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OBJECTIVES

The main objectives of the Journal are:
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- To assemble all who are interested in these fields for an exchange of ideas and experiences;
- To disseminate research findings;
- To provide a database for members and researchers.

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The Role of Emotional Intelligence and Locus of Control on Burnout among Special Education Teachers in Egypt

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Abstract

The main purpose of the present study was investigate the interactive and relative effect of emotional intelligence and locus of control on burnout among Special Education Teachers in Egypt. The study made use of simple random sampling in selecting 280 (160 male, and 120 female) special Education teachers from three special education schools located in Kafr EL Sheikh Governorate. The study sample responded to three valid and reliable instruments; Emotional intelligence scale, The Teacher Burnout Scale, and The Teacher Burnout Scale. Data analysis involved the use of Pearson correlation and multiple regression procedure to investigate predictive capacity of the independent variables on the dependent variable. The results indicated that the two independent variables, when taken together, were effective in predicting Burnout.

Keywords: Emotional Intelligence, Locus of Control, Burnout, special education teachers

Introduction

The major goal of the school at any level is towards attainment of academic excellence by the students. Although there may be other peripheral objectives, emphasis is placed on the achievement of sound education. The extent to which this goal can be actualized depends principally on the workforce--most especially the teaching personnel. They constitute the oil that lubricates the factors of academic performance and educational enterprise as a whole. Teachers, like other employees in various organizations, are crucial in the actualization of the school goals and objectives.

As important as teachers are to the development of a nation, research works (Shirom, 1989; Wright & Cropanzano, 1998; Azeem, 2010) have shown that burnout is a major factor that hinders their efficiency, effectiveness and job involvement. According to Bryne (1991) and Maslach, Jackson and Leiter (1996), the burnout syndrome has three distinct but loosely coupled dimensions: emotional exhaustion (feelings of being emotionally overextended and exhausted with one's work), depersonalisation (the development of negative and uncaring attitudes towards others), and negatives personal accomplishment (loss of feelings of self-competence and dissatisfaction with one's achievement).

It often start with a feeling of fatigue; physical, mental or emotional. It is a feeling of disconnection and complete loss of interest in the job, self-esteem suffers and feeling about work becomes negative. Burnout results from a long period of stress and stress come from the perception that the resources available to deal with stressors are not adequate (Wood & McCarthy, 2000).

Researchers have become highly interested in the problem of burnout among teachers (Byrne, 1998; Guglielmi & Tatrow, 1998; Billingsley, 2004). Most of the research carried out in European and North American Countries indicated high levels of burnout among primary school teachers (Means & Cain, 2003). In African countries, research studies have shown that teachers experience high level of stress and burnout (Olaitan, 2009). Reglin and Reitzammer (2008) and Tretteman and Punch (2005) found that teachers regardless of what level they teach are exposed to high levels of stress. They suffer burnout in some extreme cases (Seldman & Zager, 2001).

Burnout can have damaging effects on individual's mental and physical health including exhaustion, physical pain, depression, sleep disturbances and even death (Ganster & Schaubroeck, 1991; Brock & Grady, 2002; Le Fevre, Matheny & Kort, 2003). It can also have negative effects on organisational outcomes such as performance and turnover (Tamini,

2009). Research works have also shown that burnout has negative consequences on teaching-learning processes (Palomera, Fernandez-Berrocal & Brackett, 2008), quality of teaching and students' performance and (Vanderberghe & Huberman, 1999) and student teacher relationship (Yoon, 2002).

As a result of the highlighted negative and harmful influences of burnout on teaching-learning process and outcome, researchers have become interested in identifying factors responsible for burnout among teachers. Factors found include excessive time pressure, poor relationship with colleagues, large classes, lack of human and physical resources, poor opportunities for promotion and lack of participation in decision-making, personality hardiness and job involvement (Azeem, 2010). Furthermore, workload, lack of feedback and autonomy are variables which are consistently related to burnout (Hakanen, Bakker & Schaufeli, 2006; Schaufeli & Banker, 2004). Most studies on burnout have focused largely on the investigation of background variables like marital status, age, years of teaching and gender as predictors of bornout (Byrne, 1991, 1994). Indeed, empirical studies involving psychological factors as predictors of burnout are rare. Thus, little is known about the contribution of emotional intelligence to burnout.

It is true that the term 'emotional intelligence' was coined relatively recently, but it certainly bears some resemblance and partially overlaps with earlier concepts such as social intelligence (Sternberg & Smith, 1985). Moreover, the construct of emotional intelligence is considered to be theoretically preferable over the earlier construct of social intelligence because it is more focused on affect per se. Furthermore, the concept of 'emotional intelligence' is distinct from predispositions to experience certain kinds of emotions captured by the personality traits of positive and negative affectivity (George, 1996).

Emotional intelligence has been found to impact on psychological health-particularly occupational stress (Ciarrochi, Chan & Bajgar, 2001). Nikolaous and Tsausis (2002) found a negative correlation between emotional intelligence and occupational stress, a similar concept to burnout. Gertis, Derkesen, Verbruggen and Katzko (2005) found a significant relationship between EI and burnout with greatest symptoms of burnout seen in female nurses who had low EI scores. In a study carried out with secondary school teachers in England, it was observed that the teacher's EI predicts level of burnout (Bracket, Palomera & Mojsa, Reyes and Salovey, 2010).

In a study aimed to investigate perceived emotional intelligence (EI) in relation to burnout syndrome and job satisfaction in primary special education teachers from Greece, Platsidou (2010) found that Perceived EI was significantly related to burnout syndrome and job satisfaction, indicating that teachers of high-perceived EI are likely to experience less burnout and greater job satisfaction.

Locus of control is another psychological variable that contributes to burnout among teachers. It is a personality variable that concerns people's generalized expectancies that they can or cannot control reinforcements in their lives (Janssen & Carton, 1999). People who hold expectancies that they control reinforcements are considered to be internals, and people who hold expectancies that outside forces or luck control reinforcements are considered to be externals. Locus of control personality refers to the extent to which individuals believe that they can control events affecting them (Rotter, 1966). Individuals who have an internal locus of control ("internalizers" or "internals") believe that the events in their lives are generally the result of their own behavior and actions. Individuals who have an external locus of control ("externalizers" or "externals"), on the other hand, believe that events in their lives are generally determined by chance, fate or other people. Cummins (1988), and Kobasa and

Puccetti (1983) supported the hypothesis that the relationship between stress and strain is moderated by locus of control personality.

It can be noted that a few studies have examined the predictive capacities of emotional intelligence and locus of control on burnout among school teachers. Nevertheless, none was carried out in Arabic countries, so the present study tries to bridge this gap.

Research Questions

The following research questions were raised for the study:

1. What is the combined effect of emotional intelligence and locus of control on burnout among Special Education Teachers in Egypt?
2. What is the relative contribution of emotional intelligence and locus of control to burnout among Special Education Teachers in Egypt?

Method

Participants

A total sample of 280 (160 male, and 120 female) special Education teachers participated in this study. They were those who returned back the scaled after felling in them. Those teachers were from three special education schools located in Kafr EL Sheikh Governorate , namely; AL Fekrya School (For the mentally retarded), Al Nour School (For Blind students) , and the School for the Deaf (For deaf students)

*Instrument*s

Schutte et al. (1998). It is a 33-item scale with a five-point Likert-type scale. As suggested in Salovey and Mayer's theory of emotional intelligence (1990), the instrument has three categories: (a) the appraisal and expression of emotion assessed by 13 items; (b) the regulation of emotion assessed by 10 items; and (c) the utilisation of emotion assessed by 10 items. Participants read each statement and decide whether they 'strongly disagree', 'disagree', are 'undecided', 'agree', or 'strongly agree' with the statement.

Schutte et al. (1998) reported a Cronbach alpha (α) of 0.90 for the internal consistency for adults with mean age of 29.3 (S.D. = 10.2) and α = 0.78 for test-retest reliability after a two-week interval on the scale for a smaller group drawn from the sample. Schutte et al. (1998) reported predicted validity of r(63) = 0.32 for first year GPA of college students, for discriminant validity they reported r(41) = - 0.06 for the correlation between the scale and SAT scores, and r(22) = -0.28 to 0.54 for subscales of NEO Personality Inventory of scores of college students. This study reported a Cronbach alpha (α) of 0.89 for the internal consistency, almost near to this obtained by the original authors. Also, this study reported r= 0.73 for the correlation between the scale and Fathi & Mourad's emotional intelligence scale(2008).

2-*Teacher Locus of control Scale*: Locus of control scores were obtained by using The Rose & Medway Teacher Locus of control Scale (Rose & Medway, 1981), which is a 28- item forced – choice scale with internal consistency. The item requires teachers to endorse an option indicating either internal or external control of various classroom events. Half of the items describe positive or success situations, and the other half describe negative or failure situations. Separate scores are provided for beliefs in internal responsibility for student success (1+) and failure (1-) . One point is awarded for each internal alternative. Separate scores are obtained for success and failure situations, because teachers' attributions of causality have been shown to depend on the nature of classroom and performance outcomes .

Higher scores indicate higher internality or greater tendency to accept personal responsibility for classroom events.

3- *The Teacher Burnout Scale* (TBS), which was adapted by Freidman (2003) from the Maslach Burnout Inventory (MBI) (Maslach & Jackson, 1981), was used to assess levels of teacher burnout. The 14-item self-report scale includes three subscales: exhaustion, unaccomplishment, and depersonalization. Responses for this scale were reported using a 6-point scale ranging from "never" (1) to "always" (6) (Freidman). Items such as "I feel emotionally drained from my work" assess emotional exhaustion. Feelings of unaccomplishment are recorded using statements in the vein of "I feel I'm positively influencing other people's lives through my work." Depersonalization is measured through the use of items such as "I feel I treat some students as if they were impersonal objects" (Byrne, 1991; Freidman). Alpha reliabilities for the adapted TBS subscales range between 0.79 and 0.90; 0.90 for exhaustion, 0.82 for unaccomplishment and 0.70 for depersonalization (Freidman). The total scale Cronbach's alpha from the first wave of data collection was 0.89. Descriptive statistics, Pearson Correlation, and Regression Analysis were used to analyse data.

Results

The results of various analyses have been presented in separate headings.

Descriptive Statistics

Table 1 presents the Mean and standard deviations of all the observed variables. Descriptive statistics was worked out to know the pattern of score distribution. A perusal of table 1 reveals that the mean score on emotional intelligence variable is 128.16 with the standard deviation of 2.8. The mean score on Locus of control is 65.43 with the SD of 5.7 and on Burnout the mean score was 31.32 with the SD of 7.4. It shows that the scores on burnout variable ranged Average and Normal. Similarly on Locus of control and Emotional Intelligence variables the score ranges average and above average but normal.

Table 1 –Mean and Std. Deviation

Variable	Mean	SD
Emotional Intelligence	128.16	2.8
Locus of control	65.43	5.7
Burnout	31.32	7.4

Correlations

Correlations among all the 3 variables were computed through Pearson's Product Movement method. It was aimed at examining the degree of association between the measures of Burnout , Locus of control and Emotional Intelligence. A careful inspection of inter-correlation matrix (Table - 2) reveals that the relationship between emotional intelligence and locus of control was positive but not significant at 0.05 level ($r = 0.126$, $P > 0.05$). However, the results revealed significant negative relationship between emotional intelligence and burnout ($r = -.280$, $P < 0.05$) and locus of control and burnout ($r = -.520$, $P < 0.05$).

Table 2 – Inter- Correlation Matrix

Variables	Emotional intelligence	Locus of control	Burnout
Emotional intelligence	1		
Locus of control	0.126	1	
Burnout	- 0.280*	-520*	1

** Correlation is significant at the 0.05 level.*

Regression Analysis

Table 3 shows the analysis of the combined effect of emotional intelligence and locus of control on burnout among Special education teachers in Egypt . Linear regression analysis test was conducted. Using the independent variables (Emotional Intelligence and Locus of Control) to predict burnout yielded a coefficient of multiple regression (R) of 0.498 and a multiple regression square (R2) of 0.25. The means 25% of the variance in burnout is accounted for by the independent variables (EI and Locus of Control). Results in Table 3 further reveal that the analysis of variance of the multiple regression data yielded an F-ratio of 49.046 which is significant at 0.05 level. This clearly demonstrates that all the independent variables taken together significantly predicted teachers' burnout.

Table 3- Su*mmary of Multiple Regression Analysis between the Predictor Variables (EI and locus of control) and the Outcome Measure (Burnout)*

Multiple R (Adjusted) = 0.498					
Multiple R2 (Adjusted) = 0.248					
Stand error estimate = 25.06					
Source of variation	**df**	**Sum of Squares**	**Mean Square**	**F-Ratio**	**P**
Regression	2	61599.829	30799.914	49.046	<.05
Residual	277	186510.1	627.980		
Total	279	248109.9			

Results displayed in Table 4 above reveal that each of the independent variables made significant contributions to the prediction of burnout among secondary school teachers. The results indicated that the following beta weights which represented the relative contribution of the independent variables to the prediction were observed. Emotional intelligence (b = -0.124, t = 2.462; P <.05) and Locus of Control (b = -0.473, t = 9.379; P <.05). Although the two variables made significant relative contributions to the prediction of burnout, locus of control is a better predictor.

Table 4. *Relative Contribution of the Independent Variables to the Prediction of Burnout*

Predictor	**Unstandardised Coefficient**		**Standardised coefficients**	**T-Ratio**	
	B	**SEB**	**Beta**		
EI	-.160	.065	-.124	2.462	.014*
Burnout	-1.283	.137	-.473	9.379	.000*

Discussion

The results revealed that emotional intelligence and locus of control either collectively or separately are potent predictors of burnout among special education teachers in Egypt . The magnitude of the relationship between the independent variables in predicting burnout among special education teachers in Egypt is reflected in the values of coefficient of multiple regression (= 0.498) and in multiple R-squared adjusted (0.248) as shown in Table 3. The F-ratio value of 49.046 which is significant at 0.05 level further attested to the fact that the predictive capacity of the independent variable could not be attributed to chance factor. This finding agreed with Mendes (2003) who examined the relationship between emotional intelligence and teacher burnout on 49 credentialed secondary teachers and found that

emotional intelligence correlated with burnout. In the same vein, Ismail, et al. (2010) found that emotional intelligence significantly correlated with occupational stress of academic employees. The finding of Chan (2006) is consistent with the outcome of this study. The present study further corroborates the assertion of Platsidou (2009) and Bracket et al. (2010) that emotion regulation ability and burnout are significantly related.

This result is not surprising. By the nature of the construct of emotional intelligence, it is expected that the understanding of one's and other people's emotions, and one's ability to regulate and manage them will have a buffering effect on work related burnout. Thus, a teacher that is emotionally intelligent would have the ability to understand and manage moods and emotions in himself and in others thereby contributing to the effectiveness of controlling prolonged stress resulting to job burnout. Such teacher would possess an array of cognitive skills, capabilities and competencies that influences his ability to cope with environmental demands, challenges and pressures. The findings of the present study corroborate the assertion of Ciarrochi et al (2001) that an objective measure of emotion management skills is associated with a tendency to maintain an experimentally induced positive mood which has obvious implications for preventing burnout.

The result that Locus of Control is a significant predictor burnout among special education teachers in Egypt could be explained from the fact that internal locus of control individuals generally engage in activities that would improve their present condition, striving for achievement, work hard to develop their knowledge, skills and abilities. They are always inquisitive and try to figure out why things turn out the way they did. They also take note of information they could use to create positive outcomes in the future. This finding is supported by Gan, Shang & Zhang (2007) who found a significant relationship between external control and burnout.

Implication of Findings

A number of implications have emerged from the results of the present study. First, when burnout arises in the school, preventive strategies could include the enhancement of teachers' emotional intelligence and locus of control. For instance, helping teachers to acquire emotional intelligence competencies (e.g. perception, appraisal and expression of emotion, emotional facilitation of thinking, understanding and analyzing emotion and employing emotional knowledge) may have a buffering effect on their burnout. Similarly, furthermore, the belief one has about the cause of his fortune or misfortune (locus of control) is a major factor predicting burnout among special education teachers in Egypt.

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The Evaluation of the Practices Implemented to Improve English Speaking Skills at Preparatory Classes*

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* The paper was produced from the post-graduate thesis called "The evaluation of the practices which are implemented to improve English speaking skill at preparatory classes" which was presented at Ege University Institute of Social Sciences Department of Curriculum and Instruction in 2010.

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Abstract

In this study, "Video, Listening and Speaking" curriculum implementations were aimed to be evaluated with respect to the opinions of the participants by using descriptive survey method. In the study, which was evaluated according to the aspects of the curriculum and based on participatory evaluation, the data was obtained from 325 students and 31 instructors. Chi-square, Cramer V and Phi were used in the data analysis. In the results of the research, it is seen that the objectives of the curriculum were not clear and they were free from the content. The findings showed that there were insufficiencies in the usage of the variables which increase the quality of the teaching, and in the ways and the methods followed in the assessment. At the end of the research, it was recommended that the curriculum designs, which will be prepared, directed towards improving speaking skills should be organized according to the principles of the curriculum development process.

Key Words: *Curriculum Evaluation, English Speaking Skills*

Introduction

Curriculum, which is an important input of the teaching systems, has important additives to the individuals in the simplification of the individuals' adaptation to the changing society of today and in gaining desired qualifications, which differantiate after the convergence of the societies to each other during globalization. According to Demirel (1999:5-6), curriculums which will supply this important additive should be designed, implemented and developed with a scientific approach. It can be asserted that foreign language skills, which are the skills that all people need today, can bring in the individuals by means of teaching curriculums which are prepared functionally, implemented effectively and evaluated suitably.

Today, people who speak English as a second language are more than the people who use it as a mother tongue. According to the statistics, English is used in the 70% of the scientific language, 80% of the communication language and 90% of the Internet language around the world (Cibaroğulları, 2007). This situation brings up the importance of English as a foreign language. Basic structures which gain language skills to the individuals can also be seen as teaching curriculums. While learning the first language without making an effort starting from the learning process as from birth, the situation is not the same after deciding to learn a foreign language. If the learner lives in the country where the foreign language is used, s/he can learn the basic vocabulary and daily speaking, but attendance necessity to a specific teaching curriculum arises to learn the language in fact. Demirel (2004) argues that teaching a foreign language is a process which is increasing accumulatively and this process includes cognitive attitudes and new psychomotor skills. In other words, learning a foreign language is evaluated as the process of gaining necessary skills to use a language.

In the prepared curriculums it is expected from the students to be suitable to the determined objectives and to acquire communicational and interactional skills in the departments which change according to the different fields at the end of the process that includes learning English as a foreign language. It is necessary for the individuals to get a specific level in listening, speaking, reading and writing in English, and to learn the structure, pronunciation and the vocabulary of the target language (Aydın, 2005). There are personally changing special aims in language learning. These can be arranged as the interest in different cultures, necessities coming from living in a society permanently or temporarily, willing to progress in work-life and learning necessity arising related to the teaching curriculums in education (Harmer, 1991). It is thought that an individual should be aware of his/her aims,

develop thinking steps by compounding experiences in the past and learning lives today, and fundamentally comprehend the importance of the internal effect of teaching and preparing a system for learning steps with his/her own self-discipline (İlter, 2007). But the basic aim stated as supplying communication in foreign language is the main function of the language.

An effective language education is made of speaking, writing, reading and skills, and from these skills listening and reading skills are defined as receptive skills and speaking and writing skills are known as the productive/expressive skills (Bygate, 1987; Doğan, 2008). Learning a language means understanding, speaking, reading and writing the target language. These skills cannot be separated from each other and each of them has the same importance. Even though these four skills are seen and taught like they are independent from each other, in daily life they are intimate with each other and inseparable.

One of these basic skills, speaking covers the biggest field in the individuals' relationships. Speaking, which is one of the tools that provides the interaction between people, plays a deterministic role in communication in the foreign language more than the mother tongue. Speaking skill is thought as not only a skill in teaching a foreign language, but also an important communication tool which provides people to socialize. Reading and writing skills can also be gained personally. But in speaking, there is a need for the listener and mutual interaction. So, speaking can be defined as an activity which includes mutual interaction and whose aim is verbal communication and there is a necessity of a speaker and a listener for this (Valette, 1977). Byrne (1986: 8) states that verbal communication is a two-sided process between a speaker and one or more listeners and listening with understanding using productive skills, and it is also a perception skill which takes place in speaking, too.

One of the general aims in foreign language teaching is to make the students be able to talk clearly in the language they learn. For that reason, it is important to prepare suitable environments and teach the language using communicational techniques in order to gain speaking skills to the learner (Bright & McGregor, 1983; Demirel, 1999; Florez, 1999; Littlewood, 1984; Murcia, 1991). Because, speaking is considered as one of the indicators of knowing a foreign language exactly. Mostly, knowing a language means speaking that language. On the other hand, although millions of people around the world supply their needs by speaking, they may not know reading or writing. Speaker affects the listener at least with his/her statements. Besides, it is a functional feature of the human brain that at first understanding, that is listening; and then producing, that is to say speaking improves during the learning process of the mother tongue. Hence, it is recommended not to break this sequence in language teaching (Taşer, 1996).

Speaking skill is indicated as one of the hardest skills to gain. Demirel (1993) expresses that speaking contributes not only cognitive skills but also psychomotor skills. It is necessary to have a good knowledge about grammar, disclose and vocabulary to gain speaking skill (Bygate, 1987). One of the most important points in the aim of developing speaking skills in teaching English is to prepare a communicational environment to the students (Byrne, 1986; Murcia, 1991; Shaw & McDonough, 1993). Actually, most of the methods used in teaching process appear in different times and after different factors. As language is a changing entitiy, methods are continually being developed and changed. News in learning and developmental psychology, results of the researchs in educational sciences and teaching, and changes in the comprehension about linguistices play a role in changing and developing foreign language methods. New view points which arise because of the continual development and change in language make it necessary to recover or at least revise the methods (Uslu, 2005).

For university students, knowing a foreign language increases the number of the reachable sources about their departments, helps them in literature reviews, reaching information, classification and using the information. Using a foreign language effectively widens the horizons and supplies the individuals to meet the concepts they do not meet in their cultures. Also, in the century we live in, it is expected from the universities to educate people who can think and interrogate, produce information and compete in international platforms (Yücel, 2009). Thus, students' knowing one or more languages is becoming an obligation to be able to benefit from the information network in the world which is globalizing scientifically. But even though lot of of labour is given, and time and sources are spent, studies are not efficient in desired level (Demirel, 2007). That's why there is a need for language curriculums to attribute scientific data and evaluate keeping the necessities in mind in foreign language education.

The studies about the proficiency in a foreign language, which are being tried to gain to the students by means of the implemented curriculums in the foreign language classes at universities or by the general cultural lessons in the first grade curriculums at universities, bring up that "the proficiency in English which is necessary for the departments and the work-life" is important from the perspectives of the students (Karataş & Fer, 2009). That result, draws the content of the expectations of the university students from the foreign language curriculums. In other words, the curriculums which are being prepared should provide the students to have an English proficiency in a level that they can use during education and after it, in the work fields. However, in the study that Güllü (2007) did on the university students about English curriculum, it is obtained that the curriculum does not cover the needs and the expectations of the students, and it is recommended that the curriculum should be changed and adapted to meet the need of the students in the future. In addition, in the study done by Güllüoğlu (2004), it was emerged that speaking skills were not seen important in English preparatory classes and there were some lackings about improving speaking skills. The results of these two surveys revealed the importance of designing and implementing English curriculums according to the needs of the target groups. After Barın's research (1997), the importance of the listening and speaking skills came out and the necessity of the curriculums' covering these skills was occured. This situation makes one think that the language skills should be integrated not only for the needs of the students, but also for the necessities in the branches. However, the studies did not change the reality about the unsuccess of the implementations carried out on improving students' speaking skills (Zeytin, 2007). For that reason, it is thought that considering the studies searching the dimension of educational sciences of the implemented speaking curriculums can be useful for understanding and removing the problems of improving speaking skills in a foreign language.

It is stated in the related literature review that the implementation processes or the curriculums' covering various implications of teaching learning theories have contributions to the development of the speaking skills (Finch, 2001; Florez, 1999; Atik, 2006; Kılıç, 2003; Saday, 2007; Kasap, 2005; Zeytin, 2007; Saraç, 2007). Therefore, it is important to design, implement and evaluate the curriculums which will be prepared to improve the speaking skills, standing on the related literature review and teaching learning theories.

As a result of the increasing necessity of the speaking skills in a foreign language at universities and seeing that the speaking skills of the students in the departments were not in the desired level, lacking of the Speaking course revealed and a Speaking exam implemented for the first time in 2009-2010 academic year at Ege University preparatory classes. "Video-Listening" course was changed as "Video, Listening and Speaking" course in 2009-2010 academic year and some activities about improving speaking skills were added to the curriculum. Thus, evaluating this new curriculum according to the thoughts of the

stakeholders of the curriculum is important for the additives of the students' development in speaking skills and for forming the action plans about speaking skills which have an important place in language skills. Hence, there was a need for a research about how the instructors and the students evaluate the new "Video, Listening and Speaking" curriculum which was implemented to improve the speaking skills at Ege University preparatory classes.

Aim of the Research

The main aim of this research is to evaluate the practices of "Video, Listening and Speaking" curriculum, which was implemented at Ege University School of Foreign Languages, in order to reach the findings that will be the source for developing the curriculum according to the determined needs and the opinions of the students and the instructors to bring the curriculum continuity to light the wrong and lacking aspects of the curriculum practices. For this purpose, response to "How the practices implemented to improve English speaking skills at preparatory classes are evaluated by instructors and students?" was investigated.

Method

Model of the Research

In this research, "Video, Listening and Speaking" curriculum, which was added to the curriculum of Ege University Foreign Languages as from 2009-2010 academic year in order to improve the students' speaking skills, was evaluated according to the views of the instructors and the students by using descriptive survey method. The studies aiming to collect data about specific features of a group are called survey method (Büyüköztürk et al., 2008: 15). Besides, the curriculum was evaluated with the participatory evaluation and the evaluation was based on the objectives, content, assessment and the aspects of the curriculum. Some of the features of the participatory evaluation are understanding the process of the evaluation and the integration of the data coming from different resources (Fitzpatrick, Sanders & Worthen, 2004). The aspect based on the dimension of the survey is composed by the responses of the participants in the questionnaire presented directed to the dimensions of the curriculum.

Sampling

This survey was implemented with a study group chosen from the students and the instructors who are the stakeholders of the curriculum. Study group was determined by using cluster sampling method because of the difficulties in reaching the population. Cluster is a sampling method especially used in large scaled surveys and in the situations when the units, needed to insert in the sample, are hard or impossible to list (Balcı, 2000: 98). In the survey, totally 272 students in the Basic group and 408 students in the Regular group were chosen randomly from the classes taking place in 11 clusters and reaching to all of the instructors who taught "Video, Listening and Speaking" in 2009-2010 academic year. However, the study was implemented totally with 325 students and 31 instructors.

