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Dear IJONTE Readers,

International Journal on New Trends in Education and Their Implications- IJONTE appears on your screen now as Volume 6, Number 4. In this issue it publishes 10 articles. And this time, 13 authors from 6 different countries are placed. These are Ghana, India, Indonesia, Iran, Turkey and USA.

Our journal has been published for over five years. It has been followed by many people and a lot of articles have been sent to be published. 352 articles have been sent to referees for forthcoming issues. They will be published according to the order and the results. Articles are sent to referees without names and addresses of the authors. The articles who get positive responses will be published and the authors will be informed. The articles who are not accepted to be published will be returned to their authors.

We wish you success and easiness in your studies.

Cordially,

1st October, 2015

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THE VIEWS OF PRE-SERVICE TEACHERS WHO TAKE SPECIAL TEACHING COURSE WITHIN THE CONTEXT OF PEDAGOGICAL FORMATION CERTIFICATE PROGRAM ABOUT MICRO-TEACHING METHOD AND A PHYSICS LESSON PLAN

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ABSTRACT

The purpose of this study is to determine the views of the pre-service teachers who received training on pedagogical formation certificate program about micro-teaching method. The study was carried out with a case study method. Semi-structured interviews were used in the study as a data collection tool to gather pre-service teachers' views about micro-teaching method. The data obtained from the interviews were interpreted using descriptive analysis. The research was carried out with 8 pre-service teachers who were continuing their training on pedagogical formation certificate program in a university located in Eastern Black Sea Region in Turkey. The pre-service teachers developed materials suitable to their majors within the context of special teaching methods course and benefited from necessary educational technologies and thus they implemented micro-teaching method for 12 weeks. All of the implementations were performed under the supervision of the researcher and after the practises, the video recordings were watched with the pre-service teachers and necessary feedback was given. At the beginning of the study, the pre-service teachers were informed about micro-teaching method and they were told what to do in step by step. The study was completed with using micro-teaching method and suggestions about how to benefit it in physics course.

Key Words: Micro-teaching Method, Pre-service Teachers, Physics, Pedagogical Formation.

INTRODUCTION

Undoubtedly, teachers are the most important factors in teaching-learning activities because teachers fulfil important functions like developing students and having them gain terminal behaviours with these activities. Therefore, all the developed countries and developing countries attach importance to train qualified teachers in our day. Learning and teaching how to learn is a very important goal for a qualified teacher (Güney and Semerci, 2009). When considered in this context, the most important factor a teacher should have is regarded as professional competence. It is aimed at promoting teacher competencies in the faculties which train teachers via graduate and pedagogical formation certificate programs and the courses prepared via Ministry of National Education In-service Training Institutes. A qualified teacher means that the generations they train become good individuals. However, the weaknesses in teacher education affects all generations and also decrease the quality of education. For that purpose, one of the most important practices regarding teaching profession in in-service training is the activities carried out within the context of teaching practices course. Teaching practice is the first opportunity which provides pre-service teachers with an opportunity to practise teaching knowledge and skills they acquired in real classroom settings. However, the activities in teaching practices might be difficult and confusing for pre-service teachers who have not had any experience before (Kuran, 2009). Moreover, pre-service teachers gain a lot of professional or academic knowledge theoretically but they are not able to apply them in schools (Goodman, 1986; Lanier and Little, 1986). Observations and implementations carried out in schools are a very important stage to raise awareness in pre-service teachers. However, they are not enough without the presence of others. Thus, micro-teaching method and similar methods are attempted to be developed in order to meet the needs and cover the problems encountered in teacher training programs (Güney and Semerci, 2009).

Micro-teaching program is defined in many ways. Deniz (1993) defines micro-teaching method as a laboratory method to simplify the complexity of normal teaching-learning processes. Allen (1980) discusses micro-teaching method as a technique which aims at having pre-service teachers gain and develop teaching skills in environments which are compared to real classrooms but scaled down in number of students and class time. Wallace (1979) defends that micro-teaching method is an instruction carried out regarding goals, behaviours, skills, and scaling down teaching encounter in class size and class time.

Micro-teaching method was first put into practice by a group of educators from the Stanford University in the USA in 1960 to improve the quality of teacher education program. Micro-teaching method has a quality to promote real time teaching practices using the relationship between theoretical and practical knowledge. Thus, it has a very important place for the pre-service teacher training (Sevim, 2013).

Micro-teaching method offers different and new opportunities to pre-service teachers about planning and practising a lot of theoretical knowledge which they have learned throughout their undergraduate studies. So, pre-service teachers gain teaching experience without feeling the fear of failure and they have a more controlled teaching practice than a normal classroom environment. This helps pre-service teachers to eliminate and correct their weaknesses by seeing them and to gain more experience before starting teaching profession.
It was revealed in many studies which explored the effect of micro-teaching method (Bayraktar, 1982; Bell, 2007; Dennick, 1998; Fernandez, 2005; Hall and Leveridge, 2006; Hadfield, 1998; I'anson, Rodrigues and Wilson, 2003; Kazu, 1999; Kinchin and Alias, 2005; Klinzing and Floden, 1991; Kpanja, 2002; Külahçı, 1994; Mellon and Dence, 1971; Metcalf, Hammer and Kahlich, 1996; Phelps, 2006; Saunders, Gall, Nielson and Smith, 1975; Semerci, 1999; Simbo, 1989; Şen, 2010; Wilkinson, 1996) that this method was successful.

Special Teaching Methods Course in teacher education included in the curriculum of education faculties and in the pedagogical formation certificate program is undoubtedly very important for the implementation of micro-teaching method.

When the relevant literature was reviewed, it was found that there were a lot of studies which examined the efficiency of micro-teaching method. However, the research studies about pre-service teachers who do not have any teaching experience and who continue pedagogical formation certificate program to enter a teaching profession have not been found. The most important reason for conducting this research study is that after pre-service teachers who will shape our future eliminate their weaknesses about professional competency, they are required to start their profession. For that purpose, it is considered that this study will pave the way for other studies which will be conducted in the field of teacher training.

METHOD

Because this study which was conducted to determine the views of pre-service teachers who receive training in pedagogical formation certificate program about micro-teaching method aims at describing a pre-existing condition, it is a descriptive study. Case study method, one of the descriptive research methods, was preferred in the study. The most important reason for using case study in this study is that data collection tools facilitate in-depth examination of a phenomenon via including all the resources. Thus, the subject being studied is examined in-depth and in-detail.

The Sampling of the Study

The research was carried out with eight pre-service teachers who take pedagogical formation certificate program in a university located in Eastern Black Sea Region in Turkey. Purposeful sampling was used in the study. In qualitative studies, small sample size was selected for in-depth examination of the sampling. For this reason, purposeful sampling is preferred to random sampling (Munn, Johnstone and Holigan, 1990). In purposeful sampling, a clear set of important criteria for selection is determined and the sampling selected in terms of these criteria is considered to represent the particular characteristics of the population of the study (Yin, 2003). Out of eight pre-service teachers, 6 of them are females and two of them are males.

Data Collection Tools

A semi-structured interview form consisting of eight questions was developed to determine the pre-service teachers' views about micro-teaching method. While preparing the interview questions, the relevant literature was reviewed and the questions which would cover micro-teaching method with its all aspects were designed. At the first stage, the interview form consisted of 12 questions and this form was reviewed by two faculty members who were experts in their major. After the examination, four questions were extracted from the interview form and two questions were revised, so they reduced the number of questions to eight and the interview form was finalized. The interview form designed was carried out with the pre-service teachers at the end of a 12-week implementation. The interviews were generally performed in two stages. These stages are given below:

1- The pre-service teachers were informed about the reasons for carrying out interviews. While the pre-service teachers were stating their views about the questions in the interview form, they were asked to indicate the questions which they were not sure about the answers or if they did not have any information about the subject, they would answer the question as "I do not have an idea about the subject". It was realized that the pre-service teachers had different jobs apart from teaching profession and they communicated with people for years due to their occupations but they got nervous. Therefore, in order to overcome their nervousness they were engaged in small talk. The interviews did not start until the pre-service teachers felt themselves ready.

2- In this stage, the pre-service teachers were asked the questions in the interview form. In line with the responses of the pre-service teachers, sub-questions were asked to them for detailed explanations when required. Each interview lasted 20 minutes. While presenting the findings obtained from the interview data, some abbreviations were used. The meaning of these abbreviations were given below:

R: Researcher, PST: Pre-service science teacher, PST_1: First pre-service teacher, PST_2: Second pre-service teacher, PST_3: Third pre-service teacher, PST_4: Fourth pre-service teacher.

Data Analysis

In order to obtain reliability and validity in this study, the following were carried out:

The interviews conducted face-to-face with the researcher and the participants were recorded with a tape recorder after receiving the participants' approval and they were reassured that all the data recorded would be deleted after the study. After the interviews, the pre-service teachers listened to the data recorded and they were asked whether there were any points they would like to add or correct. The pre-service teachers approved that the recordings were accurate and complete. The data obtained from the interviews conducted by the pre-service teachers were analysed utilising content analysis technique. Content analysis is defined as a systematic and a replicable technique for summarizing some words of a text into fewer content categories based on explicit principles of coding (Büyüköztürk, Kılıç Çakmak, Akgün, Karadeniz and Demirel, 2013). Regarding this technique, the data were divided into categories and they were evaluated. The people who are experts in their fields watched some videos and listened to some voice recordings of the categories identified and expressed their views on the topics. The data were analysed and their frequencies (f) and percentages (%) were given. The responses to the interview questions were supported with direct quotations from the pre-service teachers. In the next section of the study, the findings obtained from the analyses were presented in-detail.

Using Micro-teaching Method within the Context of Research

It was determined that the pre-service teachers who continued pedagogical formation certificate program had different jobs. After the certificate program, the pre-service teachers wanted to work as a teacher but because they did not have any experiences about teaching, it was considered as a problem. Thus, it is considered that the candidates will have problems during their first year of teaching. Moreover, because they have had different jobs for years, this will lead to some adaptation challenges of the candidates in induction period of teaching practice. The researcher had interviews with the faculty member to overcome this problem. The interviews conducted revealed that the sampling that experienced the problem consisted of pre-service teachers and therefore, they suggested that micro-teaching method be used.

In line with these suggestions, a term plan including relevant subjects given within the context of Special Teaching Methods course and from their majors was prepared for the pre-service teachers who continued to receive training in pedagogical formation certificate program. The pre-service teachers made the necessary preparations about the topics assigned (literature review, lesson plan about the subject, developing suitable materials and so on) and benefiting from educational technology, they presented their lessons using micro-teaching method for 12 weeks. Four pre-service teachers were given one lesson time each week and the implementations were carried out. Throughout such implementations, each teacher had an opportunity to use micro-teaching method six times. Micro-teaching sessions took place within the context of special teaching methods course for 10 weeks. In the last two weeks, the pre-service teachers conducted micro-teaching sessions regarding their majors. A physics lesson plan belonging to one of the pre-service teachers was given in Appendix 1.

During the lesson presentations, the pre-service teachers were not intervened. All of the practices were carried out under the supervision of the researcher. At the end of each lesson, the researcher met the pre-service teachers one by one and they watched the videotaped lesson for review and feedback was given about the presentation. During these meetings, the pre-service teachers were asked to evaluate themselves. The researcher mentioned the weaknesses observed during the lessons and made some suggestions. Then, the researcher held meetings with all of the pre-service teachers and they watched the videotapes again and the researcher asked the pre-service teachers to evaluate one another. At the end of the term, the researcher watched the lessons which the pre-service teachers presented in the practice schools within the context of teaching practice. These lesson presentations were recorded with a camera and they were watched with the pre-service teachers again and necessary feedback was given.

Semi-structured interview forms were developed to determine the pre-service teachers' views about micro-teaching method. The aim of the interview form involves in-depth analysis of the pre-service teachers' views on micro-teaching method. The interviews were conducted after the implementation of micro-teaching method for 12 weeks.

Considering the evaluation of the data obtained via interview recordings during the interviews, they were reflected without making any changes to support the data. And finally all the data obtained and the analyses and interpretations within the context of the research study were checked via receiving the expert opinions apart from the researcher and the research findings were enriched with different perspectives.

