender, learning style,which contradicted previous studies on game-based learning.

Objectives of the Study:

To determine the effectiveness of activity-based games on students' achievement in education at graduation level.

Delimitation

The major delimitation of the research is that pupils of one college were selected to participate in the experiment.

Hypotheses:

H_o: There is no significant difference in student's achievement after familiarizing ABG (activity-based games) in the education subject at graduation level.

H_1: There is a significant difference in student's achievement after introducing to the education subjectat graduation level.

Activity-based games: Quizzes, pair-share, fishbowl game

Method

The study's research approach was experimental, so we used a pre-and post-testing methodology. Pretest-posttest designs are the most common way to assess how much change has occurred as a result of interventions. The present study wasplanned to determine the effect of a variable. The following is a description of the design:

Treatment/Experimental group	O Observation before experiment	X Treatment	O Observation after experiment
Control group	O Observation before experiment	No treatment/ usual routine class	O Observation after experiment

Figure 1: Pretest-posttest control group design, Source: (Gay, 1996)

Because of the study hypotheses, this design was chosen. There is only one group in this study: the treatment group (30 students). There are numerous flaws in the pre-and post-test design. Internal validity is threatened by a variety of factors, including "maturation, history, instrumentation, and pre-testing" (Campbell & Stanley, 1963). When the intact group is employed rather than random selection, such problems usually arise. As for as the threat of maturity is concerned; three weeks is not long enough to generate maturity (Gul, 2012).

Variables

The teaching style (activity-based games versus traditional lecture approach) was the independent variable in this research, and the achievement scores of pupils in education subject was the dependent variable.

Population and Sample

All-female graduate pupils enrolled in an education subject at a public college in Lahore Cantt made up the study's population. The study's sample included 62 students who were studying education at graduation level. The sample consisted of 30 pupils in the experimental group and 32 pupils in the control group. In experimental studies, at least 30 people in one group are enough to led experiment (Frankle & Wallen, 2012). Furthermore, the research was carried out at a public college in Lahore Cantt. The researcher choose that public college because that college was located in Lahore Canttnear by her job place. So, it was convenient for researcher to conduct experiment in that specific public college.

Instrument

There is no standard test for the education subject at the graduation level; thus, the researcher created a test to assess the sample's academic achievement following the experiment. There were 70 multiple-choice questions in the test. Two chapters were included in the test's material. The reason for selecting only two chapters was that these two chapters are challenging for students to learn. We experimented during the session, so the researcher couldn't include those chapters that the students had not studied at that time. With the help of qualified instructors and examiners in the education field, the tool's content was validated. The tool was pre-tested on college students who were not involved in the research. The instrument's Kuder-Richardson coefficient of internal consistency was 0.84. Lastly, 50 items for the post-test were chosen based on expert opinion and item analysis.

Procedure

First, a pre-test was conducted in the class of grade 12, which consists of 70 MCQs. The students had studied these two chapters through the traditional teaching method. The pre-test helped evaluate students' prior knowledge of these two chapters. Then, the content was taught to the students of graduation level through multiple activities and quizzes. Seven days were required for conducting these activities. The duration of one period was 45 minutes. Seven activities were designed for a better understanding of students. The purpose of each activity was to evaluate the individual and group performance of students. After ninety days post-test was held in the class to assess the effect of activities on the student's achievement. The experimental group was taught the material through a variety of activities and puzzles. Seven exercises were created to give them cooperative learning opportunities. Following each activity, a quiz was given to evaluate group and individual performance.

Results

An independent sample t-test was used on the pre-test to determine the mean difference between the achievement scores of the control and treatment groups. There is no significant difference between the two groups (p=.813), according to Table 1. It signifies that both groups were performing at the same level before the intervention.

Table 1

Interdependent sample t-test for a pre-test of pupils' achievement,

Variable	N	mean	df	t-value	Sig.
Experimental group	30	13.17	63	.175	.813
Control group	32	13.08			

Table 1 displayed the mean achievement score difference between the experimental and control groups during the pre-test. The experimental (M= 13.17, SD = 4.381) and control groups' achievement scores (M= 13.08, SD = 4.752; t(62) =.175, p=.813) were not significantly different (two tailed).

On the achievement scores of both groups' post-tests, the same statistics were used. Table 2 revealed that the value of p=.010 is significant at the level of 0.05. This means that the control and experimental groups' post-test scores were significantly different. This shows that pupils who were taught using group work methodologies scored higher than those who were taught using the traditional approach.

Table 2

Independent Sample T-Test for Post-Test of Students' Achievement

Variable	N	mean	df	t-value	Sig.
Experimental group	30	18.77	60	2.770	.010
Control group	32	16.21			

$^{*}p<0.05$

In the post-test, the mean difference in achievement scores between the experimental and control groups is shown in the table. The table indicated that there was a significant difference in achievement scores between the experimental (M= 18.77, SD = 3.372) and control groups (M= 16.21, SD = 3.187; t (62) = 2.770, p=.010.

A paired sample t-test was used to compare the effect of the intervention on the experimental group's achievement results. At the level of 0.05, the value of p=.000 is significant, as seen in Table 3. This result demonstrates that the experimental group's achievement scores before and after the intervention were significantly different.

Table 3

Paired sample t-test for pre-test and post-test

		Mean difference	SD	t	Sig. 2-tailed
Pair1	Pretest-posttest	-4.300	1.84	-11.782	.001

$^{**}p<0.01$

A paired sample t-test was performed to compare the effect of the intervention on the achievement scores of the treatment group. The pretest ((M=

13.17, SD = 4.381) and post-test (M= 18.77, SD = 3.372) achievement scores were significantly different, t (62) = -11.782, p=.001, as shown in the table.

After data analysis the H_1 is accepted that there is a significant difference in student's achievement after introducing to the education subject at graduation level.

Discussion

The findings of this descriptive correlational research are covered in this section. This research is designed to see the effect of ABG on student's achievement. In contrast to the control group, the experimental group scored higher on the post-test, as depicted in table 2. However, the results revealed that the experimental group improved following the intervention, with a significant difference between the treatment group's achievement scores in the pre-test and post-test, as shown in table 3.These findings confirmed prior studies (Albadi& David, 2019; Anwer, 2019; Celik, 2018; Harfield et al., 2007; Hussain et al., 2011; Nadolny & Halabi, 2016; Kupcu, 2012; Noreen & Rana, 2019; Singal et al., 2018). These studies have found that ABG or activity-based learning has a significant effect on learners' academic achievement. Based on these findings, it can be stated that activity-based games have a good impact on student's academic progress at the higher secondary level. It is also clear that it is more effective than the traditional way in terms of developing active participation, cooperation, and sharing abilities.

Conclusion

It is a fact that well-developed and implemented educational games may make learning entertaining and easy while also contributing to students' emotional, intellectual, sensorimotor, and emotional intelligence. As a result, children are engaged both mentally and practically during the game, so they're not simply spectators but also participants. So, it is decided that in theoretical subjects, pupils do not take much interest in lectures. Pupils take active part in those classes in which teacher teaches through activities and games. Furthermore, critical thinking may be created in students through different games. This study looked at game-based learning environments in the context of experimental and control group pre-test-post-test outcomes. A total of 62 students took part in this experimental study, with 30 students in the experimental group and 32 in the control group. The present research concluded that ABG has a vital impact on pupils' achievement in social sciences.

Recommendations

It is essential to organize classes utilizing activity-based education to promote thinking skills. Educational institutions may also undertake teacher training programs on teaching through games to improve teachers' teaching abilities. At the right time, relevant activities can be used. Teachers may organize activities based on the topic at the start of the academic session. Social sciences teachers may be offered refresher courses and workshops regularly to keep their skills up to date. It would be beneficial for new teachers to update their abilities. Future research in all fields and at various levels may be done to validate the findings of this study.

References

Alasi, W. (2018). The effectiveness of teaching using active learning strategies on second-grade students' acquisition of national and life knowledge. *IUG Journal of Educational and Psychology Science, 27*(1), 135-151.

Albadi, A.,& David, S. A. (2019). The Impact of Activity Based Learning on Students' Motivation and Academic Achievement: A study among 12th Grade Science and Environment Students in A Public School in Oman. *Specialty Journal of Knowledge Management, 4*(4), 44-53.

Al Samkari, H., & David, S.A., (2019). The role and impacts of authentic leadership on staff engagement and performance: A study among school leaders and teachers in private schools in the UAE. *Specialty Journal of Psychology and Management, 5*(4), 65-78.

An, Y., & Bonk, C. J. (2009). Finding-that-SPECIAL-PLACE-Designing-digital-game-based-learning environments. *Tech Trends, 53*(3), 43-48.

Anistantia, U., Sudirman, &Huzairin (2017). The implementation of the fishbowl technique to improve students' speaking ability at second grade of SMP N 2 JATI Agung South Lampung. *UNILA Journal of English Teaching, 6*(6), 1-8.

Anwer, F. (2019). Activity-Based Teaching, Student Motivation, and Academic Achievement. *Journal of Education and Educational Development, 6* (1), 154-170.

Banerjee, G., Patwardhan, M., &Mavinkurve, M. K. (2013). Teaching with visualizations in a classroom setting: Mapping Instructional Strategies to Instructional Objectives, *IEEE Fifth International Conference on Technology for Education*.

Bonwell, C., &Eison, J. (1991). *Active learning: creating excitement in the classroom. Washington D.C.: School of Education and Human Development.* The George Washington University.

Bhalli, M., Sattar, A., & Asif, M. (2016). Teaching strategies; perception of medical students used in basic science year. *The Professional Medical Journal, 23*(5), 614-619.

Birgin, O., Baloglu, M., Catlioglu, H. &Gurbuz, R. (2010). An investigation of mathematics anxiety among sixth through eighth-grade students in Turkey. *Learning and Individual Differences, 20*(6), 654- 658.

Campbell, D. B., & Stanley, C. J. (1963). *Experimental and quasi-experimental design for research.* Houghton Mifflin Company.

Celik, H. (2018). The effects of activity-based learning on sixth-grade students' achievement and attitudes towards mathematics activities. *Eurasia Journal of Mathematics, Science and Technology Education, 14(*5), 1963-1977.

Cop, M. R., &Kablan, Z. (2018). The analysis of studies on educational games in Turkey. Kocaeli University, *Journal of Education, 1*(1), 52–71.

Daraghmeh, H. A. R., & David, S. A. (2017). Benchmarking of Educational Leaders' Technology Utilization: A study of the attitudes of education leaders in using technology in the UAE. *Education Research Journal, 7*(3), 48-58.

David, S.A., &Abukari, A. (2019). Perspectives of teachers on the selection and the development of the school leaders in the United Arab Emirates. *International Journal of Educational Management. 34*(1), 56-69.

Ebner, M., &Holzinger, A. (2007). Successful implementation of user-centered game-based learning in higher education: An example from civil engineering. Computers & Education, 49(3), 873–890. doi:10.1016/j.compedu.2005.11.026

Frankle, J. R., &Wallen, N. E. (2012). *How to design and evaluate research in education* (8th ed.). McGraw Hill.

Gay, L. R. (1996). *Educational research; competencies for analysis and application* (5thed). Prentice-Hall.

Gerace, W. J., Dufresne, R. J., & Leonard, W. J. (1999). *Using technology to implement active learning in large classes.* Amherst, MA: University of Massachusetts Physics Education Research Group.

Granic, I., Lobel, A., Rutger, C., &Engles, M. E. (2014). The benefits of playing video games. *American Psychologist, 69*(1), 66-78.

Gul, F. (2012). *The Effects of Cooperative Learning STAD Model on Students' Achievement.* Published in proceedings, IER, University of the Punjab, Lahore.

Harfield, T., Davies, K., Hede, J., Panko, M. & Kenley, R. (2007). Activity-based teaching for UNITEC New Zealand Construction students. Emirates Journal for Engineering Research, *12*(1), 57-63.

Hidi, S. (2000). An interest researcher's perspective: The effects of extrinsic and intrinsic factors on motivation. In C. Sansone, & J. M. Harackiewicz (Eds.). *Intrinsic and extrinsic motivation: The search for optimal motivation and performance* (pp. 373–404). San Diego, CA: Academic Press.

Hussain, S., Anwar, S., &Majoka, M. I. (2011). Effect of peer group activity-based learning on students' academic achievement in physics at the secondary level. *International Journal of Academic Research, 3*(1), 940-944.

Karakoç, B., Eryılmaz, K., TuranÖzpolat, E. &Yıldırım, I. (2020). The Effect of Game-Based Learning on Student Achievement: *A Meta-Analysis Study. Technology, Knowledge and Learning*, 1-16.

Khan, S., Kazmi, F., &Maroof, R. Y. (2019). Therapeutic outcomes of 3D- GIT game among depressive cancer patients. *FWU Journal of Social Sciences, 13*(3), 57-64.

Kupcu, A. R. (2012). The effects of activity-based teaching approach on the proportion related problem-solving success of middle school students. *Journal of Kırşehir Education Faculty, 13*(3), 175-206.

Kumar, R. &Lightner, R. (2007). Games as an Interactive Classroom Technique: Perceptions of Corporate Trainers, College Instructors, and Students. *International Journal of Teaching and Learning in Higher Education, 19*(1), 53-63.

Landers, R. N. (2014). Developing a theory of gamified learning: Linking serious games and gamification of learning. *Simulation & Gaming, 45*(1), 752-768.

Nadolny, L., &Halabi, A. (2016). *Student Participation and Achievement in a Large Lecture Course with Game-Based Learning. Simulation & Gaming, 47(1), 51–72.*

Noreen, R. & Rana, A. M. K. (2019). Activity-Based Teaching versus Traditional Method of Teaching in Mathematics at Elementary Level. *Bulletin of Education and Research, 41*(2), 145-159.

Prince, M. (2004). Does active learning work? A review of the research. *Journal of Engineering Education, 93*(3), 223-231.

Singal, N., Pedder, D., Malathy, D., Shanmugam, M., Manickavasagam, S. &Govindarasan, M. (2018). Insights from within activity-based learning (ABL) classrooms in Tamil Nadu, India: Teachers perspectives and practices. *International Journal of Educational Development, 60*(1), 165-171.

Tsai, C.-W., & Fan, Y. T. (2013). Research trends in game-based learning research in online learning environments: A review of studies published in SSCI-indexed journals from 2003 to 2012. *British Journal of Educational Technology, 44*(5), 115 119. doi:10.1111/bjet.12031

Tobar-Muñoz, H., Baldiris, S., &Fabregat, R. (2017). *Augmented Reality Game-Based Learning: Enriching Students' Experience During Reading Comprehension Activities. Journal of Educational Computing Research, 55(7), 901–936.*

Whitton, N. (2012). The place of game-based learning in an age of austerity. Electronic Journal of e-Learning, 10, 249-256.

Younis, T. (2018). *A study of the effectiveness of inquiry-based learning and project-based learning of science and language subjects at high school level in the U.A.E.*(Unpublished Master Dissertation). The British University in Dubai.

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Effect of Teaching with Flipped Class-room Model: A Meta Analysis

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The flipped classroom model has been used by a number of the teachers for active learning and better understanding of the students. In this approach, the students learn the video-based subject content prior to in-class session and participate in collaborative learning activities during the class. The class time is utilized for activities, games and discussion. This model is increasingly used for teaching and learning purpose in developed countries where technology is highly integrated in education. This article is meta-analysis of already conducted experimental studies to highlights the academic, social and emotional development of students during experiments. The reviewed articles were searched on 4 data bases and 12 journal articles, based on experimentation. These articles contained a variety of the subjects taught to students from primary level to Higher education. The results suggested that students in flipped classroom were more active, engaged, motivated, and interactive and academically they were better performer. It is concluded that flipped classroom model increases academic achievement and improve social and emotional development of students. However there are some limitations of the flipped classroom model as students are not aware of self-learning/autonomous learning. Teachers need training for material selection, development, and presentation in videos. The review of qualitative researches would explore more benefits of flipped class rooms on learning, behavior, attitude and personality of the students.

Keywords*:* flipped classroom, academic achievement, collaborative learning, engagement,

Blended learning pedagogy becomes popular in many institutions. Flipped classroom (FC) is one of it. It is the most innovative and emphasized teaching strategy in recent years. Many teachers/researchers used flipped classroom approach to teach their students. Their findings showed it is an effective approach. Basically Flipped classroom idea traced in 2000. When a

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university professor found his students copy information without understanding (Baker, 2000).The flipped classroom is a reverse model of teaching. Itis comprised of two phases. In the first phase, the learning content is provided to students prior to class meetings which include online videos, reading material, screen casts or podcasts. In the second phase, different activities are performed and valuable class time is utilized for more collaborative and engaging activities. It could be defined as students get low-level learning (lecture, passive) outside the class and high-level learning(active, practice) within the class (Sarawagi, 2013).

Different researchers used flipped classroom model as it reduce the time of passive listening and to increase the time of active learning. This approach is useful especially for subjects that demand concept clarity and practice. Students have enough time for practice in class in supervision of the teacher. Students utilize class time in hands-on activities, games and discussion (Lage & Platt, 2000).Content is delivered to students via internet, which consists of videos or reading material. These videos have replaced the post-lecture assignments and offered classroom time for more differentiated education (Davies, Dean & Ball, 2013).This model gives equal weight-age to theory and practice which affects the academic, social and emotional development of the students. It is technology-driven teaching methods because technology is a major component as pre-class reading material and videos are shared via technology (Davies et al., 2013; Graziano, 2016).

Flipped pedagogy has brought change in the role and mindset of the teacher (Siegle, 2014). Their role of course designer has shifted to resource provider, activities' planner, facilitator of knowledge and evaluator of student learning. He guides students to think and discuss, and also gives advice and feedback. He develops self-learning habit in students that leads to discussion, communication and problem-solving ability (Hwang, 2015). Teachers explore different tools to meet the needs of individual students and think less about the method. The shift of the content out of the classroom has given more time to teachers for making activities (Hamdan, McKnight, McKnight & Arfstrom, 2013).

All the students are different from each other and they also have different learning styles. This is the reason that students in the same class, by studying the same subject from the same teacher, varies in their level of learning. But flipped pedagogy provides personalized learning opportunity to students. They can move on learning with their own pace. Teacher blends direct instruction with different learning activities (Davies et al., 2013), in this way the teachers facilitates learning of various students. Activities engage all the students in class and never

get them bored in class time. They actively participate in class discussion as they cover content prior to class (Davies et al., 2013). In flipped class room approach, students develop individual strategies of finding, evaluating and using information (Wakefield & Smith, 2012). Keeping in view all above discussion this study has been designed to analyze already conducted experimental research studies used flipped classroom approach as pedagogy. The conceptual frame work for the review of flipped classroom researches was taken from Cabi (2018) it is based on three categories i.e. Academic, Social and emotional development.

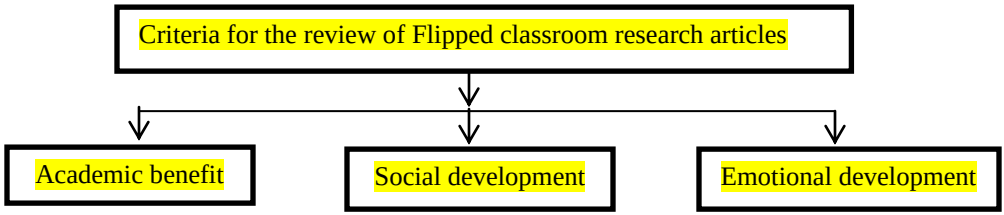

Figure 1: Conceptual framework for the review of conducted researches

Objective of the study

Different research studies conducted at different educational levels all over the world. The objective of this article is to analyze the research studies already conducted during 2013 to 2018 i.e. 5 years. The prime objective was to investigate which type of academic, social and emotional development was evidenced when using flipped classroom approach.