Instruments

In the research, 2 questionnaire forms are reformed in order to apply to the students and the instructors. According to Büyüköztürk et al., (2008: 114), a questionnaire should be formed in 4 basic stages: 1) describing the problem, determining the aim and the questions, 2) writing items and forming a framework, 3) receiving opinions of the experts and forming pre-application form, 4) pre-application, analysis and forming the questionnaire lastly. The

instruments of the study were also made up following those 4 stages. Thus, in the preparation stage, survey's problem and subproblems were investigated (1). Then, framework form was constituted. During that stage a large item tool was comprised utilizing Stufflebeam's CIPP model, evaluation model based on the aspects of the curriculum, the questionnaire used in a project by Ünver and her colleagues (2008) and the related literature review. Later, the features to be evaluated, designed as a questionnaire form being same for the students and the instructors, but changing the wording according to the target group. 2 items in the students' questionnaire could not be placed in the instructors' due to not being able to express in terms of the instructors (2). In the third stage, "Personal Information" dimension, consisting 6 questions, was added before receiving the opinions of the experts (3). Totally 140 items were presented to the experts came to an eventual state of 146 items. The features to be evaluated in the eventual form were configured in different ways like the options of "Yes-No" or "Yes-Partly-No", choosing more than one option and sometimes writing completely open-ended (4).

Procedures

The questionnaire prepared to reveal the thoughts of the students and the instructors about the aspects of the curriculum, was implemented to the study group on the 2nd week of May in the spring semester of 2009-2010 academic year. The reason of this is to get data about all of the dimensions of the implementations of the curriculum.

Data Analysis

According to the state of meeting necessary premises of the data, the data of the survey was analyzed using chi-square from the nonparametric statistical methods. Descriptive statistics are given for the sample in the analysis of the data collected. Chi-square analysis is made for establishing the relations in the subproblems and meanwhile, for determining the differences between the variables. Cramer V and Phi were used for computing the correlation coefficient between the views of the students and the instructors. In the aim of showing the level of the relations between the nominal variables more than 2, Cramer V was needed because Phi number just shows the level of the relation between 2 nominal variables.

Findings

"Video, Listening and Speaking" curriculum implementations were evaluated in terms of the objectives, content, teaching-learning process, physical environment, resource materials and the assessment. However, as part of these studies' limitations, besides the thoughts about the general features of the students and the instructors, the findings and comments related to the significance of the relation between the students' and the instructors' thoughts were issued.

Table 1. *Opinions of the Participants Directed to the Sentences about "Video Listening and Speaking" Lesson*

Item	**Groups**		**Yes**	**Partly**	**No**	**Total**	**Test Statistics**	**Correlation Coefficient**
I think this course is useful for the development of the students.	Student	f	115	155	54	324	$\chi2$ =12,357 P=0,002	Cramer V =0,187 P=0,002
		%	35,5	47,8	16,7	100,0		
	Instructor	f	20	11	0	31		
		%	64,5	35,5	0,0	100,0		
	Total	f	135	166	54	355		
		%	38,0	46,8	15,2	100,0		
I think the students' Listening and Speaking skills improved after taking this course.	Student	f	93	167	64	324	$\chi2$ = 1,706 P=0,426	Cramer V =0,069 P=0,426
		%	28,7	51,5	19,8	100,0		
	Instructor	f	12	15	4	31		
		%	38,7	48,4	12,9	100,0		
	Total	f	105	182	68	355		
		%	29,6	51,3	19,2	100,0		
After taking this course, students' interest to the Listening and Speaking increased.	Student	f	118	123	83	324	$\chi2$ =0,812 P=0,666	Cramer V =0,048 P=0,666
		%	36,4	38,0	25,6	100,0		
	Instructor	f	9	14	8	31		
		%	29,0	45,2	25,8	100,0		
	Total	f	127	137	91	355		
		%	35,8	38,6	25,6	100,0		
After taking this course, one can speak English easily.	Student	f	76	141	106	323	$\chi2$ =0,501 P=0,779	Cramer V =0,038 P=0,779
		%	23,5	43,7	32,8	100,0		
	Instructor	f	9	13	9	31		
		%	29,0	41,9	29,0	100,0		
	Total	f	85	154	115	354		
		%	24,0	43,5	32,5	100,0		
Students tried to reach the objectives of the lesson in the course of the half year.	Student	f	131	144	49	324	$\chi2$ =13,525 P=0,001	Cramer V =0,195 P=0,001
		%	40,4	44,4	15,1	100,0		
	Instructor	f	5	14	12	31		
		%	16,1	45,2	38,7	100,0		
	Total	f	136	158	61	355		
		%	38,3	44,5	17,2	100,0		
Students were coming to the course eagerly.	Student	f	99	146	79	324	$\chi2$ = 1,969 P=0,374	Cramer V =0,074 P=0,374
		%	30,6	45,1	24,4	100,0		
	Instructor	f	6	15	10	31		
		%	19,4	48,4	32,3	100,0		
	Total	f	105	161	89	355		
		%	29,6	45,4	25,1	100,0		

35,5 % of the students and 64,5 % of the instructors participated in the "I think this course is useful for the development of the students." sentence as yes, 47,8 % of the students and 35,5 % of the instructors as partly, and 16,7 % of the students as no as it is presented in the table. After making chi-square test statistics, there was no meaningful difference between the participating ratio of the students and the instructors. While the percentage of the instructors who said yes to the sentence was more, the percentage of the students who said partly or no to the sentence was more. Statistically, a significant correlation coefficient (Cramer V = 0,187, P= 0,002) was obtained between being a student or an instructor and the

responses they gave to this sentence. It can be said that the instructors think the course was useful; on the other hand, the students were not aware of the necessity of the course.

28,7 % of the students and 38,7 % of the instructors participated in the "I think the students' Listening and Speaking skills improved after taking this course." sentence as yes, 51,5 % of the students and 48,4 % of the instructors as partly, and 19,8 % of the students and 12,9 % of the instructors as no. After making chi-square test statistics, there was no significant difference between the participating ratio of the students and the instructors. Responding that sentence mostly as partly by both of the groups can show that after having this course, students' listening and speaking skills partly improved. Hence, it can be said that the course was not effective as it was desired in terms of improving listening and speaking skills.

36,4 % of the students participated as yes, 38 % as partly and 25,6 % as no; 29 % of the instructors participated as yes, 45,2 % as partly and 25,8 % as no to the "After taking this course, students' interest to the listening and speaking increased." sentence. After making chi-square test statistics, there was no significant difference between the participating ratio of the students and the instructors. Both of the groups' responding to this senctence as partly can show that after having this course, their interest did not exactly increase. According to last two findings, it can be said that the cognitive and the sensual effects of the course were not enough.

23,5 % of the students and 29 % of the instructors participated as yes, 43,7 % of the students and 41,9 % of the instructors participated as partly, and 32,8 % of the students and 29 % of the instructors participated as no to the "After taking this course, one can speak English easily." sentence. Participants' responding to the sentence mostly as no shows that they do not completely agree that after having this course, English can be spoken easier. The finding is consistent with the other two findings. So, this situation supports the comment on the insufficiency of the cognitive and sensual effects of the course.

40,4 % of the students and 16,1 % of the instructors participated as yes, 44,4 % of the students and 45,2 % of the instructors participated as partly, 15,1 % of the students and 38,7 % of the instructors participated as no to the "Students tried to reach the objectives of the lesson in the course of the half year." sentence. After making chi-square test statistics, there was a significant difference between the participating ratio of the students and the instructors. While the percentage of the instructors who said partly of no to the sentence was more, the percentage of the students who said yes to the sentence was more. Statistically, a meaningful correlation coefficient (Cramer V = 0,195, P= 0,001) was obtained between the responses of the sentence as being a student or an instructor. While the instructors were giving negative answer relying on the performances of the students in the course, the students could have given opposite answer on the purpose of showing their efforts.

30,6 % of the students and 19,4 % of the instructors participated as yes, 45,1 % of the students and 48,4 % of the instructors participated as partly, 24,4 % of the students and 32,3 % of the instructors participated as no to the "Students were coming to the course eagerly." sentence. After making chi-square test statistics, there was no significant difference between the participating ratio of the students and the instructors. Most of the participants responding to this sentence as partly may have arised from partly sufficiency of the course's sensual effects. This finding is consistent with all of the other findings about this subject.

Table 2. *Opinions of the Participants Directed to the Sentences about "Video Listening and Speaking" Lesson (continued)*

Item	**Groups**		**Yes**	**Partly**	**No**	**Total**	**Test Statistics**	**Correlation Coefficient**
If another instructor had taught this lesson, students could have learnt more.	Student	f	36	67	220	324	$\chi2$ =4,056 P=0,255	Cramer V =0,107 P=0,255
		%	11,1	20,7	67,9	100,0		
	Instructor	f	0	8	23	31		
		%	0,0	25,8	74,2	100,0		
	Total	f	36	75	243	355		
		%	10,1	21,1	68,5	100,0		
This course should be taken whoever teaches it.	Student	f	147	102	74	323	$\chi2$ =9,436 P=0,024	Cramer V =0,163 P=0,024
		%	45,4	31,5	22,8	100,0		
	Instructor	f	22	8	1	31		
		%	71,0	25,8	3,2	100,0		
	Total	f	169	110	75	354		
		%	47,6	31,0	21,1	100,0		
I think this course reached its objectives.	Student	f	81	155	87	324	$\chi2$ =0,614 P=0,893	Cramer V =0,042 P=0,893
		%	25,0	47,8	26,9	100,0		
	Instructor	f	8	13	10	31		
		%	25,8	41,9	32,3	100,0		
	Total	f	89	168	97	355		
		%	25,1	47,3	27,3	100,0		
The things learnt in this course could be used in the others.	Student	f	116	149	59	324	$\chi2$ =0,910 P=0,634	Cramer V =0,051 P=0,634
		%	35,8	46,0	18,2	100,0		
	Instructor	f	9	17	5	31		
		%	29,0	54,8	16,1	100,0		
	Total	f	125	166	64	355		
		%	35,2	46,8	18,0	100,0		
Assessment activities determined the learning levels of the students correctly.	Student	f	71	180	72	323	$\chi2$ =1,411 P=0,494	Cramer V =0,063 P=0,494
		%	22,0	55,7	22,3	100,0		
	Instructor	f	4	19	8	31		
		%	12,9	61,3	25,8	100,0		
	Total	f	75	199	80	354		
		%	21,2	56,2	22,6	100,0		
The activities done in the classroom were sufficient to improve the speaking skills.	Student	f	73	134	118	325	$\chi2$ = 2,935 P=0,230	Cramer V =0,091 P=0,230
		%	22,5	41,2	36,3	100,0		
	Instructor	f	3	16	12	31		
		%	9,7	51,6	38,7	100,0		
	Total	f	76	150	130	356		
		%	21,3	42,1	36,5	100,0		

For the "If another instructor had taught this lesson, students could have learnt more." sentence, 11,1 % of the students participated as yes, 20,7 % as partly and 67,9 % as no; instructors participated 25,8 % as partly, 74,2 % as no. There was no significant difference observed on the participating ratio between the instructors and the students according to the results of the chi-square test statistics. Mainly in the sentence the instructors and the students are both given no answer, can handled as there was no significant difference if another instructor taught the lesson or not. In conclusion, it can be evaluated as that the students were pleased about their instructors. 45,4 % of the students and 71 % of the instructors participated

as yes, 31,5 % of the students and 25,8 % of the instructors participated as partly, and 22,8 % of the students and 3,2 % of the instructors participated as no to the "This course should be taken whoever teaches it." sentence. There was no significant difference observed on the participating ratio between the instructors and the students according to the results of the chi-square test statistics. There was a meaningful difference between the participating ratio of the students and the instructors according to the results of the chi-square test statistics. While the percentage of the instructors who said yes to the sentence was more, the percentages of the students who said partly or no to the sentence were more. Statistically, a meaningful correlation coefficient (Cramer V = 0,163, P= 0,024) was obtained between the responses of the sentence as being a student or an instructor. This finding, which can be commented as the instructors see the course necessary, shows that most of the students perceive this course as unnecessary. This situation is consistent with the finding about the sensual effects of the course. Consequently, it can be thought that the course could not motivate the students enough about the importance and the usage of the speaking skills.

25 % of the students and 25,8 % of the instructors participated as yes, 47,8 % of the students and 41,9 % of the instructors participated as partly, and 26,9 % of the students and 32,3 % of the instructors participated as no to the "I think this course reached its objectives." sentence. After making chi-square test statistics, there was no meaningful difference between the participating ratio of the students and the instructors. In the other findings, both of the participant groups' responses about learning partly something in this course was a small evidence about not reaching the objectives of the course completely in terms of the participants. So, the participants' partly responses about the reaching the objectives of the course can be presented as another evidence for that comment. For the "The things learnt in this course could be used in the others." sentence, 35,8 % of the students participated as yes, 46 % as partly and 18,2 % as no; the instructors participated 29 % as yes, 54,8 % as partly and 16,1 % as no. There was no meaningful difference between the participating ratio of the students and the instructors according to the results of chi-square test statistics. All participants responding to this sentence mostly as partly shows that the students partly used the things they learned in this course in the other courses. Its reason may be coming from that the teachings of the students could not become skilled, and consequently, they could not exactly use these skills.

For the "Assessment activities determined the learning levels of the students correctly." sentence, 22 % of the students participated as yes, 55,7 % as partly and 22,3 % as no; 12,9 % of the instructors participated as yes, 61,3 % as partly and 25,8 % as no. There was no significant difference between the participating ratio of the students and the teachers after making chi-square test statistics. That makes one think that there are problems about the assessment activities because of the statements of the participants about partly correct determination of the assessment activities. Some of these problems were analyzed in the views of the sentences about the assessment of the course. For these reasons, it can be said that the students think that the assessment activities were partly enough for determining the learning levels of the students. For the "The activities done in the classroom were sufficient to improve the speaking skills." sentence, 22,5 % of the students participated as yes, 41,2 % as partly and 36,3 % as no; the instructors participated 9,7 % as yes, 51,6 % as partly, 38,7 % as no. There was no significant difference observed on the participating ratio between the instructors and the students according to the result of the chi-square test statistics. Mainly in the sentence that the instructors and students are both given partly, can be considered as the excercises in class were not enough to improve the speaking skills.

Table 3. *Opinions of the Participants Directed to the Sentences about "Video Listening and Speaking" Lesson (continued)*

Item	Groups		Yes	Partly	No	Total	Test Statistics	Correlation Coefficient
Students' personal features (e.g. shyness, unsociableness, excitement,…etc.) blocked their English speaking.	Student	f	90	130	105	325	$\chi 2$ =13,664 P=0,001	Cramer V =0,196 P=0,001
		%	27,7	40,0	32,3	100,0		
	Instructor	f	16	14	1	31		
		%	51,6	45,2	3,2	100,0		
	Total	f	106	144	106	356		
		%	29,8	40,4	29,8	100,0		
The course improved Listening and Speaking skills endearingly.	Student	f	75	173	77	325	$\chi 2$ = 4,763 P=0,092	Cramer V =0,116 P=0,092
		%	23,1	53,2	23,7	100,0		
	Instructor	f	2	21	8	31		
		%	6,5	67,7	25,8	100,0		
	Total	f	77	194	85	356		
		%	21,6	54,5	23,9	100,0		
The course had the quality of responding personal needs of the students.	Student	f	65	165	95	325	$\chi 2$ =5,856 P=0,054	Cramer V =0,128 P=0,054
		%	20,0	50,8	29,2	100,0		
	Instructor	f	1	21	9	31		
		%	3,2	67,7	29,0	100,0		
	Total	f	66	186	104	356		
		%	18,5	52,2	29,2	100,0		
The activities done during the course helped the students to improve their general English level.	Student	f	91	163	70	324	$\chi 2$ =1,371 P=0,504	Cramer V =0,062 P=0,504
		%	28,1	50,3	21,6	100,0		
	Instructor	f	9	18	4	31		
		%	29,0	58,1	12,9	100,0		
	Total	f	100	181	74	355		
		%	28,2	51,0	20,8	100,0		
The processing of the course helped the students to learn.	Student	f	102	144	79	325	$\chi 2$ = 0,403 P=0,817	Cramer V =0,034 P=0,817
		%	31,4	44,3	24,3	100,0		
	Instructor	f	10	15	6	31		
		%	32,3	48,4	19,4	100,0		
	Total	f	102	144	79	356		
		%	31,4	44,3	24,3	100,0		
I could not notice how the time passed during the lessons.	Student	f	54	136	135	325	$\chi 2$ =20,750 P=0,000	Cramer V =0,241 P=0,000
		%	16,6	41,8	41,5	100,0		
	Instructor	f	15	12	4	31		
		%	48,4	38,7	12,9	100,0		
	Total	f	69	148	139	356		
		%	19,4	41,6	39,0	100,0		
The time for the course per week was sufficient for the subjects to be learnt.	Student	f	98	113	113	324	$\chi 2$ =6,537 P=0,038	Cramer V =0,136 P=0,038
		%	30,2	34,9	34,9	100,0		
	Instructor	f	14	4	13	31		
		%	45,2	12,9	41,9	100,0		
	Total	f	112	117	126	355		
		%	31,5	33,0	35,5	100,0		

For the "Students' personal features (e.g. shyness, unsociableness, excitement,… etc.) blocked their English speaking." sentence, 27,7 % of the students participated as yes, 40 % as partly and 32,3 % as no; the instructors participated 51,6 % as yes, 45,2 % as partly, 3,2 % as

no. There was a significant difference observed on the participating ratio between the instructors and the students according to the results of the chi-square test statistics. Although the ratio of the instructors participated as yes was higher, the ratio of the students participated as partly and no were higher. A statistically significant correlation coefficient (Cramer V = 0,196, P= 0,001) was obtained between the participants according to their being student or instructor, between the answers they had given. Although in students' opinion, characteristic specifications of the students do not prevent them to speak English, in instructors' opinion they do. This situation shows that there is a missunderstanding between the students and the instructors, and the students can not express themselves healthly; therefore, this shows the instructors do not recognize the students well.

For the "The course had the quality of responding personal needs of the students." sentence, 20 % of the students participated as yes, 50,8 % as partly and 29,2 % as no; instructors participated 3,2 % as yes, 67,7 % as partly, 29 % as no. There was no significant difference observed on the participating ratio between the instructors and the students according to the results of the chi-square test statistics. It can be considered as the lessons could not answer the demands of the students precisely and the instructors could not teach the students precisely by means of the partly answer of both the instructors and students.

For the "The activities done during the course helped the students to improve their general English levels." sentence, 28,1 % of the students participated as yes, 50,3 % as partly and 21,6 % as no; the instructors participated 29 % as yes, 58,1 % as partly, 12,9 % as no. There was no significant difference observed on the participating ratio between the instructors and the students according to the results of the chi square test statistics. According to.answers for both of the participant groups, the studies done in the lessons partly inproved the students' English levels. Therefore, it can be considered as the lessons' contribituon for the general English levels was little.

For the "The processing of the course helped the students to learn." sentence, 31,4 % of the students participated as yes, 44,3 % as partly and 24,3 % as no; instructors participated 32,3 % as yes 48,4 % as partly, 19,4 % as no. There was no significant difference observed on the participating ratio between the instructors and the students according to the results of the chi-square test statistics. The participants' opinions show that the processing of the course partly provided the students' learning.

For the "I could not notice how the time passed during the lessons." sentence, 16,6 % of the students participated as yes, 41,8 % as partly and 41,5 % as no; the instructors participated 48,4% as yes, 38,7 % as partly, 12,9 % as no. There was a significant difference observed on the participating ratio between the instructors and the students according to the results of the chi-square statistics. Although the ratio of the instructors participated as yes was higher, the ratio of the students participated as partly and no, were higher. Statistically, a significant correlation coefficient (Cramer V= 0,240, P= 0,001) was obtained between the answers of the participants according to being a student or an instructor. The finding can be considered as the instructors could not realize the time during the course because of being in a hurry to catch the programme and because of feeling bored feeling of the students the lesson passed difficult for them.

For the "The time for the course per week was sufficient for the subjects to be learnt." sentence, 30,2 % of the students participated as yes, 34,9 % as partly and 34,9 % as no; the instructors participated 45,2 % as yes, 12,9 % as partly, 41,9 % as no. There was a significant difference observed on the participating ratio between the instructors and the students according to the results of the chi-square test statistics. Although the ratio of the instructors participated as yes was higher, the ratio of the students participated as partly and no was

higher. Statistically, a significant correlation coefficient(Cramer V = 0,240, P= 0,001) was obtained between the answers of the participants according to being a student or an instructor. While the instructors' gave completely opposite opinions about the time, the students' thought that the time was enough. This difference could be caused because of the different times changing according to the subjects.

Conclusion and Recommendations

Considering the sentences about the course, while the instructors see the course beneficial for the development of the students, students are in the view of that the course is not beneficial, listening and speaking skills do not improve sufficiently, the course does not exactly increase the interest in English listening and speaking and just after taking this course, English can not be spoken easily. Even though it is seen that the students do not attend the course due to the absenteeism being taken, but because of trying to reach the objectives of the course, and making the course more attractive will make them to come to the classes more eagerly. It is seen that if another instructor teaches the course, that will not change the development level of the students; the students do not see this course necessary; although the instructors think that this course teaches partly something and it partly reaches its objectives, they believe that this course should be taken whoever teaches it. Results show that the students can transfer the things they learned in this course to the other courses. Evaluation activities do not seem to be determining correctly and the exercises done in the classes are not seen adequate; furthermore, differently from the students, the instructors think that the students' personal features block their English speaking. Another interesting result is that both of the groups suppose that 1 year education for gaining speaking skills in a foreign language is not enough.

Suggestions

In the curriculum designs, which will be prepared for the preparatory classes in foreign languages, this and similar surveys' results should be seen as a needs analysis, and the objectives, content, teaching learning process and assessment should be organized considering the principles of the process of the curriculum. The designed curriculum, which was organized separately for the Basic and the Regular groups, should be experimented in the classes as a pilot study, and generalized into the other classes after removing the mistakes and the drawbacks. Furthermore, curriculum development studies should be rendered as constant by setting up a Research and Development (R&D) unit at the School of Foreign Languages.

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The Effectiveness of a Social Story Intervention in Decreasing Problem Behavior in Children With Autism Spectrum Disorder

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Abstract

This study explores whether or not Social Stories Intervention Strategy has positive effects decreasing problem behaviour of children with autism. Participants were ten children between the ages of seven and nine who attended a center for autism. A pre- post design was used to examine the effectiveness of the social stories Intervention Strategy on decreasing problem behaviour of the target children. Findings from this study indicated the effectiveness of the social stories intervention employed in teaching the target children problem behaviour. On the basis of the findings, the study advocated for the effectiveness of the social stories intervention employed in teaching the target children problem behaviour.

***Keywords*:** Social stories, problem behaviour, children with autism

Introduction

According to Adel Abdullah Mohammed & Mourad Ali Eissa (2014), it is estimated that 1 in 88 children has been identified as having autism. The American Psychiatric Association (2000) describes communication, social development, and emotional regulation as core features of autism. These challenges can put this population of children at an increased risk of developing maladaptive behaviours to express their feelings. These problem behaviours may be reinforced by the attention they receive, leading the child with autism to continue to use them as they know no other way to get their needs met.

Given the unique learning needs of individuals with autism, social stories may provide an effective strategy to improve social competence. Carol Gray, a special education teacher, developed social stories in order to enable individuals with an autistic spectrum disorder to "read, interpret, and respond effectively to their social world" (Gray, 1994, p.5). A social story is a concise narrative about a situation, concept, behavior, or social skill that is written and implemented according to specific guidelines. Social stories are designed to bring predictability to a situation by providing specific and relevant social cues as well as defining the appropriate responses to a social situation (Adel Abdulla Mohammed & Mourad Ali Eissa, 2014).

Behavior Problems in Individuals with Autism

Aggression, property destruction, disruptions/tantrums, self-injury, and stereotypies are the primary challenging behaviors for children with autism (Horner, Carr, Strain, Todd, & Reed, 2002). For children with autism, problems associated with behavior in the classroom are common (Moyes, 2002).It has been determined, as discussed earlier, that communication difficulties are one of the principal areas of deficit for children with autism, with behavioral problems and social skills deficits being two other characteristics of the disorder. There is increasing acknowledgement of the fact that there is a strong correlation between the communication difficulty experienced by children and the number of behavioral problems they may display (Hodgdon, 1995), so it seems likely that a principal reason why children with autism may be displaying inappropriate behaviors is that they do not understand what appropriate behavior for the given situation would entail due to their difficulties with communication, especially receptive communication.

The challenge when teaching social skills to children with autism is that the teacher and the child are working from two different perspectives. It is important that the technique employed approach learning from the child's perspective, helping the child identify what behaviors are important, and why the behaviors are important. The approach needs to be from the child's perspective due to the fact that autistic children have trouble taking another

person's perspective (lack of "theory of mind") (Mundy et al., 1993). Autistic children need to learn social skills relevant to their own experiences so they can better understand what behavior is desired (Gray, 1995). The Social Story intervention (Gray & Garand, 1993; Gray, 1994) was developed to provide individuals with autism with the information they are missing so that they can interact appropriately in social situations.

Social Stories and Individuals with Autism

Social Stories are written only after the behavior(s) and the setting have been thoroughly observed (Gray & Garand, 1993; Gray, 1995; Gray, 2000). Gray (1995) explained a 3- step process for observing. First, at least one observation is required to thoroughly record when and where the problem behavior occurs, who is present, the routines taking place, the rules of the setting, the social cues given, signals for beginning and ending an activity, and any other observable data. Second, those people who are present each day in the setting are interviewed to determine how changes in time of day, routines, or expectations influence the behavior observed. Third, the observer is to consider the series of events observed, as they could be experienced by the student for whom the story is intended. Gray (1995) regarded this last step as critical for writing successful Social Stories, because it assists in "determining the focus of the social story" and helping the writer to "decide which aspects of a situation take priority".

Thus, developing a social story begins by identifying: (a) the problem behavior(s) (e.g., hitting, kicking, talking out, etc.), (b) the new behavior(s) to be taught (e.g., standing in line without touching others), and (c) the situations(s) where this lesson would benefit the person most (e.g., lining up with his or her classmates) (Gray & Garand, 1993).

A growing body of literature has examined the effectiveness of social stories with individuals with autism. Existing literature showed that social stories were effective in decreasing aggressive behavior (Adams, Gouvousis, Van Lue, & Waldron, 2004; Gray & Garand, 1993; Romano, 2002; Rowe, 1999), increasing appropriate behaviors (Agosta, Graetz, Mastropieri, & Scruggs, 2004; Kuoch & Mirenda, 2003, Smith, 2001), increasing the use of appropriate social skills (Barry & Burley 2004; Hagiwara, 1999; Pettigrew, 1998), increasing greeting behavior and initiation of play activities (Feinberg, 2001), increasing on-task behavior (Brownell, 2002), increasing appropriate meal-eating behavior (Staley, 2001; Adel Abdulla & Amal Mostafa ,2012) and decreasing precursors of tantrum behaviors (Simpson & Myles, 2002).

Collectively, these studies showed that social stories can improve a wide range of behavior among individuals with ASD (Crozier & Sileo, 2005). The purpose of the present study was to examine the extent to which social stories can be used to decrease problem behaviour of ten children with ASD. The primary research question was, what effects will social stories have on problem behaviour of children with autism?.

Method

Participants

Participants were ten children between the ages of seven and nine who attended a center for autism . Parental informed consent forms were sent home by the center director to parents of potential participants telling them about the study and requesting them to give permission for their children to participate. Through a previous comprehensive psychological evaluation each targeted child had received a primary diagnosis of Autistic Disorder. All children were also capable of communication using speech assessed through a combination of teacher report and observation. They were so-called high functioning.

Each child also had the following characteristics: (a) meet the full criteria for autism according to The Scale for Screening Autism Disorder(Mohammed, 2003), (b) functional verbal communication, (c) able to read and comprehend words, and (d) ability to follow directions.