FINDINGS

The Findings Obtained from the Interviews Carried out at the end of the Research

The findings obtained as a result of analysis of responses given to the questions in the interviews carried out to get the pre-service teachers' opinions about micro-teaching method in the research study were given below:

Question 1: *"Have you ever practised micro-teaching method in your previous educational experiences or in your profession? If yes, can you please explain in which lessons you have used and how you have implemented it?*

The participants' responses to question 1 were presented in Table 1.

Table 1: The analysis results of the responses to the question 1 by the participants.

INTERVIEW QUESTION	CATEGORIES	FREQUENCY and PERCENTAGES	
		f	%
Have you ever practised micro-teaching method in your previous educational experiences or in your profession? If yes, can you please explain in which lessons you have used and how you have implemented it?	No, I have never practised it.	6	75.00
	Yes, I have.	2	25.00

When the first question which was asked to measure pre-service teachers knowledge about micro-teaching method and to determine whether they implemented it before or not was examined, six pre-service teachers stated that they had never known about micro-teaching method. Two pre-service teachers stated that they implemented micro-teaching method before. However, these two pre-service teachers were asked another question about how they practised micro-teaching method. It was understood from the responses that pre-service teachers evaluated the lectures which they gave during their undergraduate studies or in some courses within the context of pedagogical formation certificate program within the scope of micro-teaching method.

An example from the responses given about each category in order to explain the existing situation was cited below:

-PST_1: "No, I have never had the opportunity to implement micro-teaching method."

-PST_8: "Yes, I taught in some courses before."
-R: "Was the lesson which you taught recorded with a camera and did your teacher watch it again and give feedback to you?"
-PST_8: "No. But I taught the whole topic. For nearly twenty minutes our teacher did not interrupt me. I even asked questions about the topic I taught to my peers."

The pre-service teachers are not graduates of education faculty and they have never performed a task regarding teaching profession before. Therefore, it was understood that any of the pre-service teachers did not know micro-teaching method and they could not implement it. It was considered that the responses given might have been resulted from these.

Question 2: *"What were the benefits of micro-teaching method which you implemented as a pre-service teacher?*

The participants' responses to question 2 were presented in Table 2.

Table 2: The analysis results of the responses to the question 2 by the participants.

INTERVIEW QUESTION	CATEGORIES	FREQUENCY and PERCENTAGES	
		f	%
What were the benefits of micro-teaching method which you implemented as a pre-service teacher?	I really loved teaching profession.	3	37.50
	I had an opportunity to overcome my excitement and fears	4	50.00
	It did not have any benefits.	1	12.50

While seven teachers gave positive answers to the question 2 which was asked to learn their opinions about the benefits of micro-teaching method, one pre-service teacher gave a negative answer. Out of seven candidates who answered the question positively, three of them identified that micro-teaching method made contributions to them to like teaching profession. Four teacher candidates stated that it made contributions to eliminate personal negativities. When the pre-service teacher who gave a negative answer to the question was asked other questions about the reason of it, he stated that he had a bad experience in his undergraduate studies.

An example from the responses given about each category in order to explain the existing situation was cited below:

-PST_2: "My only purpose to get a pedagogical formation is to have a profession. However, because I am going to have a profession which I like, I am looking forward to meeting my students because micro-teaching method made me love teaching profession very much. I became very happy when I saw that by transferring my knowledge and teaching them, some people tried to learn something by listening to me."

-PST_6: "I have always been afraid of talking in public in my life. You noticed it when you watched my video recording after the implementation of micro-teaching method and you criticized me for my anxiety and nervousness. However, I overcame these weaknesses as I gave a lecture with micro-teaching method. Now, I feel that I am ready for teaching profession."

-PST_8: "I believe that micro-teaching method did not bring any benefits to me."
-R: "Can you please explain why you think like that?"
-PST_8: "Sir, while I was teaching I felt that my peers were listening to me as if they were teasing me. I was getting bored during the implementations. That's why I could not even speak my mind as I wanted to finish as soon as possible."
-R: "However, I was not witness to any behaviours of your peers which intended to mock you. To what extent do you think you are right?"
PST_8: "Sir, during my undergraduate studies I lectured on a topic once and my peers teased me. Therefore, during these practices, I was anxious about experiencing the same thing again. However, when I start teaching profession, as I will address to the early years age group, I don't think that I will encounter such problems."

While micro-teaching method developed positive feelings in seven pre-service teachers, it could not change the negative feelings of one teacher. The reason for this was that the candidate had a bad experience about talking in front of the other people. However, it was thought that if the researcher had identified the bad experience the candidate had at the beginning or during the implementations, he would have coped with it.

Question 3: "*What were the problems you encountered during the implementations of micro-teaching method?*

The participants' responses to question 3 were presented in Table 3.

Table 3 :The analysis results of the responses to the question 3 by the participants.

INTERVIEW QUESTION	CATEGORIES	FREQUENCY and PERCENTAGES	
		f	%
What were the problems you encountered during the implementations of micro-teaching method?	I did not encounter any problems.	4	50.00
	Time was not enough.	3	37.50
	It was difficult to lecture to my peers.	1	12.50

While four pre-service answered the question 3 which was asked to determine the problems they encountered during the implementations of micro-teaching method that they did not have any problems, one teacher candidate stated that it was difficult to teach the same age groups. Three teacher candidates mentioned lack of time.

An example from the responses given about each category in order to explain the existing situation was cited below:

-PST_3: "Sir, the implementations were quite enjoyable and productive. I did not encounter any problems or difficulties during the implementations."

-PST_7: "The most important problem I had was that I had to explain the topic in one lesson hour. I did not have enough time while teaching the physics topics from my major."

-PST_8: "I got stressed while teaching my peers. To me, this is the biggest problem of micro-teaching implementations. If I had taught early age group students in a normal class environment, I would not have encountered this problem."

During the implementations of micro-teaching method, what draw attention is the students' views on the lack of time while teaching physics topics. It is considered that because the pre-service teachers tried to revise a lot with physics topics, the course hour was not enough.

One pre-service teacher stated that it was very boring to teach people who were his peers. As it can be understood from this candidate's previous responses, the reasons why he gave this answer could be that he has a prejudice towards the topic.

Question 4: *Can you compare and contrast the implementations you carried out within the context of special teaching methods course and the practises you carried out in schools within the context of teaching practice course?*

The participants' responses to question 4 were presented in Table 4.

Table 4**:** The analysis results of the responses to the question 4 by the participants.

INTERVIEW QUESTION	CATEGORIES	FREQUENCY and PERCENTAGES	
		f	%
Can you compare and contrast the implementations you carried out within the context of special teaching methods course and the practises you carried out in schools within the context of teaching practice course?	The practises in the lesson were more productive.	1	12.50
	The implementations we carried out in schools were more productive.	5	62.50
	Both practises supported one another.	2	25.00

The pre-service teachers were asked to compare and contrast micro teaching method carried out within the context of special teaching methods course and teaching practice with the 4th question. When the responses were examined, it was understood from the statement of one teacher that the implementations carried out in special teaching methods course were more productive. Five pre-service teachers said that the implementations carried out in the schools were more productive. Finally, two pre-service teachers defended that both implementations supported one another.

An example from the responses given about each category in order to explain the existing situation was given below:

-PST_4: "Sir, I felt myself comfortable during the implementations in the lessons. I think that it was a more sincere environment. On the other hand, because the teacher was in the class and the students behaved naughtily, they prevented the lesson from being taught efficiently."

-PST_1: "When I went to the blackboard to teach a topic in special teaching methods course, I felt nervous. In my opinion, its effect may have resulted from the fact that I was teaching my peers. But, I did not have the feeling of unease in the practice school because the students were much younger than us, the subjects were related to our majors, and I had full knowledge of the topics. I mean it was much easier for me to tell what I have already known."

-PST_7: "Both the implementations in the lessons and in the schools were quite productive. I believe that I could teach more efficiently during the implementations in the schools with the experience I gained during the implementations in the lessons. Moreover, the practices we carried out in real classroom settings in the schools offered an opportunity to compensate for my weaknesses during the implementations in the lessons."

It was revealed that one of the pre-service teachers responded that the implementations carried out within the context of special methods courses were more effective. It is considered that this situation may have resulted from the fact that teacher candidates did most of their practices regarding this course. Moreover, considering the pre-service teachers' views about the effective implementations in the schools, they may have used these expressions because they felt themselves more relaxed due to the age of students. Two pre-service teachers stated that both implementations supported one another. It was observed that these two pre-service teachers acted quite calmly and self-confidently during the implementations both in the schools and in special methods course. It is regarded that the responses of teacher candidates may have resulted from that.

Question 5: "*What are your views about the implementations of micro-teaching method?*

The participants' responses to question 5 were presented in Table 5.

Table 5**:** The analysis results of the responses to the question 5 by the participants.

INTERVIEW QUESTION	CATEGORIES	FREQUENCY and PERCENTAGES	
		f	%
What are your views about the implementations of micro-teaching method?	We kind of rehearsed teaching practice.	2	25.00
	It was very productive.	4	50.00
	Preliminary preparations were exhausting.	2	25.00

The responses of pre-service teachers to the question 5 which aimed at learning their views about the implementations of micro-teaching method were evaluated under three categories. In the first category, two pre-service teachers stated that the implementations were like a rehearsal of teaching profession. In the second category, four of them said that the practices were very productive. In the last category, two teacher candidates said that preliminary preparations for the practices were exhausting.

An example from the responses given about each category in order to explain the existing situation was cited below:

-PST_2: "The practices we did both in special teaching methods course and in the schools were like a rehearsal of teaching profession. During the implementations, I think that I have gained experience about teaching

profession. I have gained important experience about class management in the implementations carried out in schools."

-PST_6: "At the beginning of the practices, I felt nervous and restless. But as the time passed, I felt that I got rid of these negativities. I do think that I would have become a good teacher if I had started teaching like that. But now I feel that I am ready for teaching profession. Moreover, another advantage was that teaching methods and techniques which I used while teaching made contributions to me. To sum up, I think that all the practices we did were very effective."

-PST_5: "Sir, the implementations were generally enjoyable but intensive. However, having to make preparations and prepare a lesson plan in advance for the practices which we were going to do in the lesson was very difficult for me."

The responses of the pre-service teachers revealed that they had positive views about the implementations of micro-teaching method.

However, two pre-service teachers stated that the implementations were exhausting. These pre-service teachers had another job apart from teaching profession and they had to make preparations for the lesson besides their heavy work load. Therefore, it was considered that they responded like that due these reasons. It was observed that one of the candidates who answered the question under this category was exhausted while he was carrying out implementations because he finished his night shift.

Question 6: *Did you have any positive or negative conditions you experienced during the teaching practices? Please explain it.*

The participants' responses to question 6 were presented in Table 6.

Table 6: The analysis results of the responses to the question 6 by the participants.

INTERVIEW QUESTION	CATEGORIES	FREQUENCY and PERCENTAGES	
		f	%
Did you have any positive or negative situations you experienced during the teaching practices? Please explain it.	No, I didn't	2	25.00
	I had a positive experience.	4	50.00
	I had a negative experience.	2	25.00

The aim of the question 6 was to determine whether pre-service teachers encountered any negative or positive situations during the implementations of micro-teaching method. Two of the pre-service teachers stated that they did not have any memories. Four teacher candidates mentioned their memories and two pre-service teachers said that they had bad memories.

An example from the responses given about each category in order to explain the existing situation was given below:

-PST_1: "No, any bad or good memory does not come to my mind now."

-PST_8: "Sir, while I was teaching in a practice school, one of the students gave correct answers to the question I asked and it made me very happy because they understood the subject I explained very well and the practices yielded promising results during the lesson which caused positive feelings to develop in me."

-PST_7: "Yes. I experienced something bad. You also know it, sir. A student from a practice school was continuously disturbing his friend sitting next to him. When I warned him not to do it again, he told me that I was not his real class teacher and I could not meddle in his affairs and this made me very sad."

As understood from the responses, the pre-service teachers had both bad and good experiences in practice schools. Because practice schools are completely natural learning environments, it is inevitable that the incidents which can be mostly experienced in teaching profession can occur in such settings. Thus, it is considered that the pre-service teachers regarded them as bad memories.

Question7: *Can you please tell what kind of benefits the experiences you had during the micro-teaching implementations will provide you when you become a teacher?*

The participants' responses to question 7 were presented in Table 7.

Table 7**:** The analysis results of the responses to the question 7 by the participants.