Research Questions

The following are the questions that guided the present study:

1. What is the effect of flipped classroom on the academic achievement of students?
2. What is the effect of flipped classroom activities on social development of students?
3. What is the effect of flipped classroom activities on emotional development of students?

Method

Data Sources and Searches

The present review was carried out according to the guidelines of PRISMA (Preferred Reporting Items for Systematic reviews and Meta-Analysis). Online databases were used for articles, relevant to the study. In October 2018, 4 data bases were searched for this purpose which included as: (1) JSTOR, (2) Taylor and Frances (3)ERIC (Education Resources Information Center) and(4) Springer.

The search phrase was "(flip*OR invert*)AND (class*OR model* OR instruction*)". Some related phrases which are used for flip were also tried out like flipped learning and invert class room.

Research Study Selection Criteria

Criteria used for the selection of articles for review was, publishing time, type of methodology, type of publication & language. The detail of inclusion and exclusion criteria of articles is given in the following table.

Table 1

Selection Criteria for Articles

Criteria	Inclusion	Exclusion
Time period	2013-2018 (5 years)	The studies that do not lie in the range of selected years
Type of the study	Experimental studies, Action research, Mixed method	Qualitative studies
Type of article	Empirical studies published in Peer reviewed journals	Non-empirical studies
Language	English	Non-English studies

The table1 shows selection criteria for the articles which were published during 2013 -2018. These selected studies used experimental design, action research and mixed method. They have evidence for the difference in the academic achievement of learners when used flipped class and those who studied in traditional way. Besides that, the empirical studies, written in English language and published in peer-reviewed journals, were included for review. There was no restriction on grade or levels of education, subjects or fields of study and geographical location of experimentation.

The research presented here was limited to time, research design and language of the published articles. In fact the exclusion criteria show the limitation of the study. Firstly, due to shortage of time the study was limited to quantitative and mixed research design, by leaving qualitative approach of research which could provide more information regarding activities and benefits of flipped model. Secondly, due to time restrain, a limited sample of publish articles in between 2013-2018 were selected. Finally, due to researcher's inability in understanding the foreign languages other than English, many articles were skipped from review.

Data Extraction

The researcher found total 313 journal articles. 96 articles were found replication on databases so was removed. By using other data sources 21

additional articles were identified. After reading the title and abstract of the articles, 226 articles were removed because they did not meet the criteria, set for review. This criterion reduced the threat to researcher's biasness in selection. Then the eligibility of 12 full-text articles was assessed and finally they were selected for review.

The whole process of data extraction is shown through the following:

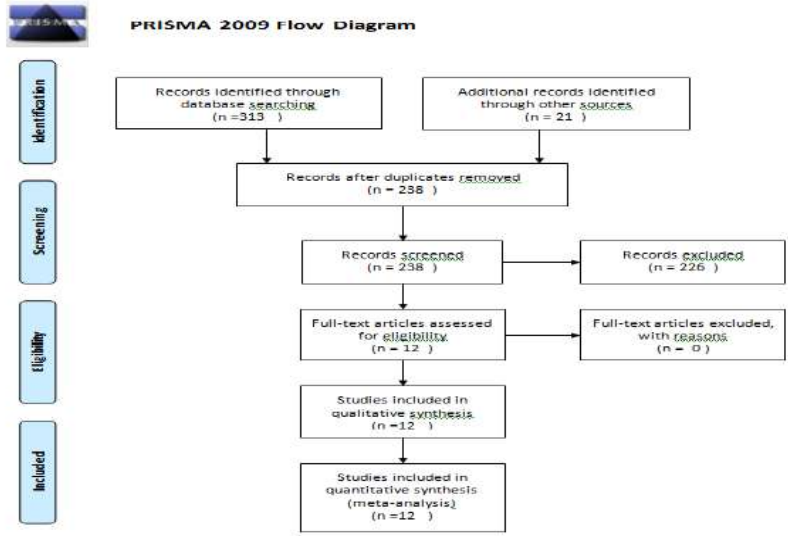

Figure 2: Source: http://prismastatement.org/PRISMAStatement/FlowDiagram.aspx

Data analysis

Selection Criteria for the articles

This section addresses three research questions. The first is about students' achievement in flipped class room, second is social and third is emotional development of students when using flipped classroom model during teaching. Keeping in view these three questions, the related information was saved in separate folder and then they were arranged in tabulated form. 12 articles were scanned thoroughly. The detail of the scanned articles is given in table.

Table 2

Overview of 12 Selected Review Articles

Study	Country of Origin	Subject	Sample		Grade Level & Age	Study Design	Duration of Intervention
			Flipped	Traditional			
Bhagat, Chang & Chang(2016)	Taiwan	Math	41	41	High School (14-15 Years)	Quasi-experimental	6 Weeks
Clark (2015)	USA	Math	42	Not mentioned	Grade 9 (13-15 Years)	Action Research	7 Weeks
Gonza´lez-Go´mez, Jeong, Rodrı´guez & Can˜ada-Can˜ada (2016)	Spain	General Science	52	51	Second year Graduates	Quasi-experimental	1 Semester
Huang & Hong (2016)	Taiwan	English	40	37	Grade 10	Mixed method	12 Weeks
Kostaris, Sergis, Sampson, Giannakos & Pelliccione (2017)	Not mentioned	ICT	23	23	K-12	Action Research	8 Weeks
Kurt (2017)	Turkey	Classroom Management	32	30	Prospective teachers (19-21 years)	Mixed Method	14 Weeks
Leo& Puzio (2016)	USA	Biology	2 Sections	2 Sections	Grade 9	Quasi - experiential design	Not Specified
Olakanmi (2016)	Nigeria	Chemistry	33	33	Secondary School (13-14 years)	Mixed Method	3 weeks
Sahin, Cavlazogl& Zeytuncu (2015)	USA	Math	3 Sections	7 Sections	Higher Secondary	Quasi Experiment	1Semester
Schwarzenberg, Navon, Nussbaum, Pe´rez-Sanagusti´n & Caballero (2018)	Chile	The Introductory Programming Course	(151)3 sections	(226) 4 sections	University level	Quasi Experiment	2 Semesters
Wang, An, & Wright(2018)	China	Chinese Language	31	30	1st Year Graduate	Mixed Method	16 weeks

Zack, Fuselier, Gram-Squire, Lamb& O'Hara (2015)	USA	Math, pre-calculus, Business calculus, calculus 1	4 sections were taught via flip and traditional way of teaching	1st Year Graduate	Mixed Method	1 Semester

The table 2 shows that most of the studies were conducted in USA (n = 4) and other were conducted in Taiwan (n=2), Spain (n= 1), Nigeria (n= 1), China (n= 1), Chile (n= 1) and Turkey (n= 1) but the origin of one of the study was not identified as it was not mentioned in the study.

The courses which taught in flipped classes were: Math (4), ICT (1), Chemistry (1), Biology (1), English (1), General Science (1), The Introductory Programming Course (1), Classroom Management Coursein Teacher Education Program (1) and Chinese Language(1).

The studies were conducted at different levels, from Primary to Graduate level, that's why participants also varied in their ages. The sample of flipped class-rooms was comprised of single section to 4 sectionsof the students to receive the treatment.

Most of the studies were Quasi-experimental (5) and Mixed method (5). Two of the studies implied Action Research design.In all the studies, treatment was given to experimental group and different methods of assessment were used to see the difference between the performance of experimental and controlled groupparticipants.

Duration of the intervention of studies ranged from 3 weeks to 16 weeks.

Activities performed in Flipped Class rooms during experiments

As Flipped class room model has two phases, so different activities for pre-class and in-class were planned and executed by different practitioners in the studies. Four of the studies also mentioned post-class activities. The detail of the activities is given in the table.

Table 3

Activities of Flipped Class-room Model

Study	Flipped Class-room Activities		
	Pre-Class	**During Class**	**Post Class**
Bhagat et al. (2016)	Short videos (15-20 min)	Discussion	
Clark (2015)	Reading articles, videos, viewing presentation, podcasts,	Independent practice, activities, discovery learning, group work, project-based learning,	
Gonza´lez-Go´mez et al.(2016)	Videos, Reading material, online quizzes	Just-in-time lecture, small group discussion, case studies,	Submitting a report of accomplished tasks
Huang & Hong (2016)	Video	Group work, warm up discussion, students' questioning	
Kostariset al. (	Videos, online lectures	Jigsaw technique,	Evaluating

2017)		Web-quests, project based activities	project
Kurt (2017)	Instructor-generated podcast (40-45 minutes), reading book material, quiz	Role play, problem solving, watching and commenting on real classroom videos., analyzing case scenarios	
Leo& Puzio (2016)	Video lectures, short quiz to Moodle (Modular Object-Oriented Dynamic Learning Environment)	Laboratories, projects, Interactive forms of learning.	
Olakanmi (2016)	Sharing video link or on flash drive/ DVDs(Digital Video Disc) for those having no internet facility, reading material with quiz	Hands-on activities, participated in real-world applications,independent practice	
Sahinet al. (2015)	10 min video with introduction to lecture	Survey and pop quiz	
Schwarzenberget al. (2018)	Lecture Videos with worked examples, Forum participation, Closed-ended quizzes	Group programming assignments, Question/Answer sessions, Concept reviews, Worked examples	Laboratory (each week), programming milestones, Three graded programming assignments,
Wang et al. (2018)	Modules on MOOC(Massive Open Online Course)consisted reading material, videos, auto grading exercises, discussion forum	Quiz, language practice and pair/group activities, role play,	Completing next module available on MOOC for next class
Zacket al. (2015)	Lecture videos, short assignment	Question/Answer, working on online assignment, quiz, activities	

The table 3 shows the variation of pre-class activities. The short videos or lecture video were shared with students .The other pre-class activities were providing articles/ material for reading, podcasts, online lectures, quizzes, sharing video link or on flash drive/ DVDs for those having no internet facility, short assignment, short quiz to Moodle and providing modules on MOOC. Technology was used for all these activities.

The in- class activities were discussion , independent learning practice, different activities, discovery learning, group work, project-based learning, Just-in-time lecture, case studies, the Jigsaw technique, Web-quests, Question/Answer sessions, project based activities, lecture, pop quiz, survey, role play Concept reviews, language practice and short assignment.

The post class activities consisted on evaluating project, submitting a report of accomplished tasks, assignments, Laboratory work and completing next module available on MOOC for next class.

Effect of Flipped Classroom Model on Students' Achievement

Students in all the studies were divided into two groups. One of the groups was taught through activities in flipped class room model and other in traditional way. The performance of the students was assessed through test. The details are given in the table:

Table 4

Achievement Scores of Flipped and Traditional Class

Study	Tool used for measurement	Flipped Class	Traditional Class	Result
		Mean scores	Mean scores	
Bhagat et al., (2016)	Pre-test Post test	5.25 9.18	5.75 7.62	Significant difference in scores of low achiever
Clark (2015)	Post test	80.38	80	No significant difference
Gonza´lez-Go´mez et al.,(2016)	Post test (Nunber of students who passed exam)	35	29	Significant difference
Huang & Hong (2016)	Pre-test Post test	30.69 41.17		Significant differences
Kostaris et al., (2017)	3Assessment scores	16.8 18.3 18.1	15.7 15.7 16.9	Significant difference
Kurt (2017)	Post test	73.38	58.80	Significant difference
Leo& Puzio (2016)	ANCOVA(Analysis of Covariance)			Significant difference
Olakanmi (2016)	Pre-test Post test	5.12 10.82	5.73 7.14	Significant difference
Sahinet al., (2015)	Post test	8.32	7.54	Significant difference
Schwarzenberg et al..(2018)	Multiple Regression (final exam score)			Significant difference
Wangel al., (2018)	Post test	16.26	14.63	Significant difference
Zacket al.,(2015)	ANOVA (Analysis of Variance)			No significant difference

Table 4 shows that in 3 studies, pre-test and post tests were conducted from both the groups and then their performance was assessed, whereas post-test was conducted in 5 studies. In one of the study, students' performance was

assessed continuously at different levels. ANOVA, Multiple Regression and ANCOVA tests were also applied to view the impact of treatment on experimental group.

There was significant difference in the scores of the experimental group and control group (Gonza´lez-Go´mez et al., 2016; Huang & Hong,2016; Kostaris et al., 2017; Kurt , 2017; Leo& Puzio, 2016; Olakanmi, 2017; Sahin et al., 2015; Schwarzen et al., 2018; Wang et al., 2018). This difference was observed in 9studies. In one study, significant difference was observed only in the scores of low achievers (Bhagat et al., (2016), but no significant difference was observed in the scores of the experimental group and control group in 2 studies (Clark, 2015; Zack et al., 2015).

Activities performed during Flipped Classroom experiment

The review of selected research articles showed following tools/techniques and actives were performed during flipped classroom experiment for students' social and emotional development, such as focus group, interview, teacher notes, observation and survey. Detail is as follows:

Table 5

Source for Identifying Benefits of Flipped Class

Study	Source
Clark (2015)	• Focus group, • Interview • Teacher notes
Gonza´lez-Go´mez et al.(2016)	• Survey
Huang & Hong (2016)	• Interview • Observation
Kostaris et al., (2017)	• Survey • Teacher journal
Leo& Puzio (2016)	• Informal qualitative data- before, during and after class
Olakanmi(2016)	• Classroom observations • Interview
Zack et al., (2015)	• Survey

Effect of flipped classroom activities on social development of students

It was noticed during review of the selected articles that different activities effected students' social development during experiment. The detail is as follows:

Communication

Student in flipped class room get more opportunities to communicate with their teachers. There is student-to-teacher and student-to-student communication as in class they discuss their problems with other students, share solutions and also validate their thought process (Clark, 2015).

Student Engagement in Class

Engagement is an active involvement of students in a learning activity, and it is a strong forecaster behind the learning, academic progress and achievement of the students. Students in flipped class room model are engaged mentally, physically and emotionally. They are engaged throughout the course (Kostaris et al., 2017). Participation and communication of students in flipped class room model, promote a student-centered classroom environment which is helpful for learning and success of the students. Students prefer flipped classroom being actively engaged in the lesson rather sitting passively and listening to a lecture (Kurt, 2015).

Student Teacher Interaction

Flipped class room model is helpful in developing students' interaction with teacher, it results in making conducive environment for effective learning (Zack et al., 2015). Students interact with their teacher through warm-up questioning, class meeting, small group work or performing activities (Huang & Hong, 2016).

Many times, in the traditional classroom, the needs and confusion of an individual is not noticed by a teacher, but in the flipped classroom, the teacher speaks to every student and addresses their concern and also ask questions about the current topic, which helps in clarity of the concept (Clark, 2015).

Videos: An Easy Mode of Learning

It is easier for students to watch 10 minutes video rather than reading the textbook. Videos develop the interest of the students whereas the lengthy paragraphs make them get bored (Sahin et al., 2015; Kurt, 2015). These videos engage students more with course content (Gonza´lez-Go´mez et al., 2016). Videos have the option of stop and rewind so students can pause them while taking notes from these videos (Zack et al., 2015). Students appreciate watching the lectures at their convenient time and on their own pacing (Kurt, 2017).These

videos are also helpful when studying for exam as it takes less time for revision of the topic. Videos are accessed by students at their convenient time and can re-watch the lessons till they understand the concept but in the conventional method of teaching, lectures cannot be revised (Bhagat et al., 2016).

Collaboration

Group work of students in the flipped class improves their involvement and participation in the classroom. Collaboration and shared support by other peers help in building the confidence of the students (Clark, 2015; Kurt, 2015). Working collaboratively for completing the tasks such as project-based learning activities, provide an opportunity to students to learn from their peers on a daily basis(Clark, 2015). It also provides opportunities to students to promote active learning and to interact with students via an online forum (Schwarzenberg et al., 2018).The chance to work with peers, contributes to the positive classroom environment where students share their opinions comfortably and receive constructive feedback from their peers and teacher (Kurt, 2015).The in-class Q&A session allows the students to interact with their class mates and creates learning environment in which they collaboratively find solution to the problem, find answer to the question and do laboratory work (Schwarzenberg et al., 2018).

Effect of flipped classroom activities on emotional development of students

Identification of Slow Learner

The flipped classroom model also effect emotional development of students. During flipped classroom activities slow performers are identified. Their performance can be improved by making their group with high achievers who will help and guide them in their work and understanding. It provides formative feedback and scaffolding to low achievers during face-to-face sessions by their teacher or peers (Kostaris et al., 2017).

Stress Free Learning

Sahin et al.,(2015)stated that students in flipped class room model enjoy stress free learning, as they have more freedom and flexibility to choose their preparation methods for the class. They feel no anxiety of missing lecture (Kurt, 2015),rather can re-watch the videos till the understanding of the topic, without being exposed to any external pressure or stress. Furthermore, they can ask question to their teachers or peers in face-to-face class meetings regarding their topic. Huang & Hong (2016) stated that lengthy reading texts in class put time limitation and class schedule pressure on students, but they can comprehend those reading material at home with their own pace. It was recommended that watching videos prior to class, makes learning enjoyable to students and also makes classroom environment more positive and less stressful (Kurt,2015).

Motivation and satisfaction

The student's motivation was increased during the experiment. This was evident in three articles. Motivation is a driving force behind any learning or work to be performed. As students in flipped class come to class with preparation as they have already read the content or watch videos at homes, so they practice same thing in class. This practice retains information in their long term memory and also helps in their exam. Flipped classrooms prepare students for the class and help them in better learning (Sahin et al., 2015). The results of the some experimental studies showed that students with higher motivation for preparation got higher scores in flipped classroom as compare to traditional way. Satisfaction of students with flipped classroom results in greater learning motivation, as flipped class has flexibility and variety (Bhagat et al., 2016). Well prepared students are confident in class and they are successfully engage with learning activities (Kostaris et al., 2017; Kurt, 2015).

Flipped model not only motivates students but also the teachers. Teachers enjoy teaching and are motivated when students perform in class with better preparation (Kostaris et al., 2017).

Discussion

Flipped class room model is based on different activities which play a key role in motivation and learning of the students. Pre-class activities are as important as during-class activities. The review of selected articles indicated that all the instructors in flipped class room, provided material to students in advance via internet. Short videos of 5-15 minutes were shared with them to be watched anywhere and anytime (Hew & Lo, 2018)and also helped in clarity of the main concept. The review also highlighted that the pre-class material was given in hard form/ DVD to the students who had no net connection at home. Besides video, reading material was also shared with students for in-depth comprehension. Online lectures and online discussion sessions were conducted for students. This is the limitation of this model if students don't have internet connection they can't get benefit from this model. Sirakaya and Ozdemir (2018)reported significant difference between groups (experimental and control) in terms of academic achievement, motivation and retention. However, no significant difference found in terms of self-directed learning readiness. It shows although flipped classroom model has many benefits but it can't promote self-directed learning. The flipped classroom model help in communication, collaboration, interaction and engagement of students in class but Kenna (2014) results oppose this and found flipped classroom decreases classroom interaction as in traditional class those students who were engaged in asking questions in flipped classroom they do not inquire in front of class, they note their questions and ask in personal meeting. Further it was found in same study that self-efficacy decreased in

flipped classroom. It means not all variables of social development can be increased by flipped classroom model.