Measure

Problem Behavior scale (Logsdon, 2012). The *Problem Behavior scale* includes 42 items on two subscales: (a) externalizing problems and (b) internalizing problems. Internal consistency reliabilities was .96 for the scale total and from .81 to .95 for the subscales.

Procedure

Problem behavior level of each child was measured on Problem Behavior scale. The assessment was done in an environment familiar to the children and during their usual intervention time. Treatment consisted of using social stories to decrease problem behaviour. The pretest scores were analyzed to ensure parity among the children.

Each child in the treatment group received 14 teaching sessions. The duration of each session would be from 15 minutes to 20 minutes, depending on child's capacity. While treatment group children received the training using social stories ,the control group continued with usual special classroom interventions. At the completion of the treatment session, children from both groups were tested again on Problem Behavior Scale.

Results

Social stories and problem behaviour

The first objective of the study was to determine if use of social stories would be more effective for the treatment group compared to the control group .For this purpose, the post intervention scores of both treatment and control groups were analyzed. Table 1. shows Z Value results for the differences in post- test mean rank scores between experimental and control groups in problem behaviour scale. The table shows that (Z) values were(-2.739)for social cooperation,(-2.660)for social interaction, (-2.668)for social independence, and (-2.635)for the composite score. These values are significant at the level (0.05) in the favor of experimental group.

Table 1. *Z Values results for the differences in post- test mean rank scores between experimental and control groups in problem behaviour*

Variables	**Groups**	**N**	**Mean Ranks**	**Sum Ranks**	**Mann-whiteny**	**Z Value**	**Sig**
Externalizing	Control	5	8	40	Zero	-2.635	0.05
Problems	Experimental	5	3	15			
Internalizing	Control	5	8	40	Zero	-2.635	0.05
Problems	Experimental.	5	3	15			
Composite	Control	5	8	40	Zero	-2.611	0.05
	Experimental	5	3	15			

The second objective of the study was to determine the effect of social stories on the development of social skills in children with autism. The treatment consisted of training through use of social stories. The children's problem behaviour was measured pre and post intervention. Table 2. shows Z Value results for the differences in pre- post- test mean rank scores for the experimental group in problem behaviour scale. The table shows that (Z) values were(-2.041)for externalizing problems,(-2.060) for internalizing problems, and (-2.060)for

the composite score. These values are significant at the level (0.05) .This indicates that use of social stories had a positive effect on decreasing problem behaviour in children with autism.

Table 2. *Z Values results for the comparison of mean rank scores of experimental group at pre- and post intervention in problem behaviour*

Variables	Negative Ranks		Positive Ranks		Z Value	Sig.
	Mean	Sum	Mean	Sum		
externalizing problems	3	15	Zero	Zero	-2.041	0.05
internalizing problems	3	15	Zero	Zero	-2.060	0.05
Composite	3	15	Zero	Zero	-2.060	0.05

Discussion

The present study evaluated the effects of social stories intervention on problem behaviour of children with autism. The study results showed that the social story intervention was effective in decreasing externalizing problems, and internalizing problems of all children participated in this study. The social stories developed for the study were written according to the Gray's guidelines (1993).

The present study contributes in several ways to the effectiveness of social story literature. First, findings from this study demonstrate the potential benefits of using the social story intervention as the sole intervention to decrease problem behaviour of children with autism. The results of this study were similar to those found previously for children with autism populations (Crozier, &Tincani,2005;Cullain,2000; Kuttler, Myles& Carlson, 1998; Romano, 2002). Second, pre- post experimental design was used in the present study. Many studies on the effectiveness of social stories have used nonexperimental designs that are plagued by threats to internal and external validity (Kuoch and Mirenda, 2003; Reynhout and Carter, 2006).

Furthermore, the children in this study did not receive any type of reinforcement or behavior modification strategies while participating in the sessions. Removing strategies such as prompting techniques, token systems, and other reinforcement systems reduced the potential for confounds within the study. Therefore, one can conclude that the social story intervention was primarily responsible for the change in problem behaviour of children participated in the study .

In summary, social stories effectively decreased problem behaviour of the children who participated in this study. Overall, results from this study contribute to the social story literature for decreasing problem behaviour of children with autism. The present study lends empirical support to the notion that children with autism, specifically young children with autism, can be taught and can learn appropriate behaviour.

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Barriers in Information and Communication Technology (ICT) Use in Educational Environments Scale

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Abstract

Integration of technology into teaching-learning process is crucial for effective and permanent learning. This importance has been increasing through the development and extension of information and communication technologies (ICTs) and has become obligatory. However, it cannot be said that technology has reached the desirable level in integration into teaching-learning environments. Although there are numberless factors which affect this case, the literature has highlighted educators' attitudes, self efficacy perceptions, insufficient incentives, lack of hardware and so on. There have been validity and reliability studies in the literature that aimed at integration of instructional technologies into classrooms in Turkey and at exploration of barriers to use of technology, but no Turkish scale has been found. This is the main reason for the research which aims at validity and reliability analyses of the "Difficulties in ICT Use in Educational Environments Scale". As a result of the study, a measurement tool is developed. The tool is called "Difficulties in ICT Use in Educational Environments Scale", which consists of a total of 13 items grouped under the following headings: "Poor Infrastructure/Hardware", "Insufficient Information Resources" and "Personal Incapability".

Keywords: Instructional technologies, integration of technology, barriers to use of technology

Introduction

Today, information and communication technologies have long been used in education as in other fields since they provide different opportunities for creating learning environments ideal for student needs. The current case requires integration of technology into educational environments. Educational organizations need to develop prospective goals and strategies and put them into practice in a planned manner in the light of the current case to provide effective integration of ICTs into educational environments and maximum use of technologies (Göktaş, 2006; Yiğit, Zayit and Yıldırım, 2002). The prior condition for integration of technology is solid infrastructure, but that is not enough on its own. Teachers need to adopt instructional technologies (Zayim, Yıldırım, Saka, 2005).

Teachers have the greatest role in this sense. Without teacher involvement, students cannot benefit from the available technology on their own. Teachers need to play roles such as guiding for effective use of ICTs in education, helping students and leading them (Kınık, Altınkaya and Ertepınar, 2012). Achievement in the process can be accomplished thanks to effective integration of technology into lessons by teachers. Ertmer and et al. (1999) have suggested that there are problems in synchronization of ICTs with teaching-learning process although the number of ICTs in schools has increased. The followings are barriers to ICTs which limit their use in schools: teachers' incapability to diversify the available teaching methods with the help of instructional technologies, lack of satisfactory educational software in schools, lack of technical support, negative attitudes of teachers towards instructional technologies and so on (Buttler and Sellbom, 2002; Ertmer and et al., 1999). A study has concluded that primary school teachers hardly use new instructional technologies in schools, computers and computer technologies that facilitate student learning by creating various opportunities in teaching-learning process. The same research has also shown that the greatest factors that hinder classroom teachers' use of ICTs in primary schools are crowded classrooms, arrangement of classrooms, teachers' lack of information and skills, and negative attitudes of school administration (Adıgüzel, 2010; Yıldırım, 2007). Also, Yıldırım (2007) has reminded that low attitudes of teachers towards use of technologies and lack of technical support are among the factors that hinder use of instructional technologies in schools. It is

stated in the literature that Turkish teachers do not have enough information about developing quality educational software eligible for use in teaching process and assessing software for educational intentions (Cüre and Özdener, 2008; Çakıroğlu, Güven and Akkan, 2008; Kuşkaya-Mumcu and Koçak-Usluel, 2004).

In a study, Schoepp (2005) defines difficulties of technology integration into teaching-learning process under different headings. These are inadequate computers, lack of quality software, insufficient time, technical problems, teacher attitudes towards computers, economic issues, poor belief in teachers, resistance to change, poor support by school administration, ineffective computer skills, computer program full adjustment difficulty, insufficient incentives, programming difficulties, poor educational opportunities and lack of vision.

It is possible to see that factors that influence integration of technology into teaching process and effective use in classrooms are variously categorized in different sources. Another categorization is grouped under the following headings: "resistance to change", "teacher attitudes" and "professional development" (Kerka, 1998; Semary, 2011).

When all the negative factors are considered, it can be suggested that teachers face various difficulties in the integration process of ICTs into educational environments. Expressions of these difficulties by teachers as implementers in educational environments are important in terms of constructive suggestions for overcoming difficulties.

When modern curricula are examined, we see that teachers are asked to create learning environments ideal for students with different experiences, characteristics and skills by using ICTs because different fields entail different contents and teaching these contents requires variable pedagogical approaches (Bozkurt and Cilavdaroğlu, 2011). Teachers are expected to have competency (MEB, 2009). In order to achieve this, teachers need to be open to changes in integration of technological opportunities into classroom activities, notice the role of ICTs in teaching environments, have computer skills as well as information and skills for instructional use of information and communication technologies, and cooperate with colleagues for instructional use of ICTs (Becker, 1994; Chiero, 1997; Evans-Andris, 1995).

For integration of technology into education, exploring difficulties of ICT use in teaching-learning process experienced by teachers might make significant contributions to pre-service or in-service training program development to support ICT skills. Furthermore, revealing such difficulties in practice faced by teachers will enrich the literature that mostly searches teacher attitudes towards ICTs. Although teachers have positive expectations and perceptions about technology, exploring reasons why technology is not used in teaching-learning process at a desirable level will lead to both a more meaningful use of those technologies and a more rational ongoing cost management (Gür, Özoğlu and Başer, 2010). As the number of computers in schools increases, exploring computer use levels and factors that hinder computer use for educational purposes becomes more significant. When the literature is reviewed, it is obvious that there has not been a valid, reliable measurement tool in this field.

The research aims at validity and reliability analyses of the scale developed to explore difficulties of ICT use in educational environments experienced by teachers.

Method

In this section, the development process and validity and reliability analyses of the "Difficulties in ICT Use in Educational Environments Scale" are presented.

Study Group

The study group consisted of 286 teachers randomly chosen among primary and secondary school teachers working in Kocaeli, Aydın, Van and Muş provinces during the spring semester of the 2012-2013 academic year. The participants were included in the research based on voluntarism. 68 (23,8%) of the teachers included in the sample worked in Aydın; 97 (33,9%) in Kocaeli; 56 (19,6%) in Van and 65 (22,7%) in Muş. 130 (45,5%) of the participants included in the sample were male, and 156 (54,5%) were female teachers. A total of 286 teachers were included in the sample.

Data Gathering Tool Development

The study made use of a 3-point-Likert type survey items developed by Zayim, Yıldırım and Saka, (2005; 2006) and Gülbahar and Güven (2008) for their research. The survey items designed to explore the main sources of barriers to use of technology in teacher training were rearranged for research purposes. The number of items in the prepared form in the research was 19. The 3-point-form including response options of "I disagree", "I am not sure" and "I agree" were directly given to 286 teachers in the study group and all the forms were received for consideration.

Exploratory factor analysis based on principal component analysis was employed to study construct validity of the scale. In the analysis, the minimum factor loadings of the items to be included in the scale was 0, 40 (Çokluk, Şekercioğlu and Büyüköztürk, 2012). In order to study construct validity, first the obtained data were tested for factor analysis. To this end, Kaiser-Meyer-Olkin (KMO) coefficient was calculated. Also, Bartlett test was employed to examine whether the given data were presenting a multivariable normal distribution. The minimum factor loading to decide whether the items should stay in the scale was .40 in the exploratory factor analysis. There is a common view in the literature that the minimum factor loading of an item should be 0.30, but some other theorists claim that should be 0.40 (Şencan, 2005).

The model defined by the exploratory factor analysis results was tested by confirmatory factor analysis and confirmatory factor analysis was employed to decide whether the construct was valid.

In the research, structural equation modeling was used to decide to what extent correlational structures between items were matching the actual data. The most widely used fit indexes for model fit assessment are as follows: Chi Square Goodness of Fit Test (χ^2) Root Mean Square Error of Approximation (RMSEA), Goodness of Fit Index (GFI), Adjusted Goodness of Fit Index (AGFI) (Jöreskog and Sorbom, 1993; Cited by Anıl, 2011). Other goodness of fit measurers are Comparative Fit Index (CFI), Non Normed Fit Index (NNFI) values (Cheng, 2001; Cited by Anıl, 2011). As a result of confirmatory factor analysis of the "Difficulties in ICT use in Educational Environments Scale", χ^2/df ratio was assessed taking RMSEA, NNFI, CFI and GFI/AGFI into consideration.

The acceptable range suggested by Schermelleh-Engel, Moosbrugger & Müler (2003) for goodness of fit indexes in the data-model fit assessment and confirmatory process of a given hypothesis (Anıl, 2011) is presented in Table 1. Suggested acceptable ranges for goodness of fit indexes in the data-model fit assessment and confirmatory process of a given hypothesis

Table 1. *Standard Goodness of Fit Criteria*

Fit Indexes	Good Fit	Acceptable Fit
χ^2/df	$0 \leq \chi^2/df \leq 2$	$2 \leq \chi^2/df \leq 3$
p	$0,05 < p \leq 1,00$	$0,01 \leq p \leq 0,05$
RMSEA	$0 \leq RMSEA \leq 0,05$	$0,05 \leq RMSEA \leq 0,10$
NNFI	$0,97 \leq NNFI \leq 1,00$	$0,95 \leq NNFI \leq 0,97$
CFI	$0,95 \leq CFI \leq 1,00$	$0,90 \leq CFI \leq 0,95$
GFI	$0,95 \leq GFI \leq 1,00$	$0,90 \leq GFI \leq 0,95$
AGFI	$0,90 \leq AGFI \leq 1,00$	$0,85 \leq AGFI \leq 0,90$

(*Source*: Schermelleh-Engel, Moosbrugger & Müler, 2003)

Cronbach-Alpha internal consistency coefficient was calculated to decide sub-factoral reliability of the scale of "Barries to Technology Use in Education".

Findings

Validity and reliability analyses were respectively performed for the data obtained from the study group in order to develop the "Difficulties in ICT Use in Educational Environments Scale". First of all, Kaiser-Meyer-Olkin (KMO) and Bartlett's Test of Sphericity results were examined to test whether the data were eligible for factor analysis. Tavşancıl (2005) highlights the fact that KMO value ranging from 0.70 to 0.80 can be considered as "moderate", "good" from 0.80 to 0.90 and "excellent" above 0.90. In the study, KMO value was taken as 0,89 (Table 2). Bartlett's Test of Sphericity value was found significant [χ^2=1934,142; p<0,001]. As a result of these obtained values, it was decided that the data set was eligible for exploratory factor analysis.

Table 2. *KMO and Bartlett's Test Results*

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		**,892**
Bartlett's Test of Sphericity	Approx. Chi-Square	1934,142
	df	171
	Sig.	,000

Exploratory factor analysis and confirmatory factor analysis were respectively employed to study construct validity of the "Difficulties in ICT Use in Educational Environments Scale". Results of exploratory factor analysis of the "Difficulties in ICT Use in Educational Environments Scale" are presented in Table 3. The table shows factor construction, eigenvalues of the factors, explained variance and rotated factor loadings of the items with Varimax rotation method, all obtained as a result of the performed exploratory factor analysis. The table also presents corrected item-total correlations.

As it is clear from Table 3, there are seven items in "Poor Infrastructure/Hardware", the first defined factor of the "Difficulties in ICT Use in Educational Environments Scale". Factor loadings rotated with Varimax rotation method ranged from 0.56 to 0.81. When the item-total correlations of the items in this factor are examined, it is seen that they ranged from 0.54 to 0.70.

Table 3. *Exploratory factor analysis results for Difficulties in ICT Use in Educational Environments Scale*

	Rotated Factor Loadings			Corrected Item-Total Correlations
	Factor 1	**Factor 2**	**Factor 3**	
Poor Infrastructure/Hardware				
M1.	,81			,67
M2.	,80			,70
M3.	,77			,67
M4.	,74			,65
M5.	,61			,62
M6.	,59			,54
M7.	,56			,57
Cronbach's Alpha : ,86 Eigenvalue : 3,76 Explained Variance : 28,95				
Insufficient Information Resources				
M8.		,80		,55
M9.		,80		,55
M10.		,62		,46
Cronbach's Alpha : 0,70 Eigenvalue : 2,14 Explained Variance : 16,52				
Personal Incapability				
M11.			,77	,37
M12.			,74	,50
M13.			,64	,40
Cronbach's Alpha : 0,62 Eigenvalue : 1,82 Explained Variance : 14,02				

Explained variance of the factor was 28,95%. Cronbach's Alpha reliability coefficient was found 0,86. There are totally three items in "Insufficient Information Resources", the second factor of the scale. Factor loadings rotated with Varimax rotation method ranged from 0,62 to 0,80. Item-total correlations of the items in this factor ranged from 0,46 to 0,55. Explained variance of the factor was 16,52%. Cronbach Alpha reliability coefficient of the second factor was 0,70.

There are totally three items in "Personal Incapability", the third defined factor of the scale. Rotated factor loadings of this factor ranged from 0,64 to 0,78. Item-total correlation coefficients ranged from 0,37 to 0,51. Explained variance of the factor was found 14,02%. Cronbach Alpha reliability coefficient of the third factor was calculated as 0,62. Total explained variance of the scale was found 59,5. When the scientific research in the literature is generally considered, it is seen that categorization of difficulties in technology use in education overlaps with the factors of the study defined as difficulties caused by Poor Infrastructure/Hardware, Insufficient Information Resources, and Personal Incapability.

Confirmatory factor analysis of the "Difficulties in ICT Use in Educational Environments Scale"

As a result of the exploratory factor analysis of the "Difficulties in ICT Use in Educational Environments Scale", as mentioned above, a total of three factors that consisted of 13 items appeared. When the exploratory factor analysis results of the 13-item-scale construction were assessed, χ^2/df ratio was found 2.56 (χ2/df=158,82/62). When considered with the given table, it is seen that χ^2/df=2.56 falls into the acceptable goodness of fit range, as suggested by Schermelleh-Engel, Moosbrugger and Müler (2003).

Root Mean Square Error of Approximation (RMSEA) was found = 0,074. The value had an acceptable goodness of fit since it was in the range of 0,05-0,10. As a result of the exploratory factor analysis, Goodness of Fit Index (GFI) was found 0,921. It could be suggested that the value had an acceptable goodness of fit as it was in the range of 0,90-0,95. Adjusted Goodness of Fit Index (AGFI) was found 0.884. The value had an acceptable goodness of fit as it was in the range of 0,85-0,90. Comparative Fit Index (CFI), another goodness of fit measurer, was found 0.967. The model was considered to have goodness of fit since the value was in the range of 0,95-1,00. As a result of the analysis, Non Normed Fit Index (NNFI) was found 0.959. It could be suggested that the value had an acceptable goodness of fit as it was in the range of 0,95-0,97.

When the correlations between the factors are examined (Chart 1), it is seen that there is a two way correlation of 0,88 between "Poor Infrastructure/Hardware" (F1) and "Insufficient Information Resources" (F2). Again, there is a two way correlation of 0,94 between "Insufficient Information Resources" and "Personal Incapability" (F3) and another of 0,80 between "Poor Infrastructure/Hardware" and "Personal Incapability".

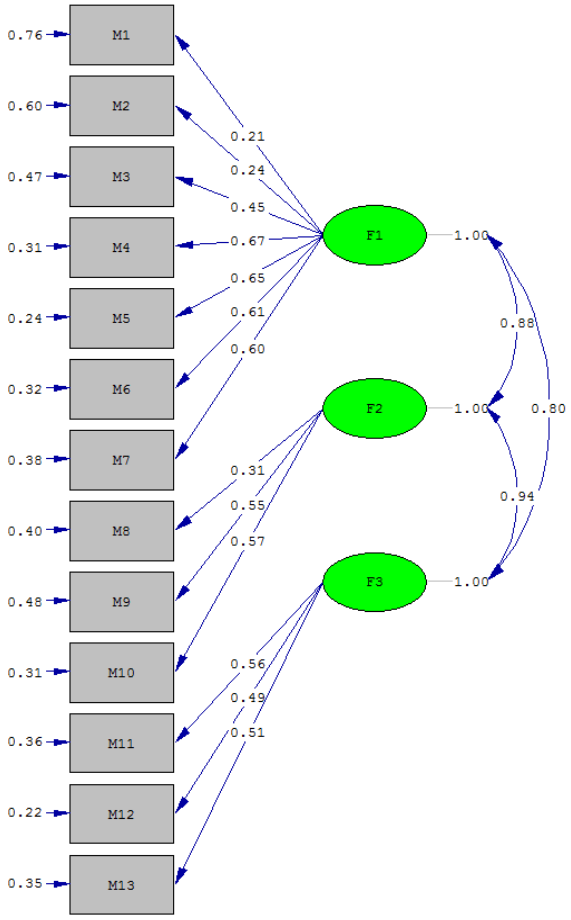

Figure 1. *Pattern Chart of "Difficulties in ICT Use in Educational Environments Scale"*

Results

The research aimed at the development of a valid, reliable data gathering tool to explore difficulties in ICT use in educational environments experienced by teachers. The scale was applied to 286 teachers in Kocaeli, Aydın, Van and Muş provinces.

Validity and reliability analyses of the scale were performed with the obtained data. As a result of exploratory factor analysis, it was determined that the scale items were grouped under three factors; Poor Infrastructure/Hardware (7items), Insufficient Information Resources (3 items) and Personal Incapability (3 items).

Confirmatory factor analysis was performed over the 13-item-construction of the "Difficulties in ICT Use in Educational Environments Scale", grouped under three factors as a result of the exploratory factor analysis. As a result of the confirmatory factor analysis of the scale, χ^2/df ratio was evaluated through GFI/AGFI, RMSEA, CFI and NNFI and all the indexes were proved to be enough for the model fit. Hence, it was decided that the revealed construction was confirmed. Also, the calculated internal consistency coefficients (0,86 for "Poor Infrastructure/Hardware"; 0,70 for "Insufficient Information Resources" and 0,62 for "Personal Incapability") showed that the scale was reliable.

As a result, the "Difficulties in ICT Use in Educational Environments Scale" has a total of 13 items and all the items are graded as "I agree (1), I am not sure (2), I disagree (3)". With an overall assessment of the data for validity and reliability of the scale, it could be suggested that the scale is a valid, reliable tool that can be used to explore difficulties in ICT use in educational environments experienced by teachers. It can also be said that the scale

developed according to the obtained findings will fill the gap in the literature and is a sufficient measurement tool for further studies. It is thought that the available scale can be used to explore difficulties in ICT use in educational environments experienced by teachers and to determine whether these difficulties vary according to demographic factors.

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The Effectiveness of Mental Imagery upon Sport Imagery of Middle Schools Students in Futsal

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Abstract

This study explores whether or not mental imagery has positive effects sport imagery of middle schools students in futsal. Participants were ten middle schools students. A pre- post design was used to examine the effectiveness of mental imagery on sport imagery. Findings from this study indicated the effectiveness of mental imagery on sport imagery of the target athletes. On the basis of the findings, the study advocated for the effectiveness of mental imagery on sport imagery.

***Keywords*:** Mental imagery, sport imagery, Futsal, middle schools students

Introduction

Mental imagery is the cognitive rehearsal of a physical skill in the absence of overt physical movement. This imagination leads to creation of nerve impulses similar to those generated during real performance. Along with learning skills and achieving a higher level of performance, creating coordination between the mind and the body gains importance. Sport and exercise psychologists have discussed the importance of controlling attention and thought and people use various techniques in sport situations including imagery which is perhaps the most wide-spread technique in this regard. This mental technique helps the athlete in improving performance, concentration, self-confidence, practicing strategies, and maintaining fitness at the time of fatigue and injury (Orlick & Partington, 1988).

Sport psychologists have also tried to measure self-confidence, self efficiency and mental imagery ability and examine the relationship between these factors and success or failure of athletes. This suggests that athletes have different levels of psychological ability. In other words, some athletes have higher imagery ability and this can overshadow their success in competitions(Zeinab Zivdar et al., 2012).

Block (1981) identified human imagery, the use of visualization to imagine situations, as one of the most important topics in cognitive science. Two general theories were evolved.

- The first states that when we imagine a scene in our minds eye, we are scanning an actual image that has somehow formed in our brain. This is not to say that a brain surgeon could find actual physical pictures lodged in our brains, but that the images are as real to us as an image taken from the retina of the eye. This position is held by the so called pictoralists.

- The second, position is that of the descriptionist. The descriptionist argues that there is no such thing as a mental image. That is when we imagine, but the graphic and detailed nature of our language makes it seem so. Our thoughts, as it were, actually manufacture an image so clear that we think we are seeing one.

According to Henschen (2005), often imagery is thought of as synonymous with visualization, but this is inaccurate. Visualization is only one form of imagery. Most athletes are both visual and kinesthetic (feelers) imagers. Strangely enough, the more skilled an athlete becomes normally the more a “feeler” they become. The use of imagery as a mental training technique allows performers to draw on their imagination to prefect their performance.

Smith (1987) identified five basic principles of the application of imagery in sport.

These five principles include:

 Imagery skills can be developed.

 The athlete must have a positive attitude relative to the effectiveness of imagery.

 Imagery is most effective when used by skilled athletes.

 Knowing how to relax is a necessary precursor to the effective use of imagery

 There are two kinds of imagery, internal and external.

Many of the research studies carried out during recent decades have offered greater scientific insight into mental imagery. Feltz (2007) showed that mental techniques are the most widely used techniques for improving performance of athletes in competitive situations. Orlick and Partington (1989) identified elements of success as quality training, simulation training, quality imagery, daily goal setting, precompetition planning, competition focus planning, competition evaluation procedures, and distraction control. Hans et al. (1987) reported that high-level athletes have higher self-confidence, less anxiety, higher mental imagery ability, and greater commitment. Further, Jackson et al. (2004) showed that mental practice, when combined with physical practice, can improve the performance of a sequential motor skill in people who had a stroke.

In an experiment conducted by Roure et al. (1998), they found six specific autonomic nervous system (ANS) responses that correlated with mental rehearsal, thereby improving sports performance. The subjects were placed into an imagery group and a control group. The task measured in each group was based on their ability to pass an opponents serve to a given teammate, in the sport of volleyball. The experimenters measured the variations of the ANS during the motor skill and during the mental rehearsing sessions. The ANS parameters tested included: skin potential and resistance, skin temperature and heat clearance, instantaneous heart rate, and respiratory frequency. The results of the test revealed a strong correlation between the response in the actual physical tasks (both pre- and post-test volleyball) and during the mental imagery sessions. There existed a difference in the skills between the imagery and the control group, the former being the better. In addition, no clear difference was present between the pre- and post- tests in the control group. This study showed that mental imagery induces a specific pattern of autonomic response. These include: decreased amplitude, shorter duration and negative skin potentials when compared to the control group. As a consequence of the ANS, the imagery group was associated with better performance. In light of this experiment, Roure suggested that metal imagery may help in the construction of schema which can be reproduced, without thinking, in actual practice.

In a study which examined the effects of mental imagery on performance enhancement with 7-10 year old children (Orlick et al. , 1992), table tennis players were divided into three groups. The results indicated that the children who used mental imagery had significant improvement in the accuracy and quality of their shots compared with the control group. This study shows that mental imagery training for children can be beneficial.

The Beilock et al. (2001) study involved 126 novice golfers who were either assigned to a no-imagery control group or to one of six imagery type groups. The results showed that the accuracy of the imagery group improved regardless of imagery frequency (Beilock et al., 2001).