INTERVIEW QUESTION	CATEGORIES	FREQUENCY and PERCENTAGES	
		f	%
Can you please tell what kind of benefits the experiences you had during the micro-teaching implementations will provide you when you become a teacher?	About class management.	1	12.50
	About using teaching methods and techniques.	4	50.00
	feel self-confident.	1	12.50
	About preparation for the lesson and using time efficiently.	2	25.00

The question 7 aimed at determining what kind of benefits the experiences pre-service teachers gained during the micro-teaching implementations would provide them in their professional life. One teacher candidate stated that he would manage the class better with the experiences he had. Four teachers said that with the experiences they had they would use the teaching methods and techniques much better. One pre-service teacher responded that he felt more self-confident about teaching profession. And finally two teacher candidates stated that they would benefit from their experience regarding the preliminary preparations and time management during the lesson.

An example from the responses given about each category in order to explain the existing situation was given below:

PST_1: "I gained a lot of experience during the micro-teaching implementations. I am sure that this experience will bring a lot of benefits to me in my professional life. However, I think that I will benefit from this experience mostly about class management because when I taught the first lesson in the practice school, I was aware that the students were not listening to me. But as the weeks passed, I managed to have the students listen to me and teach the lesson effectively and efficiently."

-PST_7: "Although I had a lot of theoretical knowledge about teaching methods and techniques, I realized that I did not know how to use them in practice during the implementations. I also learned how teaching methods and techniques were used in practice during the micro-teaching implementations. I believe that this will be the most important benefit it will bring to my professional life."

-PST_8: "It has always been very difficult for me to speak in public. However, the experiences I had gained demonstrated that I can speak in public. Well, I feel confident now."

-PST_5: "Sir, it was really difficult for me to get prepared for the course in advance. However, I am aware now that these preliminary preparations made me gain a lot of experience. I think that the preparations I made before the lesson and the experiences I gained during the lesson will be very useful to me in my career. I believe that I can use the time efficiently in the lesson."

The responses of the pre-service teachers to question 7 in the interviews were discussed under four categories and it was observed that there was positive feedback. It was understood from the given responses that all of the pre-service teachers gained variety of experiences. Out of the experiences they gained, the responses about using teaching methods and techniques stand out. The reason for this might have resulted from the fact that during the implementations ultimate attention was paid to the teaching methods and techniques.

Question 8: *What are your recommendations about micro-teaching method?*

The participants' responses to question 8 were presented in Table 8.

Table 8:The analysis results of the responses to the question 8 by the participants.

INTERVIEW QUESTION	CATEGORIES	FREQUENCY and PERCENTAGES	
		f	%
What are your recommendations about micro-teaching method?	I have no recommendations.	1	12.50
	More time must be spared.	5	62.50
	More concentration must be paid on the implementation in the schools.	2	25.00

The pre-service teachers were asked to make recommendations about micro-teaching implementations with the last question in the questionnaire. One teacher candidate stated that he did not have any suggestions. Five pre-service teachers suggested that more time should be spared to implementations. Two pre-service teachers suggested that micro-teaching method should be carried out in practice schools.

An example from the responses given about each category in order to explain the existing situation was given below:

-PST_6: "In my opinion, the implementations were quite successful and efficient. Sir, I do not have any recommendations."

-PST_7: "I think that practices must be carried in more than one lesson hour, so the topics can be thought more effectively."

-PST_3: "Sir, because the implementations we carried out took place in real classroom settings, I felt myself like a real teacher during the implementations. In my opinion, more weight must be given to the practices carried out in schools."

One teacher candidate stated that he did not want to make any recommendations in the last question which asked the pre-service teachers' suggestions about micro-teaching implementations. It was thought that the pre-service teacher who gave this answer got fed up with the interview and he gave this answer to finish it as soon as possible. It is considered that the reason why five pre-service teachers suggested that more time should be spared to the practises may have resulted from the fact that the topics related to physics course took more time. Two pre-service teachers suggested that more weight should be given to the implementations carried in the schools. It is considered that the reasons for this may have resulted from the fact that the topics related to the majors of pre-service teachers were only included in the implementations in the schools and because they had full knowledge of the subject, they thought that the implementations in the schools must be carried out intensively.

DISCUSSION AND RESULTS

When the findings obtained from this study which was carried out to determine the views of pre-service teachers who were continuing the pedagogical formation certificate program about micro-teaching method were examined, the most important finding was that pre-service teachers had positive views about the implementations. This result shows parallelism with the studies which revealed that most of the students who participated in micro-teaching implementations had positive attitudes towards the practice and they wanted the implementations to continue (Akalın, 2005; Aksan and Çakır, 1992; Bayraktar, 1982; Ceyhun and Karagolge, 2005; Erökten and Durkan, 2009; Gürses, Bayrak, Yalçın, Açıkyıldız and Doğar, 2005; Ismail, 2011; Kazu and Külahçı, 1996; Kazu, 1999).

It was found from the responses given to the questions in the questionnaire that pre-service teachers did not have any experience about teaching practices before. It was also observed that throughout the implementations carried out about micro-teaching method, the pre-service teachers realized their weaknesses and they took responsibilities for taking the opportunity of self-evaluation. This made contributions to teacher candidates to gain a lot of experience about teaching profession. This result is compatible with the previous studies which state that it made positive and permanent contributions to pre-service teachers' teaching skills (Amobi, 2005; Evans, 1980; Görgen, 2003; Kazu, 1996; Kılıç, 2010; Kuran, 2009; Lee and Wu, 2006; Şahinkayası, 2009; Şen, 2010). In a study conducted by Evans (1980), the findings obtained revealed that micro-teaching implementations made contributions to acquire teaching skills, to help overcome some personal fears about class management, and to learn teaching methods more closely. Lee and Wu (2006) in their research found that micro-teaching implementations promoted pre-service teachers' teaching experiences. Moreover, the findings of this study are completely compatible with the findings of Peker (2009) which indicated that this implementation made contributions to pre-service teachers to promote their teaching skills.

The pre-service teachers' responses to the 3rd question in the interviews revealed that the time allocated for the implementations of micro-teaching method was not enough. Moreover, when the pre-service teachers were asked to make suggestions about micro-teaching practices in the last question of the interview, they suggested that more time was required for the implementations. This demonstrates that the time allocated for the implementations were not enough. The findings of the research show similarity with the findings of the studies carried out previously which revealed that pre-service teachers felt uncomfortable due to the lack of time during the micro-teaching implementations (Fuller and Manning, 1973; Holzman, 1969; Kazu, 1996; Külahçı, 1994; Steward and Steward, 1970).

The responses given to the last question which asked suggestions about micro-teaching method revealed that the pre-service teachers gave responses at critical dimensions via promoting reflective thinking. This shows that the implementations carried out about micro-teaching method were actualized quite efficiently and successfully. This result obtained from the study findings shows parallelism with the studies of (Lily Orland and Hayuta, 2007; I'Anson, Rodrigers and Wilson, 2003; Li,X and Lal, 2005).

RECOMMENDATIONS

In line with the results obtained in the research, the following suggestions were made:
It was determined from the implementations carried out within the context of the research and the responses of the pre-service teachers to interview questions that more time must be allocated for micro-teaching studies carried out with some courses which contain abstract concepts like physics. Fewer pre-service teachers must be included in the future research studies as sampling. By this means, more opportunities can be offered to pre-service teachers to do more practices and thus coping with the problem of time experienced during the implementations.

Pre-service teachers who study at Education faculties graduate from the university in 4 or 5 years depending on the departments they are studying and during their education they have opportunities to do practices about

teaching profession. On the other hand, pre-service teachers who continue pedagogical formation certificate program graduate from the faculties apart from education faculties. They do not have any practice opportunities for teaching profession in the undergraduate programs from which they graduate and also the time allocated for teaching practices within the context of pedagogical formation certificate program is limited. Thus, the courses particularly in pedagogical formation certificate program must be designed according to micro-teaching method. Therefore, pre-service teachers will gain more experience about teaching profession.

Pre-service teachers who go to practice schools within the context of teaching practice can only teach two or three times throughout the whole term. Unfortunately, micro-teaching method is not used while lecturing. Thus, pre-service teachers are unable to realize their weaknesses themselves. In order to solve this problem, coordination must be established with the practice schools and the courses involved in pedagogical formation certificate program about teaching practice must be taught with micro-teaching method.

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REFERENCES

Akalın, S. (2005). Comparison Between Traditional Teaching and Microteaching During School Experience of Student Teacher. *Eurasian Journal of Educational Research*, *20*, 1-13.

Aksan, Y. & Çakır, Ö. (1992) "Pre-Service Teacher Education: A Case Study" The Second International Conference: ELT and Teacher Traning in the 1990's: Perspectives and Prospects (23-25 September) Ankara.

Allen, D. W. (1980). Micro-teaching: Personal Review. *Britisch Journal of Teacher Education, 6*(2), 147-151.

Amobi, F.A. (2005). Pre-service Teachers' Reflectivity on the Sequence and Consequences of Teaching Actions in A Microteaching Experience. *Teacher Education Quarterly*, *32*(1), 115-128.

Bayraktar, E. (1982). *Mikro Öğretim Yöntemi ve Uygulaması*. Yayınlanmamış Yüksek Lisans Tezi. Ankara Üniversitesi Sosyal Bilimler Enstitüsü, Ankara.

Bell, N.D. (2007). Microteaching: What is it that is going on here? *Linguistic and Education, 18*(1), 24-40. doi:10.1016/j.linged.2007.04.002

Büyüköztürk, Ş., Kılıç Çakmak, E., Akgün, Ö.E., Karadeniz, Ş., & Demirel, F. (2013). Bilimsel Araştırma Yöntemleri, PegemA: Ankara.

Ceyhun, I. &Karagolge, Z.(2005). Chemistry Students' Misconceptions in Electrochemistry. *Australian Journal of Education Chemistry, 65*, 24-28.

Deniz, L. (1993). Mikro-ögretim. [Micro-teaching]. *M.Ü. Atatürk Egitim Fakültesi, Egitim Bilimleri Dergisi 5*, 31-46.

Dennick, R. (1998). Teaching Medical Educators to Teach: The Structure and Participant Evaluation of the Teaching Improvement Project. *Medical Teacher*, *20*(6), 598-601. doi:10.1080/01421599880385

Erökten, S. & Durkan, N. (2009). Micro Teaching Applications in the Teaching Methodology Course. *The First International Congress of Educational Research*. University of Çanakkale Onsekiz Mart. 1-3 May 2009. Çanakkale.

Evans, M. (1980). Micro Team Teaching in A Student Teacher Training Programme. *South Pacific Journal of Teacher Education, 8*(1-2), 49-55.

Fernandez, M.L**.** (2005*).* Learning Through Microteaching Lesson Study in Teacher Preparation. *Action in Teacher Education, 26*(4), 37-47.

Fuller. F.F. & Manning, B.A. (1973). Self-Confrontatıon Revıewed: A Conceptualızatıon for Vıdeo Playback In Teacher Educatıon. *Review of Educational Research, 43*(4), 469-528.

Goodman, J. (1986). University Education Courses and the Professional Preparation of Teachers: A descriptive analysis. *Teaching and Teacher Education*, *2*(4), 341–353.

Görgen, İ. (2003). Mikro Öğretim Uygulamasının Öğretmen Adaylarının Sınıfta Ders Anlatımına İlişkin Görüşleri Üzerine Etkisi. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi, 24*, 56-63.

Güney, K. & Semerci, Ç. (2009). Mikro-Yansıtıcı Öğretim Yönteminin Öğretmen Adaylarının Yansıtıcı Düşünmesine Etkisi. [The Effect of Micro-Reflective Teaching Method in Accordance with the Reflective Thinking Activities of Students Teachers]. *Doğu Anadolu Bölgesi Araştırmaları, 8*(1), 77-83.

Gürses, A., Bayrak, R., Yalçın, M., Açıkyıldız, M., & Doğar, Ç. (2005). "Öğretmenlik Uygulamalarında Mikro Öğretim Yönteminin Etkililiğinin İncelenmesi". *Kastamonu Eğitim Dergisi*, *13*(1), 1-10.

Hadfield, O.D. (1998). Predictors of Preservice Elementary Teacher Effectiveness in the Microteaching of Mathematics Lessons. *Journal of Instructional Psychology, 25*(1), 34-47.