The main focus of flipped idea is to provide class time for active learning. Instructor does a lot of effort to design activities for students. He keeps students engage in activities and gives immediate feedback to them. The review showed that discussion was initiated in class or short quizzes were solved by students for recalling the knowledge, attained prior to class. It could easily identify the prepared and unprepared students in class. Students were also provided with opportunities to work in group or with peers known as peer tutoring. In this way peers tutoring enhancing the knowledge as well as the application ability of the students. This is recommended by Ullah, Kaleem and Aamir (2020), that during classroom instruction, students of low academic performance may be paired with students of good performance for long sessions so that the formers are guided and tutored properly. It also helps in improving social and emotional development of students. Individual assignments were also assigned to them such as projects. The review also showed the flipped class was more effective for language learning. In Pakistan medium of instruction remain a bone of contention for educationists and parents. Teaching and learning Language need special attention specially English as it is foreign language for Pakistani and many other students where English is not mother language. It is founded by Fareed, Ashraf and Mushtaque (2019) that In Pakistani schools where teachers and students' have weak English language skills, due to which the teachers are unable to deliver their ideas effectively and students face difficulty in understanding the subject; which also hinders them to be critical. Flipped classroom can handle this issue. It can be used as effective tool for language learning. Language learning needs practice along with knowledge of its rules. Students learned the rules prior to the class and more time of class was dedicated to practice which resulted in language proficiency. This finding is not supported by Hasanah and Arifani (2018) as they concluded students can't get benefit from it as they are not familiar from autonomous learning.

The review indicates that more students favored the flipped classroom approach over traditional classroom. They performed well and got more achievement than students of traditional class. The findings are similar to the results of Uskokovic's (2018) study which demonstrated flipped class students' better performance in knowledge test as compare to performance of traditional lecturing class students. Aronson and Arfstrom's (2013) study results are parallel as students in the flipped courses cored more than the students of tradition class due to interactive learning methods.

Variation was found in the findings of the reviewed studies, as no difference was found in the achievement scores of the students of both classes. Students' attitude towards flipped classroom instruction was positive (Bhagat et al., 2016) but a few students (in some studies)favored traditional teaching because they were used to traditional teaching and were hesitant of participating in class activities and asking questions.

The review also highlighted the benefits of flipped class room model. Students were motivated and engaged in their study related activities. It showed flipped classroom help in emotional development (Cabı, 2018). The reason was their pre-class preparation which gave motivation and confidence to them. The positive response of students, students' interest in learning and participation in discussion, also motivated teachers for further and better planning.

Flipped class room approach gives more opportunities to students to interact with teacher and to other class mates. They work in groups and share their plan of action with each other. The review showed that passiveness in class leaves many questions in the mind of the students but in the flipped classroom, the teacher speaks to every student and asks questions to students which help in clarity of the concept. Many things are cleared through open communication in class.

The review showed that the main reason of the interest of students in flipped class room approach was watching "videos" which required less time and delivered more information. Students accessed these videos at per their convenience.

Conclusion and Recommendations

On the bases of literature and data analysis of selected articles it is concluded that the flipped classroom instruction ensures significant improvement in learning of the student as compare to the students who learn in traditional class. It increases academic achievement; improve social and emotional development of students. In addition, videos are so effective and less time demanding for attaining information. Flipped classroom approach is one of blended learning approach in which learning could be joyful and classroom remains less stressful. Flipped class room approach supports active learning and makes learning interesting for students. Along with the benefits there are some limitations of flipped classroom model as it requires internet connection or CD on material can be shared to students. The students need to be trained for self-directed learning, otherwise it can't benefit to them. The video content and lectures preparation is difficult task for teachers. All teachers do not have these skills, so prior training of teachers is required for material selection, material development, and material presentation. There is a possibility it can waste time

money and resources. The review of qualitative researches would explore more benefits of flipped class rooms on learning, behavior, attitude and personality of the students.

References

Aronson, N. & Arfstrom, K. M. (2013). Flipped learning in higher education. Retrieved From: http://www.flippedlearning.org/cms/lib07/.

Baker, J. W. (2000). *The "classroom flip": Using web course management tools to become the guide on the side*. In J. A. Chambers (Ed.), Selected papers from the 11th International Conference on College Teaching and Learning (pp. 9-17). Jacksonville, FL: Florida Community College at Jacksonville.

Bhagat, K. K., Chang, C. N. & Chang, C. Y. (2016). The impact of the flipped classroom on mathematics concept learning in high school. *Educational Technology & Society, 19* (3), 134–142.

Cabi, E. (2018). The Impact of the Flipped Classroom Model on Students' Academic Achievement. *International Review of Research in Open and Distributed Learning*, *19*(3). https://doi.org/10.19173/irrodl.v19i3.3482

Clark, K. R. (2015). The effects of the flipped model of instruction on studentengagement and performance in the secondary mathematics classroom. *Journal of Educators Online*, 12(1), 91–115.

Davies, R. S., Dean.,& Ball. (2013). Flipping the classroom and instructional technology integration in a college-level information systems spreadsheet course. *Education Tech Research Dev, 61:*563–580.

Fareed, M., Ashraf, A., & Mustaque, S. (2019). Medium of Instruction in Education: Perceptions of Teachers and Studentsfrom Pakistani School, College and University. *FWU Journal of Social Sciences,* 13(3), 134-143.

Gonza´lez-Go´mez, D., Jeong, J. S., Rodrı´guez, D. A. & Can˜ada-Can˜ada, F. (2016). Performance and perception in the flipped learning model: an initial approach to evaluate the effectiveness of a new teaching methodology in a general science classroom. *J Sci Educ Technology*. 25:450–459.

Graziano, K. (2016). Flipped learning: making the connections and finding the balance. *Online Teaching in K–12*, 131-146.

Hamdan, N., McKnight, P., McKnight, K. & Arfstrom, K. M. (2013). The flipped learning model: a white paper based on the literature review titled a review of flipped learning. *Flipped Learning Network*. Retrieved from http://flippedlearning.org/domain/4

Hasanah, I., & Arifani, Y. (2018). The Effect of Flipped Classroom toward ESP Students Reading Comprehension. In Proceedings of the Borneo International Conference on Education and Social Sciences (BICESS 2018), pages 226-236 ISBN: 978-989-758-470-1.

Hew, K.F. & LO, C. K. (2018). Flipped classroom improves student learning in health professions education: a meta-analysis. *BMC Medical Education.*. 18 (38), 123-132.

Hwang, G., Lai, C. & Wang, S. (2015). Seamless flipped learning: a mobile technology enhanced flipped classroom with effective learning strategies. *Journalof Computer Eduation., 2* (4), 449–473.

Huang, Y., & Hong, Z. (2016). Theeffects of a flipped English classroom intervention on students' information and communication technology and English reading comprehension. *Educational Technology Research and Development,* 64(2), 175–193.

Kenna, D. C. (2014). The study of the effect of flipped classroom model on students self-efficacy. Retrieved from https://library.ndsu.edu/ir/bitstream/handle/10365/27590.

Kostaris, C., Sergis, S., Sampson, D. G., Giannakos, M. N.& Pelliccione, L. (2017). Investigating the potential of the flipped classroom model in k-12 ICT teaching and learning: an action research study. *Educational Technology & Society, 20* (1), 261–273.

Kurt, G. (2015). Implementing the flipped classroom in teacher education: evidence from Turkey. *Educational Technology & Society, 20* (1), 211–221.

Lage, M. J., & Platt, G. (2000). The internet and the inverted classroom. *The Journal of Economic Education, 31*(1), 11-21.

Leo, J. & Puzio, K. (2016). Flipped instruction in a high school science classroom. *Journal of Science Education and Technology*, 25:775–781.

Olakanmi, E.E. (2017). The effects of a flipped classroom model of instructionon students' performance and attitudes towards chemistry. *Journal of Science Education Technol*ogy, *26*: 127–137.

Sahin,A., Cavlazoglu, B.& Zeytuncu, Y. E.(2015).Flipping a college calculus course: a case study. *Journal of Educational Technology & Society*,18 (3). 142- 152.

Sarawagi, N. (2013). Flipping an introductory programming course: yes you can! *Journal Computing Sciences in Colleges, 28* (2), 186-88.

Schwarzenberg, P., Navon, J., Nussbaum, M., Pe´rez-Sanagustı´n, M. & Caballero. D. (2018). Learning experience assessment of flipped courses. *Journal of Computing in Higher Education, 30*, 237–258.

Siegle, D. (2014). Technology: differentiating instruction by flipping the classroom.*Gifted Child Today, 37* (1), 51-55.

Sirakaya, D. A., Özdemir, S. (2018). The effect of a flipped classroom model on academic achievement, self-directed learning, readiness, motivation and retention. *Malaysian online Journal of Educational Technolog*, 6(1), 76-91.

Ullah, I., Kaleem, M., & Aamir, M. S. (2020). Effectiveness of Peer Tutoring on The Academic Achievements of Tutors and Tutees WithRespect to Knowledge, Comprehension and Application Levels of Cognitive Domain. *FWU Journal of Social Sciences,*14(4),68-79.

Uskoković, V. (2018). Flipping the flipped: the co-creational classroom. *Research and Practice in Technology Enhanced Learning, 13* (11).

Wakefield, J. M. & Smith, D. (2012). From Socrates To Satellites: I-pad learning in an undergraduate course. *Creative Education, 3*(5), 643–648.

Wang, J., An, N.& Wright, C.(2018). Enhancing beginner learners' oralproficiency in a flipped Chinese foreign language classroom. *Computer Assisted Language Learning*, 31:5-6, 490-521.

Zack,L., Fuselier,J., Squire, A. G., Lamb. I & O'Hara, K. (2015). Flipping freshmanmathematics. *PRIMUS*, 25 (9-10), 803-813.

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Effects of the Demographic Characteristics and Physical Exercises on Elementary School Teacher's Job Satisfaction

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The objective of this study was to examine the effect of demographic characteristics and physical exercise on elementary school teacher's job satisfaction. A survey design was used in the current study. The sample consisted of 186 elementary school teachers from two towns of District Lahore. Statistical Package for the Social Sciences was used to analyze the data in the form of frequency, standard deviation, and percentages. The findings indicated that gender has no effect on elementary teachers' job satisfaction. The qualification of teachers was not significantly associated with teachers' job satisfaction. The experience effected teacher's job satisfaction. The physical exercises were significantly associated with teachers' job satisfaction. It was concluded from the findings that gender and subject of teaching had no effect on elementary teachers' job satisfaction. It was recommended that elementary school teacher's physical exercise sessions be given due consideration in the school induction as it showed an association with teachers' job satisfaction.

Keywords: job satisfaction, elementary level, students' achievement, physical exercise, teacher

Job satisfaction is allied with an employee's perception of the soothing effects that are to be provided by the job they pursue. Job satisfaction always remains an area of concern in developing countries. Pakistan is a developing country in the world. There is little work on the role of demographic characteristics and physical exercise on elementary school teacher's job satisfaction in the government sector of Pakistan. The first and foremost prerequisite for a professional like a teacher is the qualification that affects their job satisfaction. Teacher has to be abreast with the latest knowledge because knowledge inflation is becoming graver. As to teacher characteristics, female

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teachers, teachers with more exposure to professional development and more efficacious teachers tended to have higher levels of job satisfaction (Toropova et al., 2021). Similarly, physical exercise plays a vital role in keeping the body fit both physically and psychologically. In order to achieve organizational objectives, many organizations have started to emphasize the importance of employees in organizational performance (Naeem, Jamal & Riaz, 2017).

Job satisfaction is a result of an employee's perception of how well their job provides those things that are viewed as important (Mitchell & Larson, 1987). Several related attitudes are also represented by job satisfaction. These attitudes are essential features of a job from which people get their effective responses, for example, the pay, work itself and promotion of employees' opportunities (Luthans, 2006). Job satisfaction always remains a focused area of research in developing countries (Papanastasiou & Zembylas, 2006). It is ever found to be a hot topic of discussion among practitioners and researchers in different fields such as education, public administration, and management (Kim, 2005).

There are many factors associated with the teacher's job satisfaction, some important of them are job expectations (Perrachione, Rosser & Petersen, 2008), teacher qualification and continuing education (Perrachione, Rosser & Petersen, 2008; Xin & MacMillian, 1999), years of experience, teacher's age, and issues outside the school (Billingsley & Cross, 1992; Xin & MacMillian, 1999), as well as feedback and support systems (Perrachione, Rosser & Petersen, 2008). There is supervisory leadership related to the job satisfaction of teachers. Some of the factors cannot be changed administratively, such as teachers' age, years of teaching experience, and issues outside the atmosphere of the school (Billingsley & Cross, 1992; Xin & MacMillian,1999). On the other side, administrative factors like feedback, support system, and leadership can be changed to improve the job satisfaction. Need/content theories highlight specific requirements like shelter, food, and rest and values like achievement, recognition, and respect as related to job satisfaction (Herzberg, 1966). A situational model depicts that the interaction of variables like job characteristics, organizational characteristics, and individual characteristics affect job satisfaction(Glassman, McAfee & Quarstein, 1992). The job characteristics include the nature of the work and organizational characteristics including the infrastructure of the organization, leadership, promotion criteria, and facilities. A research study indicated that job satisfaction may be computed from two main parameters such as situational occurrence and situational characteristics (Glassman, McAfee & Quarstein, 1992). Prior to joining a job, the employee's access to the job is evaluated out of situational characteristics including pay, working time, conditions, and promotion criteria. A theory of human needs is based on a hierarchical model which starts from lower order needs (from bottom) and passes on to higher order needs (at top). These

needs are physiological needs (lowest needs), safety and security needs, love needs, esteem needs, and self-fulfillment (top needs) (Maslow, 1954).

Qualification of the teacher is a fundamental parameter that affects their job satisfaction. Several studies focused on this parameter and established different conclusions. Teachers that have higher academic qualifications and training had higher order job satisfaction in comparison to their colleagues with lesser qualifications and training (Xin & MacMillian, 1999). A study investigated that personnel with high qualifications in terms of advanced academic degrees and professionalism had a better attitude to job satisfaction than less qualified people (Perrachione, Rosser & Petersen, 2008).There is a gap in knowledge regarding whether demographic characteristics and physical exercise can improve the job satisfaction of elementary school teachers in Pakistan. Hence, a survey study was conducted to investigate the effects of demographic characteristics and physical exercise on elementary school teacher's job satisfaction.

Objectives of the Study

The following objectives were established to conduct this study:

- To investigate the effects of gender, age, qualification, promotion, and teaching experiences on teachers' job satisfaction.
- To investigate the effects of physical exercise on teachers' job satisfaction.

Research Questions

This study answered the following research questions.

- What are the effects of gender, age, qualification, promotion, and teaching experiences on teachers' job satisfaction?
- What are the effects of physical exercise on teachers' job satisfaction?

Method

Design of the study

The current study was descriptive and quantitative in nature based on the survey of the opinions of elementary school teachers

Participants

The teachers of elementary schools belonging to district Lahore were the participants of the study, they had the freedom for selection as a participant of the study or not. The confidentiality of the provided information was ensured by the researcher regarding the privacy and dignity of the participants. The full assurance regarding their names and their school names were kept in confidentiality. The researchers did not expose participants' information that was divulging their individual identity without the participants' permission.

Population

The population of the current study consisted of Government high schools in the city of Lahore. There were about 333 government high schools in the city of Lahore. Lahore city has been bifurcated into zones like; Shalimar town, Ravi town, Wagha town, Aziz Bhatti town, Data Gung Bukhsh town, Samanabad town, Allama Iqbal town, Nishtar town, Gulberg town. The total elementary teachers were 3073 out of which 899 teachers were male, whereas 2174 were female teachers.

Sample

According to Singh (2007), a sample is a set of target respondents selected out of a larger population for survey. It is a smaller group of the total population but fully representative of the characteristics of the population (Cohen, Manion& Morrison, 2007). Researchers managed to select a sample of government elementary school teachers, both boys and girls from Samanabad town and Allama Iqbal town. Researchers selected 30% of the schools at random out of the available lot. The bifurcated sample over the towns and as per male and female stratification is being shown in **Table 1.**

Table 1

Revealing the Distribution of Sample over Samanabad and Allama Iqbal Towns

Towns	Male teachers	Female teachers
Samanabad town	132	150
Allama Iqbal town	130	191
Total Teachers	262	341

Sample size

Total population of male and female teachers was 603 distributed over two towns. Out of which, a sample size of 186 elementary school teachers, both boys and girls, was selected for the research purpose.

Development of a questionnaire/instrumentation

The researchers reviewed the survey questionnaire by Crawford (2017) that was already validated and made reliable, but the researchers did and exploratory space work to ascertain the parameters to be explored upon. A list of items was presented to the experts to pick up the items which were found to be associated with the job satisfaction of elementary school teachers performing their teaching duties in the Lahore city towns like Samanabad and Allama Iqbal Towns. The current study was based on the survey of opinions of elementary school teachers for which a rating scale was developed having 20 items organized under four sub categories of variables addressing to job satisfaction dimensions viz. promotions, extra duties, incentives, and physical exercise. These variables are four in number, having an association with job satisfaction of

teachers, further distributed over 5 items. Each item was rated on a three-point scalesuch as disagree, neutral, or agree.

Data analysis

For quantitative analysis, the statistical package for social sciences was used to determine the frequency, standard deviation, and percentages. The collected data were evaluated, organized, and processed for differential and inferential statistics to address the objectives.

Results

The frequency analysis of socio-demographic characteristics of participants is explained in Table 2**.**The sample consisted of 87 (46.8%) males and 99 (53.2%) females. Out of a total 186 participants, the majority were between the age of 30 to 40 years. The level of education of the majority participants was M.Phil. There was no participant in the sample who had completed PhD degree. Regarding teaching experience, 22 (11.8%) had experience between 1 to 3 years, 41 (22%) between 4 to 6, 73 (39.2%) between 7 to 10 and 50 (26.9%) over 10 years of experience.

Table 2

Socio-demographic Characteristics of Participants

Variables	**Frequency**	**Percentage**
Gender		
• Males	87	46.8
• Females	99	53.2
Age		
• Under 30	74	39.8
• 30-40	77	41.4
• 40-50	24	12.9
• Over 50	11	5.9
Qualification		
• Matric	1	0.5
• Bachelor	14	7.5
• Master	124	66.7
• M.Phil	47	25.3
• PhD	0	0
Experience of teaching		

•	1-3 Year	22	11.8
•	4-6 Year	41	22.0
•	7-10 Year	73	39.2
•	over 10 year	50	26.9
Total		186	100

The frequency analysis of promotion and extra duties is explained in Tables 3 and 4**,**respectively. Table 4 shows that extra duties are very frequently entered into the duty roaster is answered by 105 (56.5%) respondents. On being asked, 135 (72.6%) went in affirmation to the statement that extra duties are mostly painful and distressing to them. A categorically clear majority 151 (81.2%) said that the extra duties/assignments disturb their routine teaching tasks. It is supported by 133 (71.5%) respondents that the curriculum cannot be covered in time due to extra duties. It is said by 113 (60.8%) respondents that extra duties most of the time go beyond their capacity and tasks.