Mohd et al. (2009) investigated the effectiveness of imagery and coping strategies in sport performance. Participants were 106 person, both male (n=42) and female (n=64) aged between 17 and 45 years old who represented the different level of participants of sport. Participants completed the SIQ questionnaires to measure imagery skill while using ACSI-28 questionnaires to measure coping skill. Result showed Malay respondents is the higher interested in the study are 79 persons. Meanwhile, sports involved of respondents are others sport (archery, football/futsal, netball, rugby, hockey and athletics) which are 50%. The most level of age participated are 21 to 24 years old. Most probably, in this age level, some of them represented for national (n=38) and state (n=46).

The primary research question was, what effects will mental imagery have upon sport imagery of middle schools students in Futsal.

Method

Participants

The subject sample consisted of 10 preparatory school students boys, from grades one – to three. The age range of the participants was 13 to 15 years. For the study, athletes(students) were required to participate in both practices and competitions in Futsal .The athletes that participated in the study responded to an invitation to participate in a mental-skills training program. Informed consent was obtained from all of the participants.

Measure

Sport Imagery Questionnaires (SIQ). Hall, Mack, Paivio and Hausenblas (1998) developed the Sport Imagery Questionnaires (SIQ) for the purpose of measuring how an athlete uses imagery. The Sport Imagery Questionnaires (SIQ; Hall et al., 1998) assesses the frequency with which participants engaged in five types of imagery: CS (Cognitive Specific- specific skill), CG (Cognitive General- game plans and strategies), MS (Motivation Specific- specifics goals and goal oriented behaviors), MG-A (Motivation General-Arousal- arousal, anxiety and relaxation), and MG-M (Motivation General-Mastery- confidence and mental toughness). The SIQ has 30 items and is also scored on a 7-point Likert scale, which ordinarily ranges from 1 (*never*/*rarely*) to 7 (*often*). However, it has previously been found that having digit 1 refers to both "never" and "rarely" can be problematic for participants (Nordin & Cumming, 2006). The SIQ has adequate psychometric properties, with Cronbach's alpha coefficients ranging from 0.70 to 0.88 (Hall et al., 1998).

Procedure

In this study we used quantitative data to examine the imagery (SIQ) of athletes (students) who participated. The questionnaires were given to the selected athletes. The sessions of completing the questionnaires were took 5 minute when explanation of the purpose and information on the completion of the questionnaires. This to ensure that the athletes completed the questionnaires as required. The researcher then passed the questionnaires on to the participants to complete when they attended training sessions. All of the respondents have signed the consent letter to participate in this study. The completed questionnaires were collected back after finish the sessions.

Results

The objective of the study was to determine the effect of mental imagery upon sport imagery of middle schools students in Futsal. The treatment consisted of training through use of mental imagery. Table 1. shows Z Value results for the differences in pre- post- test mean rank scores for the experimental group in Sport Imagery Questionnaires. The table shows that (Z) values were(-2.041)for Cognitive Specific (CS),(-2.060) for Cognitive General (CG), (-2.071)for Motivation Specific (MS) (-2.048)for Motivation General-Arousal (MG_A), (-2.051)for Motivation General-Mastery (MG_M and(-2.060) for the composite score. These values are significant at the level (0.05) .This indicates that use of mental imagery had a positive effect on sport imagery of middle schools students in Futsal.

Table 1. *Z Values results for the comparison of mean rank scores of experimental group at pre- and post intervention in sport imagery*

Variables	**Negative Ranks**		**Positive Ranks**		**Z Value**	**Sig.**
	Mean	Sum	Mean	Sum		
Cognitive Specific (CS)	3	15	Zero	Zero	-2.041	0.05
Cognitive General (CG)	3	15	Zero	Zero	-2.060	0.05
Motivation Specific (MS)	3	15	Zero	Zero	-2.071	0.05
Motivation General-Arousal (MG_A)	3	15	Zero	Zero	-2.048	0.05
Motivation General-Mastery (MG_M)	3	15	Zero	Zero	-2.051	0.05
Composite	3	15	Zero	Zero	-2.060	0.05

Discussion

The present study evaluated the effects of mental imagery upon sport imagery of middle schools students in Futsal. The study results showed that mental imagery was effective for all students participated in this study.

Athletes who practice and who can master the imagery skill at the highest will have vast improvement in their sports performance. This was proved by Vealey and Greenleaf (2006), studies which have investigated the effect of imagery training have examined sport skills such as basketball shooting, volleyball serving, tennis serving, golf shots, football placekicking, figure skating, swimming starts, dart throwing, alpine skiing, karate skills, diving, trampoline skills, competitive running, dance, rock climbing and field hockey performance. Mamassis and Doganis (2004) said imagery has also been used as an intervention technique to enhance confidence. Furthermore Nordin, Cumming, Vincent and Mcgrory (2006) found that athletes use MG_M type of imagery in a deliberate way, they also found that high level athletes use more deliberate images.

Paivio (1985) developed an analytic framework that identified the functional roles through which imagery influences sport performance. The frame work indicates that imagery affects performance through both cognitive and motivational functions with each operating at a general and specific level. Motivational specific (MS) imagery use involves imaging goal and goal attainments. Cognitive general (CG) imagery entails rehearsing strategies of play and routines and cognitive specific (CS) imagery involves the rehearsal of specific skills. However, Hall and his colleagues (Hall, Mack, Paivio, & Hausenblas, 1998) later identified a fifth function of imagery use in sport when the further divided the motivational general function into motivational general_mastery (MG_M) and motivational general_ arousal (MG_A) functions. MG_M imagery is used to imagine oneself in a difficult situation and then image overcoming that difficultly. The MG_A imagery function may used to control athletes emotions.

In summary, mental imagery has great effect on sport imagery of middle schools students who participated in this study. Overall, results from this study contribute to the mental imagery literature.

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The Predictive Relationship between Lifelong Learning Tendency and Occupational Efficacy Sense of Pre-Service Teachers

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Abstract
Lifelong learning is the habit of learning for both personal and professional issues and being aware of the developments in these both areas. On the other side, occupational self-efficacy means the sense of capacity of a person for his/her readiness to perform the required duties related to a certain occupation. These two concepts, lifelong learning and the sense of occupational self-efficacy, are significant factors for both teachers and pre-service teachers in order to carry the teaching profession accurately. For this reason, the purpose of this study is to investigate the relationship between lifelong learning tendency and occupational self-efficacy of pre-service teachers. The sample of the study which was conducted in survey model consists of 407 pre-service teachers who studies in different disciplines at Faculty of Education, Çanakkale Onsekiz Mart University, Turkey. The data of the study was gathered through Lifelong Learning Tendency Scale which was developed by Diker Coşkun (2009) and Teacher Self-Efficacy Scale which was developed by Tschannen-Moran and Hoy (2001) and translated into Turkish by Çapa Aydın, Çakıroğlu, & Sarıkaya (2005). As the results of the study, it was found that pre-service teachers studying at different departments of faculty of education perceive both occupational self-efficacy and lifelong learning on high level. As another finding of the study, there is a significant correlation between the occupational self-efficacy perceptions and lifelong learning tendencies of pre-service teachers. As the last part of the results of the study, motivation is a significant predictor for teacher self-efficacy, efficacy in student engagement and efficacy in classroom management and furthermore, learning deprivation is a significant predictor for teacher self-efficacy, efficacy in instructional strategies and efficacy in classroom management.

Keywords*:* Lifelong Learning Tendency, Teacher Self- Efficacy, Pre-Service Teachers

Introduction

As lifetime is so longer when compared to the past, today's human being feels the urgent need of integrating itself to the high developing scientific, technological and cultural aspects of the world. This vital need requires education not to be limited in periods of people's lives and gives direction to the countries to develop their education systems continuously. This fact has enabled the term "lifelong learning" to emerge which creates the chance of learning the required information and skills in every period of life (Diker Coşkun and Demirel, 2012).

Lifelong learning is a general regulation that restructures the present system and develops the whole potential out of formal education system. It also includes both formal and informal educational activities (Güleç et al, 2012). Lifelong learning is not an alternative to formal education but a way to complete the left sides of formal education system of a nation. Through lifelong learning, it is so accessible to invest on information, support the basic skills including the computer literacy, enrich the opportunities for innovation and reveal the more flexible forms of learning (Berberoğlu, 2010 cited from Turan, 2005). The underlying philosophy of lifelong learning is that learning is so crucial not to be carried out only in schools and universities and individuals are responsible for experiencing the life and learning by themselves. In this frame, the mission of formal education institutions is to support people to be sustainable learners and develop their skills (Karakuş, 2013). Moreover, according to the official document published by General Directorate of Lifelong Learning of Turkey, lifelong learning includes formal and informal education; it does not limit the learning with age, socio-economic status and education level; it depends on the fact that learning process is not only based on schools but also the social, political and cultural aspects of people's lives; and it continues during the lifetime (http://hbogm.meb.gov.tr/).

Lifelong learning is a concept that is significant for people's both private and professional lives. The development in occupational fields, new technology use in every aspect of services and people's expectations from these services require employees to be capable of their duties and satisfied with their own performances. A vital of way of accomplishing a job is being aware of the trends and innovations related to the occupational field. At this point, lifelong learning creates the suitable psychological atmosphere for employees to force them to catch the developments. For this reason, individuals following and learning the trends and developments related to their occupations are one step ahead. This professional privilege contributes one another concept to emerge as a critical factor for occupational life, which is occupational self-efficacy.

Occupational self-efficacy is generally defined as how an individual considers himself or herself capable about his or her job or the perception of accomplishment level about the task worked on. This terms is directly related to the inner answer given by the individual for the question "To what extent can manage this job?". This perception motivates people to make self-evaluation comprehensively about the level of managing the task given in work life. As individuals in professional life are required to examine many factors related to the expectations of others and needs of the services given, they are in need of meeting requirements of occupational efficacy (Ülper and Bağcı, 2012).

As the sense of efficacy in all types of professions is so crucial, teachers, one of the most significant shareholders of teaching and the focus group of this study, carry the mission of directing students according to their skills and qualifications. Their tendency for learning for all aspects of life and being model for the students increases the importance of their duties. As they insistently acquire and update all kinds of abilities, interests, knowledge and qualifications for themselves, the perception of efficacy for their jobs also rise.

In addition to the feeling of efficacy in the teaching profession, high level of occupational self-efficacy for teachers enable them to affect the students' level of success and motivation positively, handle the classroom and time management accomplishedly, prevent the undesired students' behaviours in the classroom, find the ways of applying new teaching methods for students and increase their level commitment for teaching profession. Additionally, teachers with high occupational self-efficacy spend most of their times in school for the learning benefits of their students, show tendency to take the responsibility of being interested in the learning and behavioural handicaps of the students, creates a positive classroom atmosphere for both themselves and their students, consider ethical attitudes towards students as custom and tend to determine the necessities of their students. On the other hand, teachers with low level of occupational self-efficacy spend more time for unacademical issues, criticizes the students on the occasions of failures, do not show tendency to benefit from different types of materials in the classroom to help students learn better, and use more teacher-oriented methods on teaching practices (Ülper and Bağcı, 2012)

As an addition to the benefit of occupational self-efficacy for teaching practices, Ross (1998) gives the list of the advantages of this concept for teachers as;

1. Learning and using new techniques and approaches in teaching practices,
2. Increasing the self-control of students in classroom management and decreasing the way of direct observation of students,
3. Special tendency for students who have low level of success,
4. Increasing the concept of self for students' academic efficacy
5. Determining accessible aims,
6. Tendency to behave persistently for students' failures and unsuccessful attempts.

Therefore, self-efficacy is a factor affecting the way the people function. Bandura (1997) states that they tend to behave in the same direction of their beliefs, tasks and activities they trust in their trueness. In occupational life, people show tendency to play active roles on the duties which make them fell competent and confident. This feeling increases on the occasions that these people learn the new issues related to their jobs, which is directly related to the habits of lifelong learning (Kurbanoğlu, 2004) As a result, the pre-service teachers tendency in lifelong learning has a vital effect on the sense of occupational efficacy. So the purpose of this study is to investigate the relationship between lifelong learning tendency and occupational self-efficacy of pre-service teachers.

Method

Method of Research

The research was conducted in survey model which is depicted as "the approach of examining a situation that occurred in the past or still takes place, by determining the situation, event, individuals or objects within their own conditions" by Karasar (2007) purporting to identify the predictive relations between lifelong learning tendency and occupational efficacy sense of pre-service teachers. For this purpose, following questions were answered in the study:

1. What is the level of lifelong learning tendency and occupational efficacy sense of pre-service teachers?
2. Are there any significant relationship among occupational efficacy sense, lifelong learning tendency and some features of pre-service teachers?
3. Are there any significant predictors among some features and lifelong learning tendency of pre-service teachers for their occupational efficacy sense?

Population and Sampling

The study's sample consists of 407 pre-service teachers who studies in different disciplines at Faculty of Education, Çanakkale Onsekiz Mart University, Turkey. The distribution of these pre-service teachers according to some features is in Table 1.

Table 1. *Distribution of Pre-Service Teachers according to their Features*

Features		**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**Total**
Grade Level		1. Grd.	2. Grd.	3. Grd.	4. Grd.					
	N	109	86	120	91					406
	%	26.8	21.1	29.5	22.4					99.8
Place of High School		District	City							
	N	204	197							401
	%	50.1	48.4							98.5
Place of Elementary School		Village	District	City						
	N	50	184	167						401
	%	12.3	45.2	41						98.5
Mothers' Education Level		Illiterate	Literate	Primary Sch.	Middle Sch.	High Sch.	Bachelor	Master	PhD	
	N	18	22	216	49	72	21	4	1	403
	%	4.4	5.4	53.1	12	17.7	5.2	1	.2	99
Fathers' Education Level		Illiterate	Literate	Primary Sch.	Middle Sch.	High Sch.	Bachelor	Master	PhD	
	N	5	10	131	63	122	62	9		402
	%	1.2	2.5	32.2	15.5	30	15.2	2.2		98.8

Note: Some variables such as GPA, monthly family income and monthly expense were stated as numbers directly, not categorically, by pre-service teachers thus they did not place in Table 1.

Data Collection Methods and Analyses

As data collection tool, a questionnaire consisted of personal information form, Lifelong Learning Tendency Scale and Occupational Efficacy Sense Scale was used in the research.

Lifelong Learning Tendency Scale: LLTS, a five-point Likert type scale, was developed by Diker Coşkun (2009). According to validity and reliability analyses performed by Diker Coşkun (2009), LLTS is composed of 4 dimensions as Motivation (LLT 1), Persistence (LLT 2), Learning Deprivation (LLT 3) and Curiosity Deprivation (LLT 4), and the reliability coefficient was α=.89. Moreover, Table 2 contains LLTS and its dimensions' reliability coefficients found in this research.

Teacher Self-Efficacy Scale: TSES is a five-point Likert type scale and it was developed by Tschannen-Moran, & Hoy (2001). Çapa Aydın, Çakıroğlu, & Sarıkaya (2005) translated TSES into Turkish and checked out reliability and validity of TSES Turkish version. They obtained α=.93 which indicates the scales is highly reliable (Hair, Black, Babin, Anderson & Tahtam, 2006) and also found that OESS consists 3 dimensions; Efficacy in Student Engagement (OES 1), Efficacy in Instructional Strategies (OES 2) and Efficacy in Classroom Management (OES 3). In addition, reliability coefficients of OESS and its dimensions attained in the research are presented in Table 2.In the development of data collection tools used in this research the master thesis "Evaluation of the Abilities of Classroom Teachers and Branch Teachers on integrated Education" by Battal (2007) was made use of. The reliability and validity of the survey was verified by experts and hereby "Integrated Education Survey" was developed and used. In the analyses of the collected data, variables of classroom teachers' seniorities, education levels, gender, attended classes and in-service training were used.

Table 2. *Descriptive Statistics about LLTS and TSES with Sub-Dimensions*

LLTS and OESS	Number of Items	Cronbach Alpha	n	$\bar{X}$	s.d.	Kurtosis	Skewness
Motivation (LLT 1)	6	.87	407	3.91	.79	.62	-.79
Persistence (LLT 2)	6	.83	407	3.41	.81	-.28	-.30
Learning Deprivation (LLT 3)	6	.83	407	3.83	.95	-.51	-.67
Curiosity Deprivation (LLT 4)	9	.90	407	3.68	.94	-.40	-.53
Lifelong Learning Tendency (LLT)	27	.91	407	3.70	.65	-.65	-.25
Efficacy in Student Engagement (TSE 1)	8	.78	407	3.85	.58	.71	-.76
Efficacy in Instructional Strategies (TSE 2)	8	.82	407	3.89	.61	.93	-.74
Efficacy in Classroom Management (TSE 3)	8	.84	407	3.89	.65	.76	-.78
Teachers Self-Efficacy (TSE)	24	.92	407	3.88	.56	.79	-.76

Data Analysis

At first, distributions of LLTS, TSES and their sub-dimensions were examined to see if they fit normal distribution using Kurtosis and Skewness Coefficients which were between -2 and +2. Thus, researcher determined that LLTS and TSES with sub-dimensions have normal distributions. Then, Pearson Product Moment Correlation Analyze; to determine the relationship among variables, lifelong learning tendency and teacher self-efficacy sense, and Linear Stepwise Regression Analysis; to decide the predictive variables of teacher self-efficacy, were performed besides descriptive statistics like frequencies, percentages, means and standard deviations. Additionally, evaluation ranges such as 1.00-1.79=Very Low, 1.80-2.59=Low, 2.60-3.39=Medium, 3.40-4.19=High and 4.20-5.00=Very High [1→ 4/5 + 4/5 + 4/5 + 4/5 →5] were used to decide levels of pre-service teachers' lifelong learning tendency and occupational efficacy sense.

Findings

The data related to the study's first question "What is the level of lifelong learning tendency and occupational efficacy sense of pre-service teachers?" is given Table 2. It has been found out that pre-service teachers' Life Long Learning Tendency level ($\bar{X}$=3.70; s.d.=.65) and Teachers' Self-Efficacy level ($\bar{X}$=3.88; s.d.=.56) are high.

Table 3 includes the data for the study's second question "Are there any significant relationship among occupational efficacy sense, lifelong learning tendency and some features of pre-service teachers?".

Table 3. *Correlation Coefficients between Variables and TSE*

Variables and TSE	**Grade Lev.**	**GPA**	**Study Time**	**Place of HS**	**Place of ES**	**Mother Ed. Lev.**	**Father Ed. Lev.**	**Family Income**	**Monthly Expense**	**LLT 1**	**LLT 2**	**LLT 3**	**LLT 4**	**LLT**
TSE 1	-.01	.11	-.09	.06	.09	-.01	.02	-.06	-.02	.46**	.32**	.25**	.21**	.40**
TSE 2	-.05	.09	-.03	.09	.15**	.04	.05	-.02	.01	.47**	.32**	.25**	.20**	.39**
TSE 3	-.03	.02	-.08	.07	.10*	.00	.03	.01	-.02	.36**	.16**	.23**	.13**	.29**
TSE	-.03	.08	-.07	.08	.13*	.01	.04	-.03	-.01	.47**	.29**	.27**	.20**	.39**

*p≤.05; **p≤.01

According to Table 3, correlation analysis shows that there is positive and significant relationship between TSE1 and LLT1 (r=0.46, p≤0.01), TSE1 and LLT2 (r=0.32, p≤0.01), TSE 1 and LLT 3 (r=0.25, p≤0.01), TSE1 and LLT4 (r=0.21, p≤0.01), TSE1 and LLT (r=0.40, p≤0.01). On the other hand, there is no significant relationship between TSE1 and Grade level, GPA, study time, place of high school place of elementary school, mother educational level, father educational level, family income, and monthly expense (p>0.05). Moreover, a positive significant relationship between TSE2 and place of elementary school (r=0.15, p≤0.01), TSE 2 and LLT1 (r=0.47, p≤0.01), TSE 2 and LLT 2 (r=0.32, p≤0.01), TSE 2 and LLT 3 (r=0.25, p≤0.01), TSE 2 and LLT 4 (r=0.20, p≤0.01), TSE 2 and LLT (r=0.39, p≤0.01) have been found after the correlation analysis. However, this analysis shows no significant relationship between TSE 2 and Grade level, GPA, study time, place of high school, mother educational level, father educational level, family income, monthly expense.

Correlation analysis in Table 3 also displays the significant relationship between TSE 3 and place of elementary school (r=0.10, p≤0.05), TSE 3 and LLT 1 (r=0.36, p≤0.01), TSE 3 and LLT 2 (r=0.16, p≤0.01), TSE 3 and LLT 3 (r=0.23, p≤0.01), TSE 3 and LLT 4 (r=0.13, p≤0.01) and TSE 3 and LLT (r=0.29, p≤0.01), but this analysis puts forward no significant relation between TSE 3 and Grade level, GPA, study time, place of high school, mother educational level, father educational level, family income, monthly expense (p>0.05). Finally, for correlation analysis in Table 3., there is a significant relation between TSE and place of elementary (r=0.13, p≤0.05), TSE and LLT 1 (r=0.47, p≤0.01), TSE and LLT 2 (r=0.29, p≤0.01), TSE and LLT 3 (r=0.27, p≤0.01), TSE and LLT 4 (r=0.20, p≤0.01) and TSE and LLT (r=0.39, p≤0.01). According to the findings given in Table 3, there is no significant relationship between OES and Grade level, GPA, study time, place of high school, mother educational level, father educational level, family income, monthly expense (p>0.05).

Table 4 and Table 5 shows the data for the study's third question "Are there any significant predictors among some features and lifelong learning tendency of pre-service teachers for their occupational efficacy sense?".

Table 4. *First Step Regression Model's Coefficients for TSE of Pre-Service Teachers*

Variables and TSE		Grade Lev.	GPA	Study Time	Place of HS	Place of ES	Mother Ed. Lev.	Father Ed. Lev.	Family Income	Monthly Expense	LLT 1	LLT 2	LLT 3	LLT
TSE	β	-.03	.02	-.00	-.06	.08	-.03	.01	-.01	-.01	.41	.04	.28	-.28
(Constant=2.12)	*t*	-.62	.23	-.23	-.74	1.36	-.79	.33	-1.06	-.14	5.82	.62	.3.62	-1.82
[R=.57; R^2=.33] $F_{(13-214)}$=8.03; p=.00	p	.54	.82	.82	.46	.17	.43	.74	.29	.89	.00*	.54	.00*	.07
TSE 1	β	.01	.07	-.01	-.04	.05	-.02	-.00	-.01	-.01	.30	.09	.23	-.18
(Constant=2.06)	*t*	.20	.89	-1.33	-.54	.86	-.45	-.05	-1.43	-.02	4.05	1.16	2.77	-1.11
[R=.52; R^2=.27] $F_{(13-214)}$=6.16; p=.00	p	.84	.38	.18	.59	.39	.65	.96	.15	.99	.00*	.25	.01*	.27
TSE 2	β	-.06	-.03	.00	-.10	.10	-.02	.01	-.01	-.01	.44	.03	.26	-.23
(Constant=2.09)	*t*	-1.16	-.41	1	-1.18	1.69	-.66	.22	-.77	-.05	5.79	.45	3.03	-1.34
[R=.57; R^2=.33] $F_{(13-214)}$=7.91; p=.00	p	.25	.68	.32	.24	.09	.51	.83	.44	.96	.00*	.66	.00*	.18
TSE 3	β	-.04	.02	-.00	-.03	.07	-.04	.03	-.01	-.01	.48	.01	.36	-.43
(Constant=2.21)	*t*	-.65	.16	-.28	-.30	1.08	-.96	.66	-.65	-.28	5.55	.11	3.74	-2.27
[R=.51; R^2=.26] $F_{(13-214)}$=5.80; p=.00	p	.52	.87	.78	.76	.28	.34	.51	.52	.78	.00*	.91	.00*	.02*

*p≤.05; LLT 4 was excluded because tolerance was reached to limit for the regression model (Tolerance=.00).

The results of regression analysis in Table 4 gives data related to 4 separate models to find out variables affecting TSE, TSE 1, TSE 2, TSE 3. It has been found out that LLT 1 and LLT 3 are significant predictors for TSE, TSE 1, TSE 2, TSE 3 variables. Regression analysis also shows that LLT is also significant TSE 3.

Table 5. *Last Step Regression Model's Coefficients for TSE of Pre-Service Teachers*

Variables and TSE		LLT 1	LLT 3
TSE	β	.32	.16
(Constant=2.01) [R=.55; R^2=.30] $F_{(2-225)}$=48.97; p=.00	*t*	7.20	4.46
	p	.00*	.00*
TSE 1	β	.29	.16
(Constant=2.13) [R=.50; R^2=.25] $F_{(2-225)}$=37.10; p=.00	*t*	6.11	4.08
	p	.00*	.00*
TSE 2	β	.36	.14
(Constant=1.90) [R=.55; R^2=.30] $F_{(2-225)}$=48.33; p=.00	*t*	7.65	3.74
	p	.00*	.00*
TSE 3	β	.48	.34
(Constant=2.17) [R=.50; R^2=.25] $F_{(3-224)}$=24.58; p=.00	*t*	5.85	4.80
	p	.00*	.00*

*p≤.05

The regression model in Table 5 shows that LLT 1 is a significant predictor for TSE (β=.32; t=7.20; p≤.05), TSE 1 ((β=.29; t=6.11; p≤.05), TSE 2 ((β=.36; t=7.65; p≤.05) and TSE

3 (β=.48; t=5.85; p≤.05). It can also be seen in the same model that that LLT 3 is a significant predictor for TSE (β=.16; t=4.46; p≤.05), TSE 1 (β=.16; t=4.48; p≤.05), TSE 2 (β=.14; t=3.74; p≤.05) and TSE 3 (β= .34 t=4.80; p≤.05).

Discussion and Conclusion

In this study, the purpose is to investigate the relationship between lifelong learning tendency and occupational self-efficacy of pre-service teachers. In order to discuss the findings of the study, it is important to search the relevant studies. However, there is a limited number of studies showing the relationship between occupational self-efficacy and lifelong learning tendency of pre-service teachers (Kurbanoğlu, 2003; Garipağaoğlu, 2013). The studies on these two concepts analyze them singly or aim to reveal the relationship between different concepts. However, this study is an indicator the relationship between these concepts which have important roles separately on the effectiveness of both teachers and pre-service teachers.

The findings of the study indicate that pre-service teachers studying at different departments of faculty of education perceive both occupational self-efficacy and lifelong learning on high level. As another finding of the study, there is a significant correlation between the occupational self-efficacy perceptions and lifelong learning tendencies of pre-service teachers. As the last part of the results of the study, motivation is a significant predictor for teacher self-efficacy, efficacy in student engagement and efficacy in classroom management and furthermore, learning deprivation is a significant predictor for teacher self-efficacy, efficacy in instructional strategies and efficacy in classroom management. Similarly, Taşgın and Sönmez (2013) states related to the findings of his study that both teachers and pre-service teachers perceive their efficacy for teaching occupation at a high level. Another study carried by Kahyaoğlu and Yangın (2007) also indicates that pre-service teachers consider themselves efficient to profess teaching in the near future. Demirtaş, Cömert and Özer (2011) has also contributed to the literature with the findings of their study aiming to reveal the relationship between occupational self-efficacy perceptions of pre-service teachers and their attitudes towards teaching profession. The findings of this study indicate that there is a positive relationship between these two concepts and pre-service teachers perceived high efficacy for teaching profession. One other study in the self-efficacy perception of pre-service teachers carried by Ekici (2008) aiming to identify the effect of classroom management course on pre-service teachers' perceptions of occupational self-efficacy, reveals that pre-service teachers show readiness in terms of self-efficacy to perform teaching profession.