Hall, R. & Leveridge, M. (1983). The Use of Video in Residential Social Work Staff Development. *Social Work Education*, *3*(1), 15-18. doi:10.1080/02615478311220131

Holzman, P. S. (1969). On Hearing and Seeing Oneself. *Journal of Nervous and Mental Disease*, *148*(3), 198-209.
I'Anson, J., Rodriguez, S., & Wilson, G. (2003). Mirrors, Reflections and Refractions: The contribution of microteaching to reflective practice. *European Journal of Teacher Education*, *26*(2), 189-199. doi:10.1080/0261976032000088729

Ismail, S.A.A. (2011). Student Teachers' Microteaching Experiences in a Pre-service English Teacher Education Program. *Journal of Language Teaching and Research*, *2*(5), 1043-1051.

Kazu, H. (1996). Öğretmen Yetiştirmede Mikro Öğretim Yönteminin Etkililiği (Fırat Üniversitesi Teknik Eğitim Fakültesi örneği). Yayınlanmamış Doktora Tezi. Fırat Üniversitesi Sosyal Bilimler Enstitüsü, Elazığ.

Kazu, H. (1999). "Öğretmen Yetiştirmede Mikro Öğretim". 4.Ulusal Eğitim Bilimleri Kongresi Bildiriler (1) . Eskişehir :Anadolu Üniversitesi. Yayın No: 1076. ss.421-433.

Kazu, H. & Külahçı, S.(1996). "Mikro Öğretim Yönteminin Öğretmenlik Uygulamaları Üzerindeki Etkisi". İstanbul: Marmara Üniversitesi. Atatürk Eğitim Fak. 2.Ulusal Eğitim Sempozyumu Bildirileri. 18-20 Eylül. ss.7-18.

Kılıç, A. (2010). "Learner-Centered Micro Teaching In Teacher Education", *International Journal of Instruction, 1*(3), 77-100.

Kinchin, I. & Alias, M. (2005). Exploiting Variations in Concept Map Morphology as a Lesson-Planning Tool for Trainee Teachers in Higher Education. *Journal of In-service Education*, *31*(3), 569 - 592. doi:10.1080/13674580500200366

Klinzing, H. & Floden, R. (1991). *The Develop-ment of Microteaching Movement in Europe.* Paper Presented st the Annual Meeting of the American Educational Research Association. Chicago: U.S. Department of Education. ED:361-328.

Kpanja, E. (2002). A Study of the Effectiveness of Videotape Recording in Microteaching Training. *British Journal of Educational Technology, 32*(4), 483–486. doi:10.1111/1467-8535.00215

Kuran, K. (2009). Mikro Öğretimim Öğretmenlik Meslek Bilgi ve Becerilerinin Kazanılmasına Etkisi. [The Effect of Micro Teaching on Teachers' Gaining of Knowledge and Skills]. *Mustafa Kemal Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 6*(11), 384-401.

Külahçı, S. G. (1994). Mikro-öğretimde Fırat Üniversitesi Teknik Eğitim Fakültesi deneyimi II. değerlendirme. *Eğitim ve Bilim, 18*(92), 36-44.

Lanier, J.E. & Little, J.W. (1986). *Research in teacher education.* In M.C Wittrock (Ed.) Handbook of Research on Teaching. New York: Macmillian.

Lee, G.C. & Wu, Cheng-Chih (2006): Enhancing the Teaching Experience of Pre-service Teachers Through the Use of Videos in Web-Based Computer-Mediated Communication (CMC), *Innovations in Education and Teaching International, 43*(4), 369-380.

Li, X. & Lal, S. (2005).Critical Reflective Thinking Through Service-Learning: Recons-tructing Culture Through a Multicultural Auto-biographical Method. *The International Journal of Intercultural Education. 16*(3), 217-234.

Lily Orland, B & Hayuta, Y**.** (2007). When Theory Meets with Practice: What Student Teachers Learn From Guided Reflection on their Own Classroom Discourse. *Teaching and Teacher Education: An International Journal of Research and Studies, 23*(6), 957-969. doi:10.1016/j.tate.2006.06.005

Mellon, E.K. & Dence, J.B., (1971). Orientation for Teaching Assistants Using Video Recorded Microteaching. *Journal of Chemical Education*, *48*(10), 674-675. doi:10.1021/ed048p674

Metcalf, K.K., Hammer, M.A.R., & Kahlich, P.A. (1996). Alternatives to Field-based Experiences: The Comparative Effects of on-campus Laboratories. *Teaching and Teacher Education*, *12*(3), 271-283. doi:10.1016/0742-051X(95)00037-K

Munn, P., Johnstone, M., & Holigan, C. (1990). Pupils' Perceptions of Effective Disciplinarians. *British Educational Research Journal, 16*(2), 191-198. doi:10.1080/01411192900160207

Phelps, P.H. (2006). The Dilemma of Dispo-sitions. *Clearing House: A Journal of Educati-onal Strategies, Issues and Ideas, 79*(4), 174-178.

Saunders, W., Gall, M.D., Nielson, E., & Smith, G. (1975). The Effects of Variations in Microteaching on Prospective Teachers' Acquisition of Questioning Skills. *Journal of Educational Research*, *69*(1), 3-8. doi:10.1080/00220671.1975.10884815

Semerci, N. (1999**).** *Kritik Düşünmenin Mikro Öğretim Dersinde Eleştiri Becerisini Geliştirmeye Etkisi.* (Fırat Üniversitesi Teknik Eğitim Fakültesi Örneği). Yayınlanmamış Doktora Tezi. Fırat üniversitesi Sosyal bilimler Enstitüsü, Elazığ.

Sevim, S. (2013). Mikro-öğretim Uygulamasının Öğretmen Adayları Gözüyle Değerlendirilmesi. [Evaluation of Microteaching Applications through Student Teacher' Views]. *Dicle Üniversitesi Ziya Gökalp Eğitim Fakültesi Dergisi, 21,* 303-313.

Simbo, F.K. (1989). The Effects of Microteaching on Student Teachers' Performance in the Actual Teaching Practice Classroom. *Educational Research, 31*(3), 195-200. doi:10.1080/0013188890310305

Steward, M. S. & Steward, D. S. (1970). Teacher, Teach Yourself. *Audiovisual Instruction*, *15*, 26-27.

Şahinkayası, H. (2009). *Contributions and Challenges of Cognitive Tools and Microteaching for Preservice Teachers' İnstructional Planning and Teaching Skills.* Unpublished doctoral dissertation, Middle East Technical University, Ankara.

Şen, A.İ. (2010). Effects of Peer Teaching and Microteaching on Teaching Skills of Pre-Service Physics Teachers. *Education and Science, 35*(155), 78-88.

Wallace, M. (1979). *Micro Teaching: Skills and Strategies.* Holden, S. (Ed.) Teacher Training. London: Modern English Publication.

Wilkinson, G.A. (1996). Enhancing Microteac-hing Through Additional Feedback from preser-vice Administrators. *Teaching and Teacher Education, 12*(2), 211–221.

Yin, R.K. (2003). Case Study Research Design and Methods (Third Edition). New Delhi: London.

APPENDIX-1

PHYSICS LESSON PLAN
Date: 02/05/2015

Course Name	Physics
Grade	10th grade
Topic	Light-Shadow-Reflection-Refraction
Duration	50 minutes
The Purpose of the Topic (Goal)	The aim is to have students make deductions on the behaviour of light and image formation in different settings and on optical tools by associating light and the act of seeing.
Objectives / Learning Outcomes	- A student can explain the light transmission features of transparent, semi-transparent, and non-transparent materials. - Examine the behaviour of light during reflection and make deductions. - Explain the concept of refraction and give examples to refraction. - Analyse phenomenon of total internal reflection of light and critical angle.
Methods and Techniques	Lecturing-Question and Answer- Analogy
Equipment and Tools	Computer, Projection
THE COURSE PROCESS	

Introduction:	
The students' attention was drawn by asking them what makes our eyes see. If atoms of matter are given energy in different ways, the atoms turn to their old state and they emit the energy they absorbed as light. Visible light is the energy released outside and perceived by the human eye and invisible light cannot be perceived by the eye (Motivation). We will learn the light sources encountered in daily life, how light is propagated, the formation of shadow, refraction and reflection.	
Result:	
Light is a kind of **energy** type. Light sources are divided into two as **hot (incandescent)** and **cold**. A light which comes from a light source or effuses from a small opening travels in straight lines. When the light hits the matter, an interaction occurs between the light and the matter. This interaction may change depending on the type and structure of the matter. The materials are divided into three categories as **transparent, semi-transparent**, and **non-transparent** materials. Light has both physical and chemical effects. One of the physical effects of light is that it creates pressure. Tools called **radiometer** are used to measure the light pressure. If the rays of light emitted from a light source are obstructed by an opaque object, the rays cannot pass thorough the object and they form black regions behind the object. This black region is called a **shadow. Lunar eclipse and solar eclipse** are identified as the most current examples of a shadow. Light rays can undergo *reflection or refraction.* It is stated that the direction of the reflected light ray changes abruptly and the direction and speed of the refracted light ray changes. Refraction can be illustrated using analogy technique. Considering the behaviour of light, phenomena encountered in daily life like rainbow and mirage can be given as examples to the students.	
Conclusion:	
Light is an important concept and light and the act of seeing are associated with one another. Considering the relationship between behaviour of light and image, the phenomena encountered in daily life can be inquired.	
Evaluation and Assessment	- A student can explain the light transmission features of transparent, semi-transparent, and non-transparent materials. - A student is asked to explain the behaviour of light in reflection. - A student is asked to explain refraction and give examples to refraction. - A student is asked to explain the phenomenon of total internal reflection of light and critical angle.
Evaluation	As the subject of the course taught today attracted students' attention a lot, the lesson was completed without distraction of students. The students participated in the lesson. Because the feedback is positive, I believe that the goals and objectives were attained.

Approved
…/05/2015

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Physics Teacher

……
School Director

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DEVELOPING AUDIO TACTILE FOR VISUALLY IMPAIRED STUDENTS

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ABSTRACT

The aim of this study is to develop teaching materials based on Audio Tactile which is valid, practical, and effective to improve learning motivation and achievement of visually impaired students. This study was a research and development (R&D). The data collection techniques in this research were observation, interview, documentation, and tests. This research used a qualitative approach as a data analysis technique. The conclusions of this study were the product developed as a set of audio tactile teaching materials which consisted of learning audio sources and tactile media. These audio teaching materials were supported by several tactile media such as planes, puzzle, *geoboard*, tactile rules, and tactile protactor. The Audio Tactile teaching materials can improve learning motivation of visually impairment students. The increase of learning motivation was indicated by high student's will to study, student's high perservance, student's enjoyment, and curiosity. The Audio tactile teaching materials gave great positive impacts on learning achievements. This is shown by the increasing score of posttest compared to the score of pretest.

Key Words: Planes, visually impaired students, audio tactile, teaching materials**.**

INTRODUCTION

A nation is not permitted to differentiate each citizen in education accomplishment. In indonesia, it is clearly and visually stated in the 1945 constitution article 31 verse 1. It expressed that every citizen has the same chance to experience an education. UUD 45 backed the law of national education system no. 20 years 2003 part 11th article 32 mention that, special education is education for learners who have the level of difficulty in following the learning process because of physical abnormalities, emotional, mental, social, and/or having the potential of intelligence and talent privilege. Ideally, all disabled must have access to learning and related institutions that are capable of providing facilities memadahi to support learning process. Academic facilities in schools are having largest infleunce against math achievement for students who are visually impaired student (Giesen, Cavenaugh, & McDonnall, 2012).

The visually impaired is one type of disabilities who have limitation on vision. The visually impaired divided into two big categories namely low vision and blind. The categorization of it is used as a basis of the handling in learning process. Low vision is visual impairment still has the rest of sight and can identify visual information with the tools. While blind is the one who are notable to access visual information at all (Roe & Wesbter, 2003). The psychological of the visually impaired person is a excessive worry because of limited ability to control environmental conditions. It makes visually impaired person often exaggerated in fear. The impact of it is a lack of confidence, the suspect remains in the environment, not independent, petulant, lone, passive, easily discouraged , and difficult to adjust (Hadi, 2005).

Based on the data from the Central Bureau of Statistics (BPS), the number of visual impairment in indonesia reached about 3.5 million people or about 1.5 percent of a population (Fitriyah, 2013).Thus, there is no reason

for the Government not to meet the needs of visually impaired students' education. Through a process of education, visually impaired should be maximized to be a productive people. The school does not solely develop cognitive potentials but also provides intercommunication. Integrated education can develop the visually impaired students' capabilities of the communication. Therefore, they are able to get along well with their neighbors (Bowen, 2010).