Table 3

Frequency Analysis of Promotion. Values in Parenthesis Show Percentages

Questions	**Disagree**	**Neutral**	**Agree**
Q1.Promotion always remains timely.	65 (34.9)	24 (12.9)	97 (52.2)
Q2.Promotions in our scenario are made on merit.	37 (19.9)	18 (9.7)	131 (70.4)
Q3.Deservings are given promotion on time.	59 (31.7)	24 (12.9)	103 (55.4)
Q4.The procedures we come across for promotion are methodological.	54 (29)	43 (23.1)	89 (47.8)
Q5.The procedures we come across as a teacher are soothing and satisfying.	42 (22.6)	21 (11.3)	123 (66.1)

Table 4

Frequency Analysis of Extra Duties. Values in Parenthesis Show Percentages

Questions	**Disagree**	**Neutral**	**Agree**
Q1.These duties are very frequently entrusted	58 (31.2)	23 (12.4)	105 (56.5)
Q2.Extra duties are mostly painful and distressing.	31 (16.7)	20 (10.8)	135 (72.6)
Q3.These assignments disturb the routine teaching tasks.	29 (15.6)	06 (3.2)	151 (81.2)
Q4.The curriculum cannot be covered in time due to extra	43	10	133

duties.	(23.1)	(5.4)	(71.5)
Q5.These duties are most of the time beyond our capacity and tasks.	40 (21.5)	33 (17.7)	113 (60.8)

Table 5 explains the frequency analysis of incentives. Table 5 shows that incentives in the shape of appreciation letters for best performance are issued to the teachers and were answered by 91 (48.9%) respondents. On being asked, 80 (43.4%) went in affirmation to the statement that incentives in the shape of cash prizes are offered to teachers for showing good results. Some categorically clear majority participants92 (49.5%) said that out of turn promotions as incentives are not granted to outstanding teachers. It is supported by 121 (65.1%) respondents that teachers are normally entrusted the subjects of teaching of their choice. It is said by 104 (55.9%) respondents that the time table is allocated to teachers on rotation.

Table 5

Frequency Analysis of Incentives.Values in Parenthesis Show Percentages

Questions	**Disagree**	**Neutral**	**Agree**
Q1.Appreciation letters for best performance are issued to the teachers.	85 (45.7)	10 (5.4)	91 (48.9)
Q2.Cash prizes are offered for showing good results.	93 (50.0)	13 (7.0)	80 (43.0)
Q3.Out of turn, promotions are granted to outstanding teachers.	92 (49.5)	20 (10.8)	74 (39.8)
Q4. Teachers are normally entrusted the subjects of teaching of their choice.	47 (25.3)	18 (9.7)	121 (65.1)
Q5. Time table is allocated to teachers on rotation; the one who followed the hard time will be given a convenient time on the change of session.	48 (25.8)	34 (18.3)	104 (55.9)

Table 6 explains the frequency analysis of physical exercise. Performing physical exercise at school only keeping the body fit was answered by 108 (58.1%) majority participants. A categorically clear majority 90 (48.4%) said that performing physical exercise at school may serve as a role model for the students.

Table 7 explains the effects of socio-demographic characteristics of participants on teachers' job satisfaction. The average percentage of satisfaction (agree) with each category of socio-demographic variables is given in Table 7.It is observed that gender has no significant association with teachers' job satisfaction. There is an approximately an equal percentage of males (51.7%) and females (53.5%) agreeing with the process of promotion. There is no significant difference between males and females about the decision towards teachers' job satisfaction. Age has a significant association with teachers' job satisfaction. Teachers with the age between 30 and 40 are less satisfied than for other levels of age. Qualification of teachers is not significantly associated with teachers' job satisfaction, but the experience has an effect on the teacher's job satisfaction.

Table 6

Frequency Analysis of Physical Exercise. Values in Parenthesis Show Percentages

Questions	**Disagree**	**Neutral**	**Agree**
Q1. Performing physical exercise at school only keeps the body fit.	47 (25.3)	31 (16.7)	108 (58.1)
Q2. The words of praise are used for those teachers performing physical exercise at school.	45 (24.2)	29 (15.6)	112 (60.2)
Q3. The performance of physical exercise at school may serve as a role model for the students.	69 (37.1)	27 (14.5)	90 (48.4)
Q4. Teachers are given a time to perform physical exercise at school.	86 (46.2)	22 (11.8)	78 (41.9)
Q5. Teachers are given handouts as a guideline to perform the physical exercise.	74 (39.8)	34 (18.3)	78 (41.9)

Table 7

Distribution of Socio-Demographic Characteristics on Teacher's Job Satisfaction. Values in parentheses show P-values obtained from Chi-square test of association

Variables		Promotion	Extra duties	Incentives	Physical exercises
Gender		(0.839)	(0.072)	(0.698)	(0.459)
•	Males	51.7	60.9	37.9	40.2
•	Females	53.5	74.7	38.4	41.4

Age		(0.005)	(0.002)	(0.062)	(0.093)
•	Under 30	51.4	71.6	33.8	44.6
•	30-40	49.4	68.8	32.5	29.9
•	40-50	66.7	70.8	62.5	50
•	Over 50	54.5	36.4	54.5	72.7
Qualification		(0.051)	(0.041)	(0.449)	(0.692)
•	Matric	100	100	100	100
•	Bachelor	14.3	50	42.9	28.6
•	Master	53.2	72.6	37.1	39.5
•	M.Phil	61.7	61.7	38.3	46.8
•	PhD	--	--	--	--
Experience of teaching		(0.056)	(0.003)	(0.000)	(0.016)
•	1-3 Year	36.4	59.1	31.8	36.4
•	4-6 Year	63.4	75.6	29.3	39
•	7-10 Year	46.6	72.6	26	28.8
•	Over 10 year	60	60	66	62

Table 8 explains the effect of gender on teachers' job satisfaction. It is observed from Table 8 that gender has no significant effect on teachers' job satisfaction ($p > 0.05$). Mean differences between males and females are very low, which resulted in a small t-test value.

Table 8

Effect of Gender on Teachers' Job Satisfaction Using Independent Sample T-Test

Variables	Promotion	Extra duties	Incentives	Physical exercise
Mean difference	0.040	-0.168	0.064	-0.116
t-test	0.414	-1.86	0.591	-1.194
P-values	0.679	0.064	0.555	0.234
95% CI	(-.15,.23)	(-.35,.01)	(-.15, .28)	(-.31, .08)

Table 9 explains the effect of age on teachers' job satisfaction. It is observed from Table 9 that age has a significant effect on teachers' job satisfaction ($p < 0.05$).

Table 9
Effect of Age on Teachers' Job Satisfaction Using One-Way ANOVA

Variables	Promotion	Extra duties	Incentives	Physical exercises
F-test	4.571	4.415	4.099	4.147
P-values	0.098	0.048	0.092	0.007

Table 10 explains the effect of qualification on teachers' job satisfaction. It is observed from Table 10 that qualification has a significant effect on teachers' promotion.

Table 10
Effect of Qualification on Teachers' Job Satisfaction Using One-Way ANOVA

Variables	Promotion	Extra duties	Incentives	Physical exercises
F-test	3.394	0.182	1.568	1.087
P-values	0.019	0.318	0.199	0.356

Table 11 explains the effect of experience on teachers' job satisfaction. It is observed from Table 11 that experience has a significant effect on teachers' promotion, incentives, and physical exercise.

Table 11
Effect of Experience on Teachers' Job Satisfaction Using One-Way ANOVA

Variables	Promotion	Extra duties	Incentives	Physical exercises
F-test	3.562	1.660	6.624	5.100
P-values	0.015	0.177	0.000	0.002

Discussion

There were more females (53.2%) than males (46.8%) in the sample. The experience of teaching of the majority school teachers was 7 to 10 years. The qualification of the majority school teachers was a master degree. The majority school teachers were agreed with the statement of promotion such as promotions in our scenario are made on merit (70.4 %), the procedures are methodological (47.8%), soothing and satisfying (66.1%). The results reported that gender had no significant association with teachers' job satisfaction. There were approximately an equal percentage of males (51.7%) and females (53.5%) who were satisfied

with the process of promotion. In line with the above-mentioned results, a research study reported that men and women reported equal satisfaction (Clark, Oswald & Warr, 1996). In contrast to the above, a survey reported that male teachers have a lower level of job satisfaction than that of females (Watson, Hatton, Squires & Soliman, 1991). A research study identified that age factor was linked to job satisfaction (Siu, Spector, Cooper& Donald, 2001). There is an inconsistent association between gender and job satisfaction in the current study. The current study results reported that the teachers with age between 40 and 50 years were more satisfied than for other levels of age. In line with the above-mentioned results, a study concluded that older teachers had higher levels of their job satisfaction (Billingsley and Cross, 1992).

The results of the current study reported that the qualification of teachers was not significantly associated with job satisfaction of elementary school teachers. This finding, however, contrasts with a study which reported that advanced degrees and teachers' professional development are significantly associated with teachers' job satisfaction (Perrachione, Rosser & Petersen, 2008).The results of the current study reported that performing physical exercise at school, keeping the body fit, and serving as a role model for the students was agreed by the majority school teachers.

In the current study, the majority of school teachers went on the opinion that the teachers are normally entrusted the subjects of teaching of their choice and the time table is allocated to teachers on rotation; the one who followed the hard time will be given a convenient time for the change of session. In the current study, the majority of school teachers went on affirmation with the statement that extra duties are mostly painful and disturb their routine. According to Maslow (1943), teachers and other employees always intended to satisfy their esteem needs. Generally speaking, overloaded extra duties like paperwork badly affect the job satisfaction of teachers and had a negative impact on the satisfaction (Billingsley & Cross, 1992; Perrachione, Rosser & Petersen, 2008). It was observed that conflicting roles and conflicting behaviors of seniors regarding assigning of duties cause lesser commitment and job satisfaction (Billingsley & Cross, 1992).

The results of the current study reported that the experience presented a positive effect on the job satisfaction of elementary school teachers. More teaching experience has been shown more satisfaction level with teaching roles than teachers that have less experience (Akhtar, 2000; Sari, 2004).

Conclusion

It was concluded from the findings that there were more females than males. It was concluded that gender had no effect on job satisfaction of elementary school teachers. The age and experience of teaching resulted in a significant effect on job satisfaction of elementary school teachers. However, the qualification of teachers was not significantly associated with teachers' job satisfaction. Extra duties are mostly painful and disturb the routine tasks. In the current survey, the majority of school teachers were satisfied with the promotion criteria. It was concluded from the results that the age, qualification of teachers, and experience of teaching had a major effect on the job satisfaction of elementary school teachers.

Recommendation

It is recommended that special attention should be given to the elementary school teacher's qualification, because the qualification of teachers has shown a positive role in the results of students. Future research work should focus on rural elementary school teachers' satisfaction. The Government should provide time-bound criteria for teachers' promotion for satisfaction of teachers.The Government should focus on the elementary school teacher's physical exercise sessions in the schools to keep them fit and satisfied.

References

Akhtar, M. S. (2000). *Job satisfaction and customer focus: A survey of elementary school teachers.* Unpublished master's thesis, University of Michigan, USA.

Billingsley, B., & Cross, L. (1992). Predictors of commitment, job satisfaction, and intent to stay in teaching: A comparison of. *Journal of Special Education*, 25(4), 453.

Clark, A., Oswald, A., & Warr, P. (1996). Is job satisfaction U- shaped in age? *Journal of Occupational and Organizational Psychology*, 69, 57−81.

Cohen, L., Manion, L. & Morrison, K. (2007).*Research methods in education (6th ed.).* London: Taylor & Francis Group.

Crawford, K. (2017). *Generational Differences in Job Satisfaction and Engagement Among YMCA Employees* (Doctoral dissertation, The University of the Rockies).

Glassman, M., McAfee, RB. & Quarstein, VA. (1992).The situational occurrences theory of job satisfaction. *Human Relations*, 45(8):859-874.

Herzberg, F., Mausner, B., Bloch, B. (1959). The motivation to work. New York, NY: John Wiley and Sons.

Herzberg, F. (1966). *Work and the nature of man*. Cleveland, OH: The World Publishing Company.

Kim, S. (2005). Gender differences in job satisfaction of public employees: a study of Seoul Metropolitan government, Korea. *Sex Roles*, 52(9/10):667-681.

Luthans, F. (2006). Organizational behavior (11th ed.). Boston: *McGraw Hill-Irwin.*Marczyk, G., DeMatteo, D. &Festinger, D. (2005).*Essentials of research design andmethodology*. New Jersey: John Willey & Sons, Inc.

Maslow, AH. (1954). *Motivation and personality*. New York, NY: Harper and RowPublishers, Inc.

Maslow, A. (1943). A theory of human motivation. *Psychological Review*, 50, 370-396.

Mitchell, T.R. & Larson, J.R. (1987). People in organization (3rd ed.). *New York: McGrawHill.*

Naeem, M., Jamal, W., &Riaz, M. K. (2017). The relationship of employees' performance appraisal satisfaction with employees' outcomes: Evidence from higher educational institutes. *FWU Journal of Social Sciences*, 11(2), 71-81.

Papanastasiou, E. &Zembylas, M. (2006). Sources of teacher job satisfaction and dissatisfaction in Cyprus. *Compare*, 36(2):229-247.

Perrachione, B., Rosser, V, & Petersen, G. (2008). Why do they stay? Elementary teachers'perceptions of job satisfaction and retention. *Professional Educator*, 32(2).

Sari, H. (2004). An analysis of burnout and job satisfaction among Turkish special school head teachers and teachers, and the factors affecting their burnout and job satisfaction. *Educational Studies*, 30(3), 291–306.

Singh, K. (2007). *Quantitative social research methods*. Los Angeles: Sage Publications.Siu, O., Spector, P., Cooper, C., & Donald, I. (2001). Age differences in coping and locus of control: A study of managerial stress in Hong Kong. *Psychology and Aging*, 16, 707–710.

Toropova, A., Myrberg, E., & Johansson, S. (2021). Teacher job satisfaction: theimportance of school working conditions and teacher characteristics. Educational review, 73(1), 71-97.

Watson, A., Hatton, N., Squires, D., &Soliman, I. (1991). School staffing and the qualityof education: Teacher adjustment and satisfaction. *Teaching and Teacher Education*, 7, 63–77.

Xin, M., & MacMillan, R. (1999). Influences of workplace conditions on teachers' job satisfaction. *Journal of Educational Research*, 93(1), 39.

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A ProposedEffective Leadership Model for theMalaysian Higher Educational Institutionsof Majlis Amanah Rakyat

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Effective institutional leaderis the crucial player to the successful or failureof an educational institution. However, the expectation to own an effective leader often in vain. The reason is because leaders lack of a standard guideline that based on the local context. Therefore, this studyis to develop a proposed model of effective leadership forMalaysian higher educational institutions, in particular, higher educational institutions which are owned by Majlis Amanah Rakyat (MARA). To achieve the research purpose, the questionnaires instrument were distributed to 240 academic staff from the selected higher educational institutionsof Majlis Amanah Rakyat (MARA)in northern Perak, Malaysia. The data were analysed using a statistical method called Partial Least Square *(PLS)* to developaproposedmodel of effective leadership.The effective leadership design model can provide guidelines and encourage leaders to enhance and bring positive changethat helps educational institutions succeed and be effective.

Keywords*:* higher education institutions, effective leadership, model, Majlis Amanah rakyat, perak,

The success of an academic institution, organization, group or society depends greatly on the effectiveness of leadership itself. Effective leaders with the necessary characteristicsbecome the most important part in leadinghigher educational institutions to achieve theirgoals.Nowadays, many factors lead to the success of higher learning institutions. The major factor for success or failurein higher institutionsiseffective leadership. Therefore, effective leaders play an important role and must be in a position to respond effectively and productively

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to the institutions.In support of this fact, Ganta and Manakonda (2014) stressed that leadership is a process whereby an individual hasan ability to influence others to make changes in his or hervalues, beliefs, behavior and attitudes.In other words, it is a need to have a leader who is to motivate followers and mobilize resources towards the fulfillment of the organization's goal in order to make organizational innovation, adaptation, and performance.In fact, some studies found that leadership matters for countries, organizations, and teams(Crossan & Apaydin, 2010; Flynn & Staw, 2004; House, Spangler, & Woycke, 1991; Jones & Olken, 2005; Waldman & Yammarino, 1999; Yulk, 2008).The necessity of having effective leadershas been proventhrough previous research such asEdmonds (1979). The research found thateffective leaders are individuals who understand their responsibilitiesin enhancing organizational accomplishment. In short, continuous efforts have to be made by stakeholders to create an outstanding leader for educational institutes from primary tohigher education (Razak, 2010; Fullan, 2011; Harris, 2005; Parise & Spillance, 2010). To imply this expectation, this research wascarried out to develop effective leadershipcharacteristicsfor the Malaysian higher educational institutions of Majlis Amanah Rakyat (MARA). The finding is to providea good guidance for persons interestedin education, especially educational leaders.

Problem Statement

Leadership is a process to influence followers to achieve an organization's goal.This relates to satisfying the desires of followers (Daft, 2004).Therefore, having an effective leader is a factor contributing to the successful and effectiveness of educational institutions. This is because part of leader's role is to develop workforce's competency to the competitive global level (Razak, 2010; Apdal, 2013). To achive this, it is a need to identify the best leadership characteristics in orderto improve leader effectiveness and organizational performance.However, Yulk (2008) pointed out that the process is very slow.

In Malaysian context concerning Majlis Amanah Rakyat (MARA), there isa problem on serving education to Malay ethnic. In other words, MARA that was established on March 1, 1996, under an Act of Parliament, is to serve the quality education to the etnic by preparing higher educational institutions. Yet, the goal has not yet been achieved due to the weakness of the leadership in some MARA higher education institutions. This is supported by the study of Norashdimah Misdi et al., (2019) that reported some leaders leadership in Majlis Amanah Rakyat colleges was at a moderate level. Wasim and Imran (2010) supported the finding by stating that community will respond to the leader. Similarly with the success of an organization, the community will also

refer to the leaders of the MARA higher education institutions if the achievement of the institutes decline. Therefore, this study was aimedat identifying characteristics of effective leadership for leaders with a focus on Majlis Amanah Rakyat. Thefindings will be the basis for guidelines for effective leadership, especially in selected Higher Educational Institutions.

Research Objective

This study is to identify the characteristics of effective leadership for Majlis Amanah Rakyat leaders in higher educational institutions.

Literature Review

Effective Leadership

The conceptualization of leader effectiveness nowadays is very challenging. Therefore, a leader in the field of education must be more competent and effective in ensuring the excellence of staff and institutions. Among researchers,many arguments are focused on determining out what leader effectiveness is, how it should be measured (Yulk, 2008) and what are the effective leader characteristics.Leaders are in dire need of expertise as well as the characteristics of theirspecific leadership role in order tomore effectively guarantee the excellence of the institution. Within the organization or educational institution, effective leadership could be the basis for the success and the collapse of an institution.

Thus, for targeting achievement through themembers of an organization at high and low levels, the emotional and cognitive qualities of the organization's members are a challenge that must be addressed by effective leaders in order to manage effectively.This statement is supported by Yulk (2008), who found thatleadership effectiveness is an outcome when the individuals in the positions of leadership are able to impact the group in order to perform their roles with excellence and positive organizational outcomes. Durie and Baeshir (2016) strengthenthis finding; effective leadership is the cornerstone to the success of an organization.

Earlier, Mohamad et al., (2009)mentioned that effective leaders would help the organization to achieve its organizational objectives. This statement issupported by Wasim and Imran (2010), who argue thatcharacteristics of effective leaders include the fact thatleaders give a clear direction to their subordinates and also lead their subordinates to commit to their jobs and to work as a group to achieve the organization's goals and objectives. In conclusion, effective leadership is able to help leaders in Majlis Amanah Rakyat (MARA) higher educational institutions to meet the need to be effective.