As the other point of the study, in some studies (Diker Coşkun and Demirel, 2012; Kılıç, 2014) focusing the lifelong learning tendencies of pre-service teachers, the findings do not show similarity with the findings of this study and they state that the pre-service teachers in these studies display low lifelong learning tendency. On the other hand, there are several studies aiming to find out the lifelong learning tendencies of pre-service teachers and reveal the same findings, which is parallel with this study. Gencel (2013) aims to investigate the pre-service teachers' perceptions towards their lifelong learning competencies. According the findings of this study, pre-service teachers feel themselves competent in lifelong learning tendency. In another study, İzci and Koç (2012) has carried out a study of which purpose is to evaluate the views of pre-service teachers on lifelong learning. As the result of this study, it is stated that pre-service teachers in the departments of primary school teaching, mathematics teaching and teaching of Turkish displayed high agreement on lifelong learning tendency.

As a result, lifelong learning is a concept that can be considered as a requirement for both teachers and pre-service teachers. In this regard, the mission of universities and faculties

of education should be to create the suitable atmosphere for pre-service students win which they can develop themselves on personal, social and cultural aspects, which lead them to be lifelong learners. Their tendency to learn the various dimensions of life continuously surely affect their efficacy perceptions on the teaching occupation. The efficacy perceived during the process of training gained in the faculties of education is directly going to be the determinant factor of being a model teacher for their students in the near future.

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International Journal of psycho-educational sciences

The Effectiveness of Touch Math on Improving Academic Achievement on Math Addition in Children with Autism

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Abstract

The purpose of this study was to explore effect of Touch Math program on improving academic achievement on math addition in children with autism. Children participants diagnosed using Autism Spectrum Disorder Evaluation Inventory (Mohammed, 2006), were invited to participate. The sample was randomly divided into two groups; experimental (n=5) and control (n=5). Findings from this study indicated the effectiveness of the program employed in math skills in the target children. On the basis of the findings, the study supports the idea of Touch Math as a powerful intervention for children.

Keywords: *Touch Math program, children with autism, academic achievement, math addition*

Introduction

The Touch Math program was developed in 1975 by elementary school teacher Janet Bullock. She found that many students were struggling with math concepts and were in need of an intervention that would increase their math skills as well as their confidence in the subject (Bullock, 2005). Bullock (2005) began experimenting with a few struggling students by placing counting points on numbers. She began to see immediate results with her students; they were beginning to make the transition from concrete to symbolic learning. Much of the program is based on a report released by Kramer and Krug (1973) where dots were placed on numerals in a pattern modeled off of dice and dominoes. Kramer and Krug (1973) contend that many different children, both handicapped and non-handicapped, have developed the technique on their own; Kramer and Krug (1973) have observed the creation of this technique among various types of students.

The Touch Math program is also based on the research of both Jean Piaget and Jerome Bruner (Bullock, 2005). Bruner and Piaget both suggest that learning concepts should follow a predicted set of stages: Concrete, pictorial, and symbolic. This idea was the basis of the Touch Math program.

Bruner theorized that education is a process of personal discovery where students should learn to build their knowledge through teacher direction; not by being taught through rote memorization. He studied what he believed to be the three stages of understanding: enactive, iconic, and symbolic. The enactive stage is when children begin to develop understandings of concepts through active manipulation. During the iconic stage children begin to make mental images of the material without the need to manipulate it directly. Finally, the symbolic stage is when students are able to use abstract ideas to connect and understand concepts (Arndts & Cabelus, 2009).

Piaget, very similar to Bruner, felt that education is best when the child learns through discovery. He identified four stages of cognitive development: sensorimotor, preoperational intelligence, concrete

operational intelligence, and formal operational intelligence. During the sensorimotor stage, occurring during infancy, intelligence is demonstrated through motor activity with out the use of symbols. When children grow into early childhood they enter the preoperational stage. It is here that children begin to develop intelligence through the use of symbols. When children mature into the elementary years and early adolescence they enter the formal operational stage of intelligence. Children begin to manipulate symbols that are related to concrete objects. The final stage in Piaget's theory is formal operational when children develop into adolescents and young adults. It is here that the learners begin to demonstrate intelligence through the logical use of symbols related to abstract objects (Huitt & Hummel, 2003).

Various studies have been conducted to evaluate the effectiveness of the program when taught to children with special needs. Wisniewski and Smith (2002) explored a touch point system implementation into a math curriculum to increase student achievement scores for students with intellectual and learning disabilities. Four participants in 3rd and 4th grade were categorized as other health impaired, mild intellectual disabilities, or learning disabilities. A decrease in time to complete the worksheets was the desire result of the TouchMath application. Participants were only tested once and then determined that the students had mastered the TouchMath procedure without visual notation system displayed. The multisensory method was applied to boost percent correct and decrease the number of minutes required to complete the assessment. Mad Minute addition tests were employed as the pre and posttest measures consisting of addition facts and 30-40 double digit addition problem with and without regrouping. Instruction took place in the special education resource room during 20-minute sessions. Student four significantly increased percent correct and decreased completion rate by half. Student one was the only participant that did not decrease completion rate but increase percent correct. Student two scored lower on posttest but required less time to complete the measure.

Cihak and Foust (2008) used an alternating treatments design with students classified with autism to investigate the use of TouchMath to teach single digit addition problem-solving skills versus a number line approach. Three seven and eight year old elementary students with IQ ranging from 40-50 and diagnosed to have severe (2) and average (1) levels of autism participated during the regularly scheduled resource class time. The dependent variable was if there was a functional difference between the two methods to solve addition problems. The percentage of single-digit addition math problems was assessed. Two different probe worksheets with ten single digit addition problems were used to assess math skills. Instruction was based on a least to most prompt hierarchy to guide students to the correct answer as well as an adapted model-lead-test procedure to teach both methods across seventy-four sessions. Testing sessions last from 5-20 minutes. Touch points were found to be more effective and preferred by the participants. There was enough evidence to support a functional difference between the two methods. For two participants the touch point system demonstrate much higher gains but onestudent showed similar increases in percent problems correct for both methods employed.

Amaal Ahmed Mostafa(2013) explored the effectiveness of Touch Math in teaching addition skills to preschoolers at-risk for future learning disabilities The selection of the participants (KG1 children) was based on the marks obtained by all the 138 subjects in a mathematics test. The mean and Standard Deviation (SD) of these scores was calculated.

Only those subjects who scored 1 SD below the mean in their math test were selected for the study . 60 subjects were assigned into Control (n= 30 , 21 boys and 9 girls) and Experimental(n= 30 , 23 boys , 7 girls) group. ANCOVA and Repeated Measures Analyses were employed for data analysis. Findings from this study indicated the effectiveness of the program employed in addition ability in the target children .On the basis of the findings, the study supports the idea of Touch Math as a powerful intervention for children.

Mourad Ali Eissa & Hesham Habib (2013) explored effect of multisensory approach on increasing math skills of children with mild intellectual disabilities. A total of 38 children with mental disabilities from three Fekrya schools in Kafr EL Sheikh Governorate; namely Kafr EL Sheikh Fekrya School ,Baltim Fekrya School, and Disouq Fekrya School(Schools for those who have intellectual disabilities)participated. T-test Analysis was employed for data analysis. Findings from this study indicated the effectiveness of the program employed in math skills in the target children .On the basis of the findings, the study supports the idea of Touch Math as a powerful intervention for children.

Considering the limited research with children with autism disorder, this study aims to further explore the effect of Touch Math in teaching addition to children with autism disorder

Method

Participants

Children participants diagnosed using Autism Spectrum Disorder Evaluation Inventory (Mohammed, 2006), were invited to participate. The sample was randomly divided into two groups; experimental (n= 5) and control (n= 5). The two groups were matched on age, IQ ,and addition skills. Table 1. shows means, Mann-Whitney ,z value , and significance level for experimental and control groups on age (by month) , IQ , and addition skills test scores (pre-test).

Table 1. *Means, Mann-Whitney ,z value , and significance level for experimental and control groups on age (by month) , IQ , and addition skills test scores (pre-test).*

Variables	group	N	Mean Rank	Sum Of Ranks	Mann Whitney	Z	Sig.
Age	Ex	5	5.60	28.00	12.00	-0.113	**0.910**
	con	5	5.40	27.00			**Not Sig.**
IQ	Ex	5	5.70	28.50	11.50	-0.216	**0.829**
	con	5	5.30	26.50			**Not Sig.**
Addition	**Ex**	**5**	**5.20**	**26.00**	**11.00**	**-0.332**	**0.740**
Skills	**con**	**5**	**5.80**	**29.00**			**Not Sig**

Table 1. shows that all z values did not reach significance level . This indicated that the two groups did not differ in age , IQ , and addition skills test scores (pre-test) .

Instrument

The Math Skills Test (Mourad Ali & Hisham Habib, 2013). The researchers developed a 20-items test . It has five subtests; *Tracing The Numbers* (5 items) , where children are asked to trace the number and draw a ring around the number of objects to math the number (the right answer is given 1 mark) , *Missing Number* (5 items),where children are asked to write down the missing number(the right answer is given 1 mark),*Single–Skills Computation*(5 items),where children are asked to do simple addition problems (the right answer is given 1 mark), and *Quantity Discrimination*(5 items), where the children should

identify the number or quantity in the set with the highest value(the right answer is given 1 mark).

Procedures

Following Mourad & Hisham's study procedures (2013),all instruction, training, observations and probes occurred during the regular school day. The data was collected in three phases.

Phase I: Pre- Test

The pre-test was administered on the total of 10 subjects .The subjects were allowed sufficient time to complete the test. No time limit was set for completion of the test. On an average the subjects took 40 minutes to complete pre- test.

Phase II: Treatment

The Experimental Group learnt math skills using the Touch Math program. The intervention lasted for 12 sessions , 15- 20 minutes each. Those children in the experimental group were given following instructions: “Today I am going to teach you a new method to do additions. This method is called Touch Math. First we will learn to use it on numbers 1 to 9. The color dots on each number tell us the “Touch points” and you can count the Touch Points by using your finger or a pencil. “Like this is number one, number one has one touch point now touch and count the number of points on this number :one” The subjects counted numbers 1 to 5 aloud as they touched the single touch Points. For numbers up to 5 the subjects had to touch at the points only once where as for numbers 6 to 9 each point had to be touched while counting the points for each number. To ensure that subjects arrive at the right twice; subjects had to follow a pattern answer, that the subjects were constantly reminded to follow the sequence of pattern for each number. The researcher each group and immediate feedback was given to the subjects. The subjects practiced touching the Points of the numbers in the correct sequence till they attained mastery in counting each number. After the subjects attained mastery in counting the touch Points, the subjects learnt addition .The content included one digit to one digit with and without carry-over, two digits with two digits with and without carry-over, and three digits to three digits with and without carry-over.

Phase III Post test

The Post test was administered on all the students of Control Group and Experimental Group at the end of 12 sessions. Responses were carefully recorded and scored.

Results

Table 2 displays Mann-Whitney test results, rank mean values for both groups (experimental and control), Z test statistical values, and observed significance. Analysis finding showed that there is significant differences at the 0.05 level between the performances mean rank of both group students in addition skills - Z value reached - 2. 643. Accordingly, it can be noted that research data confirmed the accuracy of the hypothesis that children with autism disorder in the Touch Math group will demonstrate larger gains on the math-post test than children in the control group. . So, it can be said that using Touch Math improves addition skills of the experimental group.

Table 2 Mann-Whitney test results, rank mean values for both groups (experimental and control), Z test statistical values, and observed significance

Variables	group	N	Mean Rank	Sum Of Ranks	Mann Whitney	Z	Sig.
Addition	Ex	5	8	40	zero	- 2. 643	0.05
Skills	con	5	3	15			

Discussion

The main objective of the present study was to explore whether there were differences in post–test mean rank between control and experimental groups on Math Skills .The results of this study as revealed in table 2 showed that the Touch Math program as a multisensory approach was effective in increasing math skills of children in experimental group .

This study supports and extends the literature regarding children with special needs and math skills (Scott,1993; Bedard,2002;Wisniewski and Smith ,2002; Cihak and Foust, 2008; Calik,2010; Amaal ,2013; Mourad & Hesham , 2013).

Limitations

Some limitations of this research that are thought to have an effect on the results of the research are as follows: a) The number of participants makes it difficult to support arguments for generalization to other populations. So, larger samples must be investigated before broad conclusions can be made, b) Second, prior knowledge of the TOUCHMATH program was unknown at the time of this study and with the carry over effects, the potential of this prior knowledge can alter the outcome of the study.

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International Journal of psycho-educational sciences

The Impact of Implementing Enhanced Milieu Teaching Strategies on the Communication Skills of Young Children with Autism Spectrum Disorder

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Abstract
The purpose of this study was to explore effect of implementing Enhanced Milieu Teaching Strategies on the Communication Skills of Young hildren with Autism Spectrum Disorder. Children participants diagnosed using Autism Spectrum Disorder Evaluation Inventory (Mohammed, 2006), were invited to participate. The sample was randomly divided into two groups; experimental (n=5) and control (n=5). Findings from this study indicated the effectiveness of the program employed in math skills in the target children. On the basis of the findings, the study supports the idea of Touch Math as a powerful intervention for children.

Keywords : *Touch Math program, children with autism, academic achievement, math addition*

Introduction

Autism is a developmental disability usually diagnosed in children within the first 3 years of life (Volkmar & Klin, 2005). There is no cure for autism (Schreibman, 2005). Symptoms are grouped into the three broad areas that include communication, social interaction, and restricted patterns of behavior (Tsatsanis, 2005). Treatment to remediate symptoms is frequently delivered as language instruction. Addressing lang- uage growth helps make a significant improvement in the quality of life (Adel Abdulla Mohammed & Mourad Ali Eissa, 2014).

The essential features of ASD include significant impairments in social interaction and communication skills and a highly restricted area of activities and interests (American Psychiatric Association, 2000). Social interaction problems may be exhibited through an impairment in nonverbal behaviors (e.g., eye to eye gaze, body postures, facial expressions) and/or failure to create developmentally appropriate peer relationships. For example, a child with ASD is less likely to initiate peer-related social interactions or respond to social bids from peers.

In addition to social interaction problems, children with ASD have communication skill deficits. Often, these deficits include a delay in or absence of spoken language (e.g., 40% never obtain speech). Children that do develop speech may have difficulty initiating or sustaining conversations with others. Further, these children may develop stereotyped and repetitive use of language or idiosyncratic language (e.g., repeating nonfunctional phrases over and over). Coinciding with impairments in social interaction and communication, children with ASD may exhibit restricted, repetitive, and stereotyped patterns of behavior, interests, and activities. They often demonstrate a preoccupation with idiosyncratic interests to a level considered abnormal in intensity and focus (American Psychiatric Association, 2000). For example, a child may know every fact about the makes and models of cars and sustain conversations related to this topic for hours, but remain unable to hold conversations about any other topic. They also may engage in inflexible, nonfunctional rituals and routines such as turning a doorknob over and over in each direction before leaving their home. Although these rituals and routines initially may appear to decrease anxiety, the routines typically impede an individual's ability to socialize and function properly within society (Heflin & Alaimo, 2006).

Further, many children with ASD have stereotyped and repetitive motor mannerisms (e.g., hand flapping). For example, a child may engage in repeated hand flapping, for no apparent purpose. Concurrent with the aforementioned features, many children with ASD exhibit high levels of aberrant behaviors toward others or themselves that interfere with their learning, such as screaming, hitting, and biting (Sigafoos, 2000). For instance, some children

may repeatedly bite themselves or they may aggress toward other children or adults (e.g., scratch others). Aberrant behaviors such as biting create substantial obstacles for individuals responsible with their education and care (Durand & Merges, 2001). Many parents experience stress when their children engage in aggression or tantrums. Unlike other parents, parents of children with ASD may have difficulty determining the reason for the tantrum because of the child's deficits in communication. It is difficult for an individual who does not have any communication skills to explain what may be the cause of the tantrum. These characteristics (i.e., social interaction impairments, communication deficits, repetitive behaviors, and aberrant behaviors) and their negative effects on the children and families combined with the increase in the prevalence of ASD present a critical demand for the field of special education to respond and provide effective practices to meet these children's needs at home and in educational settings.

Milieu Teaching a strategy with a plethora of studies demonstrating that it has been effectively used to teach communication skills to children with developmental disabilities and/or communication disorders (e.g., Hester, 1995; Yoder & Warren, 2002) and to a lesser extent, children with ASD (e.g., Hancock & Kaiser, 2002; Ross & Greer, 2003). In milieu Teaching, the focus is teaching children new skills and behaviors within their natural environments (Kaiser, 1993). The natural environment may refer to any setting that the child would naturally spend time regardless of his or her disability, including the home, school, or an inclusive educational setting (Schwartz, 2003). As demonstrated in the literature, teaching communication skills in natural environments has many advantages including: (a) increases in vocabulary (Yoder et al., 1995), (b) generalization (Hancock & Kaiser, 2002), (c) maintenance (Spradlin & Siegel, 1982), and (d) unprompted use of language (Yoder & Warren, 2002).

Milieu Teaching includes the following basic procedures: (a) providing a model of desired responses and correcting child responses, (b) providing a mand and then modeling/correcting if needed, (c) using a time delay, and (d) employing incidental teaching strategies (Hancock & Kaiser, 2002). One of the strategies used in milieu therapy to promote communication in natural environments is modeling correct responses and correcting the target child's responses. This involves modeling a target behavior and then providing correction to the child as necessary (Alpert & Kaiser, 1992). For example, while outside on the playground, a child may tap on the adult's arm and look at the toy dump truck. The adult gains the child's attention and provides a verbal prompt that matches the child's communication skill level, such as "Want truck?*"* If the child says, "Want truck," the adult provides praise, repeats the child's phrase (e.g., says, "yes, want truck") and provides the child the toy dump truck. Otherwise, the adult provides a corrective model repeatedly, "Want truck" until the target child correctly models the response.

However, if the child does not respond in a reasonable time frame (e.g., two to three seconds), as predetermined by the researcher, parent, and/or teacher, the adult provides a model and gives the object to the child. The purpose of modeling and correcting responses is to provide the target child the necessary prompts and instructions in natural situations to assist in skill development.

Another component of milieu teaching is the mand-model technique. The mand-model technique involves giving a direct instruction (commonly referred to in the literature as a mand) within a naturally occurring activity and context. The mand is a vocal operant that is maintained by a reinforcer (e.g., obtaining a preferred item such as a toy car) and is evoked by the discriminative stimuli for that reinforcer (Skinner, 1957). For example, if a child says, "Water please" and receives the water, it is likely that this is a mand. Also, it is important to

recognize that responses are deemed mands based on their controlling variables and not on their topography. Sign language and picture cards can function as mands the same as vocal responses function as mands. When necessary, this mand would be followed by a model and a correction similar to the description above. The mand-model is performed by first gaining the child's attention and then providing a prompt for a target behavior. After the prompt, a guided model (i.e., assisting the child in performing the target behavior) is provided when necessary. For instance, a child is given apple juice for snack and reaches to pick it up with his hands. The adult provides a response block (e.g., blocks his hands), obtains the child's attention, and says, "Tell me what you want" (mand), places the communication card with the picture of juice on it in the child's hand, and physically guides his hand to the adult who has the apple juice (corrective model). If the child continues to ask for juice by using the picture card, the adult provides the juice paired with positive praise (e.g., "Good job asking"). If the child attempts to grab the juice again without using the communication card, the adult repeats the process. The purpose of the mand/model strategy is to develop independent skills by providing the child with a prompt and an example of performing the communicative response correctly. The adult continues with this procedure until a performance criterion is met (e.g., child perform the task correctly for two days).

Time delay is another procedure often used in milieu therapy that involves the adult providing a stimulus and then waiting approximately 5 to 30 seconds, based on the child's developmental and mental age, for a child-initiated response (Kaiser, 1993). Time delay typically is combined with other techniques such as the mand-model. If the child does not respond, the adult provides a mand-model. For example, a child may want his coat, but need help getting it from the shelf. While attending to the child, the adult waits for a period of 5 to 30 seconds (depending on the child's developmental level) for the child to request help. If the child requests by using a communicative response such as a picture card or vocalization, the adult provides immediate praise and a correct model, "You want your coat?" If the child does not independently request help within the time delay, the adult provides a mand-model. The amount of time delay chosen depends on the child's level. The longer the wait period, the greater the chance of losing the child's interest; therefore, care is needed in choosing the appropriate time delay. The purpose of time delay is to decrease the child's dependence on adult prompting, instructions, and models; thus, promoting independent and spontaneous (i.e., unprompted) communication.

Incidental teaching is another strategy often employed within the framework of milieu teaching. Incidental teaching is a process where communication skills are learned in naturally occurring interactions or interactions arranged in natural contexts, which may be the reason the terms incidental teaching and milieu therapy have been used interchangeably at times. Hart and Risley (1968; 1975) described incidental teaching as an interaction between an adult (e.g., parent) and a child during unstructured situations such as free play where the child controls the incidences in which teaching occurs by signaling interest in the environment. For example, while playing with toy cars, a child may point to a car and say, "ca". The adult reinforces this behavior by providing positive praise and giving the child the toy car. Incidental teaching typically is combined with the other procedures and is applied during situations when children are requesting either vocally or non-vocally. Prompts are provided if necessary. Further, access to desired objects is contingent upon correct responses, which are followed by behavior specific praise. For example, an adult may create a situation by "accidentally" forgetting to give a child her milk during snack (i.e., sabotaging the environment). The adult then would use the aforementioned techniques to enhance communication by giving a prompt when needed, praising the child for correct responses, and giving the child the milk (contingent access) for correct responses. The purpose of incidental

teaching is to promote fluency and expand skills of children with delayed language skills, which may include children with ASD (e.g., see Hart & Risley, 1975; MacDuff, Krantz, MacDuff, & McClannahan, 1988).

Considering the limited research with children with autism disorder, this study aims to further explore the effect of implementing enhanced milieu teaching strategies on the communication skills of young children with autism spectrum disorder.

Method

Participants

Participants were ten children between the ages of five and seven who attended a school for children with developmental disabilities (Tarbya Fekrya). All children attended the same classroom within the school. Parental informed consent forms were sent home by the school director and school psychologist to parents of potential participants telling them about the study and requesting them to give permission for their children to participate. Through a previous comprehensive psychological evaluation each targeted child had received a primary diagnosis of Autistic Disorder. All children were also capable of communication using speech assessed through a combination of teacher report and observation. They were so-called high functioning.

Each child also had the following characteristics: (a) meet the full criteria for autism according to The Scale for Screening Autism Disorder(Mohammed, 2003) (b) functional verbal communication, (c) able to read and comprehend words, and (d) ability to follow directions.

Instrument

Verbal communication questionnaire: a 20-item teacher-report questionnaire. It is based on the Autism Diagnostic Scale (Adel Abdulla Mohammed, 2003). Respondents are asked to rate their level of agreement using a five point Likert response scale (3=Always, 2=Sometimes, 1=Never). The Cronbach alpha value was high (0.89) indicating excellent internal consistency.

Procedures

Screening: Participants were ten children between the ages of five and seven who attended a school for children with developmental disabilities. Each child also had the following characteristics: (a) meet the full criteria for autism according to The Scale for Screening Autism Disorder (Adel Abdulla Mohammed, 2003), (b) functional verbal communication, (c) able to read and comprehend words, and (d) ability to follow directions.

Pre-intervention testing: Teachers were asked to rate child's Verbal communication skills on Verbal communication questionnaire.

General Instructional Procedures: The intervention implemented in this study, Enhanced Milieu Teaching (EMT) is a hybrid naturalistic teaching procedure that includes four components: (a) environmental arrangement, (b) responsive interaction, (c) specific language modeling and expansions, and (d) milieu teaching prompts. When implementing EMT, the adult: (a) arranges the environment to set the stage for adult-child interactions and to increase the likelihood that the child will initiate to the adult (environmental arrangement); (b) models specific language targets appropriate to the child's skill level in response to the child's communication and connected to the child's play and focus of interest (modeling, responsive

interaction); (c) expands child communication forms by adding words to child utterances (expansions, responsive interaction); and (d) responds to the child's requests with prompts for elaborated language consistent with the child's targeted skills and functional reinforcement of the child's production of prompted target forms by providing access to requested objects and verbal feedback for communication (milieu teaching prompts).

The Post test was administered on all the students of Control Group and Experimental Group at the end of 20 sessions. Responses were carefully recorded and scored.

Results

The first objective of the study was to determine if implementing enhanced milieu teaching strategies would be more effective for the treatment group compared to the control group .For this purpose, the post intervention scores of both treatment and control groups were analyzed. Table 1 shows Z Value result for the differences in post- test mean rank scores between experimental and control groups in communication skills. The table shows that (Z) value was (-2. 627).This value is significant at the level (0.05) in the favor of experimental group .

Table 1. *Mann-Whitney test results, rank mean values for both groups (experimental and control), Z test statistical values, and observed significance*

Variables	**group**	**N**	**Mean Rank**	**Sum Of Ranks**	**Mann Whitney**	**Z**	**Sig.**
Communication Skills	Ex	5	8	40	zero	-2. 627	0.05
	con	5	3	15			

The second objective of the study was to determine the effect of implementing enhanced milieu teaching strategies on the communication skills of young children with autism spectrum disorder. The children's performance on communication skills was measured pre and post intervention. Table 2 shows Z Value result for the differences in pre- post- test mean rank scores of experimental group in communication skills .The table shows that (Z) value was(-2.032). This value is significant at the level (0.05).

Table 2. *Z Values results for the comparison of mean rank scores of experimental group at pre- and post intervention in communication skills*

Variables	**Negative Ranks**		**Positive Ranks**		**Z Value**	**Sig.**
	Mean	Sum	Mean	Sum		
Communication Skills	3	15	Zero	Zero	-2.032	0.05

Discussion

The present study evaluated the effects of implementing enhanced milieu teaching strategies on the communication skills of young children with autism spectrum disorder. The study results showed that the enhanced milieu teaching strategies was effective in increasing communication skills of all children participated in this study.

This study supports and extends the literature regarding enhanced milieu teaching strategies (Hancock and Kaiser ,2002; McGee et al., 1985; Miranda-Linne & Melin, 1992; Ross and Greer ,2003; Warren & Gazdag, 1990; Yoder & Warren, 2002).

Researchers in this area have focused primarily on increasing targeted communication skills. They have investigated the effects that techniques such as time delay and incidental teaching have on the communication of children with ASD. As researchers examined milieu therapy, they successfully implemented the milieu intervention strategies in the natural environment, which resulted in an increase in communication skills.

Implications

Several strengths of enhanced milieu teaching strategies are evident. First, various techniques such as time delay (Johnson et al., 2004) and mand/model/correct (Ross & Greer, 2003) have produced positive results such as increasing the response variation of children's communicative skills (Warren & Gazdag, 1990; Yoder & Warren, 2002). For example, Hancock and Kaiser (2002) showed an increase in the MLU (complexity) and vocabulary (diversity) of children with ASD. Second, the majority of the milieu therapy research has been conducted in the children's natural environment. Six out of 8 (75%) studies were conducted in a natural environment. Third, parents and teachers have demonstrated the ability to be effective natural change agents using milieu therapy (7 out of 8, 88%, research studies reviewed). For example, a mother implemented enhanced milieu teaching strategies in a study conducted by Hancock and Kaiser (2002). In a study conducted by Ross and Greer (2003), a teacher implemented the milieu therapy interventions. Finally, researchers consistently have demonstrated that communication skills taught to children with ASD using enhanced milieu teaching strategies generalize to other people and settings (McGee et al., 1985) and have greater maintenance than discrete trial procedures (Miranda-Linne & Melin, 1992).