One of the provisions given in the school is the science of mathematics. Mathematics equips students to logic, confidence in solving problems, and draw conclusions in order to solve the daily problem (Aisyah & Retnawati, 2014). The ability of the trained students were unnoticed by a mathematical problem solving process. At the junior high school level, the first student are taught to understand geometry phenomena.

Geometry is a material that combines the concept of geometry with the development of a visual perception (Barmby, et. al., 2009). This material is considered as important thing to be taught because it may raise people's ability to solve some daily problems. Hoffer (Yee & Hoe, 2009) said learning geometry can develop various abilities such as *visual skill, verbal skill, drawing skill, logical skill, and applied skill.* However, this material should be mastered by student, not only in mathematics lesson but also in daily life.

In general, geometry taught with various examples of visual and illustration (Rouzier, 2004). Vision limitation of visually impaired makes them can't learn to geometry as easy as other students who can access visuals data. The condition maked geometry as a serious problem in the study of visually impaired. Geometry demands the teacher to learn perception. Limitation of visually impaired demands the teacher must have maximizing the senses of touch. The sense of touch is used to identify the geometric shapes. It is very good to increase the understanding of the visually impaired student (Salisbury, 2008).That effort can be done by the provision of props. Mani, et. al (2005) said thatshould geometry props having a well-proportioned, strong and secure. While Suherman, et. al. (2003) said props should be durable, interesting, a measure proportionate, multi-function, and can be presenting the concept.

In students' learning, a source of learning is a special problem (Retnawati, Prajitno& Hermanto, 2015). The limitation of a source of learning and props was a serious problem in the education process of visually impaired student. This condition is not ideal in the process of learning geometry that require contextual and practices example. The visually impaired students are taught to memorize all the formula a broad itinerant or volume as to be applied. Therefore, the learning process was meaningless. Consequently, there were students who were less motivated to study harder. Preliminary observations data showed that the blind students did not have a strong-will in learning mathematics. Students are too lazy and lack of initiativesin learning mathematics. The data is strengthened by students' passive and easily discouraged conduct when the learning is taken. These facts showed that the there is a motivation problem of students in learning about mathematics.

Motivation is one of the vital things that affect the learning process. Motivation is an impetus that leads to a goal. Indication of motivation is the willingness to learn, effective time management, diligent, persistent, glad and curiosity. Therefore, the motivation will exert influence on each learning outcome (Gottfried & Hudley, 2008; Santrock, 2008; Brophy, 2010). Students' learning motivation are originated from subjective experience students, especially that is connected to their willingness to engage in the activities of learning and the reason they to do so (Brophy, 2010). In a task, especially a relatively complicated one, students must maintain their motivation to achieve a good result (Sullo, 2009). Teachers can see the motivation of his behavior when students receive the complicated problems (DeCaro, DeCaro & Rittle-Johnson, 2015). Hence, motivation of learning is an important aspect which affects the purpose of learningachievement.

Lack of motivation is directly proportional to the accomplishment of student learning. In preliminary observations, it was found the fact that the majority of the visually impaired students were difficult to learn mathematics. It seemed that they did not often reachedminimum standards in doing the test.

Limitation of learning materials is predicted as one of the problems for low motivation and student learning achievements. The visually impaired student have difficulties in documenting integrated mental picture.

Tactual exploration make the visually impaired studentseasy to coordinate a knowledge in their mind (Swarup & Bhan, 2006). In an effort to facilitate the visually impaired students, it maximize the sense of hearing and the feeler.Holmes, et.al in (Hersh & Johnson, 2008) said The efficiency of tactile media can be maximized by adding information audio. The addition of audio makes the media as detail information. In addition, the visually impaired students will be more interested and relatively energetic and effective in terms of accessing the information. The merging of tactile and audio will be comfortable thing for learning.

Basically, all can be encouraged to make availability of facility of the visually impaired student to be comfortable in learning. A lot of visual information could be converted into non-visual information (Mani, at. al., 2005). As the conclusion, the visually impaired have to maximize the senses of good working example haptic (touch) and hearing (Hersh & Johnson, 2008). For a variety of information, visual images can be packaged into a concrete object that is a mathematic problem or writing that can be converted into a braille or audio information.

According to Whittingham (2013), audiobook can be accessed by the visually impaired student well. Even the existence of audiobook can increase the passion of reading. Basically, almost all information can be given to be accessedby visually impaired. Audiobook are the result of technologies that could be to exert an influence on motivation and achievement. Conclusions were based upon advantage of the existence of information technology that facilitate the students to learn independently, whenever and wherever (Lin, Chen & Nien, 2014).

Involving the hearing and touch can gives them flexibility to use material things contextually. Explain planes in the concrete lesson would ease the students to understand (Retnawati, Prajitno & Hermanto, 2015). The material that taught contextually can give a meaning of this material. The meaning of material will save the subject matter in long-term memory (Kyriacou, 2010). One of mathematics learning strategy is to include information in long-term memory. New ideas and experience is transferred from the short-term memory to the long-termmemory where it is kept and use for later. The process will be supported by motivation, intentions and strong emotion (Kennedy, Tipps, & Johnson, 2008).

Hence, in this research developed teaching materials based on audio tactile so it can be accessed by the visually impaired students. It intends that visually impaired students can learn geometry (planes) in an inconvenient way. All the visual information that are commonly used to the learning process will be converted into audio-based and tactile-based. The expectation is that motivation and learning achievements of visually impaired students will improve. Thus, the purpose of this research is to develop planes teaching materials with audio and tactual-based and to know the influence of motivation and student learning achievements.

METHOD

The research is a research and development (R&D) with the following steps: preliminary observation, planning and design, initial product development, the trial, the revision of the trial results, and the final product. The study was conducted between December 2014 to May 2015 in six placesnamely: the researcher's home, Utak's home recording, Dria Manunggal, SMPN 2 Sewon Bantul Yogyakarta, Indonesia, and MTs Yaketunis Yogyakarta Indonesia.The process of research involved four students from two schools, one student from SMPN 2 Sewon and three students from MTs Yaketunis. All of them were 7th grade students. They were Ilsa, Anka, Samu, and Sugeng (pseudonym). Data collection techniques in this research were observation, in-depth interview, documentation, and test. Thus, the instrument of data collection in this research were guidelines for observation, guidelines for documentation, sheets of validation, and the evaluation of learning achievements and tests.

The quality of teaching materials was based on three basic aspects, which each of those were feasibility, practicality, and effectiveness (Van den Akker, 1999). Plomp (2007) stated that the feasibility of referring to the level of intervention of a design based on knowledge of state-of-the art (content validity) and suitability teaching materials conformity with the validity of theory (constructvalidity). Practicality was seen in terms of

the use of assessed by the experts and practitioners. The focus of the judgement was the relevance of teaching materials within its normal condition and the fact through trial and error (Van den Akker, 1999). Effectiveness is the relationship between the plan and achievements (Nieveen, 2007).

Content validation was implemented through the expert judgement. The experts involved in the validation process are visually impaired education expert, mathematics education expert, and media of mathematics education. To know it further , data will be analyzed using an index of the validity of grain-proposed Aiken (Retnawati, 2014).

$$V = \frac{\sum s}{n\,(c-1)}$$

Where ''V'' is the validity of grains index; ''s'' is the score that determined each rater that reduced the score the lowest in the category of used (s = r – lo, with r =the score categories rater choice andlowest score in the scoring category); n is symbol of total rater; and c is the number of categories that may be selected as a rater.

Practicality, the effectiveness,and improve of the learning motivation will be analyzed based on data interview, observation and documentation by using various qualitative techniques. Data triangulation was implemented to keep thequality of the data. A variety of the data gathered will be analyzed with a qualitative approach developed by Miles and Huberman. Qualitative research analysis was implemented since pre-research until the research step was finished. Miles & Huberman (1994) said that the steps in qualitative data analysis are data collection, data reduction, display, and conclusion. The process was started from data recapitulation and reduction of the data, included the simplification of data to verify the relevant data. The data reduction were classified in accordance with a design analysis that has been designed. Then, all of them will be displayed. Any reduction of data that has been classified was verified by various fact at the field , included the results of test results validation and achievements student learning. Then, data was verified andsome conclusions were taken.

An analysis technique applied n-gain. The formulation to judge the improvement of learning achievement of pretest posttest was as follows:

$$\text{N-Gain} = \frac{posttest\ value\ -\ pretest\ value}{Ideal\ maximum\ value - Pretest\ value}$$

Table 1:Criteria for Improvementof Learning Achievement

Interval	Criteria
N-Gain > 0,7	High
0,3 < N-Gain < 0,7	Middle
N-Gain < 0,3	Low

FINDINGS

The result of this research and development is a product development of audio tactile teaching materials which consists of a source of learning and various audio tactile props. The development product is based on of various problems that collected from interview and observation. The data is obtained which later is examined in greater depth by using the various relevant theories. The main problem will be resolved through the product development is learning achievement and low motivation, which is not optimal.The researcher found that fundamental problem here is lack of ability in operatingthe numbers, ability to read a symbol of mathematics in braille, psychologically unstable students, learning independency, diversecognitive ability, lack of learning materials, lack of props, the context learning source or process that still could not meet the context for visually impaired, and the learning process that tends to be one-directed. This problem is expected to be solved. Therefore, visually impaired students can develop their verbal skill, drawing skill, logical skill, and other applied skill as the result of geometry teaching.

An audio learning source is the conversion from visual information to audio information. But to give comfort to the visually impaired in learning, the audio learning source based on visually impaired students' character and experience need to be developed. Various kinds of illustration and a model are designed to consider various aspects that could support a visually impaired students to learn.

The preparation of material is adapted to the curriculum that is enacted in the schools. MTs Yaketunis Yogyakarta Indonesia and SMPN 2 Sewon Bantul Yogyakarta Indonesia are the school with similar concept, namely inclusion school. Thus, they use same curriculum. The primary competence must be fulfilled in audio teaching materials is identifyingthe properties of planes and using it to determine the circumference and area, estimate, and count up the surface area that irregularly shaped by applying the principles of geometry, and finish the real problems related to the application of the properties of rectangular, square, trapezoid, parallelogram, rhombus, and kites.

Mathematics is abstract science that is hard to be learned (Retnawati, Prajitno & Hermanto, 2015). Hence, sequence of material based on a mathematical concept of which were adapted to learning experience and the ability of the visually impaired. The second meeting, teacher explained about quadrilateral. The quadrilateral properties explained according to the concept of quadrilateral, ranging from parallelogram, rectangular, square, rhombus, trapezium; then the kite. Order of following based on the definition of each is built so that it can be analyzed from general to specific one in order to be easier to be understood.

However, more detail the circumference and area,they are presented in a different sequence. It is started with explanation about circumference and area of square. The reason of the sequence is the square more famous than other. This makes the student comfort and easy to learn. Then, a learning that is more difficult to be understood is rectangular. Then, the more difficult to be learned are trapezium and parallelogram. They are more difficult than square and rectangular because the student must understand about concept of high. The last materials are rhombus and kites. To understand both, students must understand diagonal concept.

Next, student learns about triangle. The lesson begins with the introduction of the triangle properties and continued with circumference and area triangle. After students understand the material of a triangle, student begins to learn complex planes. Complex planes intended in this context is a structure formed by a variety of planes that have been studied.

After the materials are composed, the next step is the study of some examples of contextual and illustration adapted to the experience of the visually impaired cognition. The selection of example is contextual and complexity typical illustration. Noticed problem and experience in the process of analysis is undertaken by the visually impaired have significant differences with other students. Hence, the researcher needs to imagine living like the visually impaired or doing in-depth interview directly with the visually impaired.

A variety of digital book that can be accessed by the visually impaired have some contextual and illustrations examples from insight cognition perspective within general students such a bridge, unique building, screen on a ship, and variety of objects that do not exist in the set of visually impaired experience. Through interviews and a variety of the investigation were selected some examples of contextual simple that can be imagined by the visually impaired easily such a paper craft, tiles, kramik, and food.

After various examples of well-planned contextual and illustration, then did interesting studied on packaging is important. An audio teaching material will be interesting if the charge of the material presented with various styles. In general, it is delivered with narrative.But, some illustration delivered with packaging story. It was expected student more interested so feel contextual illustration exist in their environment.