Perspectives of Various Researchers on Effective Leadership

The diversity of perspective on effective leadership stems from contextual aspects. For example, at the beginning of the industrial era, the definition of an effective leadership referred more to a leader in a technical field in an industrial plant. Furthermore, when the field of management is introduced in the world of careers, effective leaders are more focused on the leader's caring attitude towards employee welfare.

Table 1 explains the concept of effective leadership from the various perspectives of the researchers.

Table 1

Viewpoints of Various Researchers on Effective Leadership

Key Features of Effective Leadership	**Spendlove (2002)**	**Sousa (2003)**	**Harris (2004)**	**Dubrin (2004)**
Leaders Who Care	Taking Attention/ Taking Care	__	__	Taking Attention/ Taking Care
A Leader Who Has A Clear Vision	Clear direction of the Strategic Goal/Vision	Clear Strategic Goals/Vision	Clear Strategic Goals/Vision	__
Leader Who Knows His/Her Goal	Ensure staff get support from the institution in terms of teaching, research and work	__	Ensure staff get support from the institution in terms of teaching, research and work.	Ensure staff get support from the institution in terms of teaching, research and work
Concerned Leader	Creating positive relationships in the workplace	Creating positive relationships in the workplace	__	Creating positive relationships in the workplace
Leader as the Best Liaison	__	__	Communicate in the best way about the direction and goals of the institution	Communicate in the best way about the direction and goals of the institution
A Wise Leader	__	Make advance and detailed planning for the department as well as lead the direction of the institution's goals	__	Make advance and detailed planning for the department as well as lead the direction of the institution's goals
A Competent Leader	Always move forward on problems that arise in the organization whether internal/external and always proactive in dealing with them	Always move forward on problems that arise in the organization whether internal/external and always proactive in dealing with	Always move forward on problems that arise in the organization whether internal/external and always proactive in dealing with them	__

them

Research Conceptual Framework

The conceptual framework of thisstudy is based on the models of Hannafin and Peck(1988), Hoy and Miskel(2007) and finally on characteristics of effective leadership established by previous researchers.The model has identified several main variables, which are input, process, and output or findings. Input is the process by which the leadership characteristics of the higher education institutions of the public trust council are identified.Followed by prepares, designs, collects and analyzes all the data obtained from the previous process called process. Input is followed by preparation, design, collection and analysis of all data obtained from the previous process. Last is the outcome or findings that have been successfully generated after all the procedures mentioned.

Method

Research Design

The research design of this study is asurvey method. Using the method, the perception of participants can be widely collected about the role of an effective leadership characteristicswith regard tothe MARA leader in higher educational institutions. A questionnaire was used to collect data and for each item, participants could state their answer in the form of a five-point Likert scale that reflected their perceptions of an effective leadership model in their own higher educational institutions of Majlis Amanah Rakyat (MARA): either totally agree, agree, disagree, do not agree or totally disagree. The study was conducted among four higher educational institutions of Majlis Amanah Rakyat (MARA) in northern Perak, Malaysia. For the research location in Malaysia, these four higher educational institutions were selected based on the number of people in the academic staff.

Research Sample

The selection of the participants in this study was done through random selection and purposive sampling. A total of 240 participants from among staff membersin four higher educational institutions of Majlis Amanah Rakyat (MARA) were selected. The selection of the appropriate sample size was in line with Roscoe's view (1975) that the ideal sample size for the study of human behavior (social science) is in the range from 30 to more than 500 people. Before the study started, authorization had to be requested from respondents. Participants willingly agreed to participate in the studyuntil its completion.

Table 2

A Summary Of Population And Sample Sizes

MARA Institution	Population of Academic Staff	Sample of Academic Staff
MARA Institution 1	110	60
MARA Institution 2	130	60
MARA Institution 3	100	60
MARA Institution 4	100	60
Total	**440**	**240**

Table 3

Research Respondent Profile

Research Respondent Profile	**MARA Int 1**	**MARA Int 2**	**MARA Int 3**	**MARA Int 4**	**Total**	
		(Persons)			**(Persons)**	**(%)**
Gender						
Male	40	30	30	38	138	57.5
Female	20	30	30	22	102	425
Total	**60**	**60**	**60**	**60**	**240**	**100**
Age (Year)						
Lessthan 25	-	-	-	-	-	-
26-35	5	25	20	26	76	31.7
36-45	25	25	30	24	104	43.3
More than 45	30	10	10	10	60	25
Total	**60**	**60**	**60**	**60**	**240**	**100**
Lecturer Position Experience						
Less than 5 years	2	-	2	-	4	1.7
6-10 years	20	28	28	26	97	40.4
11-15 years	12	15	15	14	56	23.3
16-20 years	16	7	10	10	48	20
More than 20 years	10	10	5	10	35	14.6
Total	**60**	**60**	**60**	**60**	**240**	**100**

Instrument

This study used a questionnaire instrument that was developed by the researcher. The development of the instrument using a Delphi study involving 15 leaders of Majlis Amanah Rakyat higher education institutions. The study aimed to obtain expert consensus on the components and elements of effective leadership in the field of Majlis Amanah Rakyat higher education. The study, which involved 4 round sessions to obtain a high level of accuracy on the components and elements of effective leadership, produced 67 items for specific components.

Thus, the instrument developed by the researcher has high validity and reliability. To illustrate respondents' agreement with the items, a 5 -point Likert scale was used.

Reliability and Validity

A pilot test was conducted in a higher educational institution of Majlis Amanah Rakyat (MARA) in Northern Perak, Malaysia, to determine the reliability of the instrument. Reliability was determined by the reliability coefficient, Cronbach alpha. Cronbach alpha values for each item in this .questionnaire showed a range between 0.90-0.98. The validity of the instrument in this study was obtained through an assessment run by two experts in the field of study.

Data Collection and Analysis Procedures

In this study, the data obtained were analyzed using descriptive statistics for finding the mean and standard deviation. Data collected from respondents also were analyzed using PLS Smart version 2.0 for the purpose of establishing an effective leadership model in the higher educational institution, Majlis Amanah Rakyat (MARA). Kruskall Wallis statistical inferential was used to derive a population summary based on the study sample information to determine if there wasa statistically significant relationship between two or more dependent variables. Normality tests were also performed and showed that the results were significant with a reading of 0.000. Analysis of normality test between main themes isshown inTable 4.

Table 4

Analysisof significant valuesfor main themes of effective leadership in higher educational institutions Majlis Amanah Rakyat (MARA).

Main Themes Effective Leadership	***P value***
Concerned Leader	0.000
Leader Who Communicate Effectively	0.000
Leaders Who Cares	0.000

Research Findings

The analysis of survey data by using Partial Least Square *(PLS)* successfully produced three major themes of effective leadership with nine criteriaforeffective leaders. The three major themes of effective leadership with the nine criteriafor effective leaders are listed below:

1. Main theme*Leader Who is Concerned*– 4 criteria of effective leader item
2. Main theme *Leader Who Cares* - 4 criteria of effective leader item

3. Main theme *LeaderWho communicates effectively* – 1 criteria of effective leader item.

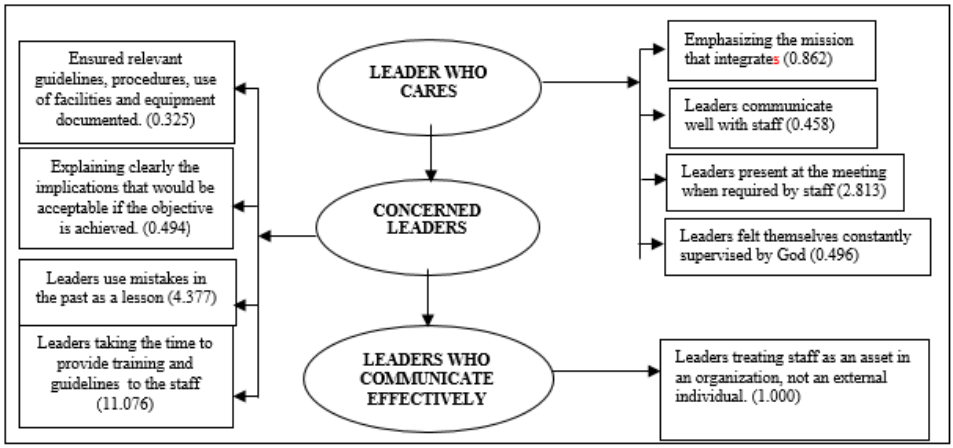

Figure 1: Three major themes and characteristics of effective leadership model in Higher

Educational Institutions Majlis Amanah Rakyat.

Table5shows three major themes of the effective leadership model as well as nine characteristics of effective leadershipthat includes concerned leaders, leaders who care and leaders who communicate effectively.

Table 5

Nine effective leadership characteristics of strong values reading and strong justification within every three main themes.

Main theme and effective characteristics	Reading values	Justification
Concerned Leaders		
* Leaders taking the time to provide training and guidelines to the staff.	11.076	Strong
* Leaders usemistakes in the past as a lesson	4.377	Strong
* Explaining clearly the implications of the achieved objectives.	0.494	Strong
* Ensured relevant guidelines, procedures, use of facilities and equipment documented.	0.325	Strong
Leaders Who Care		
* Leaders present at meetings when requestedby staff	2.183	Strong
* Emphasizing the mission that are allocated from vision	0.862	Strong
* Leaders felt themselves constantly supervised by God	0.496	Strong
* Leaders communicate well with staff	0.458	Strong

	Leaders Who Communicate Effectively		
*	Leaders treating staff as members ofan organization, not asexternal individuals.	1.000	Strong

The main theme under*Concerned Leaders*was about readinghabit development which included four characteristics of effective leadership. This is supported by Watkin (2001): concern for people is one of the fourmain leadership behavior styles. These four characteristics show that the highest rankinggoes to leaders taking the time to to provide training and guidance to staff with score values of 11.076. The secondranking with values of 4.377 was attained by some leaders who use mistakes in the past as a lesson. Third, shows readingwith scores of 0.494 was explaining clearly the implications if the objective was achieved. Lastly, leaders are ensured relevant guidelines procedures, use of facilities and equipment documented showed scores of 0.325.

Next, characteristics of effective leadership under *Leader Who Cares* listed four characteristics of effective leadership and the reading values proved high and strong. Hardie (2012) that acaring leader is someone who has a genuine interest in others. Leaders havethe desire to better know the people working with themand encourage people to be the best they can be. Score values of 2.813 show the highest ranking for leaders who are present at meetingswhen required by staff.This is followed by thesecond ranking with values of0.862, and this characteristic isemphasizing on a mission that isintegrated. Values of 0.496were third, relating to the characteristics of leaders whofelt themselves constantly supervised by God. Lastly, high and strong reading values of 0.458 werefound for leaders wholeaders communicate well with staff.

Leaders Who Communicate Effectively listed one characteristic of effective leadership and showed avery strong relationship through resulting of 1.000 for leaders who treat staff as members in an organization, not an external individuals. Communication involves actively participationor interaction between leader and employee to ensure the informationis shared, objectivesare metand problems are solved (Johansson, 2015).

Discussion

The above shows nine leadership characteristics with strong values illustrated through Partial Least Square (PLS) which has become a tool of choice in the social sciences as a multivariate technique for non-experimental and experimental data alike (e.g., neuroimaging, see Mcintosh & Lobaugh, 2004; Worsley, 1997). These characteristics cancontribute to the effectiveness of leaders in higher educational institutions.

Effective characteristics under Concerned Leaders listed four characteristics and this issupported by Leithwood, Louis, Anderson, and Wahlsstrom (2009) whostated thatone indication of how successful leadership affected followers' achievement istheleader paying more attention to their followers, given the role of distance education leaders in designinginnovative courses and presentation processes, the use of appropriate technology for providing training,andpreparing faculty for their new role as facilitators (Moore & Kaersley, 1996). Supported byDay et al., (2016)leaders are likely to influence subordinates and affect student student outcomes if they focus on their influence, coaching and their connections or relationships with followers. In line with this statement, leadership seems to be the first part of improving organizational effectiveness. The opposite situation if the organization that involves human beings especially leaders pay less attention to its communities. A study by Shagufta and Nazir (2021)found that one of the educational institute communities, namely, students, will experience a decline in self-esteem which results in them being antisocial.

Leaders taking the time to provide training and guidance to the staff placed the first ranking which the highest value is recorded in the first ranking with the highest value recorded (11.076).Usingmistakes in the past as a lesson placed inthe second ranking value of 4.377. This is followed by explaining clearly the implications that would be acceptable if the objective isachieved with values of (0.494). This statement is strongly supported by Covey (2007): if people are involved in the process, they psychologically own it and you create a situation where people are on the same page about what is really important-mission, vision, values and goals. Lastly, leaders who ensure relevant guidelines procedures, use of facilities and documented (0.325) placedin the fourth ranking under the main theme of *Concerned Leaders*. Supported by Silva (2016), leadership is a developing concept that is very complex to define but it can be defined as a process of interactive control from the authority to followers in achieving common goals.

A Value of 2.813 for when leaders are present at meetings when requested by staff represents the highest score and shows strong dependency with the main theme *Leader Who Cares*. This is supportedbyHorton (2001)leaders are responsible and care for their actions and the action of their followers.Followed by leaders who who emphasize a mission that is integrated with a high readingthe high reading of 0.862. This is supported by and agrees with Farrell (2011),who states that great leaders know where there they are going and have a strong sense of mission and if you are going to lead others, you need to know where you are

going yourself. One of the main visions of an educational institution is todevelop the destiny of society, especially SES, which is to improve the level of poverty in society. Thedescription of this view is in line with the findings of a study by Rad et al.,(2020) that one of the responsibilities of a higher education institution such as a university is to improve the living standards of society. The reason is because in the university there are many experts in various fields who can apply knowledge and skills to improve the living standards of the people (Khan et al., 2020). Next, leaders who feel constantly monitored by God show scores of 0.496. Lastly, strong values of 0.458 for leaders who communicate well with staff provesto beone of the effective characteristics in higher education institutions of Majlis Amanah Rakyat. Effective communication with the leaders stimulates employees to stay engaged and to perform their duties efficiently (Clement, 2008).

Next, characteristics of effective leadership under the main theme of *Leaders Who Communicate Effectively*, show strong values of 1.000. This proves that leaders treating staff as members. Involved in the organization not as external individuals, contribute to the effectiveness of leaders in the higher education institution of Majlis Amanah Rakyat. This is strongly agreed to by Wilhelm (2011);communication is an important facet of life- it is an essential part of human interaction. The benefits of effective communicationenhance all aspects of our personal and professional lives. Wilhelm adds that the inability to be an effective communicator in our personal lives may cause problems or embarrassment but in our professional lives, the result of miscommunication may have much more serious results.

To conclude, scores with high values from data analysis answered by 240 respondents proved that higher educational institutions urgently requirethese nine of characteristics of effectiveness under these three main themes for leaders' effectiveness. By adopting these characteristics of effective leadership and skills foreffective leadership leadersare expected to be able to generate aninstitutionas well as high quality and excellent leaders and staff in the future.

Conclusions

In conclusion, this study has found that theexcellence and effectiveness of an institution of higher learning are entirely dependent on the ability of leaders to achieve the goals and objectives of the organization. Therefore, appropriate leaders always review and explore the best leadership qualities from time to time. An effective leader can make a success of a weak business plan, but a bad leader can destroy even the best plan. Therefore, developing effective leadership by applying and practicing effective leadership characteristics at all levels can return the most positive significant outcomes. Thus, this article has

discussedwhat leadership effectiveness is, and the effective leadership design model that is suitable for leadersin higher educational institutions.

References

Apdal, M.S. (2013); Perutusan Sambutan Hari Pendidik 2013. Majlis Amanah Rakyat MARA, Kuala Lumpur.

Carnoy, M. & Loeb, S. (2012). Does external accountability affect student outcomes? A cross-state analysis. *Educational Evaluation and Policy Analysis*, 24(4), 305-331.

Clement, D., (2008), "*Communication and leadership*". (Online) Available: http://www.educationalleaders.govt.nz/Managing-your-school/Guides-for-managing-your-school/Effective-communications

Covey, S. (2007, December 10th). *The community*. Retrieved from The Leader FormulThe 4 things that make a great leader: http://www.stephencovey.com/blog/?p=6

Crossan, M. M., & Apaydin, M, (2010). A multi-dimensional framework of organizational innovation: A systematic review of the literature. *Journal of Management Studies*, 47 (6) (2010), pp. 1154-1191

Daft, R. L. (2004). *The leadership experience*. Orlando: Harcourt College Publishers.

David M. Traversi. (2007). "*Eight drivers of the high-Impact leader*". Retrieved September10, 2008 from http://www.leader-values.com/Content/detail.asp?ContentDetailID=1308

Day, C., Gu, Q., & Sammons, P. (2016). The Impact of leadership on student outcomes: How successful school leaders use transformational and instructional strategies to make a difference. *Educational Administration Quarterly*, 52(2), 221–258. https://doi.org/10.1177/0013161X15616863

Dubrin, A. (2004). *Leadership: Researching findings, practice, and skills(4th ed.)*.Boston, MA:Houghton Mifflin.

Durie, A.D. & Beshir, E.S. (2016). Leadership Effectiveness in Higher Education Institutions: The IPA Approach. *Arabian J Bus Management Review*, 6 (5), 243.

Edmonds, R. (1979a). *Effective schools for the urban poor, Educational Leadership*, 37, (1), 15-27. Retrieved 23 May 23, 2005 from ERIC Document Reproduction Service No. ED14671.

Flynn, F. J., & Staw, B. M. (2004). Lend me your wallets: The effect of charismatic leadership on external support for an organization. *StrategicManagement Journal*, 25(4), 309-330.

Fullan, M (2011) *The moral imperative realized*, Corwin Press, Thousand Oaks, CA; Ontario Principals Council, Toronto.

Jones, B. F., & Olken, B. A. (2005). Do leaders matter? National leadership and growth since World War II. *The Quarterly Journal of Economics*, 120(3), 835-864.

Ganta, V. C. & Manakonda, J. K. (2014). Leadership During Change And Uncertainty In Organizations. *International Journal of Organizational Behaviour & Management Perspectives*, 3(3), 1183.

Grobler, B. R. (2014). Teachers' Perceptions of the Utilization of Emotional Competence Leaders in Gauteng South Africa. *Educational Management Administration &*

Leadership. 1-21.

Yulk, G. (2008). How leaders influence organizational effectiveness. *The leadership quarterly*, 19(6), 708-722.

Hannafin, M.J. & Peck, K. L. (1988.) *The design, development and evaluation of instructional software*. New York: Macmillan Publishing Company

Harris, A. (2005). Leadership. In B. Davies (ed). *The essentials of school leadership*. London: Paul Chapman Publishing.

Hardie, G. (2012). The caring leader. Global Leadership foundation.https://globalleadershipfoundation.com/the-caring-leader/.Accessed November 17, 2017

Horton, C. H. W. (2001). *Thirteen traits of effective leaders*. Concepts for Air Force Leadership—AU-24, 247–248. Retrieved from https://pdf4pro.com/view/thirteen-traits-of-effective-leaders-air-university-46b3ca.html

Hoy, W. K. & Miskel, C. G. (2013). *Educational administration: Theory, research, and practice*, 9th edition. New York: McGraw-Hill.