Limitations

One limitation of this research that is thought to have an effect on the results of the research is that the number of participants makes it difficult to support arguments for generalization to other populations. So, larger samples must be investigated before broad conclusions can be made.

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The Relationship between Motivation and Job Satisfaction of Secondary School Teachers*

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Abstract
This study aimed to find out the relationship between teachers'-who are on duty in Aydın's Efeler town-motivation level and job satisfaction. The sample of this study is 268 teachers. Results of research showed that teachers' organizational-administrational motivation level is higher than economic and psycho-social motivation level. In addition to this internal satisfaction level is higher than external satisfaction. According to demographic variables female teachers' organizational-administrational motivation level is higher than male teachers. Teachers whose teaching department is mostly consist verbal lessons have higher organizational-administrational motivation level than quantitative department teachers. On the other hand, teachers whose teaching department is mostly consist skills lessons have higher internal and general satisfaction level than quantitative department teachers. There is a positive significant correlation between teachers' motivation level and job satisfaction. The psycho-social motivation level and internal satisfaction have the highest rank.

Key words*: Motivation, job satisfaction, teacher, secondary school.*

Introduction

Recently, by means of proliferating of knowledge and demanding to access it and together with arising competition environment, organizations focused on getting high products with low costs. As a result of this situation, in organizations staff productivity required as a vital notion and some different motivation theories has been developed associated with staff productivity. Urging and motivating staffs in order to do something process is very complex. It is possible to see this complexity in current theories. No doubt, fecundity in work life can only possible by enriching productivity and fertility of public servants. This can be provided by highly motivated and job satisfied staff. In order to fulfill organizational purposes and meet the expenses of staff to create an environment which provides organizational motivation climate is vitally important. In organizations which don't provide minimum conditions in order to work at a certain level both organizational purposes cannot be reached and the participation of workers to organization will be limited, even they will void to use their current capacity (Sağlam, 2007: 53). As a socially open system in an education organizations productivity can be provided by human sources not by machines. During the generating this productivity staff's feeling, enthusiasm and exciting has a great importance (Karaköse and Kocabaş, 2006: 4). Therefore, similar with global congeneric, to provide high job satisfaction and motivation for staff of education and instruction organizations in Turkey is very important. Education and instruction organizations are very important for society because of their vitally significant function of "human training". The main base of society is "human factor" and by reason of this situation the process of motivating and satisfying teacher, who will directly arise the quality of education, is so important.

According to Akbaba (2010: 43) motivating is somebody's going into action to do something. Humans, naturally, motivate by different methods and types. As matter of this fact while some teachers are motivated by economic factors, some motivated by being appreciated and success expectance but some teachers are motivated by being a useful for students. The more teachers fulfill these expectance the more they will be happy and satisfied from their occupation. Motivation provides some profits to organizations in terms of developing competition interpersonal and to give opportunity to staff for developing their talents and enable to overcome some social needs (Genç, 2007: 262-263). Actually, it can be claimed that those who are properly motivated can quickly reach their organizational and individual purposes.

Job satisfaction is another being focused subject of this research and it can be describe as ones direct or indirect emotional feelings behind evaluating his work or work experience. If attitude of work motivate worker also there is a "job satisfaction", if not there is "job dissatisfaction" (Rutherford, 2009; cited from Demirel, 2013: 222). Dissatisfied desires and needs in time can cause some spiritual stress and unbalanced behaviors. Just only after the depleting or diminishing this stress individuals will be satisfied. Internal unbalanced feelings or motives cannot be easily observed or measured from outside. But with observing some behaviors, which are depend on environmental conditions, and by some kinds of encouragement instruments the qualification of those motives and feelings can be described. Also by satisfying personal needs, diminishing internal stress and unbalanced feelings is possible and thus the intensity of driving force decreases. In social organizations a lot of negative attitudes and behaviors even uprisings cause from individuals unsatisfied desires or needs (Eren, 2011: 531). As can be understood from descriptions it can be claimed that there is a relationship between motivation and job satisfaction (Başaran, 2008: 263). Motivation begins with some needs to something. Unless getting satisfaction or accessing his/her purpose one feels a psychological emptiness. This situation can cause a psychological unbalancing and stress. In order to finish this unbalancing it should be fulfill the need. Thus one can deeply feel a happiness of reaching satisfaction. Together with there is no any satisfaction type which permanently makes individuals happy. After finishing one need, another need begins and motivation process follows same road at every turn (Kaya, 2006: 145-146). A relationship between motivation and job satisfaction can be described as below (Genç, 2007: 261-262)

- In organizations workers have also some psycho-social needs, desires and demands, purposes and targets apart from physiologic needs and social assurance. In organizations as much as workers feel satisfaction in terms of income amount and other physical conditions they feel satisfaction in terms of psycho-social needs.
- One of the main factors of increasing organizational fertility and productivity is to make workers a partner of organizational decisions and creating an opportunity for taking roles in the name of important subjects and giving a chance in order to show their talents. According to some researches this situations makes a dramatic increase in job satisfaction and also provides dramatic decrease in organizational conflict and workforce turnover speed.

According to Aydın (2008: 361) getting satisfaction compasses a larger meaning than motivation. Motivation can be regarded as a type or a form of satisfaction. Relationship between motivation and job satisfaction is explained in great detail in the Expectance Theory of Porter-Lawler. From this point of view it can be claimed that motivation, talent, labor, intelligence, perception of role and organizational structure is vitally important for one's getting success. One gets success by his/her labor, talent, intelligence, role perception and organizational structure and his/her successful end up with inner and outer rewards, thus one feels psychological satisfaction. One who feels satisfaction because of his/her success again feels motivation in order to success again and this process goes on like this cycle.

Inputs and outputs of education organizations are humans. Humans as a production of education organizations, after graduation not only becomes an occupation owner but also and more significantly they become individuals who create, change and develop society. Therefore there are education organizations and schools in order to develop students' some kinds of talents and cognitive skills towards basic purposes of Ministry of National Education. Thus, education organizations and schools reshape students. During this period the most difficult duty is belong to teachers. In order to train students towards the purposes of organizations their job satisfaction and motivation is required. Teachers' job satisfactions and motivations are vitally important in terms of education quality. Principals' building

interactional, constructive and positive communication methods with teachers and also supporting behaviors towards them not only develop school climate but also participate teachers self-adequate feeling and enhancing their job satisfaction and motivation. Hence, both educational qualities and efficiency will be raised.

Both taking into consideration to necessity of organizations trying to continue their presence and obligation of using all sources effective and productive it is clear that in 21st century the most important purpose of education is to teach some problem solving skills and to teach some basic skills relevant to accommodating to social values and bring up students who are profitable to state and society and who can think productive and scientific. To achieve accessing mentioned educational purposes and to give quality and intended educational service is closely related with teachers' success. Teachers' effective and productive working is just only possible with motivating them towards organizational purposes. In fact, recent developments in educational structure and system have great effect on teachers' motivation and job satisfaction level. The main purpose of this research is to find out the relationship between the job satisfaction and motivation of secondary school teachers'.

Method

Method of Research

This research aims to find out the relationship between secondary school teachers' motivation level and teachers' job satisfaction level and it has been designed as a relational screening model (Karasar, 2012: 81). In order to measure the level and also the relationship of teacher motivation and job satisfaction some scales has been fulfilled by teachers and thus according to teacher views this relationship has been described.

Population and Sampling

The target population of this research consist totally 1041 teachers who are in charge in the 34 state schools in the city of Aydın and Efeler town in Turkey. Due to impossibility of accessing all of universe, the research has been carried out on the sample. Towards the purpose of research the "stratified sampling" and "simple random sampling" methods have been selected in order to collect data. According to Balcı (2009: 93) stratified sampling method provides an opportunity of high level of representation in the universe to sub-groups. During the sample size calculating process it has been benefited from the Sample Size Table and according to this table for all universe of this research (1041 teachers) the sample size has been calculated as a 285 secondary school teachers for $\alpha = .05$ significant level and 5 % tolerance (Ural and Kılıç, 2005:43). But due to some possible missing and possible problems during getting back scales and keeping other possibilities in mind sample size has been calculated as a 342 teachers which is 20 % over than first size.

In the second phase of sample sizing the secondary schools which are in Aydın's Efeler town has been stratified according to their size as a large, medium and small. "Small" encompasses those schools which has less than 601 students, "medium" encompasses those schools which have between 601-1200 students and "large" school encompasses those schools which have over than 1201 students (Karakütük, Tunç, Bülbül, Özdem, Taşdan ve diğerleri; 2012: 184). Small schools have 487 teachers, medium schools have 163 teachers and large schools have 391 teachers and totally calculated teacher number is 1041. By protecting representing value and according to this computational range the real sample size has been calculated. Schools in sample have been selected by using simple random sampling method. As a result scales have been given to totally 473 teachers in 10 schools. But after

filling scales some teachers have not deliver back and some have not filled scales according to filling instruction. However, for validity and reliability of scale, together with scales which are in extreme values totally 30 of them have not taken into consideration. Eventually, totally 268 valid scales have been taken into consideration.

Data Collection methods

In this study Minnesota Job Satisfaction Scale, Motivation Scale and demographic questionnaire form which has been developed by researchers have been used.

Demographic Questionnaire Form: This form has been developed by researchers and contains some data about teachers' sex, age, branch, tenure, graduated school, service time in current school and selecting teaching as an occupation whether or not voluntarily.

Minnesota Job Satisfaction Scale: In order to determine teachers' job satisfaction level, Dawis, Wiess, England and Lofquist (1967) have selected and united the inner and outer satisfaction factors from the longer form of Minnesota Job Satisfaction Scale (100 items) and then create the short version of Job Satisfaction Scale (20 items). This shorter version composed of two factors. One the factors is internal satisfaction (12 items) and external satisfaction (8 items). Minnesota Job Satisfaction Scale is a kind of Likert scales and it can be marked between 1-5 points. Minnesota Job Satisfaction Scale is frequently used by a lot of researcher on teachers because of its easily understandable of questions, correctly classifying the factors, and easily evaluating [Duman (2006), Serinkan ve Bardakçı (2007; Akkan (2008), Türkoğlu (2008), Okan (2010), Adıgüzel, Karadağ ve Ünsal (2011), Türkçapar (2012)]. After the doing factor analyze it is detected that all items have congregated under two factors and this is in agreement with original version. A Cronbach alpha coefficient of scale is .80 and for internal factor it is .72, for external factor it is .64. Items similarly with original version congregated under two sub-dimensions.

Motivation Scale: In order to determine views of teachers on principals' motivating methods of teachers Çiçek (2002) has developed Motivation Scale and also in this research it has been used. Scale contains these sub-dimensions: Psycho-Social (8 items), Organizational-Administrative sub-dimension (14 items) and Material sub-dimension (9 items). Totally there are 31 items. Motivation Scale is a kind of Likert Scale and it is marked between 1-5 points. Both in Uz's (2009) research and this research after the factor analyzing in agreement with original version 3 sub-dimensions have been found. A Cronbach coefficient of scale is .94. psycho-social sub-dimension Cronbach alpha coefficient is .85, organizational-administrative sub-dimension Cronbach alpha coefficient is .92 and material sub-dimension Cronbach alpha coefficient is .89.

Data Analysis

In the research the descriptive statistics (frequency and percent) sample's demographic variables have been calculated. Teachers' motivation and job satisfaction level; average and standard deviation values and parametric difference tests (such as t-test and ANOVA) which are belong to teachers' job satisfaction and motivations independent variables have been calculated. These independent variables are teachers' sex, age, branch, tenure, graduated school, service time in current school and selecting teaching as an occupation whether or not voluntarily. And also Scheffe test has been done in order to determine the source of difference. With the aim of determining the relationship of teachers' motivation and job satisfaction Pearson Moments Correlation Coefficient test has been used. The significant level is regarded as a $p<0.05$ and $p<0.01$.

Findings

Findings about Teachers' Motivation Level: Among the items of teachers' psycho-social motivation scale the item of "Verbally and immediately celebrating a teacher for his/her high performance" ($\bar{X}$ =3.96) has the highest level. On the other hand the lowest marked item is "Declaring the most successful teacher of month on the bulletin board" ($\bar{X}$ =2.82).

Among the items of teachers' organizational-administrative scale the item of "Being impartial during the evaluating teachers" ($\bar{X}$ =4.46) is relatively has the highest marking. Relatively the lowest marked item is "Encouraging teachers for the participation of seminar, conference, in service training etc. activities" ($\bar{X}$ =3.58)

Among the items of teachers' material motivation scale the item of "Rewarding teachers by proposing a salary for successful ones" ($\bar{X}$=3.93) has relatively the highest marking. On the other side under this factor relatively the lowest marked item is "Rewarding teachers by buying some toys as a gift for their children" ($\bar{X}$= 2.84).

It has been detected that secondary school teachers are mostly motivated firstly from the organizational-administrative sub-dimension ($\bar{X}$= 4.08), secondly from material sub-dimension ($\bar{X}$ =3.54) and the lastly psycho-social sub-dimension ($\bar{X}$ =3.46). Teachers' motivation frequency has been found out as a "mostly" from the organizational-administrative, psycho-social, material and general motivation methods.

According to sex variable while psycho-social [$t_{(266)}$= 1.266, p> .05], material [$t_{(266)}$= 1.548, p> .05] and general [$t_{(266)}$= 1.868, p> .05] motivation methods have no any statistically meaningful difference the organizational-administrative [$t_{(266)}$= 1.985, p< .05] method has statistically meaningful difference at the level of teachers' motivation. At this dimension female teachers' ($\bar{X}$ =4.15) motivation level is higher than male teachers ($\bar{X}$ =4.01).

According to branch variable while psycho-social [$F_{(2,265)}$= 1.972, p> .05], material [$F_{(2,265)}$= .186, p> .05] and general [$F_{(2,265)}$= 1.540, p> .05] motivation methods have no any statistically meaningful difference on teachers motivation level, organizational-administrative sub-dimension has statistically meaningful difference [$F_{(2,265)}$= 3.553, p< .05]. In other words the teachers' motivation level at the dimension of organizational-administrative differ with respect to teachers' branch. In order to determine the source of difference the Scheffe test has been done and according to the test results the verbal weighted lesson teachers organizational-administrative motivation level ($\bar{X}$=4.17) is higher than quantity weighted lesson teachers' ($\bar{X}$= 3.96) motivation level.

According to age variable teachers' psycho-social [$F_{(4-263)}$= 1.189; p> .05], organizational-administrative sub-dimension [$F_{(4-263)}$= 1.032; p> .05], material sub-dimension [$F_{(4-263)}$= .687; p> .05] and general motivation sub-dimension [$F_{(4-263)}$= 1.014; p> .05] have no any statistically difference. The sub-dimensions of motivation have no any effect on teachers' motivation according to age variable.

According to tenure variable teachers' psycho-social sub-dimension [$F_{(4-263)}$= 1.080; p> .05], organizational-administrative sub-dimension [$F_{(4-263)}$= 1.793; p> .05], material sub-dimension [$F_{(4-263)}$=.755; p> .05] and general motivation sub-dimension [$F_{(4-263)}$= 1.417; p> .05] have no any statistically difference. The sub-dimensions of motivation have no any effect on teachers' motivation according to tenure variable.

According to variable of service time in current school teachers' psycho-social sub-dimension [$F_{(2-265)}$= 1.033; p> .05], organizational-administrative sub-dimension [$F_{(2-265)}$ = .597; p> .05], material sub-dimension [$F_{(2-265)}$=.222; p> .05] and general motivation sub-dimension [$F_{(2-265)}$= .253; p> .05] have no any statistically difference. According to these

findings the motivation level of teachers in terms of service time in current school variable is similar.

According to variable of graduated school type variable psycho-social sub-dimension [$F_{(2-265)}$= 1.604; p> .05], organizational-administrative sub-dimension [$F_{(2-265)}$= 2.381; p> .05], material sub-dimension [$F_{(2-265)}$=.1.499; p> .05] and general motivation sub-dimension [$F_{(2-265)}$= 2.296; p> .05] have no any statistically difference. According to these findings the motivation level of teachers in terms of graduated school variable is similar.

According to variable of selecting teaching as an occupation whether volunteer or not teachers' psycho-social sub-dimension [$t_{(266)}$= .331; p> .05], organizational-administrative sub-dimension [$t_{(266)}$= 1.583; p> .05], material sub-dimension [$t_{(266)}$= .08; p> .05] and general motivation sub-dimension [$t_{(266)}$= .759; p> .05] have no any statistically difference. According to this result it can be claimed that the level of teachers' motivation does not originate from the selecting occupation.

According to variable of the size of school psycho-social sub-dimension [$F_{(2-265)}$= 1.591; p> .05], organizational-administrative sub-dimension [$F_{(2-265)}$= 2.031; p> .05], material sub-dimension [$F_{(2-265)}$=.85; p> .05] and general motivation sub-dimension [$F_{(2-265)}$=1.477; p> .05] have no any statistically difference. The size of school has no any effect on the teacher's motivation level.

Findings about Teachers' Job Satisfaction Level: Among the internal satisfaction level of secondary school teachers while relatively the highest marked item is "Having the possibility of doing something for others" ($\bar{X}$ =4.40), relatively the lowest marked item is "Carrying out the decisions about job" ($\bar{X}$=3.55).

Among the external satisfaction level while relatively the highest marked item is "My colleagues" ($\bar{X}$=4.20), the lowest marked item is "My job and on condition that my earning" ($\bar{X}$=2.66). Also it has found out that the secondary school teachers' relatively live mostly internal satisfaction ($\bar{X}$=3.93), secondly general satisfaction ($\bar{X}$=3.77) and lastly external satisfaction ($\bar{X}$=3.52). Teachers' internal, external and general satisfaction level is at "satisfied" level.

According to variable of the teacher's sex, internal [$t_{(266)}$= .086, p> .05],external [$t_{(266)}$= .957, p> .05] and general satisfaction level [$t_{(266)}$= .432, p> .05] have no any statistically meaningful difference. According to this result teachers' job satisfaction does not differ in terms of sex. In other saying female and male teachers' internal, external and general satisfaction level is similar.

According to variable of the teacher's branch teachers' job satisfaction level while there is no statistically meaningful difference in external dimension [$F_{(2,265)}$= 2.571, p > .05]; there is a statistically meaninful difference in internal satisfaction [$F_{(2,265)}$= 4.008, p < .05] and general satisfaction [$F_{(2,265)}$= 4.042, p < .05]. Teachers' internal and general job satisfaction level has difference according to branch. In order to determine the resource of difference the Scheffe test has been done and according to test level the talent lesson teachers' internal job satisfaction ($\bar{X}$=4.05) is higher than those who are the teachers ($\bar{X}$=3.87) of quantity weighted lessons. Similarly skills lessons teachers' general job satisfaction level ($\bar{X}$ =3.88) is higher than those who are the teachers ($\bar{X}$=3.70) of quantity weighted lessons. Due to students' regarding of quantity weighted lessons as a hard and mostly preferring skills weighted lessons cause the low success feeling for quantity weighted lessons. And it can be claimed that this situation affects teachers' job satisfaction.

According to variable of the teacher's age internal [$F_{(4-263)}$= .372; p> .05], external $F_{(4-263)}$= .808; p> .05] and general job satisfaction level [$F_{(4-263)}$= .617; p> .05] has no statistically meaningful difference. According to age variable teachers' job satisfaction level is similar.

According to variable of the teacher's tenure internal [$F_{(4-263)}$= .863; p> .05], external [$F_{(4-263))}$= .602; p> .05] and general job satisfaction level [$F_{(4-263)}$= .760; p> .05] has no statistically meaningful difference. According to tenure variable has no any effect on teachers' job satisfaction level. According to variable of service time in current school teachers' internal [$F_{(2-265)}$= .204; p> .05], external [$F_{(2-265)}$= .029; p> .05] and general job satisfaction level [$F_{(2-265)}$= .131; p> .05] has no statistically meaningful difference. According to this variable teachers' job satisfaction level is similar.

According to variable of teachers' graduated school type internal [$F_{(2-265)}$= .862; p> .05], external [$F_{(2-265)}$= .117; p> .05] and general job satisfaction level [$F_{(2-265)}$= .354; p> .05] has no statistically meaningful difference. According to this variable teachers' job satisfaction level is similar. According to variable of selecting teaching as an occupation whether volunteer or not teachers' while internal [$t_{(266)}$= 1.895; p> .05] and external satisfaction level [$t_{(266)}$= 1.933; p> .05] has no statistically meaningful difference, general job satisfaction level [$t_{(266)}$= 2.135; p< .05] has statistically meaningful difference. The level of general job satisfaction of teachers ($\bar{X}$=3.79) who selected their occupation voluntarily is higher than other teachers ($\bar{X}$=3.60) who have not selected their occupation voluntarily.

According to schools size variable; internal [$F_{(2-265)}$= 1.420; p> .05], external [$F_{(2-265)}$= 2.522; p> .05] an general job satisfaction level [$F_{(2-265)}$= 2.157; p> .05] as no statistically meaningful difference. In other saying teachers who are in charge in small, medium and large size schools have similar job satisfaction.

Findings about Relationship between Job Satisfaction and Motivation: In the Table 1 there is a job satisfaction and motivation correlation test results which are belong to research participator secondary school teachers.

Table 1. *The Results of Pearson Moments Correlation coefficient for the relationship between teachers' motivation and job satisfaction level*

PSM	**OAM**	**MM**	**GM**	**GJS**	**IS**	**ES**
-						
.638**	-					
.755**	.550**	-				
.897**	.849**	.877**	-			
.159**	.128*	.175**	.176**	-		
.216**	.156*	.171**	.205**	.915**	-	
. 053	.066	.141*	.101	.875**	.607**	-

PSM: Psycho-Social Motivation; **OAM:** Organizational-Administrative Motivation; **MM**: Material Motivation; **GM**: General Motivation; **GJS**: General Job Satisfaction; **IS**: Internal Satisfaction; E**S**: External Satisfaction; p value is meaningful at the level of. 05*; p value is meaningful at the level of 01**.

As shown in Table 1, teachers' psycho-social motivation has positive medium level relationship between organizational-administrative motivation (r = .64; p< .01); there is a positive and high relationship between material motivation and psycho-social motivation (r= .76; p< .01); there is a positive and high relationship between general motivation and psycho-social motivation (r= .90; p< .01. There is a low and positive relationship between general job satisfaction and psycho-social motivation (r= .16; p< .01), There is a low and positive relationship between inner satisfaction and psycho-social motivation (r= .22; p< .01).
Also there is a medium and positive level significant correlation between teachers' organizational-administrative motivation and material motivation (r= .55; p< .01); there is a high and positive level significant correlation between general motivation and organizational-administrative motivation (r= .85; p< .01); there is a low and positive level significant correlation between general job satisfaction and organizational-administrative motivation (r = .13; p< .05); there is a low and positive level significant correlation between inner satisfaction and organizational-administrative motivation (r= .16; p< .05).

On the other hand, there is a high and positive level significant correlation between teachers' material motivation and general motivation (r= .88; p < .01); there is a low and positive level significant correlation between material motivation and general job satisfaction (r= .18; p < .01); there is a low and positive level significant correlation between material motivation and inner satisfaction (r= .17; p < .01) and there is a low and positive level significant correlation between material motivation and outer satisfaction (r= .14; p < .05).

There is a low and positive level significant correlation between teachers' general motivation and general job satisfaction (r= .18; p< .01) and there is a low and positive level significant correlation between teachers' general motivation and internal satisfaction (r= .21; p< .01).

There is a high and positive level significant correlation between teachers' general job satisfaction and internal satisfaction (r= .92; p< .01) and there is a high and positive level significant correlation between teachers' general job satisfaction and external satisfaction (r= .88; p< .01). And there is a medium and positive level significant correlation between internal and external satisfaction (r= .61; p< .01).

Discussion and Conclusion

Teachers' highest motivation method is firstly organizational-administrative method, secondly material motivation and the lowest is psycho-social motivation method. Teachers' motivation is at the "mostly" level for all types of motivation sub-dimension. There are similar results in the studies of Çiçek (2002) and Yıldırım (2009). According to the Uz's (2009) study teachers are motivated mostly from organizational-administrative sub-dimension and secondly psycho-social motivation and material motivation methods are mostly motivate teachers. By the way in the Kadı and Selçuk's (2012) research psycho-social motivation material motivation methods mostly motivate teachers and organizational-administrative methods are the highest motivator.

While teachers' sex has no any statistically meaningful difference in psycho-social motivation, material motivation and general motivation but there is a statistically meaningful difference on organizational-administrative sub-dimension. In this sub-dimension female teachers have higher and meaningful average than male teachers. According to Çiçek (2002), Yılmaz (2009), Yıldırım (2009) and Kadı and Selçuk (2012) there is no meaningful difference according to teachers sex in their motivation level. Nevertheless according to Kulpcu (2008)

primary school teachers' motivation level has statistically meaningful difference and female teachers' motivation level is higher than male teachers' motivation level.

While teachers' branch has no statistically meaningful difference in the psycho-social motivation, material motivation and general motivation sub-dimension but there is statistically meaningful difference in the organizational-administrative sub-dimension. Especially verbal weighted lesson teachers' motivation level is statistically meaningful and higher than quantity weighted lesson teachers' motivation level. Between teachers' age and motivation level any meaningful difference is detected. As a matter of fact according to Gökçe (2009), Yılmaz (2009) and Kadı and Selçuk (2012) it is found out that there is no any meaningful difference between teachers' motivation and teachers' age. By the way Recepoğlu (2012) found meaningful difference between teachers' motivation level and age. Those who are between 22-30 ages have the highest motivation level and those who are between 41-50 ages have the lowest motivation level.

In this study it has determined that there is no any meaningful difference between teachers' tenure and motivation level. Also according to Kulpcu (2008), Özdöl (2008) and Kadı and Selçuk (2012) there is no any meaningful difference between teachers' tenure and motivation level. In the study of Gökçe (2008) a meaningful difference has been found between teachers' motivation level and occupational tenure. According to this study those who have 0-3 year tenure have higher motivational level than those who have 6-10 year tenure. In Yıldırım's (2009) research organizational-administrative sub dimension has statistically meaningful difference has been found out.

Teachers who have 16-20 year tenure have lower motivational level in the sub-dimension than those whose occupational tenure is below 5 year. According to Recepoğlu (2012) teachers whose occupational tenure is between 1-5 years have the highest motivational level. Similarly Gupta and Gehlawat (2013) in their research found out that teachers whose occupational tenure is low have statistically meaningful higher motivational level than those whose occupational level is high. The possible resource of this difference is researchers collecting data from many groups apart from secondary school teachers. The variable of teacher service time in current school has no any statistically meaningful difference in the sub-dimensions of psycho-social, organizational-administrative, material and general motivation. Yılmaz (2009) and Recepoğlu (2012) also found same results in their studies. Teachers' graduated school type variable also has no any statistically difference in the sub-dimensions of motivation. Correspondingly, there are similar results in the Gökçe's (2009) and Yıldırım's (2009) study. The variable of voluntarily selection of occupation has no any statistically meaningful difference in the sub-dimensions of psycho-social, organizational-administrative, material and general motivation. Also there is no any statistically meaningful difference in terms of the variable of school size.