The illustration is seen in the form of drama to attract the attention of visually impaired students and provide students'motivation to learn. The crucial point is when students know the benefits of learn through various

problems contextual contained in conversation drama. Therefore, there are illustration in the form of drama at the beginning of each chapter and some other part.

After arranged, next is the validation process that involves education expert. The process of validation produces a variety of the revision of the format and matter. The format revision is additional duration of information in the manuscript. The addition of a column of the duration is intended to make good learning plan to make it accurate in accordance with the allocation of the time allotted.The second revision is the additional information on various an emblem of mathematics, for example: ‘’square with long side of the 10 cm (read: ten centimeters)’’. Therefore, it is done to anticipate if the narator's background study is not from mathematics education. The third revision is props symbols on the manuscript that combine audio and visual aids. The solution of the problem for audio files uses a symbol of "A" then is followed by a series of props and audio files uses symbol "M" then is followed by a series of props.

The first revision, is about the story that involves only male role. To be more interesting,it can represent all students and the changes on the role that involves men and women. The second revision is formula of a triangular area that known as the third side. At first, the root of the results of multiplied by (s-a) multiplied by (s-b) multiplied by (s-c) is narrated. The repeatation of "multiplied by" can disrupt the visually impaired to understand the information.Therefore, narrative is converted into root from the multiplication of *S, (S-a), (S-b) and (S-c)*.The third revision is instructing the students to concern with the letter L. The fist instruction is *"... building school friends L-shaped trying to find the amount is between tiles if ..."*.There are things that are not seen by visually impaired L-shaped. Visually impaired don't know alphabet letter, visually impaired use braille. Thus, the instruction is revised into *"...building school friends L-shaped alphabet (combined two rectangulars) try to find ..."*.

After the revision, the audio is ready to be made into a recording. The production process is conducted at Utak home recording in Karangwaru Lor TRII no .2309 Yogyakarta. In the production of processing audio file, researcheris assisted by Muhammad Yudi Eko Nugroho as professional sound engineer. The process of recording is repeatedly made to get a clear sound. The process of recording can be finished in just 12 hours with being divided into two days. After the recording finished, we found a noise sound. It was edited with software logic pro in order to clear up so that it can to be listened nicely.

The audio file is validated by expert. From the results of the validation, audio file had is declared good. But audio file need the addition of the tone of opening and closing. Then, researcherinvolves Rendi Indrayanto as jingle composer to make tone and fill it in teaching materials audio. The tone of opening and cover is varied in accordance with the scope of the materials within them. The tone of opening of teaching materials made with the duration of 25 seconds with the concept of the spirit in order to attract and evoke the spirit of students in learning. Meanwhile, the tone of a cover of teaching materials made with the duration of 19 seconds with the concept of the tone is little dims, too. Meanwhile, for the bulkhead of any sub material, short and simple tone with the duration of 6 seconds is made.

Other product development is tactual media which consists of geoboard, tactile ruler, tactile protactor, tactile picture, planes model and puzzle. The products are chosen based on various kinds of considerations that refer to the needs of teachers in explaining the material. The process begins with the assessing any matter which are arranged in a source of learning audio one by one and then concludes several parts that need the props. The concept of the media is proportional, strong, sturdy, safe, and it can present the concept of mathematics with good and simple way. The various developments of the media are as follows.

The acrylics are materials suitable for making geoboard. Based on the conclusions, the acrylics are materials that are delicate, not sharp, light, and has affordable price. Then, researcher determines the other material to make spines on geoboard. Another material such as bamboo sticks with a measure the diameter of 3 mm is chosen, too.The reason of the election of the material is much in the market, not sharp and it can be affixed with acrylic. Lenght of thorns is designed with the size of 3 mm overhanging. To set the sticks we use glue alteco/g.

Through various discussion of the process, validation, and observation to a variety of a shortage must be improved of the geoboard. The various of shortage is the distance of 1 cm, which is too crowded to the students' finger that the fingers of the visually impaired may not enter in to the sidelines of thorns to explore the form of. The other, geoboard is relatively expensive, one geoboard needs around IDR 30.000,00 (about 2.5 US$).

Therefore,revision needed based on validation result. The first media is spines. The distance between the spines is stretched to 1.5 cm. The impact is that the explanation and instruction in a source of learning which was originally "1 cm long",would be changed into "assumed 1 cm long". The other revisions of other materials were originally acrylic and bamboo sticks would be changed into plywood and nails. The replacement of the materials makes geoboard be cheaper, simple, and ease of use.

The second media is a tactile ruler. Tactile prop is used to give facilities to t visuahelly impaired students doing measurement of length. The concept of a tactile ruler is transforming vision information scale into tactile scale information. Pointer scale packed in arising and information scale in braille. The use of the scale of arising gives limitations on the level of ruler thoroughness. The proportional size and a tactile symbol isdesigned into a ruler that has 5 mm thickness. Some other materials that were chosen in the manufacture of a ruler tactile are manila paper, making pointer a scale with thread and a information scale that printed with reglet.

Meanwhile, in the validation process, a ruler tactile is invalid to be tested. Through discussions with validator, it could concluded that tactile ruler have many deficiencies such as the line that is not straight, using glue that makes the texture broken, scale pointer is not clear because it is not at the edge of a ruler, manila paper is relatively delicate, followeed by vulnerable and easy damaged torn.

Revision was done based on product weakness from the validation process. Revision performed on the improvement of the material which is manila paper become ivory paper. The advantages of using ivory paper is thatit is a reuse paper from the offset. Most of the invitation letters are made of it. The impact is that the price is cheap. Another completed revision is making the sign of the scale of which are using thread, is replaced by printing texture with rader. Rader that is used as a printer give an advantage. The scale became stronger, cleared, and more economical.

A first revision tactile ruler entered in the process of continued validation and declared valid to be trial and error. The various components such as a line and the point have been easy to read. The tactile ruler has already noted as a strong madia, easy to be used by the visually impaired, not dangerous, accurate, simple, and it can be made easily.

The third tactile media is a tactile protractor. A tactile protractor is developed in order to facilitate students in making measurements size of angle. The concept of a tactile protractor is same with a tactile ruler, which is change the visual scale into tactile scale. Pointer scale is packed in arising and the information in braille. The use of the scale of arising can overcome the limitations on the level of thoroughness a protractor. Through consideration of proportional size, then the design of a protactor with the level of thoroughness $5^{\circ}$is made.The material chosen in making a protractor taktual is manila paper. Meanwhile, the thread such as materials to make the sign of a scale and the information of a scale is printed with reglet.

Validator assessed the tactile protractor and it declaredasinvalid to be trialled out. From various discussions, it is concluded that the tactile protractor are still having a variety of a weakness. The weakness is that using threads does not produce a straight line, the line not resting at one point, manila paper is not strong enough to hold the thread, then it damaged. Besides that, the use of glue in a gluing the thread make the quality of paper decreased (become matted and easily torn), braille should not be written sloping like the alphabet scale and complete information should be written includingthe sign of numbers and the real worth (originally, in the tactile protractor has simplification so that 60 written 6; 100 written 10; and so on).

Revision was made to repair any weakness of the product. Various improvements are the replacement of material with a straight line with the printing by rader and scale written in accordance with Brailleinternational standard (horizontal). After revision, the products were back into the validation process. The tactile protractor still has invalid to trial and error. Researcher found two deficients in a tactile protractor such as paper isn't strong and information scale not comfortable to read. Revision is done in terms of scale writing and materials. Ivory paper chosen as a substitute for manila paper because it considered to be more powerful and information scale is writtenwith the span of 30°. The new tactile protractor was declared valid to trial and error by judgement.

The last tactile media is props that ease visually impaired students to learn planes. First props is tactile images. It changes the generalimages based on tactual information that converted into an images. The images made of[paper ivory by using rader to draw and reglet to write a description. The tactile images were declared valid by expert. Next media is planes model. The same model with a commonly used in the process of students in general. But the production is considering all criteria for the visually impaired. Therefore,paperboard selected as base materials. The model is not harmful, simple, and economical. In the validation process, the planes model is declared valid by experts. The last kind of the tactile media is puzzle. The concept of the puzzle is to explain a variety of complicated concept that is captured by the senses of touch such as high on parallelogram, diagonal on a kite or the number of large all the angles in triangles. The puzzle is made based on concept that exists in general student. Meanwhile, the materials of puzzle are cardboards.

Validation of puzzle result the puzzle is declared invalid so that it needs to be revised. Experts said that the puzzle is inaccesible for explorated by visually impaired. The visually impaired students could peotentially get confused because there is no marker one part with the other part. Therefore, the revision is need to be done. The revision is done by adopting the concept of a visually impaired chessboard. Every part is designed based on itsdifferent heights for some parts in puzzle so that visually impaired students can easily to access. Visually impaired could explore any part through the edges of the part of having different heights. The experts declared the puzzle is valid to trial and error.

After all products valid and all developing products are ready to be trialled. The process of the trial is relatively going smoothly. The trial process was conducted to know the quality of product development. In the trial process, researcher observedthe achivement of development product, the condition of the students' motivation, and student learning achievements. There are several points which showed that some parts of the development products need to be revised. Various problems were obtained in the first meeting. There were some students caught several times read the description the scale on the tactile protractor. Meanwhile, from five to eight meetings, the students were wasted too long time to explore a puzzle, and at the next meeting, the students had difficulty in drawing a triangle on geoboard. The various problems become a datas source to develop the product.

During the trial, students tend to show the good learning motivation if compared with the pre-research motivation data. The data of pre-research observation showed any problems of students' motivation learning. In the learning process, it was often to be seen that they were not fullyfocused, less serious, passive, feel under pressure, and just write what the teacher explain. The efforts on any material difficulties were not seen.

Motivation problem that is often derived from the assumption is that mathematics is a difficult lesson and less favored. Even students will not sure about their ability in studying mathematics. Schunk (2012) said students will continue the learning process while they had confidence. Meanwhile, Santrock (2008) supported thatmotivation give direction to someone in doing something. Unconfidence would be damage the people's direction in their learning purpose. Students have good motivation when there is an interesting and fun way of earning (Brophy, 2010). Therefore, motivation problems of visually impaired students would be proven with fun and contextual audio tactile teaching materials based on necessity.

When product is trialled, it is showed that the audio tactile teaching materials provide a positive effect on students' learning motivation. Students become more focussed in the lesson. Students feel helpful during the

learning process by the use of various models and a measuring instrument. Measure the length and angle make the visually impaired students active and give meaning to the subjetc which is learned. Learning by using the model makes it easy for the visually impaired students to connect the materials with their environment. The impact of it made the learning so meaningful. Brophy (2010) saidthe meaningful lesson and to connect with environment can improve students intrinsic motivation.

Audio tactile teaching materials made visually impaired students learning flexibly and independently. Audio files can be accessed easily through cellular phone or computer. During this one of the problems that made learning difficulties of the visually impaired students is the lack of teaching materials that could be accessed. The existence learning source that can be accessed easily made students are encouraged to learn. Anka said that audio teaching materials made him easy in learning. Excellence in audio material can be heard casually. It indicates that student learning times increased along with the audio materials that easily accessible.

A tactile ruler and tactile protractor give confidence in students. Before this, the visually impaired students were only passive when others students measure the length and angles. The process of learning using model makes the students become more active. Students tamper with a model to complete their understandings. Practice makes the process of learning enjoyable. A not tense learning make students happy and comfortable. When trialling the products, students often secreting a smile or launching a joke. But the teacher will remain vigilant with the activity of students in order to not wasting a lot of time and students just playing around. Teachers organizing kept the class relax and running on schedule.

Audio tactile teaching materials direct students to discuss with friends. According to the observation data, students discuss with friends seatmate. By the time students practice the process, they discussed with friends about how the results or how to practice. However, students' critical thinking are not significantly increased yet. Students still have not been able to ask and actively involved. Students tend to follow the instructions without clarifying the variety of information provided.

The last process of trial and error was a posttest. It was implemented in order to know the students' achievement. The value of the posttest will be compared with the value of the pretest to conclude improvement of learning achievements. As for the pretest and posttest, the data is as follows.