Johansson, C. (2015). *Empowering employees through communicative leadership*. InOrganizational and Strategic Communication Research: European Perspectives II (1sted.,pp.85–110).Braga. Retrieved from http://urn.kb.se/resolve?urn=urn:nbn:se:miun:diva-2519

Khan, I. U., Khan, M. I. A. W., & Khan, A. U. (2020). An investigation of the factors affecting institutional performance: Evidence from higher education institutions. *FWU Journal of Social Sciences*, 14(3), 131–144.

Leithwood, K., Louis, K. S., Anderson, S., & Wahlstrom, K. (2009). Second International Handbook of Educational Change. The Wallace Foundation Center for Applied Research and Educational Improvement and Ontario Institute for Studies in Education New York NY,2007(October 20), 1-90. https://doi.org/10.1007/978-90-481-2660-6

Mat, A.C. (2017). *Development of Effective Leadership Model for MARA Higher Educational Institutions*. PhD thesis. University of Malaya, Kuala Lumpur

McKillip, J. (1987). Need analysis: Tools for the human services and education. NewburyPark, CA: Sage

McIntosh, A.R., & Lobaugh N.J. (2004). Partial least squares analysis of neuroimaging data:applications and advances. *Neuroimage,* 23, 250–263

Mohamad, B., Salleh, M. J., & Hashim, C. N. (2009). Kepimpinan pendidikan berkesan. *Prosiding Seminar Kepengetuaan Kebangsaan Ke VI- Halatuju Kepemimpinan Sekolah Untuk Penambahbaikan Yang Mapan.* Institut Kepengetuaan, Kampus Kota, Universiti Malaya, Kuala Lumpur, Malaysia.

Moore, M., & Kearsley, G. (1996). Distance education: A system view, Belmont, CA: Thomson Wadsworth

Najib Abdul Razak. (2010). "Ucapan Bajet Tahun 2011". Tersedia [online] dalam http://www.treasury.gov.my/pdf/bajet/ub11.pdf [dilayari di Langkawi, Malaysia: 10hb April 2014].

Norashdimah Misdi, Bambang Sumintono & Zuraidah Abdullah. (2019). Kepemimpinan guru Kolej MARA: Satu kajian kes. *Journal Kepimpinan Pendidikan, 6*(3), 46-50.

Parise, L. M., & Spillane, J. P. (2010). Teacher learning and instructional change: How formal and on-the-job learning opportunities predict change in elementary school teachers' practice. *The elementary school journal*, 110(3), 323-346.

Silva, A. (2016). What is leadership? *Journal of Business Studies Quarterly*, 8(1), 1-5. Retrieved from http://jbsq.org/wp-content/uploads/2016/09/September_2016_1.pdf

Rad, H. F., Parsa, A., Shahi, S., & Bahrami, M. (2020). University social responsibility and organizational factors for their implementation. *FWU Journal of Social Sciences*, 14(3), 70–87.

Shagufta, S., & Nazir, S. (2021). Self-esteem and psychopathic traits among undergraduate students: A Structural Equation Modelling Approach. *FWU Journal of Social Sciences*, 15(2), 117–131.

Sousa, D. A. (2003). *The leadership brain: How to lead today's schools more effectively*.Thousand Oaks, CA: Corwin Press.

Spendlove, M. (2002). Competencies for effective leadership in higher education, *International Journal of Educational Management*, *24*(5), 407-417.

Waldman, D. A., & Yammarino, F. J. (1999). CEO charismatic leadership: Levels-of-management and levels-of-analysis effects. *Academy of management review*, 24(2), 266-285.

Wang, V. C. (2011). E-Leadership in the new century. *International Journal of Adult Vocational Education and Technology*, *2*(1), 50-59. Retrieved from 10.4018/javet.2011010105

Wasim, A. and Imran, A. (2010). The Role of Leadership in Organizational Change. Relating the successful organizational change to visionary and innovative leadership, 3(2), 9.

Watkins, (2001) *Appreciative inquiry change at the speed of imagination*, San Francisco JosseyBass

Wilhelm, L. (2011), May 7th). *The importance of communication*. Retrieved from Express Yourself to Success: http://www.expressyourselftosuccess.com/the-importance-of-communication-skills/

Witkin, B. R. (1997). *Need assessment kits, models, and tools*. Educational Technology, 17(11), 5-18.

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Social Skills as Predictors of Cognitive Failure, Attention Deficits and Psychological Maladjustment in School Children

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Poor social skills are linked with presence of cognitive and attention difficulties as well as poor social functioning and presence of cognition disturbances. Present research aimed to explore poor social skills as predictors of cognitive failure, attention deficits and psychological maladjustment in school children. Sample included 200 students (100 girls & 100 boys) of class 4 & 5 with the mean age= *10.12 (SD= 1.37).* Social Skills Rating System, The Cognitive Failure Questionnaire, Attention Deficits Questionnaire (child version) and Personality Assessment Questionnaire were used to assess social skills, cognitive failure, attention deficits and psychological adjustment respectively. Results revealed significant inverse correlation of different social skills i.e., assertion, empathy, cooperation and self-control with cognitive failure, attention deficits and psychological maladjustment ($p<0.01$) Whereas cognitive failure, attention deficits had positive correlation with psychological maladjustment ($p<0.01$). Hierarchical regression analyses showed social skills deficits emerged as significant predictors of cognitive failures, attention deficits and psychological maladjustment in school children .

Keywords: *Social skills, cognitive failure, attention deficits, psychological maladjustment, school children.*

Social skills are socially acceptable behaviors which are learned from interpersonal communication with the interaction with people in the environment. A child learns social skills from parents, siblings, teachers and peer-group. Effective social skills are learnt from positive interpersonal communication

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between the child and the individuals interacting with the child (Gresham, Elliott, Vance & Cook, 2011) while poor social skills are associated with impaired social cognitive capacity along with adjustment problems in children. Researches have shown that impaired social cognitive capacity may disturb executive functions i.e., cognitive and attention deficits that can further predict psychological maladjustment (Brüne, Schaub, Juckel, & Langdon, 2011). Social skills are defined as socially acceptable behaviors that allow an individual to positively interact with others. Social skills are learned and are necessary for successful academic and peer-group settings in school (Gresham, 2002). Poor social skills can lead to psychological maladjustment for these children as well. Main social skills are included as listening attentively, comprehend the instructions, follow classroom or group rules, request for help, cooperate with teachers and peers and most important control in conflicting situations (Lane, Givner, & Pierson, 2004; Lane, Pierson, & Givner, 2003). Whereas unable to pay attention or comprehend the rules can be an indicator of poor or defective social skills that are associated with other disabilities such as attention deficits/hyperactivity disorder (Hinshaw & Blachman, 2005) and cognitive deficits. Children who demonstrate poor social skills also prone to exhibit emotional and behavioral disorders Walker, Ramsey and Gresham, (2004), conduct disorder (Conduct Problems Prevention Research Group, 2002). Children who experience difficulties in their interpersonal relationships are at risk for difficulties in areas of educational, psychosocial, and vocational domains of functioning (Berndt & McCandless, 2009).

Social skills are categorized into three major divisions i.e., non-verbal, verbal and conversational skills. The non-verbal skill comprises the body posture, gestures or physical proximity (Spence, 1985) while verbal and conversational skills need direct or indirect interpersonal communication. Effective social skills are learned through working out appropriate encoding of information and to manage emotions and behaviors according to the demands of situation (Riggio, 1986).Learning effective social skills consistently depends upon how the child conceives social condition while poor social skills roots in problematic interpersonal communication with other people and are positively associated with cognitive and attention deficits accompanied with psychological maladjustment (Miller & Eisler, 1977).

Cognitive failure is described as lapses in memorizing or recalling learned material, giving attention and responding to the environmental stimuli according to the demands. For school children, this may comprise in being unable to complete the given tasks in class-rooms or at home. This may be due to distorted memory, distraction and attention deficits. Cognitive failure accompanied by attention and memory deficits in children is a neuro-developmental disorders characterized by multifaceted conditions such as problematic communication, cognitive failures and motor or behavioral

dysfunctions (Mullin, Gokhale, Luca, Sanyal, Waddington & Faundez, 2013). Ultimately, the child remains unable to continue education or learning effective skills.

The components of effective social skills comprised in three stage process including receiving skills, processing skills and sending skills (Liberman et al., 1975). Receiving skills measures identifying interpersonal cues in combination with environmental prompts while processing skills require potential to recognize and to devote internal resources for inter action. Sending or transforming skills needs timely administering the genuine content and flow in interaction (Moghaddam et al., 1993). Learning and transformation of social skills involves synchronization of different practical mechanism of an individual to construct a satisfactory action to the social surroundings keeping in view of societal norms, rules and regulations, cultural values etc. (Segrin & Flora (2000). But many miscellaneous disruptions may impede the social skill presentation.

Cognitive failure is cognitive-based inaccuracies which are demonstrated by gaps of attention or distorted memory, faulty perception, failure to retrieve information and/or performing proper motor functions e.g., unintended actions or action slips. Broadbent, Cooper, Gerald and Parkes (1982) defined cognitive failures as having minor slips that derange and interferes the smooth flow of routine activity because of interference of distorted memory, distractibility, physical blunders (Wallace, Kass & Stanny, 2002).

Effective social skills have been anticipated to be the important aspect to predict psychological adjustment. Psychological maladjustment is an inability to react successfully according to the environmental needs (Atkins & Pelham, 1991; Tanssely & Gulliford, 1982). Psychological maladjustment frequently involves broad level of biological and social conditions in which the individual is incapable to meet the social or cultural expectations. Literature showed that lack of effective social skills, experiencing cognitive failures and attention deficits are major factors of psychological maladjustment in children. It is proven that maladjusted children perpetually remain on trouble, show nuisance in class, annoy class-fellows and generally they are unable to go along with the normal school's life with their rude, stubborn and emotionally disturbed behavior (Tanssely & Gulliford, 1982). Psychologically maladjusted children are insecure and unhappy due to failure in their unsuccessful relationships with others which nourish psychological distress along with internalizing or externalizing behaviors. Moreover, these children are reported to be indulged in fighting, biting, hitting and kicking. They use abusive language and remained unable to organize class work or home assignments that further deteriorate their temperament. They receive scolding and rejection from teachers, peer or parents who label them as slow, stupid unsuccessful which fill them with frustration

disrupting their mental health (Monroe & Simons, 1991). Similarly, some researchers from Pakistan have also reported significant positive relationship between learning disabilities, cognitive failure, interpersonal relationship anxiety and teacher's rejection in Pakistan as well (Habib, & Naz,2015). In another research, Naz and Kausar (2012) also found that lack of normal communication between children and teachers or parents was reported to be the significant predictor of psychological maladjustment and development of psychological issues i.e., anxiety, depression etc. Ashraf and Najam (2020) have also highlighted prevalence of these variables in general population of children with learning disabilities in Pakistan. Further, Saleem and Mahmood (2012) endorsed feelings of rejection from significant others contribute significantly in poor academic performance and behavioral problems in school children.

The present study is significant as we explored social skills in relation to cognitive failure, attention deficits and psychological maladjustment in children. By recognizing these variables, the current research may provide directions to parents and school teachers to understand the importance of social skills in children to save them from having maladjusted behaviors in future. Teachers can formulate some teaching plans within the class-rooms to teach these students how they can learn effective communication skills that can help the to get cognitive disturbances and attention spans. With practice, the child may be well adjusted and become a useful member of society.

The present research explored the following hypotheses i.e.,

i. There is likely to be a relationship between social skills, cognitive failure, attention deficits and psychological maladjustment in school children.

ii. Social skills are likely to be the predictor of cognitive failure, attention deficits and psychological maladjustment in school children.

Methods

Research Design: The present research used a *Correlational Research Design* to explore predictive relationship between social skills, cognitive failure, attention deficits and psychological maladjustment in children.

Participants: Sample comprised of 200 students (100 girls & 100 boys) of grade 4-5 from different public schools from Lahore city. The mean age of the sample was (*M=10.2, SD=1.37).* The children were administered with three questions from Social Skills Rating and two questions for cognitive disturbances to gage whether the child is facing social skills deficits and/or cognitive difficulties. Those students were excluded who had any physical disability or diagnosed psychological problem.

Measures

Social Skills Rating System(SSRS-Student form: Gresham, Elliott, Vance & Cook, 2011): SSRS consists in 39 statements which is used to assess social skills in terms of assertion (10 items), cooperation (10 items), empathy(10 items) and self-control (10 items) whereas item number 11 falls in two categories i.e., cooperation and self-control. The response options are never (0), sometimes (1) and very often (2). The SSRS first component is "Begin working when told to do so". The SSRS is to be administered on children from 03 to 18 years and the completion time is 10-25 minutes. The Cronbach's alpha reliability of the sub-scales range from 0.73-0.86.

Cognitive Failure Questionnaire(CFQ; Broadbent, Cooper FitzGerald & Parkes, 1982; α=.89): CFQ is a three factors questionnaire that consists in 25 items used to assess everyday errors and mistakes due to absent-mindedness, slips of perception or motor activities that demonstrate cognitive failure in children. The three factors are forgetfulness, distractibility and false triggering. Response options range from never (0) to very often (4) and the score range is 0-100. The more the score, the more cognitive disturbances the child would have. Cronbach's alpha reliability for the present research was good i.e., α=.82

ADHD Symptoms Checklist(Child Version; Health Link System): ADHD Symptoms Checklist which is used to assess inattention (9-items), hyperactivity (6-items) and impulsivity (3-items) of a child. The total items are 18 which are to be responded at five points Likert scale. In research, we used only first scale inattention to assess the attention deficits with the score range between 9-36. Cronbach's alpha reliability for this research was 0.85.

Personality Assessment Questionnaire(PAQ-Child; (Rohner, Khaleque & Cournoyer, 2007)PAQ-Child assesses seven dimensions of psychological maladjustment in children. PAQ-Child consists in 42 items questionnaire with the response options almost never true (1) to almost always true (4). Higher score (168) is an indication of individual's psychological maladjustment. Cronbach's alpha reliabilities are reported from .83 to .89 (Naz & Kausar, 2012).

Demographic Information: Information included gender, age, education, number of siblings, birth order, family system, family income, parental age and education.

Procedure

The researcher, after taking permission from authors to use questionnaires and approval of synopsis from BOS, recruited students from grade 4-5 from different public schools from Lahore city. First, the class-teacher was contacted to identify the children who would get higher scores on PAQ-Child. The identified children were asked two to three questions from cognitive failure questionnaire

and attention deficits questionnaire. If they got high scores on both, they were included in the sample and were administered questionnaires. After data collection, data were analyzed and results were calculated and discussed.

Results

The data analytic strategy involved performing descriptive analyses for demographic characteristics, Pearson Correlation analyses for exploring correlation between variables and Hierarchical Regression analyses for identifying social skills as predictors of cognitive failure, attention deficits and psychological maladjustment in school children.

Descriptive analyses

Descriptive analyses i.e., mean, standard deviation, frequencies and percentages were calculated to describe the demographic characteristics of the participants. The results are presented in table1.

Table 1

Description of Demographic Characteristics of the Sample (N=200)

Variables	Mean	SD	Variables	M	SD
Age(in years)	10.1	1.37	Mother's age	33.5	3.66
Father's age	37.8	5.37	Family monthly income	27000	12.54
Gender	*f*	*%age*	Education	*f*	*%age*
Boys	100	50	Class 4	76	38
Girls	100	50	Class 5	124	62
Family system	*f*	*%age*	-	-	-
Nuclear family system	124	62.0	-	-	-
Joint family system	76	38.0	-	-	-
Father's education	*f*	*%age*	Mother's education	*F*	*%age*
≤ Metric	34	17.0	≤ Metric	3	1.3
Intermediate	75	37.5	Intermediate	67	33.5
Graduation	85	42.5	Graduation	103	51.5
Masters	6	3.0	Masters	27	13.5
No. of Siblings	*f*	*%age*	Birth Order	*F*	*%age*
Only child	7	3.5	1st	46	23.0
1-2	24	12.0	2nd	85	42.5
3-4	113	29.5	3rd	57	28.5
5-6	56	28.0	4th	12	6.0

Descriptive statistics show that children's mean age was around ten years and they all were from lower socio-economic class as shown by family's monthly income which falls below 16 US dollars per month. Most of the children (62%)

belong to nuclear family system and around thirty percent children had three to four siblings.

To see the correlation among variables i.e., social skills e.g., assertion, empathy, cooperation and self-confidence and cognitive failure, attention deficits and psychological maladjustment in school children, Pearson Product Moment Correlation analyses were employed. The results are presented in table 2.

Table 2

Relationship between Social Skills, Cognitive Failure, Attention Deficits and Psychological Maladjustment in School Children (N=200).

Variables	Mean	SD	2	3	4	5	6	7
Social Skills								
1-Assertion	6.53	1.97	.67**	.57**	.43**	-.69***	-.31**	-.47***
2-Empathym	7.81	1.74	-	.63**	.42**	-.44***	-.49***	-.65***
3-Cooperation	8.32	2.31		-	.55**	-.55***	-.29**	-.48***
4-Self-control	7.20	1.62			-	-.67***	-.52***	-.50***
5-Cognitive failure	17.59	4.32				-	.55***	.33***
6-Attention deficits	29.74	7.85					-	.42***
7-Psychological (Mal)adjustment	138.29	27.43						-

Note. $^{*}p<.05.$ $^{*}p<.01.$

Results in the table 2 revealed significant inverse correlation of different social skills i.e., assertion, empathy, cooperation and self-control with cognitive failure, attention deficits and psychological maladjustment ($p<0.01$). Results also showed that cognitive failure, attention deficits had positive correlation with psychological maladjustment ($p<0.01$).

Hierarchical Regression Analyses

To see social skills i.e., assertion, empathy, cooperation and self-control as predictors of cognitive failure, attention deficits and psychological maladjustment, hierarchical regression analyses were used. Accordingly, controlled variables gender, age, education, family-system were entered in the first block and social skills were entered in the second block. In the third block,

cognitive failure and attention deficits were entered and the scores for psychological maladjustment were entered in the fourth block. Resultantly, the hierarchical regression analyses worked out in four steps accounting 17%, 31%, 54% and 69% of the variance in all four steps respectively with overall model fit as F= 21.38 ($p<0.01$).

Table 3
Hierarchical regression analyses indicating variance in Psychological Adjustment by (lack of) social skills, cognitive failure and attention deficits *(N=200)*

Predictors	R^2	ΔR^2	B
Step 1			
Control Variables	.17	.08	.12
Step 2	.31	.09	
Assertion			-.31***
Empathy			-.22**
Cooperation			-.42***
Self-control			-.45***
Step3	.54	.35	
Cognitive failure			.44***
Attention deficits			.25**
Step 4	.69		
Psychological maladjustment		.52	.49***

Note. Control variables: gender, age, education, family-system
p<.01.p <.001.*

Results from hierarchical regression analyses showed social skills i.e., assertion, empathy, cooperation and self-control emerged as significantly negative predictors of cognitive failure, attention deficits and psychological maladjustment in school children. This means that lack of proficiency in social skills contribute significantly in cognitive disturbance and attention deficits which ultimately disrupt the psychological adjustment of children in their environment.

Discussion

Psychological adjustment is important to behave in accordance with the environmental demands for both humans as well as animals. Effective social skills help the individuals to cope with the environmental challenges. A child with effective social skills learns to behave in normal or in emergency situations. Social skills are learned competencies that contain societal rules which facilitate verbal and non-verbal communication and interpersonal interaction with others. In actual, this whole procedure is called socialization in developmental period but lack of effective social skills can be detrimental for maintaining normal interpersonal relationship with other people that further cause to develop stresses. These stresses affect cognitions and attention and can lead to psychological maladjustment in children.