Findings about Teachers' Job Satisfaction: Secondary school teachers relatively have mostly internal satisfaction, secondly general satisfaction and lastly external satisfaction. The average of teachers' internal, external and general satisfaction level is at "I am pleased". In the external satisfaction sub-dimension, relatively the lowest item is "My job and on condition that my earning". Sarpkaya (2000), Demirel (2006), Akkan (2008), Ersözlü (2008) and Tunacan and Çetin (2009) have found similar results in their studies. And according to these studies teachers' salary satisfaction is "low". Teachers' salary and other personal rights should be rearranged in order to raise their social status and thus they can focus on school works and can use time much more efficient. Sex of teachers has no any significant difference in the sub-dimensions of internal, external and general satisfaction. According to this result teachers' job satisfaction does not differentiate in terms of their sex. Female and male teachers have similar job satisfaction level. Correspondingly, Sargent and Hannum (2005), Demirel

(2006), Çelik (2008), Özdöl (2008), Boğa (2010) Adıgüzen and others (2011) and Türkçapar (2012) found no difference in job satisfaction of teachers in terms of sex. However Sarpkaya (2000), Kartal (2006), Duman (2006), Akhtara, Hashmib and Naqvic (2010) and Şahin (2013) have significant difference in terms of teachers' sex. Duman (2006), Ololube (2006), Akhtara, Hashmib and Naqvic (2010) found female teachers' job satisfaction average higher than male teachers.

According to Sarpkaya's (2000) study, which has been done in Manisa city, difference is significant and in job satisfaction female teachers have lower average than male teachers. Also teachers' internal factors dependent job satisfaction has no significant difference but external factor dependent job satisfaction has meaningful difference and female teachers have higher average than male teachers. In the study of Kartal (2006), in terms of sex, male primary school teachers have significantly higher average than female primary school teachers. Also Tura (2012) found similar results according to sex variable male teachers have higher satisfaction in external and general satisfaction than female ones.

While teachers' job satisfaction level has no significant difference in the sub-dimension of outer satisfaction but there is significant difference in the sub dimensions of internal and general job satisfaction. Talent weighted lesson teachers' inner and general satisfaction level is higher than those who are teachers of quantity weighted lessons. Sarpkaya (2000) has not found and significant difference between teachers' branch and job satisfaction. Boğa (2012) social science teachers have higher job satisfaction than primary school teachers, foreign language teachers and special talent lesson teachers. Also primary school teachers, science teachers and special talent required lesson teachers have higher job satisfaction than foreign language teachers. According to teachers' age inner, outer and general satisfaction sub-dimensions have no any statistically significant difference. In terms of age variable teachers' job satisfaction level is similar. Sarpkaya (2000), Duman (2006), Çelik (2008), Özdöl (2008), Tunacan and Çetin (2009) and Adıgüzel and others (2011) have found no any significant difference between teachers' age and job satisfaction.

Kartal (2006), has found statistically significant difference between teachers' age and job satisfaction and primary school teachers' who are between the ages of 31-40 have significantly higher job satisfaction than those who are between the ages of 21-30. In Demirel's (2006) study a significant difference has been found between teachers' age and job satisfaction. According to this study teachers whose ages are between of 41-50 have higher job satisfaction than those whose ages are between of 31-40. Sargent and Hannum's (2005) study shows that younger teachers have lower job satisfaction than aged teachers. Talub (2013), in his study, found a contrary result. According to him teachers who are between of 20-25 ages have higher job satisfaction level than aged teachers. Ololube (2006) have found similar results in his study which has been done on Nigerian teachers. According to this study teachers who are between of 20-30 ages have higher satisfaction than those whose ages are higher than 31. According to teachers' another variable, there is no any significant difference between internal, external and general sub-dimensions of motivation and occupational tenure. From this point of view it can be claimed that occupational tenure does not affect teachers' job satisfaction. Adıgüzel and others (2011), Boğa (2010), Özdöl (2008), Türkoğlu (2008) and Sarpkaya (2000) have not found a significant difference between teachers' occupational tenure and job satisfaction.

In Çelik's study (2008) teachers' job satisfaction differs according to teachers their occupational service time. Those who have occupational tenure between of 5-10 years have the lowest job satisfaction. Demirel (2006) also has found that between teachers' job satisfaction and occupational tenure there is a significant difference. Those who have more

than 20 years occupational tenure have higher job satisfaction than those who have occupational tenure between of 11-19.

Similarly Duman (2006) has observed some significant difference among the observed teacher groups. Teachers who have more than 11 years of occupational tenure have more job satisfaction than those whose occupational tenure is between of 1-5 years. Beside this there is a significant difference between occupational tenure and internal factor dependent satisfaction and external factor dependent satisfaction. 11 years and above tenured teachers have higher internal satisfaction than 1-5 years tenured teachers. Also 11 years and above tenured teachers have higher external satisfaction than 6-10 year tenured teachers. Gupta and Gehlawat'ın (2013) in their study found that between high tenured teachers and low tenured teachers there is a significant difference in terms of job satisfaction. According to them low tenured teachers' job satisfaction is higher than high tenured teachers.

The variable of selecting teaching occupation as a voluntarily while there is no statistically difference between internal and external satisfaction sub-dimensions but there is a statistically significant difference general satisfaction sub-dimension and variable. Teachers who have selected teaching occupation voluntarily have much more satisfaction than those who have not selected teaching occupation voluntarily. While Çelik (2008) and Türkçapar (2012) in their study have not found any difference between job satisfaction and job selection type but Akkan (2008) has found some significant results. According to Akkan (2008) voluntarily job selecting teachers have much more job satisfaction than others.

Findings about Motivation and Job Satisfaction: There is a medium and positive relationship between teachers' psycho-social motivations and organizational-administrative motivation. Also there is a high and positive relationship between material and general motivation. Between teachers' psycho-social motivation and general job satisfaction and internal satisfaction low and positive relationship has been found. While between teachers' organizational-administrative motivation and material motivation a medium level and positive relationship has been found out but there is a high and positive relationship between general motivations. Between organizational-administrative motivation and general job satisfaction and internal satisfaction a low and positive relationship has been observed. Also while there is a high and positive relationship between material motivation of teachers and general motivation but there is a low and positive relationship between internal and external satisfaction and general satisfaction.

Between teachers' general motivation and general job satisfaction and internal satisfaction there is a low and positive relationship. Between general motivation of teachers and internal satisfaction and external satisfaction there is a high and positive relationship. Between internal and external satisfaction a medium level and positive relationship has been found. Beside them, the highest and positive relationship has been found between teachers' psycho-social motivation and internal satisfaction. Maharjan (2012) in his study of "Association between Work Motivation and Job Satisfaction of College Teachers" has found high and positive relationship between job motivation and job satisfaction. According to a forementioned study if teachers' job motivation arises also job satisfaction simultaneously arises.

In this study it is found out that teachers are motivated by several motivation instruments. They are the mostly motivated by organizational-administrative instruments, secondly motivated by material motivation instruments and the least motivated by psycho-social instruments. Also in this study it has been found that female teachers' organizational-administrative motivating level is higher than male teachers. Correspondingly this finding it is required that male teachers' organizational-administrative motivating level should be raised.

In order to rise male teachers' organizational-administrative motivating level, between school staff and school administrators good relationships should be developed. And during taking some administrative decisions about school administration process the administrative staff should be impartial and thus they will be gained the trust. Also all school workers can provide the increase the social status of teacher by taking some precautions. Verbal weighted lesson teachers who are also work in secondary schools have statistically meaningful higher organizational-administrative motivating level then those who are quantity weighted lesson teachers and charge in secondary schools. Some informing trainings can be done in order to raise quantity weighted lesson teachers' psycho-social motivating level. Also according to findings of this research, teachers' internal satisfaction level is higher than external satisfaction level.

Special skill required lesson teachers' internal and general job satisfaction level are higher than the quantity weighted lesson teachers' internal and general job satisfaction level. In parallel with this research it can be claimed that there is a positive and statistically meaningful relationship between teachers' motivation and job satisfaction level. The highest level is between teachers' psycho-social motivation and internal satisfaction. From this point of view it can be declared that teachers who have high job satisfaction they also have high motivation level. Due to this research's sample just only encompasses teachers who are in charge in city of Aydın's secondary schools there are some limitations about generalizing the results to whole teachers who work in the name of Turkish secondary schools. Therefore by receiving some support, enlarging sampling is possible and hence getting some generalizable results is guessed.

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Vocabulary Acquisition and Verbal Communication in Children with Autism: The Effects of a Video Modeling Intervention

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Abstract
This study explores whether or not Video modeling intervention has positive effects on vocabulary acquisition and verbal communication of children with autism. Participants were ten children between the ages of five and seven who attended a school for children with developmental disabilities (Tarbya Fekrya). A pre- post design was used to examine the effectiveness of the Video modeling intervention Strategy on vocabulary acquisition and verbal communication of the target children. Findings from this study indicated the effectiveness of the Video modeling intervention employed in teaching the target children vocabulary acquisition and verbal communication. On the basis of the findings, the study advocated for the effectiveness of the Video modeling intervention employed in teaching the target children vocabulary acquisition and verbal communication.

***Keywords*:** Video modeling intervention, vocabulary acquisition, verbal communication autism

Introduction

Children with autism do not acquire vocabulary like typically developing children (Smith, Mirenda & ,Zaidman-Zait, 2007).They have various communication difficulties(Sigman & McGovern, 2005)and a fundamental problem for many is lack of comprehension of what they hear (Charman, Drew, Baird & ,Baird, 2003). These children do not learn to communicate like typical children (Sundberg & Partington1998). Many speak by imitating words that they do not understand (Hetzroni &Tannous, 2004). Some who do not receive intensive instruction remain nonverbal (Schreibman, 2005). Though some may not talk, they may be able to read and comprehend text (Broun, 2004). Others learn to use written language more easily than spoken language (Boucher, 2003).

Autism is a developmental disability usually diagnosed in children within the first 3 years of life (Volkmar & Klin, 2005). There is no cure for autism (Schreibman, 2005). Symptoms are grouped into the three broad areas that include communication, social interaction, and restricted patterns of behavior (Tsatsanis, 2005). Treatment to remediate symptoms is frequently delivered as language instruction. Addressing lang- uage growth helps make a significant improvement in the quality of life (Adel Abdulla Mohammed & Mourad Ali Eissa, 2014).

Biemiller (2003) explains that typical children may suffer from poor language comprehension that stems from a limited vocabulary. He suggests that children should be provided with explicit instruction in order to learn new words. Children with learning disabilities do not use independent strategies to learn new words, therefore they should be deliberately taught the meaning of words (Bryant, Goodwin, Bryant & ,Higgins, 2003).Each child with autism requires specialized instruction designed to support his unique needs (Iovannone, Dunlap, Huber & ,Kincaid, 2003). However, resources to provide individualized instruction are limited and there is no universal treatment that can help all children with autism (Adel Abdulla Mohammed & Mourad Ali Eissa, 2014).

Albert Bandura first introduced the concept of modeling during the 1960s with the dramatic demonstration that young children reacted more aggressively toward a toy after an age-matched model demonstrated aggressive behavior toward that same toy (Bandura & Huston ,1961).

Later, Bandura went on to show that simply watching another individual receive reinforcement for a particular behavior would later increase the rates of that behavior in the onlooker as well as the model (Bandura, Ross,&Ross, 1961). Given the potentially powerful effects of modeling, the past 35 years have been replete with research documenting and extending Bandura's work (Bandura & Menlove, 1968; Barry & Overmann, 1977; Charlop , Schreibman, & Tyron, 1983; Charlop & Walsh, 1986; Egel, Richman, & Koegel, 1981).

Technological advances during the past two decades have allowed researchers to extend the concept of modeling to include the use of video. Video modeling may be an effective tool to teach children with autism for several reasons. Videos are adaptable to different developmental levels and can be individualized to teach a variety of communication and social skills and other new behaviors. In addition, some children with autism appear to have better visual skills than receptive language skills (Quill, 1997) .Poor receptive language skills may make it difficult to learn in a traditional environment where children are often expected to learn through teachers' oral instruction .Learners with stronger visual skills than receptive language skills may benefit from video modeling instruction (Kimball, Kinney, Taylor & ,Stromer, 2004; Sherer et al., 2001; Shipley-Benamou et al., 2002, Stahmer, Ingersoll & ,Carter, 2003). In addition instructional videos can be edited to remove distracting stimuli that are often found in traditional classrooms (Dowrick, 1999). Watching videos may also be enjoyable for children with autism who may be hard to motivate using more traditional techniques (Charlop-Christy, Le & ,Freeman, 2000; Stahmer et al., 2003). Video modeling may be particularly useful for children who are uncomfortable with social interaction (Stahmer et al., 2003).

Learning by watching a video does not involve interaction with another person, which some individuals with autism may find aversive. Videos can be individualized to incorporate stimuli that might motivate the child to attend. For example, some researchers have incorporated a short clip of a child's favorite TV program into tapes used in successful video modeling interventions (Whitlow & Buggey, 2003). Video modeling has been successfully used to increase social interactions (McDonald, Sacramore, Mansfield, Wiltz and Ahearn, 2009), language (Taylor, Levin & ,Jasper, 1999), independent play (Stahmer et al, 2003), self-help skills (Shipley-Benamou et al., 2002), and helping behaviors in children with autism (Sturmey, 2003) .

Several studies have been conducted to examine the effect VSM has on language skills in students with autism. Buggey, Toombs, Gardner, and Cervetti (1999) used VSM to train response-to-question behaviors with three middle school students who had moderate to severe autism. Students were taped over 2 weeks in play sessions within their homes and were asked frequent questions by the researchers. Any responses were extracted from the videos and edited into a VSM video-tape. Students were then allowed to watch themselves respond rapidly and often to the researchers' questions. One of the participants had only three responses in the 2 weeks. These were looped repetitively in the video to produce a tape 1 1⁄2 minutes long. The overall results indicated that the students doubled their responding after they began to watch their videos. Results for questions requiring one- or two-word responses concerning identification of items improved at a much more dramatic rate. Two of three parents reported marked gains by their children in responding to questions even though they were kept ignorant of the behaviors being addressed.

Yingling and Neisworth (2003) used VSM to train spontaneous requesting in four preschoolers with autism. The children were trained to request items via a discrete trial method; however, the resulting requests were rote and there was no generalization to spontaneous requesting—that is, the children requested only when prompted to do so. The prompted requests were included in the VSM tapes with the prompts and any negative behaviors edited out. Results for all four participants showed substantial gains. The gains in mean production of spontaneous requests ranged from 800% to 1,200%. As in other studies (e.g., Buggey, 1995; Creer & Miklich, 1970; Dowrick & Raeburn, 1995), the results were maintained following withdrawal of the videos.

In the only study comparing two methods (self- vs. peer-modeling), Sherer et al. (2001) found both modes of intervention effective. Five children with autism ages 4 to 11 years were shown videos wherein they or a peer were engaged in responding to conversation questions. Through a combination of multiple-baseline and alternating-treatments designs it was found that three of the five participants performed at levels of %100 accuracy at post treatment. No difference in rate of task acquisition was indicated between the two conditions.

Collectively, these studies showed that video modeling intervention can improve a wide range of behavior. The purpose of the present study was to examine the extent to which video modeling intervention can be used to enhance vocabulary acquisition and verbal communication in children with autism .The primary research question was, what effects will video modeling intervention have on vocabulary acquisition and verbal communication in children with autism?.

Method

Participants

Participants were ten children between the ages of five and seven who attended a school for children with developmental disabilities (Tarbya Fekrya).All children attended the same classroom within the school. Parental informed consent forms were sent home by the school director and school psychologist to parents of potential participants telling them about the study and requesting them to give permission for their children to participate. Through a previous comprehensive psychological evaluation each targeted child had received a primary diagnosis of Autistic Disorder. All children were also capable of communication using speech assessed through a combination of teacher report and observation. They were so-called high functioning.

Each child also had the following characteristics: (a) meet the full criteria for autism according to The Scale for Screening Autism Disorder(Mohammed, 2003) (b) functional verbal communication, (c) able to read and comprehend words, and (d) ability to follow directions.

Instruments

Pictured Vocabulary Test: A measurement instrument was specifically developed for the study to measure vocabulary ability in children with autism . The test consists of 22 pictures , presented to the child individually by the researchers . The child in return names the picture. The total scores for the test range from 0-22 .Correlation coefficient between the test and Verbal communication questionnaire was (0.85).

Verbal communication questionnaire: A 20-item teacher-report questionnaire. based on the Autism Diagnostic Scale (Adel Abdulla Mohammed, 2003). Respondents are asked to rate their level of agreement using a five point Likert response scale(3 = Always, 2 = Sometimes , 1 = Never). The Cronbach alpha value was high (0.89) indicating excellent internal consistency.

Procedure

Screening Participants were ten children between the ages of five and seven who attended a school for children with developmental disabilities. Each child also had the following characteristics: (a) meet the full criteria for autism according to The Scale for Screening Autism Disorder(Adel Abdulla Mohammed, 2003) (b) functional verbal communication, (c) able to read and comprehend words, and (d) ability to follow directions.

Pre-intervention testing Teachers were asked to rate child's Verbal communication skills on Verbal communication questionnaire. Vocabulary ability of children was measured using Pictured Vocabulary Test.

General Instructional Procedures: During the intervention phase, the video was shown in the classroom to each child in an individual setting, while the rest of the students were in a different location. The researcher did not interact with the child but only to give redirection if the child stopped watching the video. Scripts were provided for the redirection“ :watch the video ”or“ look at the screen ”while pointing to the screen. All participants had some sight-reading ability and, thus, cue cards were used to videotape the conversation. Children were shown the video, the target child was required to provide a response. Two methods were used to facilitate responding in target children: (a) reading from cue cards, and (b) repeating verbal prompts.

Results

Video modeling intervention and vocabulary acquisition

The first objective of the study was to determine if use of Video modeling intervention would be more effective for the treatment group compared to the control group .For this purpose, the post intervention scores of both treatment and control groups were analyzed. Table 1. shows Z Value result for the differences in post- test mean rank scores between experimental and control groups in vocabulary acquisition. The table shows that (Z) value was(-2.739).This value is significant at the level (0.01) in the favor of experimental group .

Table 1. *Z Values results for the differences in post- test mean rank scores between experimental and control groups in vocabulary acquisition*

Variables	Groups	N	Mean Ranks	Sum Ranks	Mann-whiteny	Z Value	Sig
Vocabulary Acquisition	Ex	5	8	40	Zero	-2.739	0.01
	Cont.	5	3	15			

The second objective of the study was to determine the effect of Video modeling intervention on the development of vocabulary acquisition in children with autism. The treatment consisted of vocabulary acquisition training through use of Video modeling intervention. The children’s performance on vocabulary acquisition was measured pre and post intervention. Table 2. shows Z Value result for the differences in pre and post test mean

rank scores for the experimental group in Pictured Vocabulary Test. The table shows that (Z) value was(-2.041). This value is significant at the level (0.01) .This indicates that use of Video modeling intervention had a positive effect on vocabulary acquisition in children with autism.

Table 2. *Z Values results for the comparison of mean rank scores of experimental group at pre- and post intervention in vocabulary acquisition*

Variables	**Negative Ranks**		**Positive Ranks**		**Z Value**	**Sig.**
	Mean	Sum	Mean	Sum		
Vocabulary acquisition	3	15	Zero	Zero	-2.041	0.01

Video modeling intervention and Verbal Communication

The third objective of the study was to determine if use of Video modeling intervention would be more effective for the treatment group compared to the control group .For this purpose, the post intervention scores of both treatment and control groups were analyzed. Table 3. shows Z Value result for the differences in post- test mean rank scores between experimental and control groups in verbal communication. The table shows that (Z) value was(-2.660).This value is significant at the level (0.01) in the favor of experimental group .

Table 3. *Z Values results for the differences in post- test mean rank scores between experimental and control groups in verbal communication*

Variables	**Groups**	**N**	**Mean Ranks**	**Sum Ranks**	**Mann-whiteny**	**Z Value**	**Sig**
Verbal communication	Ex	5	8	40	Zero	-2.660	0.01
	Cont.	5	3	15			

The forth objective of the study was to determine the effect of Video modeling intervention on the development of verbal communication in children with autism. The treatment consisted of verbal communication training through use of Video modeling intervention. The children's performance on verbal communication was measured pre and post intervention. Table 4. shows Z Value result for the differences in pre and post test mean rank scores for the experimental group in Verbal communication questionnaire. The table shows that (Z) value was(-2.032). This value is significant at the level (0.01) .This indicates that use of Video modeling intervention had a positive effect on verbal communication in children with autism.

Table 4. *Z Values results for the comparison of mean rank scores of experimental group at pre- and post intervention in verbal communication*

Variables	**Negative Ranks**		**Positive Ranks**		**Z Value**	**Sig.**
	Mean	Sum	Mean	Sum		
Verbal communication	3	15	Zero	Zero	-2.032	0.01

Discussion

The present study evaluated the effects of Video modeling intervention on vocabulary acquisition and verbal communication of children with autism. The study results showed that the Video modeling intervention was effective in increasing vocabulary acquisition and verbal communication of all children participated in this study.

The results of this study supported previous research that VM is an effective method of teaching vocabulary acquisition and verbal communication for the participants. Similar to past studies, the participants were male with regular attendance. The children had not received VM in the past, but showed basic potential in vocabulary acquisition and verbal communication. This study adds to the body of research supporting the efficacy of the VM intervention by increasing vocabulary acquisition and verbal communication. The VM method was easy to produce.

The implementation of a video modeling intervention seemed to be successful across the two variables; namely vocabulary acquisition and verbal communication and with all participants. These findings concerning change in behaviors and generalization support the results of many previous studies on VSM (e.g., Bray & Kehle, 1996; Buggey, 1995; Buggey et al., 1999; Charlop & Milstein, 1989; Dowrick & Raeburn, 1995; Yingling & Neisworth, 2003).

Children with autism are well known to excel in visual treatment approaches (e.g., MacDuff, Krantz, & McClannahan, 1993; Pierce & Schreibman, 1994). In addition, a small subset of children with autism possesses advanced letter recognition skills in which their memory for sight words or visual symbols exceeds age appropriate levels (e.g., Kistner, Robbins, & Haskett, 1988). Other suggestions of visual strengths in children with autism include the typical finding of higher IQ scores based on tests of visuospatial ability such as the Leiter International Performance Scale (Leiter, 1979) as compared to traditional IQ tests such as the Stanford-Binet Intelligence Scale (Thorndike et al., 1986). The literature is also replete with accounts of special savant skills in children with autism including memories for directions and special artistic abilities (e.g., O'Conner & Hermelin, 1990). Findings from the current work also suggest that some children with autism may have highly developed visual skills. Results from this study have provided support for the notion that some children with autism benefit, often quickly, from video treatments.

Implications

It seems logical that the use of VSM with persons with autism could be an initial step prior to moving on to more intrusive types of treatments, if necessary. With further validation and refinements of the procedure, VSM could prove to be an effective mainstream tool for working with individuals with autism.

Limitations and Suggestions for Future Research

One limitation of the current study was the limited number of children .This research should be replicated as designed but with additional children. A second limitation was the lack of variety in the video itself. According to the teacher, the students enjoyed watching the video but did get bored after watching it multiple times, perhaps because these three students do not tend to perseverate on preferred activities as many other students with autism do. One suggestion is that students are given a choice of two or three videos to watch and then practice the skill in a variety of settings in order to reduce the chances of boredom. Individual videos for each student based on his or her preference with more than one scenario to add interest is another approach to maintain interest (Charlop, Dennis, College, Carpenter, & Greenberg, 2010).

Additionally, the lack of classroom observations prior to the start of the interventions limited the researcher in acquiring a complete understanding of the external variables that may have impacted the results of this investigation. Specifically, a direct observation of each classroom's language and reading instruction may have provided a deeper understanding of the participants' background knowledge and learning characteristics.

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Measuring Test Anxiety In Students Aged 10-17 Years in Egypt: Factor Analysis and Psychometric Properties

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Abstract
The aims of this study were: (1) to translate Children's Test Anxiety Scale (CTAS) into Arabic language, (2) to examine factor structure for Arabic version of Children's Test Anxiety Scale (CTAS), and (3) to explore its psychometric properties when administered on students aged 10-17 years in Egypt. The participants were 320 students from six primary, preparatory and secondary schools in Baltim Sector, Egypt. They were aged 10-17 years old .Findings showed that the percentage of variance was 25.26% for Thoughts, 19.66% for Autonomic Reaction, and 18.6% for Off-Task Behaviors. Similarly, the eigenvalues for three scales of Children's Test Anxiety Scale (CTAS) ranged from 5.58 to 7.58. Alpha reliability of different scales of Children's Test Anxiety Scale (CTAS) ranged from 0.75 to 0.89.

Keywords : *Anxiety, Test Anxiety, Psychometric properties, Factor analysis, Children's Test Anxiety Scale (CTAS)*

Introduction

Test anxiety is a situation-specific anxiety generally characterized by maladaptive cognitions, physiological reactions, and behaviors, and has been reported across various student populations. With the increase in standardized testing at younger ages, test anxiety is likely to become more prevalent, particularly for elementary students (Hill & Wigfield, 1984; Wren & Benson, 2004). Increased demands on students and schools to meet academic standards emphasize the importance of treating students whose test anxiety can significantly affect academic and cognitive performance.

Test anxiety has negative effects on learning and academic performance. Students who become anxious in testing situations do not achieve well on standardized achievement tests, leading to poor grades, retention, and eventual school dropout (Cizek & Burg, 2006; Lowe, et a l.,2007) .These negative effects can also lead to potentially higher amounts of test anxiety(Cizek & Burg, 2006) and impact the student's current and future level of academic standing, degree achievement, entrance into college, and selection of occupation, with test anxious students pursuing careers that involve infrequent evaluation that may not challenge them mentally(Ergene, 2003).

According to Zeidner (1998), the amount of anxiety an individual experiences varies in relation to the qualities of the task (e.g. difficulty and time constraints of tests), as well as personal perceptions such as threat, fear, and coping ability. These experiences may be heightened during standardized assessments. In a recent study of third, fourth, and fifth graders, students reported experiencing significantly higher anxiety during standardized tests than class tests (Segool, Carlson, Goforth, von der Embse, & Barterian, 2013).

Teachers also reported significant increases in anxiety during their students ' standardized testing, which could indirectly increase the anxiety of the students (Doyal & Forsyth, 1973; as cited in Segool et al., 2013). Test anxiety may be characterized as state anxiety ,an anxiety level that varies in relation to the perceived threat of a situation, as opposed to trait anxiety ,an enduring individual proneness to anxiety across settings (Spielberger & Vagg, 1995).

Test-anxious individuals are usually higher in trait anxiety and experience more profound state anxiety during tests; as such, test anxiety is generally regarded as a situation-specific anxiety trait (Spielberger, Gonzalez, Taylor, Algaze, & Anton, 1978; as cited in Spielberger & Vagg, 1995). These students usually experience anxiety in other contexts, but it is significantly heightened in evaluative testing situations.

Generally, test anxiety is characterized as a tridimensional construct including maladaptive cognitive, physiological, and behavioral responses (Kendall, 1993; Zeidner, 1998). This triad is reflected in the difficulties individuals report during testing situations. Students state they are often preoccupied with worries about work evaluation, expectations of failure, and feelings of threat, self-deprecation, and low self-efficacy (Ergene, 2003; I. Sarason, 1975; I. Sarason & Stoops, 1978). They report heightened fear of failure and criticism, worry, and social concerns, as well as depressive symptoms and hopelessness (King, Mietz, Tinney, & Ollendick, 1995). Furthermore, physiological responses (e.g. increased respiration, heart rate, blood sugar) as well as behavioral responses (e.g. avoidance, distraction) have been widely reported (Zeidner,1998). Anxious responses are different for each individual, but it is clear that multiple effects are evident.