Table 2: Data of pretest and posttest

Siswa	*Pretest*	*Posttest*	N-Gain	status
Ilsa	1,25	2,92	0,19	incomplete
Samu	3,75	5,83	0,33	incomplete
Anka	2,50	7,08	0,61	Complete
Sugeng	5,00	8,33	0,67	Complete

Study of using N-Gain indicates that all students achievement is improved. Ilsa has improvement index 0,19 (low category). While three other students has index of N-Gain 0.33; 0,61; and 0.67. All three students that has index above 0.3 showed improved learning achievement include middle categories. If we studied minimum requirements or completeness criteria, only Anka and Sugeng can reach it with a value of 7.08 and 8.33. Ilsa (2.92) and Samu (5.83) were still not reached minimum criteria. The minimum criteria in MTs Yaketunis, Yogyakarta, Indonesia is 6.50 and in SMPN 2 Sewon, Bantul, Yogyakarta, Indonesia is 7.00.However, all students have certain of significant improvement. At first, students could not measure the length and size of angle. However, after the process, all students are able measure it.

After the trial and error obtained, data set can be used as a reference for the improvement of the product. A problem on the first day is the mistake of students in reading the information in the scales of a tactile protractor, which is caused by the collision between the lines scale pointer and information scales. The problem was anticipated by writing a scale in separate paper and attaching on the true location. This solution makes the lineand information scales become clearer.

DISCUSSION

Problems in the fifth to eighth meeting are on the visually impaired students spend much time to find a puzzle places. It was anticipated by combining two places puzzle into one back and front puzzle. Such as combination can make students easy using that because of its conciseness. Geoboard is unable to facilitate students to study triangle properties. To anticipate its weaknesses, the learners are assisted by a tactile protractor and a tactile ruler. It would give the convenience to the visually impaired students to learn the properties of a triangle. Other problems are that not all inclusion school teachershave competence in reading braille. The information on the tactile protractor and tactile ruler based on braille can make it difficult for teachers. Thus, the new product is equipped with scale based on visual information (alphabet scale information). The last problem that will be addressed is the difficulty of students to understand the complex planes. Learn to use puzzle is not enough to make students understand. The reason is because it was done by media aid to provide understanding on students. The floor was selected as the media aid to explain it. The reason of choosing the floor is because of a visually impaired students are familiar with the floor and it can be easily palpable.

The quality of the final product is viewed based on its feasibility, practicality and effectiveness. Audio tactile teaching materials iscurriculum 2013-based design and it declared valid by visually impaired educator expert, mathematics education media expert, and math education expert. The feasibility of audio tactile teaching materials is based on theory. Mathematics teaching materials should be good in pedagogy, physical, and blindness. Specifically, assessment of teaching materials are separated into two parts, which are instrument assessment quality of audio and instrument assessment quality oftactile. A source of learning audio has been declared valid by expert if it can meet the standard.Smaldino, et. al. (2005, p.276)said that the audio tactile teaching materials should meet thegoal of the curriculum, accurate,up to date, clear,has concise language, motivating, and interesting. It must also meetthe learner participation, technical quality, effectiveness rating, bias-free, can guide the user and can be documentated, appropriate and clear. Meanwhile, the audio tactile teaching materials must fulfill standards of quality teaching materials, which are durable, interesting, simple, easy to use, proportional, and can present the concept of mathematics flawlessly (Mani, et. al, 2005; Suherman, et. al, 2003).

Audio tactile teaching materials meet the standard practice. All of learning plan are successfully carried out. Visually impaired students can follow the learning proccess well. Teachers said that the using of an instrument can make students in learning more independently, know the concept more, and learning time can be efficient. Thus, the productcan besaid to bea practical product.

Effectiveness is the relation between the plan and achievement. In terms of student learning achievements, all students is improved. Reviewed in terms of learning activities, using audio tactile teaching material can make learning proccess more conductive. The visually impaired students really enjoy it when they do some practices and explore various media. The visually impaired students that were relatively passive before, became actively participate in the process of learning. Students give well-response in the existence of a audio tactile teaching materials. The goals are set by indicating the effectiveness of students improvement.

In the process of trial, the data is obtained that all students are able to measure degree of angle with a tactile protractor and measuring lengths with a tactile ruler. This competence was not possessed by the students using audio tactile teaching materials. Thus, it can be concluded that audio tactile teaching materials are effective to improve the skill.

CONCLUSION

Development products are a source of audio tactile teaching materials. It consist of audio learning resources and tactile media that are valid, practical, and effective. Tactile media consists of a model, puzzle, geoboard, tactile ruler, and tactile protractor. Audio tactile for each materials can improve students'a motivation in learning. The motivation improvement is measured in various aspects of learning which consists of utilization of time learning, perseverance, tenacity, enthusiasm, and curiosity.Audio Tactile teaching materials give great

positive impacts on learning achievements. This is shown by the increasing score of posttest, compared to the score of pretest. According to an index of the increase, three students with index 0.33, 0.61, and 0.67 are included in the middle category. The other student gets index 0.19 and is included in low category.If it assessed from minimum requirements, Anka and Sugeng can reach it with 7.08 and 8.33 point. While Ilsa and Samu can't reach it with 2.92 and 5.83.

From a variety of experience acquired in the process of research, researcher provides a variety of suggestions to enlarge the use of product. The suggestions are research is needed at the beginning of to see the basic ability of students such as supporting the process of learning. An analysis of the allocation of time needed should be done. Besides that, in accordance with the ability of students, teachers need to have broad insight about the experience of the visually impaired in order to give valuable illustration. Then, teachers must make props independently, and teachers should make a variety of innovation in other props that can help the learning process.

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REFERENCES

Aisyah, U. & Retnawati, H. (2014). Pengembangan perangkat pembelajaran kompetensi sulit matematika SMA di Riau. Jurnal Riset Pendidikan Matematika, Vol. 1 (1), 2014, 98-112.

Barmby, P., et. al. (2009).*Primary mathematics teaching for understanding*. New York: Open University Press.

Bowen, J. (2010). Visual impairment and self-esteem.*The British Journal of Visual Impairment*. Vol. 28 (3), 2010, 235-243.

Brophy, J. (2010). *Motivating student to learn (3rd ed.)*. New York: Routledge.

DeCaro, D. A., DeCaro, M. S. & Rittle-Johnson, B. (2015). Achievement motivation and knowledge development during exploratory learning.*Learning and Individual Differences*. 37 (2015), 13-26.

Fitriyah, C & Rahayu, A. Z. (2013). Konsep diri pada remaja tunanetra di yayasan pendidikan anak buta (YPAB) Surabaya. *Jurnal Penelitian Psikologi*, Vol. 04, No. 01, 46-60.

Giesen, J. M., Cavenaugh, B. S., dan McDonnall, M. C. (2012). Academic supports, cognitive disability and mathematics achievement for visually impaired youth: a multilevel modeling approach. *International Journal of Special Education, Vol 27, No: 1*, 17-26.

Gottfried, A. E. & Hudley, C. (2008). *Academic motivation and the culture of school in childhood and adolescense*. New York: Oxford University Press.

Hadi, P. (2005). *Kemandirian tunanetra: orientasi akademik dan orientasi sosial* Jakarta: Departemen Pendidikan Nasional.

Hersh, M. A. & Johnson, M.A (Eds.).(2008). *Assistive tecnology for visually impaired and blind people*. Springer: London.

Kennedy, L. M., Tipps, S. & Johnson, A. (2008).*Guiding children's learning of mathematics*. California: Thomson Wadsworth.

Kyriacou, C. (2009). *Effective teaching in school: theory and practice (3rd ed.)*. London: Nelson Thornes Ltd.
Lin, H.,Chen, W. & Nien, S (2014). The study of achievement and motivation by e-Learning, a case study. *International Journal of Information and Education Technology*. Vol. 4, No. 5, October 2014, 421-425.

Mani, M. N. G., at.al. (2005). *Mathematics made easy for childern with visual impairment*. Philadelphia: International Council for Education of People with Visual Impairment (ICEVI).

Miles, M. B & Huberman, A. M. (1994). *An expanded sourcebook qualitative data analysis (2nd ed.)*. California: Sage Publication.

Nieveen, M. (2007).Formulative evaluation in educational design research. Dalam Plomp, T & Nieveen, N (Eds.), An introduction to educational Design Research. *Proceesings of the seminar conducted at the East China Normal University*, China, 89-102.

Plomp, T. (2007). Educational design research: an introduction. Dalam Plomp, T & Nieveen, N (Eds.), An introduction to educational Design Research. *Proceesings of the seminar conducted at the East China Normal University*, China, 9-36.

Retnawati, H. (2014). Membuktikan validitas instrumen dalam pengukuran. Retrieved Juni 5, 2015 from http://evaluation-edu.com/.

Retnawati, H., Prajitno, E. & Hermanto. (2015). Developing mathematics textbooks for the teaching to hearing impaired student of junior high school. *The Online Journal of Conceling and Education*, 4 (3), 111-127.

Roe, J & Wesbter, A. (2003).*Children with visual impairments, social interaction, language and learning*. New York: Routledge.

Rouzier, S. (2004).Touching geometry for visually impaired pupils.*Proceesings of EuroHaptics*, Munich Germany, 104-109.

Salisbury, R. (2008). *Teaching pupils with visual impairment, a guide to making the school curriculum accessible*.New York: Routledge.

Santrock, J. W. (2008) *Psikologi pendidikan (edisi kedua)*. (Terjemahan Tri Wibowo). Dallas: McGraw-Hill Company. (Buku asli diterbitkan tahun 2004).

Smaldino, S. E., et. al. (2005).*Instructional technology and media for learning*.Upper Saddle River: Pearson.

Suherman, E., et. al. (2003).*Common textbook strategi pembelajaran matematika kontemporer*. Bandung: JICA.

Sugiyono. (2012). *Metode penelitian kuantitatif, kualitatif dan R&D*. Bandung: Alfabeta.

Sullo, B. (2009). *The motivated student unlocking the enthusiasm for learning*. Virginia: ASCD.

Swarup, S & Bhan, S. (2006). *Information processing and knowledge representation in persons with visual impairment*. Retrieved September 3, 2014 from dari http://icevi.org/publications/ .

Whittingham, et. al. (2013).Use of Audiobooks in a school library and positive effects of struggling readers' participatiob in a library-sponsored audiobook club.*Research Journal of the American Association of School Librarians*. Vol 16, 2013, 1-18.

Van den Akker, J.J.H., et. al. (Eds.) (1999).*Design approaches and tools in education and training*. Dordrecht: Kluwer Academic Publishers.

Yee, L. P & Hoe, L. N. (2009).*Primary school mathematics, a resource book (2nd ed.).* Singapore: McGraw-Hill.

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STUDY ORIENTATION OF HIGH AND LOW ACHIEVERS AT SECONDARY LEVEL

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ABSTRACT

This paper compared high and low academic achievers in respect of study orientation by using a modified Study Orientation Scale (SOS) consisting of 52 items on different aspects of study orientation. The scale was administered on the sample of 360 students those were studying in class X in different schools of Purulia district. Similarly, academic performance was measured through marks obtained by the students in the school level examination of class IX. The analysis revealed that the study orientation of secondary school students is related with their academic achievement. The high achievers have better study orientation than the low achievers. It also showed that there is no significant difference between the high and low achiever students in respect of their study orientations.

Key Words: Study orientation, Study Orientation Scale, High academic achiever, Low academic achiever.

INTRODUCTION

Study orientation is an overall measure of a student's study habits and attitude. The student's approach to learning is highly individualistic with a wide variation of observable techniques. Students learn facts and skills by which they organize and express their thoughts and talents. It is true that we are all born with the ability to learn. We do it every day of our lives, often without being aware of it. However, studying is a special form of learning and it is achieved with some specific purpose in mind. All of us need to learn how to study (Lalitha, 2000). If we want to do best that we can, as a student, we need to understand what would we want out of studying and what learning means to us.

A student who has his or her proper study orientation cannot sleep or go to school without studying the assigned lessons. As a teacher educator the investigator feels that a student can be intelligent and have self confidence in class compared to those do not have their proper study orientation. A student who does not have good study orientation he/she cannot do well in class performance. Good study orientation is the tools to success. Study habits have tremendous effect on the achievement (Patel, 1997). A study, made by Sarwar1, Bashir, Khan, and Khan, 2009, revealed that the high achievers have better study orientation, study habits and attitude, than the low achievers. There is no significant difference between the study orientations of male and female students but the rural students differ significantly from urban students on study orientation. Poor study method clearly disrupt the progress of students (Rowntree, 1983). Lee (1992) found that development of study skills, increased student achievement. Young (1998) observed that students' study habits seem to show differences in how they learn and how serious they are about learning. Nagaraju (2004) found that students in secondary school in India usually do not devote sufficient time to their studies and seldom have proper study habits. However, the study habits significantly influenced on reading achievement of high school students (Narayana, 1997). Without well-developed study orientation, a student cannot perform well in class, develop less self confidence and surely, he or she cannot reach his or her ambition in life.