The present study explored descriptive statistics e.g., frequency count including percentages for demographic variables, correlation between social skills, cognitive disturbances, attention deficits and psychological maladjustment in school children and explored social skills i.e., assertion, empathy, cooperation and self-control as predictors of cognitive failure, attention deficits and psychological maladjustment in school children.

Results revealed significant inverse correlation of different social skills i.e., assertion, empathy, cooperation and self-control with cognitive failure, attention deficits and psychological maladjustment ($p<0.01$). Results also showed that cognitive failure, attention deficits had positive correlation with psychological maladjustment ($p<0.01$). According to research literature, researches directly related to social skills and adjustment of children with environmental hazards in Pakistan are lacking but some researches have found home environment and psychological adjustment e.g., Shujjah et al.,(2017) found perceived adverse home circumstances as significant predictors of psychological maladjustment in children in Pakistan and the researchers found that social competence was associated with negative emotions and psychological maladjustment in girls in Pakistan. Naz and Kausar (2012) found significant association between childhood adversities and psychological maladjustment in girls who developed depressive disorder (Naz & Kausar, 2012) and somatic symptoms disorder.

These results are supported by Kathryn (2011) who argues the importance of social and emotional skills and describes how these skills contribute in socio-emotional development in young children. Literature has confirmed relationship between poor social skills and psychological maladjustment including different psychological problems (Curran, 1977;Youngren & Lewinsohn, 1980). Similarly, Nix, Bierman, Domitrovich and

Gill (2013) examined socio-emotional skills using data from 356 school children with middle childhood period and found socio-emotional skills were significant predictors of maladjustment.

Childhood period comprised in various developmental stages that are intertwined culturally by societal norms, customs and laws. In this study, the participants were school children from middle childhood period. Middle childhood period is recognized for learning social values, development of cognitive skills, personality and inter-personal relationships. Consequently, the main objective of middle childhood can be described as *integration,* both related to development within the individual and of the individual within the societal contexts. In the present study, these children were studied regarding their lack of effective social skills and its predictive relation with cognitive failure, attention deficits and psychological maladjustment by using hierarchical regression analyses. Results from hierarchical regression analyses showed social skills i.e., assertion, empathy, cooperation and self-control emerged as significantly negative predictors of cognitive failure, attention deficits and psychological maladjustment in school children. This means that lack of proficiency in social skills contribute significantly in cognitive disturbance and attention deficits which ultimately disrupt the psychological adjustment of children in their environment.

These results are supported by researches e.g., Segrin and Flora (2000) found people with poor social skills while interacting in environment was found the strong predictor of developing psychosocial problems including stress. These results were also supported by Salguero, Palomeraand Fernández-Berrocal (2012) suggested that emotional intelligence was a stable significant predictor of children's adjustment.

Conclusion

It is stated that effective social skills are essential for normal behavioral and psychological adjustment for children and lack of social skills may lead towards problematic interpersonal relations with others. Parents and teachers should pay attention to teach children good and effective social skills so that they communicate with others confidently and comfortably.

Limitations and suggestions for future researchers

The present research relied only on teacher's report for identifying children with psychological maladjustment. It is suggested that future research should include parents to get children's psychological and behavioral adjustment and that should be compared with the teachers' report to get reliable results. The present research did not included children from private sector so it is suggested

that the future research should contain data from private schools as well to get more demographic variable to be the predictors of psychological maladjustment in school children.

References

Ashraf, F. & Najam, N. (2020). An epidemiological study of prevalence and comorbidity of non-clinical Dyslexia, Dysgraphia and Dyscalculia symptoms in Public and Private Schools of Pakistan. *Pakistan Journal of Medical Sciences*, 36(7), 1659-1663. doi: https://doi.org/10.12669/pjms.36.7.2486

Atkins, M. S., & Pelham, W. E. (1991). School-based assessment of attention deficit-hyperactivity disorder. *Journal of Learning Disabilities*, (24), 197-205.

Brüne, M., Schaub, D., Juckle, G., & Langdon, R. (2011). Nonverbal behavior during standardized interviews in patients with schizophrenia spectrum disorders. *Journal of Nervous and Mental Disease*, 1(96), 282–288.

Berndt, T. J., & McCandless, M. A. (2009). Methods for investigating children's relationships with friends. Social, emotional, and personality development in context. *Handbook of peer interactions, relationships, and groups* (pp. 63–81).

Broadbent, D. E., Cooper, P. F., Fitz Gerald, P., & Parkes, K. P. (1982). The Cognitive Failure Questionnaire (CFQ) and its correlates. *British Journal of Clinical Psychology*, 21(1),1-16.

Conduct Problems Prevention Research Group. (2000). Initial impact of the Fast Track prevention trial for conduct problems: I. The high-risk sample. *Journal of Consulting and Clinical Psychology*, (67), 631–647.

Gresham, F. M. (2002). *Teaching social skills to high risk children and youth*: Preventive and remedial strategies. In M. Shinn, H. Walker, & G. Stoner (Eds.), Interventions for academic and behavior problems II: Preventive and remedial strategies (pp. 403–432). Bethesda, MD: National Association of School Psychologists.

Gresham, F. M., Elliott, S. N., Cook, C. R., Vance, M. J., &Kettler, R. (2011). Cross-informant agreement for ratings for social skill and problem behavior ratings: An investigation of the social skills improvement system-rating scales. *Psychological Assessment*, 22(1), 157-166.

Habib, A &Naz, F. (2015). Cognitive failure, teacher's rejection and interpersonal relationship anxiety in children with dyslexia. *Pakistan Journal of Medical Sciences*. 31(3):662-666. doi: http://dx.doi.org/10.12669/pjms.313.7065

Hinshaw, S. P., &Blachman, D. R. (2005). Attention-Deficit/Hyperactivity Disorder in Girls. In D. J. Bell, S. L. Foster, & E. J. Mash (Eds.), Issues in clinical child Psychology: *Handbook of behavioral and emotional problems in girls*. (pp. 117–147). Kluwer Academic/Plenum Publishers.

Kathryn S. W. (2011). Understanding How Social and Emotional Skill Deficits Contribute to School Failure, Preventing School Failure: *Alternative Education for Children and Youth*, 55(1), 10-16. DOI: 10.1080/10459880903286755

Lane, K. L., Givner, C. C, & Pierson, M. R. (2004). Teacher expectations of student behavior: Social skills necessary for success in elementary school classrooms.*Journal of Special Education*, 38(2), 104-111.

Liberman, E.A., Minina, S.V., & Golubtsov, K.V. (1975). The study of metabolic synapse. I. Effect of intracellular microinjection of 3',5'-AMP.*Biofizika*(20),451-

Miller, P.M., &Eisler, R.M. (1977). Assertive behavior of alcoholics. *A descriptive analysis. Behavior therapy*, (8), 146-149.

Moghaddam, F. M., Taylor, D. M., & Wright, S. C. (1993). *Social psychology in cross-cultural perspective*. W H Freeman/Times Books/ Henry Holt & Co.

Monroe, S. M., & Simons, A. D. (1991). Diathesis-stress theories in the context of life stress research: Implications for the depressive disorders. *Psychological Bulletin*, 110(3),406– 425.

Mullin, A. P., Gokhale, A., Moreno-De-Luca, A., Sanyal, S., Waddington, J. L., &Faundez, V. (2013). Neurodevelopmental disorders: mechanisms and boundary definitions from genomes, interactomes and proteomes. *Translational Psychiatry*, 3(12).

Naz, F. &Kausar, R. (2012). Parental Rejection and Childhood Abuse in Adolescents with Somatoform Disorders: Preliminary Findings. *Journal of Behavioral Sciences*, Vol. 22, (2). 67-82.

Riggio, R. E., Widaman, K. F., & Friedman, H. S. (1986). Actual and perceived emotional sending and personality correlates. *Journal of Nonverbal Behavior*, (9), 69-83.

Rohner, R. P., Khaleque, A., &Cournoyer, D. E. (2007). *Parental acceptance-rejection theory, methods, and implications*. In R. P. Rohner, & A. Khaleque (eds.), Handbook for the study of parental acceptance and rejection (4th ed.). Retrieved from www.cspar.uconn.edu/Introduction-to-Parental-Acceptance.

Robert L. N., Karen L. B., Celene E. D., &Sukhdeep G. (2013). Promoting Children's Social-Emotional Skills in Preschool Can Enhance Academic and Behavioral Functioning in Kindergarten: Findings From Head Start REDI, *Early Education and Development*. *24*(7), 1000-1019. DOI: 10.1080/10409289.2013.825565

Salguero, J.M., Palomera, R. y Fernández-Berrocal, P. (2012). Perceived emotional intelligence as predictor of psychological adjustment in adolescents: a 1-year prospective study. *European Journal of Psychology of Education*, 27, 1, 21-34.

Saleem. S. & Mahmood, Z. (2012). Relationship between Emotional and Behavioral Problems and School Performance of Adolescents. *FWU Journal of Social Sciences*. Volume 6. No. 2. 187-193.

Segrin& Flora (2000). A meta-analytic review of social skill deficits in depression. *Communication Monographs*, (57), 292-308.

Spence, J. T. (1985). Masculinity and femininity. Their psychological dimensions, correlates and antecedents. Austin: University of Texas Press.

Sultan S., Aliza M., Adnan A., &Mohsin A. (2017). Impact of Real versus Step-Parental Rejection and Social Competence on Psychological Maladjustment of Pakistani Girls. *Pakistan Journal of Psychological Research*, 32(2).

Tansley, A. E., &Gulliford, R. (1985). The education of slow learning children. New York: Rutledge & Kegan publisher.

Wallace, J. C., Kass, S. J., &Stanny, C. J. (2002). The cognitive failures questionnaire revisited:Dimensions and correlates. *The Journal of General Psychology*,129, 238–256.

Walker, H. M., Ramsey, E., & Gresham, F. (2004). A*ntisocial behavior in school: Evidence-based practices (2nd ed.). Belmont*, CA: Wadsworth/Thomson Learning.

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Khussa Ornamentation in Multān

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Multān specializes in the making of traditional footwear called khussa. A khussa is a leather shoe usually embroidered on the upper side. The toe of the khussa is round. The design of the embroidery is traced by cut paper to be later embellished by craftsmen in factories and workshops or women in villages who can do embroidery on khussa. Khussas having filigree patterns have embroidery done with a metallic thread called ṭilla on specifically red, black, or skin-colored leather. The origin of shoes is difficult to be traced however it is evident that man invented shoes to protect himself from threats caused by natural elements i.e. weather, climate, and rough surfaces. The shoe has been a protector of human feet for centuries. This paper will explore the types and varieties of Khussa's in Multan.

***Keyword*:** Multān, khussa, patterns, embroidery, ornamentation

The initial stages of evolution of arts and crafts are attributed mainly to the needs of human race. The major crisis of survival, war, migrations and natural calamities shaped human arts and crafts since five thousand years. Every civilization developed their own customs and traditions based on its environmental and historical factors. Once human defeat the threats related to their survival and started their communal set up, they started aesthetical development on exponential basis("The oblique art of shoes: popular culture, aesthetic pleasure, and the humanities", 2015). Many civilizations have developed their edge over other civilizations by advancement in the field of arts and crafts(Mirza, 1964).

The sculptures retrieved from Gandhara region also proved to be brilliant example of footwear being used in that era (Naveed, 2015). The sculpture of religious dignitaries had shoes on them. Surya-dev, the tall idol found in Gandhara region was also found wearing shoes. During Stone Age, humans killed animals for the sake of food and warmth. There are some traces of using animal skins to protect feet from extreme weathers or rough surfaces. Leather products became more advanced and classy as the civilizations progressed.

The culture of traditional shoes making was also brought in to subcontinents by invaders such as Afghans, Arabs, Turks, Persians and Mongols. However when British started ruling the subcontinent they brought with them a new style of shoes, known as boots, which was the symbol of English culture. Due to cultural diversity, subcontinent always had a mixed sense of style. However it can be clearly stated that the dominant inspiration of subcontinent art and craft comes from Islamic patterns and designs. The common aesthetics shared by Muslīms across the world is the ones which inspired Mughals too(Chaudhry, 2002).

Muḥammad bīn Qāsim came to subcontinent in 711 A.D and with him he brought the essence of Muslīm art and craft. Same was the case with Mughal Empire in 18th century. The Empires of Tughlaq, Khiljī and Āibak are known to have rich art and crafts. They were obsessed with novelty in every field. Since shoes are main part of a human's attire, they ensured that their shoes were one of its kinds. This started trend in common people too. They also started embellishing shoes with variety of designs and styles(Chaudhry, 2002).

Muslīm rulers are known to care a lot about their appearance. They wore robes made out of silk, dresses with high embellishments, turbans with vibrant colors and jewels and boots up till their knees. These boots had delicate design and embroidery on them which made them distinct. Common men and women during Mughal Empire also wore shoes however they were not as embellished as that of emperors'. Men wore rough shoes for purpose of safety whereas women covered up in a long cloth often known as chādar wore leather shoes with silk embroidery (Kazmi, 2009).

Mughal emperors were responsible for qualitative shift of the architecture, art and craft of subcontinent. They enriched every form of art and craft. The amalgamation of Persian art style gave birth to a distinct style which became a symbol of Mughal design. It was a beautiful blend of their ancestor Taimūrid dynasty with a contemporary touch of Persian style of Safāvid dynasty. The footwear found during the reign of Babar and Akbar usually have same styling as that of Taimūr dynasty. This shows that Mughal's crafts were actually a blend of past and present with added creativity for forming a new style of their own(Ali, 2013).

Miniature painting was a hall mark of Akbar's court. Artists from his era experimented with miniature on stones, silk, pottery, painting, carpet embroider, leather products, ivory and jewelry. Shoes of that era had embellished borders on top and matching embellishments with same color on lower bottom with pointed toes. These shoes were worn by the elites. However some of Akbar's courtiers

also wore low heeled colored leather pointed toe shoes with slightly lesser embellishments. Paintings from Mughal era prove to be helpful in figuring out the trends of that period. Another form of shoes found in the paintings of the same era is black shoes with folded down strap which helped their easy removal. The footwear from this time is quite extinct now. However some of the footwear we see today is inspired by that era. Jojo was men's shoe with folded heels and up turned toe, mujāri was a soft kind of footwear and jūṫi's with upturned toes folded heels and light wear often for women. These were some of the kinds used by Mughal's. Although the styles have become redundant as such however some of the eastern footwear of subcontinent is still inspired by it. The shoes of Mughal era varied from sandals to slippers often of silk or velvet embellished with gold or silver flowers. During Akbar reign, a special kind of shoe was prepared for him who covered the ankles too. The shoe was ornamented with pearls and diamond on the top. Elites used to follow the Mughal royalties in their fashion sense(Dar, 1984).

During Emperor Jahāngīr' reigns, salīm shāhi shoe was designed. Miṣbāh u-dīn Bakhtiar a shop keeper describes salīm shāhi shoe as the early form of khussa. He claimed that the khussa as we know today is originated from the salīm shāhi jūṫā which was very popular in the era of Mughal. It further gained popularity as people started wearing it and its different forms started getting popularity among people in Jahangir's era. Shoes popular in that era were chārhwān jūṫā, ghaṫeli jūṫi, lāl nāri k jūṫy, kashāni makhmal k jūṫy and salīm Shāhi jūṫa(Ribeiro & Cumming, 2000).

The unique style of shoes referred to as Salīm Shāhi is named after the royal Mughal emperor Jahāngīr. Another form of shoe which made its way to public was daisī jūṫi. Daisī jūṫi is an embroidered shoe often made on velvet or leather base. The craft of making daisī jūṫi is elaborate which takes skill of miniature and embroidery. These jūṫi's are visible in the portrait of Shāhjahāṇ, a Mughal Emperor known for his love for miniature and his romance with his wife Mumtāz, for whom he got Tāj Maḥal built. In these paintings he can be seen holding rose in his hand and having golden embellished jūṫi with black front base. The culture of wearing shoes was not common in subcontinent. Only some people from north, west and south would wear food wear. As colonialism hit subcontinent, the customs and styles of foot wear changed too. British brought with them an aristocratic style of dress up. Before colonialism, khussa was the widely famous and loved foot-ware of subcontinent, proudly worn by emperors as well as masses(Jain-Neubauer, 2000).

Khussa jūṫi was a colorful and embellished form of shoe with turned up back. Inner part of Khussa is made out of colorful leather and the outer was

embellished with fine embroidery. These shoes had closed front and back. The khussa maker adopted different styles and variations based on the time and the preferences of local people who would wear it. Khussa is a closed shoe usually made out of leather. There is no distinction between left and right foot. Pakistan has diverse variety of khussa based on the diversity of regions they are built in and the culture and environment of that region. Many people who were expert in the craft of making khussa migrated to Pakistān during the partition. After the partition, Pakistānī khussa artist gave them unique names based on their shapes and geographical significance. Khussa is one of the most used foot wear in Pakistān. It is used in urban and rural areas alike; the difference is that urban population uses it for traditional occasions or for fashion whereas the rural population uses it as daily use due to its durability and practicality(Jain-Neubauer, 2000).

Punjāb is known for khussa making throughout the world. The main hub of khussa making is Multān. The Multān is a developed city with advanced industrial areas. Due to animal breeding, the southern belt of Punjāb also known as Sarāʾiki belt is rich in animal skin or leather products. This craft is mainly part of Punjāb which specializes in leather products. Some part of this belt is joined with other provinces as well however its major chunk is still annexed with Punjāb. Multān, Dera Ghāzi Khān and Bāhāwalpūr are purely known as Sarāʾiki belt and are part of Punjāb. These three regions mainly are the contributors to highly skilled laborers of khussa's. They make decorative and highly embellished khussa's from thick leather which has gold embroidery. Multān has been a major city for business and trade and stands as fifth largest city in Pakistān. Multān also is a home for some of the finest handicrafts which are exported to different countries(Farooq, 2013).

The following regions of Multān district had embraced khussa in a variety of ways, so that it can represent their true colours.

Multān is known as the center of craftsman ship of khussa's. There are multiple workshops specializing in making khussa's across Multān. Khussa is extremely popular in rural areas of Multān due to its practicality and durability however it is in high demand in urban areas as well. The hub of khussa making is the roundabout of Ghaṅta Ghar. An old worker sitting in main market of Ghaṅta Ghar who used to make around 40 rupees for the making of single pair now makes 20 rupees for embroidery and 50 rupees for the making. Workshops have helped in division of labor to enhance the productivity allowing specialized tasks for each individual however it still is a tiring task since khussa's are usually made by hand.

KHUSSA ORNAMENTATION

There are different outlets of Khussa in Multān and most of them has their own factories. Interviews conducted from craftsmen will be discussed further.Working in the khussa industry for thirty six years, Muḥammad Idrees who is the owner of khussa shop in Multan mentioned that the main areas of embroidered and ornamental khussa making in Pakistān are: Ronali, Khān Garh, Muẓafargarh Garh, Kabīr Wālā, Khanewal, Jhang, Shah Jamāl, Kot Ado, Aḥmad Pur Sharqiya, Rahīm Yār Khān, Sadqa-Abad. Certain factories of khussa making in Kotla Tolay Khān are the main manufacturers of handmade khussas who give the half made khussas to teams of women working from home who hand embroider and embellish the khussas.