While various measures can be used to assess test anxiety, the most common method is the use of self-report questionnaires. The first operationally defined self-report measure for test anxiety was created in the 1950s, simply titled the Test Anxiety Questionnaire (TAQ; Sarason & Mandler, 1952; Sarason et al., 1952). Since the TAQ, a multitude of self-report measures have been made available for use (e.g. Test Anxiety Inventory, Reactions to Tests, Revised Test Anxiety Scale). However, the majority of these measures have been developed for adults or lack adequate psychometric evaluation with children (Wren & Benson, 2004; Wigfield & Eccles, 1989). Although some scales have been used with school-age populations, they may not provide adequate measures of test anxiety because they were created for adult use. It is necessary for children to be assessed using measures appropriate for their age.

The Children's Test Anxiety Scale (CTAS; Wren & Benson, 2004) is a 30-item questionnaire developed for use with students from third to sixth grades. Wren and Benson state that the majority of students begin to experience standardized testing in third grade, so it is important that a measure be available to identify test anxiety when it begins to manifest. Unlike the TASC, responses are based on a 4-point Likert scale, which enables more adequate ratings of the severity of each item. The CTAS is based on the tridimensional theory of test anxiety including thoughts, autonomic reactions, and off-task behaviors. This theoretical framework reflects a more modern view of the test anxiety construct. Based on the shortening of items, changes in response format, and revised theoretical domain, the CTAS appears to be a more up-to-date measure of test anxiety in children.

The Children‘s Test Anxiety Scale (CTAS) is based on three interrelated components found in recent literature regarding children‘s test anxiety manifestation: thoughts, autonomic reactions, and off-task behaviors. The CTAS is a 30 item self report measure that has been validated for use with children in third through sixth grade that asks questions related to the components of thoughts, autonomic reactions, and off-task behaviors with four response choice sin a Likert scale format.

The first phase in the development of the CTAS required defining the theoretical domains of children‘s test anxiety. It had been previously determined that test anxiety is situation specific and manifests during formal evaluative situations when an unpleasant emotional state is experienced. The theoretical definition of test anxiety in relation to the CTAS consists of the three interrelated components of thoughts, autonomic reactions, and off-task behaviors (Wren & Benson, 2004).

In the second phase of development, an open-ended questionnaire was administered as an optional writing assignment to 218 elementary school students in order to find words and language used by children referring to test anxiety (Wren & Benson, 2004). After collecting the responses, the researchers reviewed them, organized a preliminary tryout of items to place on the instrument, and performed a final edit of the items. The number of items initially

consisted of 107 written questions that reflected the three dimensions of test anxiety (thoughts, autonomic reactions, and off-task behaviors). All items were also determined to be best written in the first person. The chosen response format determined for the CTAS was a Likert scale, with four response options of 1= almost never, 2= some of the time, 3= most of the time, and 4= almost always.

An eight member public school teacher panel, all of whom had at least 5 years of teaching experience, judged the questions; two teachers were used at each grade of 3rd, 4th, 5th, and 6th. A reading specialist also analyzed the reading level of all items and discarded the words and phrases students would likely not be able to comprehend. The researchers then used the information from both the teacher‘s panel and the reading specialist in order to determine which items should stay, be revised, or be thrown out. The final pool of questions was then dropped to a number of 50 which contained 23 items related to thoughts, 14 items related to autonomicreactions, and 13 items related to off-task behaviors (Wren & Benson, 2004).

The third phase of developing the CTAS was the quantitative evaluation phase which had 3 purposes. The researchers obtained data to estimate the internal consistency of the new scale and subscales, obtained a preliminary indication of the plausibility of the three-factor structure proposed for children‘s test anxiety and how well the questions worked with the theoretical domain, and assessed the relationship among the factors (Wren & Benson, 2004). The 50 item scale was tested on a sample of 230 3rd to 6th graders during normal school hours. The correlations for each item ranged from 0.22 to 0.71 within their subscales of gender, race, and grade level. All questions with less than a 0.20 correlation with their subscale were discarded, which left 9 items related to autonomic reactions subscale, 8 items on the off-task behaviors subscale, and 13 items on the thoughts subscale. The reliability of the 30-item CTAS was 0.92, with the subscales ranging from 0.78 to 0.89 (Wren & Benson, 2004). The fourth phase was validating the CTAS, which was done through giving the 30-item scale to different samples of students in the 3rd to 6th grades.

The aims of this study were: (1) to translate Children’s Test Anxiety Scale (CTAS) into Arabic language, (2) to examine factor structure for Arabic version of Children’s Test Anxiety Scale (CTAS), and (3) to explore its psychometric properties when administered on students aged 10-17 years in Egypt.

Method

Participants

The participants in the study were 320 students from six primary, preparatory and secondary schools in Baltim Sector, Egypt . They were aged 10-17 years old .We asked the participants to answer the scale in their classroom.

Instrument

The Children‘s Test Anxiety Scale (CTAS) was developed and validated for use in measuring test anxiety for students in grades 3 through 6, which is equivalent to children in the 8-12 age range. The CTAS measures generalized test anxiety and is based on three interrelated components found in recent literature regarding children‘s test anxiety manifestation: thoughts, autonomic reactions, and off-task behaviors. It is a 30 item self report measure that asks each student questions relating to their thoughts, autonomic reactions, and off task behaviors during testing situations with four response options in a Likert scale format.

The scoring of the CTAS can be obtained by summing the Likert scale responses of each student for each of the 30 total items as well as for each subscale of *thoughts, autonomic reactions,* and *off-task behaviors*. The four Likert scale response options are 1-*almost never*, 2- *some of the time,* 3-*most of the time*, and 4-*almost always*. The lowest total generalized test anxiety score possible would be 30, a low to mid-range score would range from 31-60, a mid to high-range score would range from 61-90, and the highest possible score would be 120. In order to examine levels of generalized test anxiety on each of the three subscales, scores can be added for *thoughts*, with scores ranging between 13-52, *autonomic reactions*, with scores ranging between 8-32, and *off-task behaviors*, with scores ranging between 9-36. Each student's subscale score will be divided by the number of questions possible for each subscale to get a mean response and the total score will be divided by 30 in order to find a mean score of generalized test anxiety for each student. The scores will range from a 1.0-4.0, i.e., a student with a 2.83 mean total CTAS score, would evidence general test anxiety responses between *some of the time* and *most of the time*.

Data Collection for the Final Study

The Arabic translated version of Children's Test Anxiety Scale (CTAS) was field tested and the data was collected from a sample of 320 students from six primary, preparatory and secondary schools in Baltim Sector , Egypt and those students were asked to fill the Arabic translated version of the scale.

Data Analysis

The data collected from 320 students was analyzed by Statistical Package for Social Sciences (SPSS) version 17 to examine the factor structure and explore the psychometric properties of the Arabic version of Children's Test Anxiety Scale (CTAS).

Factor Analysis

Factor analyses were conducted for the examination of internal structures of 30 items of Children's Test Anxiety Scale (CTAS). According to Nunnally and Bernstein (1994), factor structure is very important tool to measure the psychological constructs. According to Zaman (2011), a Kaiser Eigenvalue criterion decides to choose the factors. According to Kaiser (1960) Eigenvalue rule, only factors that have Eigenvalues greater than one are retained for interpretations. the internal structure of TAI was examined by using the principal axis factor analysis with Varimax rotation. The factor loadings obtained are described in Table 1. Factor loadings of 0.30 or higher are expressed in this table. The criterion for an item to be retained is described by Nelson (2005).According to this criterion, only that item is retained in an instrument whose factor loading is at least 0.30 on its own scale and less than 0.30 on all other scales. By following this criterion, none of the items were deleted from Children's Test Anxiety Scale (CTAS)and all 30 items retained in Children's Test Anxiety Scale (CTAS)after factor analysis. Table 1 below presents the factor loadings, percentage of variance, and eigenvalues for three scales of Children's Test Anxiety Scale (CTAS).

Table 1. *Loading matrix*

Items	**Thoughts**	**Autonomic Reaction**	**Off-Task Behaviors**	**Communality**
5	0.423			0.476
24	0.625			0.877
29	0.512			0.845
9	0.418			0.465
11	0.625			0.883
1	0.744			0.798
13	0.460			0.883
19	0.625			0.465
27	0.512			0.677
21	0.723			0.778
16	0.625			0.501
15	0.825			0.881
6	0.465			0.866
4		0.517		0.576
2		0.825		0.881
28		0.744		0.798
17		0.644		0.698
8		0.722		0.778
20		0.418		0.465
23		0.611		0.665
10		0.816		0.870
25		0.611		0.665
3			0.423	0.476
18			0.612	0.667
30			0.645	0.701
12			0.823	0.883
14			0.822	0.881
26			0.823	0.883
7			0.611	0.665
22			0.823	0.883
Eigenvalue	7.58	5.90	5.58	
% Variance	25.26	19.66	18.6	

Table 1 shows that the percentage of variance was 25.26% for Thoughts , 19.66% for Autonomic Reaction , and 18.6% for Off-Task Behaviors. Similarly, the eigenvalues for three scales of Children‘s Test Anxiety Scale (CTAS) ranged from 5.58 to 7.58. Overall, the various analyses expressed in Table 1 supported a strong structure for 30 items with three scales of Children‘s Test Anxiety Scale (CTAS).

Internal Consistency Reliability for Children‘s Test Anxiety Scale (CTAS)

According to Eccles (2007), “the internal consistency reliability of any scale is a measure of the extent to which items within the same scale assess the same construct” (p. 69) . After the factor analysis, internal consistency reliability for Children‘s Test Anxiety Scale (CTAS) was conducted. Table 1 below shows the internal consistency reliability of each scale of Children‘s Test Anxiety Scale (CTAS).

Table 2 Internal Consistency Reliability (Cronbach Alpha Coefficient) for Children's Test Anxiety Scale (CTAS).

Scale	**No. Of Items**	**Alpha Reliability**
Thoughts	***13***	*0.75*
Autonomic Reaction	***9***	*0.86*
Off-Task Behaviors	***8***	*0.82*
The scale as a whole	*30*	0.89

Table 2 shows that alpha reliability of different scales of Children's Test Anxiety Scale (CTAS) ranged from 0.75 to 0.89 . The results of Table 2 express that Children's Test Anxiety Scale (CTAS) has satisfactory internal consistency reliability when used with students aged 10-17 years in Egypt.

Discussion

The aims of this study were: (1) to translate Children's Test Anxiety Scale (CTAS) into Arabic language, (2) to examine factor structure for Arabic version of Children's Test Anxiety Scale (CTAS), and (3) to explore its psychometric properties when administered on students aged 10-17 years in Egypt.

The CTAS has satisfactory reliability coefficient (0.92) and high practicality in naturalistic field settings (Zeidner, 2007). 7). Results from a recently conducted study provide evidence for the reliability and validity of the CTAS with Scandinavian younger pupils (Nyroos et al., 2011).

In sum, the CTAS appears to be a reliable measure of the three components of children's test anxiety. The scale was purposefully developed and initial validity evidence using a racially diverse sample of elementary students is promising. .

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The Effect of Differentiating Instruction Using Multiple Intelligences on Achievement in and Attitudes towards Science in Middle School Students with Learning Disabilities

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Abstract
This study investigated the effect of using differentiated instruction using multiple intelligences on achievement in and attitudes towards science in middle school students with learning disabilities. A total of 61 students identified with LD participated. The sample was randomly divided into two groups; experimental (n= 31 boys)and control (n= 30 boys). An experimental Pretest-Posttest Control-Group design was used in this study. Findings from this study indicated the effectiveness of differentiated instruction using multiple intelligences on improving achievement in and attitudes towards science in the target students. On the basis of the findings, the study advocated for the effectiveness of using differentiated instruction using multiple intelligences on improving achievement in and attitudes towards science in learning disabled students.

Keywords :differentiated instruction, multiple intelligences, achievement, attitudes, Science, learning disabilities

Introduction

Individuals are the main source of improvement of the society and sustainability of its presence if they grown up appropriately. Education being a bridge between human and the life is impressed and shaped by the developments of era, so education of individuals become important parallel with the progress and changes in the society.

Teachers should plan science education with respect to their students. For a qualified science education, the curriculum should be planned according to the interests of students. It does not only motivate students but also make them learn the subject in an effective way. According to Colleta and Chiapetta (1994), science education should be related with the attitudes and interests of the students. These psychological concepts help motivate students and make the educational process more pertinent. Bybee (1993), also agree that curriculum and instruction should be integrated with the interests and ethical backgrounds of the students. They should guide learning toward (1) understanding and fulfilling basic human needs and facilitating personal development; (2) maintaining and improving the physical environment; (3) conserving natural resources so they are used wisely; and (4) developing and understanding the interdependence among people at local, national and global levels- that is a sense of community.

Researchers have demonstrated that differentiated instruction has been effective in some schools (Beecher & Sweeney, 2009) . VanSciver (2005) stated, "Teachers are now dealing with a level of academic diversity in their classrooms unheard of just a decade ago" (p. 534). In a single classroom, students' learning abilities may range from above grade level to below grade level. Levy (2008) stated that “students enter classrooms with different abilities, learning styles, and personalities….” (p. 161). Teachers need to find adequate strategies that provide students with the support needed to achieve standards presented through problem solving .Differentiating instruction by integrating student’s multiple intelligences and learning style is one such strategy.

According to Lawrence-Brown (2004), “with suitable supports, including differentiated instruction, students ranging from gifted to those with significant disabilities can receive an appropriate education in general education classrooms” (p.34). McBride (2004) stated that " Differentiated instruction is vital to effecting positive change in student performance, because the one-strategy-fits-all approach doesn't work in a real classroom" (p. 39).

Benefits of Differentiated Instruction

Servilio (2009) stated that differentiating instruction is "an individualized method of meeting all of the students' academic needs at their level" (p. 7). One benefit of differentiating instruction is that it helps teachers address the learning needs of each student. This can be accomplished by targeting the student characteristics Tomlinson (2001) identified as: readiness, interest, and learning profile. When planning for differentiated instruction, knowing students' interests and dominant learning styles, or profiles, can allow the teacher to plan learning activities that specifically target what students would like to learn and how they learn best (Servilio, 2009). When teachers teach to students' readiness level, they can accommodate a student who has mastered the lesson content, and is ready to be challenged. In this case, a harder text or a more complicated project could be assigned. Once a need is identified, the teacher responds by finding a method or solution to answer the need in order for all students to be successful in learning (VanSciver, 2005). In these examples, the teacher is able to use differentiated instruction to meet the learning needs of their students.

Another benefit of differentiated instruction is that it leads to increased student achievement. Servilio (2009) stated "The combination of a differentiated curriculum and the options for student choice are ideal for promoting success for students with disabilities and it can improve outcomes for other students as well" (p. 10). In a differentiated classroom, when students are engaged and have achieved their goal or completed a task, they are more motivated to continue learning and exceed their original goal or expectation. "With the tools of differentiated instruction, we can ... take each child as far as he or she can go" (Levy, 2008, p. 164) towards further achievement and success.

Methods for Differentiating Instruction: Multiple Intelligences

Harvard professor Howard Gardner first introduced the theory of multiple intelligences in the early 1980s. According to Armstrong (2003)“Gardner argues that traditional ideas about intelligence employed in educational and psychological circles for almost a hundred years require reform. In particular, he suggests that the concept of a“ pure ” intelligence that can be measured by a single I.Q. score is seriously flawed"(P.12).Gardner has identified nine intelligences and has indicated there may be many more that people possess at varying levels. Gardner’s theory is that the variability to which people possess a certain intelligence determines how they learn and interact best with other people.

Gardner (2003) summarized the first seven intelligences as follows:

1 .Linguistic Intelligence. The understanding of the phonology, syntax, and semantics of language, and its pragmatic uses to convince others of a course of action, help one to remember information, explain or communicate knowledge, or reflect upon language itself.

2 .Bodily-Kinesthetic Intelligence. The ability to control one’s bodily motions and the capacity to handle objects skillfully.

3 Spatial Intelligence. The ability to perceive the visual world accurately, to perform transformations and modifications upon one’s initial perceptions, and to be able to re-create aspects of one’s visual experience (even in the absence of the relevant physical stimuli).

4 .Musical Intelligence. The ability to understand and express components of music, including melodic and rhythmic patterns through figural or intuitive means (the natural musician) or through formal analytic means (the professional musician).

5. Logical Mathematical Intelligence. The understanding and use of logical structures, including patterns and relationships, and statements and propositions, through experimentation, quantification, conceptualization, and classification.

6 .Intrapersonal Intelligence. The ability to access one's emotional life through awareness of inner moods, intentions, motivations, potentials, temperaments, and desires, and the capacity to symbolize these inner experiences, and to apply these understandings to help one's own life.

7 .Interpersonal Intelligence. The ability to notice and make distinctions among other individuals with respect to moods, temperaments, motivations, intentions , and to use this information in pragmatic ways, such as to persuade, influence, manipulate, mediate, or counsel individuals or groups of individuals toward some purpose (P.13-14).

From the extensive literature, it is obvious that students will learn better if they actively participate in educational process. According to Sanfeliz and Stalzer (2003), one way to help students become active agents in their society is by making the educational experience more pertinent, especially regarding science. Students can be motivated to learn a scientific concept and discover the importance that such experience has to offer. If the student has the chance to learn what they find interesting in science, children will feel a sense of control and greater responsibility and enthusiasm toward their learning.

According to Lazer (2004), using MI in the classroom makes lessons more interesting, which causes students to pay more attention to what is taught and then learned. As a result, students are more engaged, they remember more, and achievement increases. He also stated that when students become aware of their intelligence strengths and consider themselves as being "smart" in that area of intelligence, their self esteem is raised.

Mourad Ali & Amal Mostafa (2013) investigated the effect of using differentiated instruction by integrating multiple intelligences and learning styles on solving problems , achievement in , and attitudes towards math in six graders with learning disabilities in cooperative groups. A total of 60 students identified with LD were invited to participate. The sample was randomly divided into two groups; experimental (n= 30 boys)and control (n= 30 boys).ANCOVA and T .test were employed for data analysis. Findings from this study indicated the effectiveness of differentiated instruction by integrating multiple intelligences and learning styles on solving problems , achievement in , and attitudes towards math in the target students. On the basis of the findings, the study advocated for the effectiveness of using differentiated instruction by integrating multiple intelligences and learning styles on solving problems , achievement in , and attitudes towards math in learning disabled students.

Further research is necessary to build on the vast amount of research into differentiated instruction with learning disabled students. This will allow researchers to determine how differentiated instruction can be best used as an intervention with learning disabled students as there is a dearth of research with this population. In order to address this issue with the lack of research on differentiated instruction with learning disabled students. Thus the present study seeks to give answers to the following questions.

Are there differences in post-test scores mean between control and experimental groups on Science Achievement Test?

Are there differences in post-test scores mean between control and experimental groups on Attitude Science Questionnaire?

Method

Participants

Sixty–one students identified with LD were invited to participate. Each student participant met the following established criteria to be included in the study: (a) a diagnosis of LD by teacher's references, and learning disabilities screening test (Kamel, 1990) (b) an IQ score on the Mental Abilities Test (Mosa, 1989) between 90 and 114 (c) low scores on Mathematical achievement and attitude tests (d) absence of any other disabling condition. The sample was randomly divided into two groups; experimental (n= 31; 28 boys and 3 girls) and control (n= 30; 28 boys, 2 girls).

The two groups were matched on age, IQ, achievement and attitude tests. Table 1 shows means, standard deviations ,t- value , and significance level for experimental and control groups on age (by month) , IQ , achievement and attitude tests (pre-test)

Table 1. *Pretest Scores Means , standard deviations ,t- value , and significance level for experimental and control groups on age (by month) , IQ , achievement and attitude tests.*

Variable	**Group**	**N**	**M**	**SD**	**T**	**Sig.**
Age	Experimental	31	145.51	2.42	0.453	-
	Control	30	145.23	2.45		
IQ	Experimental	31	109.19	7.44	-.305	-
	Control	30	109.80	8.05		
Achievement	Experimental	31	12.129	1.14	0.097	-
	Control	30	12.100	1.18		
Attitude	Experimental	31	20.61	0.91	-2.32	-
	Control	30	21.50	1.90		

Table 1. shows that al t- values did not reach significance level . This indicated that the two groups did not differ in age , IQ , achievement and attitude tests (pre-test) .

Instruments

1- Academic Achievement Test: The end-of- year examination results of the participants in science standardized and marked by the teachers , and provided the summative evaluation scores for the analysis. Hence, scores in the science served as the measures of students‘ achievement.

2-Attitude Towards Science Scale. The scale consisted of 20 three-point Likert-type statements, reflecting feelings towards science, ranging from positive to negative (e.g. *Learning science makes me nervous*) The test has demonstrated high internal consistency with Cronbach’s α ranging from 0.86 to 0.89.

Procedure

Screening : Sixty–one students identified with LD were invited to participate. Each student participant met the following established criteria to be included in the study: (a) a diagnosis of LD by teacher's references, and learning disabilities screening test (Kamel, 1990) (b) an IQ

score on the Mental Abilities Test (Mosa, 1989) between 90 and 114 (c) low scores on Mathematical achievement and attitude tests (d) absence of any other disabling condition.

Pre-intervention testing : All the sixty-one students in grade one preparatory completed Academic Achievement Test , which assesses students‘ Science Academic Achievement and Attitude Towards Science Scale, which assesses students‘ attitude towards science. Additionally , the end-of- year examination results of the participants in science standardized and marked by the teachers ,and provided the summative evaluation scores for the analysis. Hence, scores in the science served as the measures of students‘ achievement. Thus data was reported for the students who completed the study.

Experimental – group students were taught in the "Technology Room" at El Orman Preparatory school after the school day ended .The instructor (author) gave students an idea about the MI theory and how it is useful in helping them achieve their lessons in different school subjects in general , and in science in particular .

General Instructional Procedures: The MI program comprised 3 weekly sessions lasting between 40 and 45 min, and several homework tasks. The program lasted for 2 months. During sessions, students were allowed to work together, and the instructor (the author) gave help and modeling , if necessary. The seven intelligences were employed in all sessions. Employing verbal / linguistic intelligence requires students to brainstorm, use new vocabulary, and tell the story in their own words. While using logical / mathematical intelligence requires that students asking and answering questions about the text, and explain their answers. Students employed visual / spatial intelligence through illustrations, and using pictures of the new vocabulary. They also used role play, body movements, and concrete materials while learning the new word as part of bodily / kinesthetic intelligence. Musical / Rhythmic intelligence was employed by students. They created rhythmic patterns, and sang songs. Students shared work with one another, assessed peer's work, and worked collaboratively as part of their interpersonal intelligence. Additionally, each student had a space to work individually and reflect on his/her progress and achievement as part of his intrapersonal intelligence.

Experimental Design

An experimental Pretest-Posttest Control-Group design was used in this study. In this mixed design, two groups are formed by assigning 31 of the participants to the experimental group and 30 to the control group. Both groups were pre tested and post tested in the same manner and at the same time in the study. The bivalent independent variable was the multiple intelligences intervention and it assumed two values: presence versus absence of the multiple intelligences intervention. The dependent variables were the gains in scores on achievement in , and attitude towards science tests.

Results

Science Achievement

Table 2 shows data on ANCOVA analysis for the differences in post- test mean scores between experimental and control groups in Science Achievement. The table shows that the (F) value was (416.92) and it was significant value at the level (0.01).

Table 2. *ANCOVA analysis for the differences in post- test mean scores between experimental and control groups in Science Achievement*

Source	Type 111 sum of squares	df	Mean square	F	Sig.
Pre	3.894	1	3.894		
Group	6327.64	1	6327.64	416.92	0.01
Error	880.27	58	880.27		
Total	7208.85	60			

Table 3. shows T. test results for the differences in post- test mean scores between experimental and control groups in Science Achievement. The table shows that (t) vale was (20.54). This value is significant at the level (0.01) in the favor of experimental group. The table also shows that there are differences in post- test mean scores between experimental and control groups in Science Achievement in the favor of experimental group.

Table 3. *T. test results for the differences in post- test mean scores between experimental and control groups in Science Achievement*

Group	N	Mean	Std. deviation	t	Sig
Experimental	31	35.97	2.58	20.54	0.01
Control	30	15.59	4.85		

Attitude Toward Science

Table 4. shows data on ANCOVA analysis for the differences in post- test mean scores between experimental and control groups in Attitude Toward Science . The table shows that the (F) value was (244.722) and it was significant value at the level (0.01).

Table 4. *ANCOVA analysis for the differences in post- test mean scores between experimental and control groups in Attitude Toward Science*

Source	Type 111 sum of squares	df	Mean square	F	Sig.
Pre	.128	1	.128		
Group	5538.336	1	5538.336	244.722	0.01
Error	1312.607	58	22.631		
Total	7375.73	60			

Table 5 shows T. test results for the differences in post- test mean scores between experimental and control groups in Attitude Toward Science. The table shows that (t) vale was (16.75). This value is significant at the level (0.01) in the favor of experimental group. The table also shows that there are differences in post- test mean scores between experimental and control groups in Attitude Toward Science in the favor of experimental group.

Table 5. *T. test results for the differences in post- test mean scores between experimental and control groups in Attitude toward Science*

Group	N	Mean	Std. deviation	T	Sig.
Experimental	31	41.74	6.46	16.75	0.01
Control	30	21.80	1.42		

Discussion

The main objective of the present study was to explore the effect of differentiated instruction using multiple intelligences on achievement in and attitudes towards science in middle school students with learning disabilities.

The results of this study as revealed in tables 3, 5, show that the differentiated instruction that used multiple intelligences was effective in improving achievement in and attitudes towards science of students in experimental group, compared to the control group whose individuals were left to be taught in a traditional way.

Participants of this study fall into the minimum IQ of 90, nevertheless, they have learning disability. Thus IQ score cannot account for learning disabilities. The results of the present study support that conclusion with evidence that students who participated in the study do not fall into the low IQ range, however they have learning disabilities. When designing a program based on the differentiated instruction that used multiple intelligences, they had statistical increase in achievement in and attitudes towards science. This goes in line with what Mourad Ali et al. (2006) notes that there is one problem " students who are identified as learning disabled often cover any special abilities and talents, so their weakness becomes the focus of their teachers and peers, ignoring their abilities. Mourad Ali (2007), however , notes that "learning disabled, as well as gifted students can master the same contents and school subjects", but they need to do that in a way that is different from that used in our schools.

Experimental group gained better scores in achievement in and attitudes towards science than did control groups in post-tests though there were no statistical differences between the two groups in pre- test. This is due to the program which met the experimental group's needs and interests. On the contrary, the control group was left to be taught in a traditional way. This goes in line with our adopted perspective which indicates that traditional methods used in our schools do not direct students as individual toward tasks and materials , and do not challenge their abilities. This may lead students to hate all subjects and the school in general. On the contrary, when teachers adopt differentiated instruction that suits students interests and challenge their abilities with its various modalities .

This indicates that " as we learn more about the scope and complexity of individual differences and how they affect academic progress, we become increasingly convinced that many individuals who do not do well at school due to the instructional methods used to teach them does not complement preferred styles to learn, thus, we should seek strategies that help these students and match their strengths.

Implications

The results of this study have several important implications. This study adds to the literature on the effectiveness of differentiated instruction with learning disabled students. Results appear to indicate that differentiated instruction are an effective instructional strategy for improving achievement in and attitudes towards science test scores of students with learning disabilities. This study has referential adequacy because this study could be

replicated for any performance task by any teacher wanting to test how students perform when learning through using multiple intelligences .

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