There are certain women and young girls who work in the villages for their survival. They work on minimum amount and make hand embroidered khussa's which is a difficult job. They deal with dealers on their own who outsource their services. These women suffer from social pressure as well as discrimination in wages. A survey in Punjāb reveals that most women workers in Punjāb face discrimination and low wages(Chahudry, 2014).

Another Khussa shop owner Badar Munīr further stated in his interview that ᶜAlod-e-ᶜAli, ᶜAli Pur, Hataiji; Aḥmad Pur Sharqiya, Nawāb Pur, Navi Basti are the main centers of khussa ornamentation and these women are highly crafted and do heavy embroidery and ornamentation in menial money because they do it for regular income and to find poverty. They are not usually allowed to go out of their houses to sell their craft however they are provided with the khussa uppers at their homes to hand embroider according to their own aesthetics using traditional color schemes. He told that these women use the color reference they have from different interlinked culture of Sarāᵓiki belt.

Maḥmud ᶜAli has two years' experience of working at Rāja Khussa Maḥal which is famous for costly khussas. He stated that it is not possible to have a full range of khussas at one khussa shop given the variety in khussas. He described his khussa variety as ready to sell and made to order. In his experience of two years he leant that they need to have strong contacts in different villages to get diverse variety of khussas. In each village they have a specific agent who helps them to connect with the handmade khussa expert ladies. Every village specializes in its own style. He further mentioned that the peak season of sales is wedding season and eīd season which is determined by ᶜIslāmic calendar.

The leather khussa found in Multān is not only famous nationally but is sold internationally with high demnad. The decoration of khussa is also done in Wazirabād and Hafizabad. Another form of khussa that is famous is ṫilla wālā khussa that is used for casual purpose.

Figure 2: Khussa Outlet Ghanṫa Gher, Multan; Mooltan Khussa, Maḥal, Interviewee; Badar Munīr & Muḥammad Idress.Photograph by Author, August 17, 2019.

Misbāḥ al-dīn bakhtiār mentioned in his interview that Khān Garh, Muẓaffar Garh, Basti Chaman, Laiya, Chowck Qureshi. Ṫilla wala khussaa is very famouse for casual use among others. Multan leather khussas are famouse not only in Pakistān but also liked in aborad. Decorated khussa work is famouse in Wazirabād, Hafzabād, sawanala hill in fasialabād(Bakhtiar, 2019, 12).

Figure 3: Khussa Outlet Ghanṫa Gher, Multan; Mubarak Chappal Housel, hotograph by Author, August 18, 2019.

Figure 4: Khussa Outlet Ghanṫa Gher, Multan; Mooltan Khussa Maḥal, Photograph by Author, August 17, 2019.

Figure 5: Khussa Outlet Ghanṫa Gher, Multan; Raja Khussa Maḥal, Interviewee; Maḥmud cAli, Photograph by Author, August 17, 2019.

A. Latīf in his book 'The Industrial Punjāb' states that during 1911 Multān was home to around 2000 craftsmen who specialized in shoe making. However this number has now declined to 800 numbers of units working for shoe making. These workshops are mostly located near Ghanṫa Ghar and Kotla Toley Khān. The craftsmen belong to the Sayyid, Tilu and Mochi sects(Ghazi et al., 1988).

In order to achieve perfect color, the craftsmen dye the leather with vegetable colors, the color palette used is often bright. These colors are taken from a village near Multan known as Keror Pukka. Although plain khussa's are very popular in Multān, embroidered khussa's have their special class. Kotla Toley Khān and the Clock Tower have almost 1000 to 1500 units of khussa making working currently however there are multiple individual crafts men who are working in different parts of the city. These individual crafts men are also dedicated to some special families. They make khussa's only for some families which are impossible to be found otherwise in the market. This specialized and personalized service is heavily paid for(Ali, 2013).

Multān is rich with every single variety of khussa. One can find almost any kind of khussa in Multān. The most popular type of khussa is nāgra khussa. Its specialty is that it is made from camel skin. It is finely embellished on upper and lower counters and it has light brown base. Its throat line is ornament into floral shape to give it a unique look. Wazirabādī khussa is also widely known and liked. This Khussa is embellished with special metal tārkashī or bidri work done in Wazirabād hence it gets its name from there. The design of this khussa required intricate craft of leather cutwork. The specialty of this khussa is the ṭilla work which gives it unique look. Multān is also known for Sharaqpuri khussa. This khussa although is named after its original town Sharaqpur however since most of the crafts work is done in Multān hence has become Multān's specialty. The base for this khussa is black, brown or red with ṭilla work of gold or silver on top. The front often called as throat line of this khussa is either straight or front twisted so to give it a formal look. The insole is embellished with same work as the outer part of the khussa to give it more formal look. Multāni phūl wālā khussa is rather a casual and colorful khussa. It depicts the folklore culture of Punjāb with colorful thread pompoms which signify the importance of vibrancy in the culture of Punjāb. They also have anklets made out of thread work or leather strips which give it playful look(Raza, 1988).

Shoe making is a craft known to the rural population since ages now. Many villages and cities are known for making different foot wears in Pakistān however there are certain cities and villages which have gained more popularity in daisi jūṭi making due to the specialized craftsmen and their dedicated work. Crafts men make shoes from different materials, usually leathers, and embellish them with embroidery and stones in such a way that they become an art work. The embroidery done on these shoes is not ordinary. These shoes are sold on high prices due to the fine embroidery done on it. They are usually more expensive than embroidered clothes because of the fact that it is difficult to do embroidery on leather as compared to doing it on a piece of cloth. The craft of khussa is basically an amalgamation of two separate crafts, one is its making and other one is the embroidery. The embroidery unit is usually separate from the manufacturing unit. Embroidery is done by the women's working in small villages. The embroidery design is first transferred on a wooden block and later printed on a piece of paper. Through the technique of impression, this piece of paper traces the design on leather. Once the design is traced then the embroidery work starts. This part requires extensive labor and can incorporate several designs at a time. The uniqueness of these shoes is hidden in the intricate embroidery done on it(Chaudhry, 2002, 78).

Khussa Making Technique

Panna (Upper Part)

The upper part of khussa is made in the preliminary preparations of khussa. It is called the panna. The designs of panna are first made on a cardboard. The cardboard is further cut into stencil to form the pattern of the design. The shape and design of the stencil is copied exactly on the khussa. On embroidered khussas, the embellishment is done on the upper part. The women who work from home and are considered to be expert in embroidery are sent these upper parts to be ornamented. These women use several tools to embroider these khussas one of them is ār (awl).

Talla (Sole)

The sole of the khussa, locally called talla, is also made from leather. The leather used in the sole is thicker than the upper part to give it strong hold and to make the walk comfortable. A stencil is used to cut the talla of the khussa. The front of the talla is wider than the heel to adjust the wider area i.e. the fingers of the foot. A thick cotton thread is used to bind the talla and panna together. The front area where the toes are adjusted is stitched backwards on the upper side. In order to give it strength and support to last longer, the shoe-last, locally known as kālābattūn, is added to give it an appropriate size as well as desired design. The craftsmen let the kālābattūn in the khussa for approximately three to four days. This ensures that the shoe has proper size and shape. The shoe-last is later taken out of the khussa and makes it wearable.

Varieties and Identification of Khussas

Khussas are identified by their attributes. These attributes are on ornamental side which give them uniqueness and difference. These differences are deliberately developed by the craftsmen occasionally according to ceremonial events. The khussas of ceremonial events are regionally differentiated by colors, patterns, treatment and textures. These regional differences will be discussed below:

Multānī Phūl Wālā Khussa

Figure 6: Multānī Phūl Wālā Khussa. Photograph by Author. August 19, 2019.

Figure 8: Multānī Phūl Wālā Khussa. Photograph by Author. August 19, 2019.

D. G Khān and Rajanpur Khussa

D.G Khān has plenty of domestic animals which give a lot of leather based products. The leather khussa of D. G Khān is very famous. It is special made with leather, sewed with cotton thread and leather string which give it strong finish. For women khussas thread embroidery is added to give feminine look. The locals use the milk and meat is of these cattle to sell and later use their skin as leather to make khussas. Sakhi Sarwar, neighboring town of D.G Khān, is also known for khussa making. These areas are known for khussas because it is a ritual of wearing khussas even on weddings. The khussa made here are later sold

in KPK and Baluchistān because of their firmness and strength to be able to be worn in hilly areas(Ghazi, 2009).

Naturally, the atmosphere of Dera Ghazi Khān District is differing because it is divided in to two areas especially hill in and plain areas. So there are used different varieties used, one is known as khussa and other is called chappal (Sandal). Dera Ghazi Khān a big centre of khussa like other famous centers Multān and Bāhāwalpūr. These khussas are further divided into five main categories which are made in D.G Khān (Ghazi, 2009).

Khussa Gadai Wal

Gadai Wal is a place near D.G. Khān. This kind of khussa, available in embroidered form as well, is usually large in size. The Gadai Wal Khussa is of two types 1) the plain (Gadai Wal) and 2) the embroidered (Gadai Wal Karhai Wālā Khussa).

Khussa Wal Sada

This khussa is made from thick leather. It is specially made to be sold in Baluchistān. The leather is dyed red and embellished with ṫilla work. The main structure of this khussa is hard only to be used in hilly or plateau areas. The special design of this khussa involves covering the area of toe with black pointers (Ghazi, 2009, 259).

Figure 10: Khussa Wal Sada. Photograph by Author. August 19, 2019.

Khussa Gadai Wal Karhai Wālā

This khussa is popular in rural as well as urban areas alike. The upper part of this khussa has floral embellishment with black thread or ṫilla work on it. The embellishment is done in silk thread, hand embroidered with multiple colors making it vibrant. This khussa has a very colorful look with a very strong structure.

Figure 11: Gadai Wal Karhai Wālā Khussa.Photograph by Author. August 20, 2019.

Kehror Paka Khussa

The refine art on the Kehror Paka Khussa makes it distinguished from all kinds of khussas. It is a light weigh khussa mainly crafted by local craftsmen. The main reason of its superiority above other kinds of khussas is the delicacy which is reflected from manufacturing to the final piece. Another reason of its prominence is the natural material used in its manufacturing.

Figure 12: Kehror Paka Khussa.Source: (https://images.app.goo.gl/Lq4z6WkBw1YLjXZAA). Accessed Date: October 29, 2019.

Kabīr Wālā Khussa

Kabīr wālā is known for embroidered shoes with delicate thread work. The craftsmanship on this khussa is done using multicolored synthetic thread as well as golden and silver thread. . It has distinct design and shape from other khussas. It is very rich in design and soft in its feel on foot. The buyers from rural as well as urban areas are fond of it alike. The simplicity yet durability of this khussa make it distinct from other khussas.

Figure 13: Kabīr Wālā Khussa.Source: (https://images.app.goo.gl/XZQPewQkF4ugRLsN6) Accessed Date: October 29, 2019.

Balochī Chappal

Balochī chappal as the name suggests is very popular in Baluchistān. This chappal is widely worn by women in Balochistān however some men also wear it alongside brides and grooms during weddings. The skin of domestic animals is used for crafting this chappal. This chappal has become an important part of the culture and tradition of not only Balochistān but is also very popular in urban areas as well.

Figure 14: Balochī Chappal.Source: Photograph by Author. Date: August 26, 2019.

Khussa Pathān Wal

Pathān wal khussa is not only used in the area where pathān dwell mostly i.e. Khyber Pakhtunkhwa but is widely liked in other provinces including Balochistān and Punjāb. This khussa has similar shape as gadai wal khussa and has delicate work. The embroidery done on pathān wal khussa is intricate ṭilla embroidery. The upper part of khussa is embellished with silver and golden ṭilla work however the sole is mostly mass manufactured in factories. This khussa is also very popular in areas of Balochistān such as D.G Khān, Rakni and Lora Lai.

Figure 15: Pathān Wal Khussa.Source: (http://stylevilas.com/traditional-khussa-shoe-designs-for-grooms/) Accessed Date: October 26, 2019.

Khussa Taunsa Wal

The name Taunsa Wal is given to this kind of khussa due to its origin in the area of Taunsa. This khussa is almost similar to the Gadai Wal khussa however the only difference between them is that of the shape. The ṭilla work and silk thread work on Taunsa Wal khussa is more intricate and delicate as compared to Gadai Wal khussa. These khussa are liked by people of different origin and areas however there are some specific khussas liked by the Sarāʾiki belt khussa craftsmen.

The Sarāʾiki area known as kenālī jūṭi and daisī jūṭi are famous for the dedicated craftsmen for khussas. These khussas are not only liked in Sarāʾiki belt but also in nearby areas (Ghazi, 2009). The details of these khussas are as following:

Figure 16: Khussa Taunsa Wal.Photograph by Author. August 20, 2019.

Daisī Jūṫi

Daisī jūti is traditional footwear (Jamil, 1988, 63). This embroidered jūṫi set a percent for khussa. The daisī jūṫi brings together two basic crafts of shoe making, one being the shoe making itself and the other one is embroidery. Daisī jūṫi is the hallmark of Sarāᵓiki culture and is famous not only in the Sarāᵓiki belt but in near areas as well (Chaudhry, 2002).

Figure 17: Khussa Wal Sada.Photograph by Author. August 20, 2019.

Khussa Chappal Cholistan

The area of Rohi in Cholistān covers 2407 square kilometer. This desert area with some sand dunes surrounded around Hakra River has its own vitality. This area usually covers the districts of Bahawalpur, Bāhāwalnagar and Rahīm

Yār Khān. These are the main regions where khussas are manufactured, sold and worn. The type of khussas worn in purely desert area verses the type of khussas worn near the river area varies slightly. Due to strong influence of Mughal and Nawāb courts of Cholistān and Bāhāwalpūr, the area is culturally enriched with royal inspirations. The royal maharaja style khussas are still manufactured and worn by people as a status symbol and to cherish what is left of heritage of maharajas.

Figure 18: Khussa Cholistān. Photograph by Author. August 30, 2019.

The Mughal art work is still in place in these khussas. Like Mughal artists, the khussa makers of this region also use mirror work and hand embroider it with colorful threads and decorations. The local craft of phulkāri is done on the upper part of this khussa to further add colors to it. The most interesting aspect of this khussas is that the male khussas are as embellished and colorful as female khussas.

Khussa Bahāwalpūr

Bahāwalpūr is a well-known city of Punjāb situated 90 km from Multān and 900 km from Karachi. This place has been home to many mentions and palaces made by Nawābs. These Nawābs were gifted the state of Bahawalpur by Hayatullah Tareen. Bahawalpur became a developed state later on with several markets and amenities of life. This state was counted amongst richest states of the Punjāb. The old city still shows the remaining of well-planned markets and active social arenas. Places such as Machlī Bāzār, Farīd Gate and the Shāhī Bāzār still have the old shops which sell khussas. These places have become a commercial as well as cultural hub of the city.

Khussas were designed to be tough and comfortable yet plain footwear. As time changed the people started decorating and embellishing the upper side of khussa and the designs started becoming more elaborate. The khussas of Bahawalpur are known to be colorful. The plain brown khussas with green, red, yellow and orange colors are mostly high in demand. Most of the prints are floral. Craftsmen do gulkāri and thread work on these khussas. The sequins work

on the upper part of khussa is also very popular. Since the desert area of Cholistān is adjacent to the Rajhistān of India, the Rajhistānī culture is very popular in Bahawalpur.

Figure 20: Ornamented Khussa of Bahawalpur. Photograph by Author. August 30, 2019.

As a weddings tradition, the in laws of the groom gift him golden ṫlla khussa as a present. Expensive material is used to make these khussa. They are highly priced due to the intricate skill involved to make it and the expensive material used. Another specialty of the city of Bahāwalpūr is Kundan khussa which is a bridal khussa especially used to match the kundan jewelry of bride on wedding. Kundan craft is also very specialized craft of Bahāwalpūr.

References

Ali, M. (2013). *The Court of Great Mughal*. Fiction House.

Ali, M., & Author. (2019, July 14). Khussa in Multan .personal.

Bakhtiar, M.-al- din, & Author. (2019, August 10). Khussas in Multan .personal.

Chahudry, A. G. (2014). Skills Mapping of Rural Women in Southern Punjab: An Anthropological Perspective. *Pakistan Journal of Social Sciences (PJSS), 34*.

Chaudhry, N. A. (2002). *Multan glimpses: with an account of siege and surrender*. Sang-e-Meel Publications.

Chaudhry, N. A. (2002). *Multan glimpses: with an account of siege and surrender*. Sang-e-Meel Publications.

Chaudhry, N. A. (2002). *Multan glimpses: with an account of siege and surrender*. Sang-e-Meel Publications.

Chaudhry, N. A. (2002). *Multan glimpses: with an account of siege and surrender*. Sang-e-Meel Publications.

Dar, S. N. (1984). *Costumes of India and Pakistan: a historical and cultural study*. D.B. Taraporevala Sons.

Farooq, M. (2013). *The Traditional Artifacts of the Saraiki Region: The Case Study of Khussa* (dissertation). CG Printers.

Ghazi, M. A. (2009). *Crafts of the Punjab: Dera Ghazi Khan and Rajanpur* (Vol. 4). Punjab Small Industries Corp.

Ghazi, M. A. (2009). *Crafts of the Punjab: Dera Ghazi Khan and Rajanpur* (Vol. 4). Punjab Small Industries Corp.

Ghazi, M. A. (2009). *Crafts of the Punjab: Dera Ghazi Khan and Rajanpur* (Vol. 4). Punjab Small Industries Corp.

Ghazi, M. A. (2009). *Crafts of the Punjab: Dera Ghazi Khan and Rajanpur* (Vol. 4). Punjab Small Industries Corp.

Ghazi, M., Wasim, T., Iqbal, Z., Mir, E., Ḍār, S., Khan, I., & Zaffar, S. (1988). *Crafts of the Punjab*. Punjab Small Industries.

Ghazi, M., Wasim, T., Iqbal, Z., Mir, E., Ḍār, S., Khan, I., & Zaffar, S. (1988). *Crafts of the Punjab*. Punjab Small Industries.

Ghazi, M., Wasim, T., Iqbal, Z., Mir, E., Ḍār, S., Khan, I., & Zaffar, S. (1988). *Crafts of the Punjab*. Punjab Small Industries.

Jain-Neubauer, J. (2000). *Feet & footwear in indian culture*. Mapin Publishing Pvt. Ltd.

Jain-Neubauer, J. (2000). *Feet & footwear in indian culture*. Mapin Publishing Pvt. Ltd.

Kazmi, N. (2009). *Islamic art: the past and modern*. Roli Books.

Lal, K. S. (1980). *Twilight of the sultanate a political, social and cultural history of the sultanate of Delhi from the invasion of Timur to the conquest of Babur 1398 - 1526*. Munshiram Manoharlal.

Mirza, A. (1964). *Handicrafts of West Pakistan*. West Pakistan Industrial Development Corp.

Naveed, M. B. (2015, July 07). Gandhara Civilization. *World History Encyclopedia*. Retrieved from https://www.worldhistory.org/Gandhara_Civilization/

Raza, M. H. (1988). *Multan: past & present*. Colorpix.

Ribeiro, A. E., & Cumming, V. (2000). *The visual history of costume*. Batsford.

Robertson, O. (2011). *Soul of Her Shoe* (1st ed.). Jeason Publishing, LLC.

The oblique art of shoes: popular culture, aesthetic pleasure, and the humanities. (2015), *19*(3), 233-247. https://doi.org/https://doi.org/10.1080/14797585.2015.1021992

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