In spite of our every effort for creating good study orientation among the school students the goal, in respect of their academic performance, is far to achieve. There is a clear distinction in academic performance among the high and low achievers in school. We see that a major portion of the students are not competent in higher education and failed to achieve their desired goal due to their lack of proper study orientation. It is easier to us

if we try to build the proper study orientation from the early stage of individual's life. The main hurdle in promoting a good study orientation today is that there is a lack of proper knowledge regarding the development of study orientation and correlation between study orientations of high and low achievers.
The academic achievement of students is a matter of great concern for parents, teachers, and students. Keeping in view the prior researches the present study was designed to study the relationship between study orientation and academic achievement of the students in secondary school.

Objective

The objectives of the study were:

1. To know the overall study orientation level of high and low academic achievers in secondary school.
2. To compare the students' study orientation with their academic achievement.

Hypothesis

To realize the above objectives the following null hypotheses were formulated for testing:

$^0H_1$: There would not be good study orientation among the secondary school students.

$^0H_2$: There would not be good study orientation among the high and low achievers in secondary school.

$^0H_3$: There would be no significant difference between high and low academic achievers in respect of their study orientation.

$^0H_4$: There would be no significant difference between high and low academic achiever boys in respect of their study orientation.

$^0H_5$: There would be no significant difference between high and low academic achiever girls in respect of their study orientation.

METHODOLOGY

The survey research method was used in the present study. The study was conducted on 360 secondary school students out of them 183 were high achievers and 177 were low achievers. Those students got more than 60% marks in school level examination were taken as high achievers and those who got less than 45% marks were taken as low achievers. The sample was taken from 10^{th} grade students those were studying at secondary schools under WBBSE in Purulia district of West Bengal. The Stratified Random Sampling technique was used to collect the sample for the present study. For sampling, the population was divided into four strata. They were high achiever girls, high achiever boys, low achiever girls and low achiever boys. A number of samples were collected from each stratum.

A modified Study Orientation Scale (SOS), on the lines of M. Mukhopadhyay and D. N. Sansanwal's Study Habit Inventory (SHI) scale, was used by the investigator keeping in view its relevance and suitability for the students of Purulia in West Bengal. The final form of the scale was contained 52 items and it was divided into the following sub-components namely Comprehension (12 items), Concentration (10 items), Task Orientation (9 items), Study Sets (7 items), Interaction (3 items), Drilling (4 items), Supports (4 items), Recording (2 items) and Language (1 item). The items of the scale were arranged randomly in the scale to avoid any mechanistic pattern of response.

Analysis And Interpretation

To test the hypotheses of the study descriptive and inferential statistics have been calculated and results are shown in the following tables.

- *Hypothesis 1 ($^0H_1$):* There would not be good study orientation among the secondary school students. In order to test the hypothesis 1 ($^0H_1$) mean and SD (Standard Deviation) were calculate and the results are given in Table 1.

Table 1: Mean and SD on study orientation scores of secondary school students

Category	N	Mean	SD
Students	360	125.94	19.32

It is observed from Table 1 that the mean value of study habit scores is 125.94 that indicate the secondary school students are having average study orientation. It concludes that the secondary school students have not good study orientation. Hence, hypothesis 1 is accepted.

- *Hypothesis 2 ($^0H_2$):* There would not be good study orientation among the high and low achievers in secondary school. To test the hypothesis 2 ($^0H_2$) mean and SD (Standard Deviation) were calculate and the results are given in Table 2.

Table 2: Mean and SD on study orientation scores of high and low achiever students

Variables	N	Mean	SD
High achiever	183	134.52	16.01
Low achiever	177	117.07	18.42

From Table 2, it is seen that the calculated mean value of study orientation scores are 134.52 and 117.07 for high and low achievers respectively, which is average as per study orientation norms. It is further concluded that high and low achiever students are having average level study orientation. The high achievers are having better study orientation (M=134.52) than their counterpart low achievers (M=117.07). Hence, hypothesis 2 is accepted.

- *Hypothesis 3 ($^0H_3$):* There would be no significant difference between high and low academic achievers in respect of their study orientation. In order to test the hypothesis 3 ($^0H_3$) t test technique was used and the results are given in Table 3.

Table 3: t-value on study orientation scores of high and low achiever students

Variables	No. of Students	Study Orientation scores		Mean difference	df	t value
		Mean	σ			
High Achiever	183	134.52	16.01	17.45	358	9.58*
Low Achiever	177	117.07	18.42			

**** = t value is significant at 0.05 level***

It is revealed from Table 3 that the computed t value is 9.58, which is higher than the table value at 0.05 level of significance. Hence, the difference between high and low achievers is significant in their study orientation and the hypothesis 3 ($^0H_3$) is rejected. In other words we can say that the high and low achiever students differ significantly in respect of their study orientation. This shows that the students who have better score on study orientation tend to have better academic achievement.

- *Hypothesis 4 ($^0H_4$):* There would be no significant difference between high and low academic achiever boys in respect of their study orientation. In order to test the hypothesis 4 ($^0H_4$) t test technique was used and the results are given in Table 4.

Table 4: t-value on study orientation scores of high and low achiever boys in secondary school.

Variables	No. of Students	Study Orientation scores		Mean difference	df	t value
		Mean	σ			
High achiever Boys	100	133.71	14.68	17.63	205	7.40*
Low achiever Boys	107	116.08	19.42			

****= t value is significant at 0.05 level***

It is revealed from Table 4 that the computed t value is 7.40, which is higher than the table value at 0.05 level of significance. Thus, the difference between high and low achiever boys is significant in respect to their study

orientation and the hypothesis 4 ($^0H_4$) is rejected. It also shows that the high achiever boys have better study orientation (M=133.71) than their counterpart low achiever boys (M=116.08). In other words we can say that the study orientation and academic performance are correlated specifically in boys.

- *Hypothesis 5 ($^0H_5$):* There would be no significant difference between high and low academic achiever girls in respect of their study orientation. In order to test the hypothesis 5 ($^0H_5$) t test technique was used and the results are given in Table 5.

Table 5: t-value on study orientation scores of high and low achiever girls in secondary school.

Variables	No. of Students	Study Orientation scores		Mean difference	df	t value
		Mean	σ			
High achiever girls	79	134.47	16.89	13.89	151	4.82*
Low achiever girls	74	120.58	18.62			

= t value is significant at 0.05 level

It is observed from Table 5 that the computed t value is 4.82, which is higher than the table value at 0.05 level of significance. This table shows that the difference between high and low achiever girls is significant in respect to their study orientation. The study orientation of high achiever girls are better (M=134.47) than their counterpart low achiever girls (M=120.58). Hence, the hypothesis 5 ($^0H_5$) is rejected. It is proved that study orientation and academic performance of girls in secondary school are correlated.

FINDINGS

The study reveals the following findings from the analysis of data –

1. The study orientation level of secondary school students is average. The mean value of their study orientation scores is 125.94, which is in average as per study orientation norms.
2. The study orientation level of high and low achievers is also in average. The study orientation of high achiever students (M=134.52) is slightly better than low achievers (M=117.07).
3. The study orientation of the students has significant relation with their academic performance. It means that if a student, irrespective of their sex, has a better study orientation, he is likely to be a high achiever. On the other hand, if a student has a poor study orientation he is likely to be a low achiever.

CONCLUSION

It is concluded that study orientation is related with academic performance of secondary school students. The high and low achiever students are significantly differing in respect of study orientation. The teachers and parents should take positive initiative to sustain and increase the better study orientations among the secondary school students. In addition to this students should be instructed to make a plan for balanced learning activities. The high achiever students have better study orientation than the low achiever students. The reasons behind this are high achievers study with better planning, understanding and concentration than low achievers. Good study orientation can be developed, improved and polished among the secondary school students by the continuous cooperation and help of teachers and parents.

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REFERENCES

Anastasi, A. (1982). *Psychological testing.* New York: Macmilan Publishing Co., Inc.

Best, J. W. & Kahn, J. V. (2009). *Research in Education, (10th ed.).* New Delhi: Printice Hall of India Pvt. Ltd.

Buch, M. B. (Ed.) (1987): *Fifth survey of research in education (1988 – 92)*; NCERT, New Delhi.

Edwards, A. L. (1994). *Techniques of Attitude Scale Construction (Reprint).* New York: Irvington Publishers, Inc.

Garret, H. E. and Woodworth, R. S. (1981): *Statistics in psychology and education*. New York: David Mcway Co. Inc.

Graham, H., Randy, K. and Eldon, G. (1991). Study orientation, persistence and retention of native students: implications for confluent education. *Journal of American Indian Education, Vol. 30*(3). Retrieved on 20.6.2012 from https://jaie.asu.edu/

Lalitha, A.R. (2000). Building good study habits. *The Kerala Journal of Education; Research and Extension.* Kerala State Council of Educational Research and Training.

Mutsotso S.N. and Abenga E.S.B. (2010). Study methods for improving quality learning and performance in higher education. *Educational Research and Review*, *Vol. 5*(12), pp. 808-813. Retrieved on 7.6.2012 from http://www.academicjournals.org/ERR

Nagaraju, M.T.V. (2004). *Study habits of secondary school students.* New Delhi: Discover Publishing House.

Ozsoy, G., Memis, A. and Temur, T. (October 2009). Metacognition, study habits and attitudes. *International Electronic Journal of Elementary Education, Vol. 2*(1), pp. 154-166, ED508333. Retrieved on 12.6.2012 from www.iejee.com

Rajakumar, M., Soundararajan, M. (2012). A study on higher secondary students' study habits in Tirunelveli district. *Indian J. Innovations Dev., Vol. 1*(4), Department of Education and Directorate of Distance Education (Education Wing), Annamalai University, Tamil Nadu, India. Retrieved on 20.6.2012 from http://iseeadyar.org/ijid.htm

Rowntree, D. (1983). *Learn How To Study.* London: Macdonald and Co. Ltd.

Sarwar1 M., Bashir M. and Alam, M. (2010). Study attitude and academic achievement at secondary level in Pakistan. *Journal of College Teaching and Learning Vol. 7* (2), pp. 55-60. Retrieved on 19.06.2012 from http://www.cluteinstitute.com/ojs/index.php/TLC/article/

Sarwar1 M., Bashir M., Khan M.N. and Khan M.S. (2009). Study-orientation of high and low academic achievers at secondary level in Pakistan. *Educational Research and Review Vol. 4* (4), pp. 204-207. Retrieved on 7.06.2012 from http://www.academicjournals.org/ERR

Young, T. (1998). Children`s study habits and parental involvement. *National Undergraduate Research Clearinghouse*, *1*. Retrieved on 19.6.2012 from www.webclearinghouse.net

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LINKING TEACHING STYLE AND LEARNING STYLE AS A MEASURE OF PERSON ENVIRONMENT FIT TO ASSESS STUDENT PERFORMANCE

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ABSTRACT

The current study empirically examines the congruence of teaching style and learning style as a measure of teacher student fit which is the supplementary approach to Person Environment fit among 260 management college students and 16 faculties in India. Earlier literature has stated the importance of learning style and teaching style congruence among students and also the importance of it in building effective classroom environment. The study focuses on the tool to measure this fit and its effect on student performance. Results of the study shows teaching style congruence learning style congruence is an effective predictor of Teacher Student (T-S) Fit. Subjects like Quantitative methods which has strong mathematical base had different dimensions which were significant predictors of Teacher Student Fit were different from subject like Marketing. Thus the results of the study confirmed that nature of the subject can play an important role in analyzing learning style and teaching style congruence to decipher student performance.

Key Words: Teacher student fit, learning style , teaching style, person-organization fit, student performance, effective, learning.

INTRODUCTION

With increase in competitive demands both in the business world and in the academic community, management educators now strive to provide the most productive classroom experience for their students to prepare them for careers in the business world (Quinn et al.,2014). To achieve this objective, management educators constantly search for new and improved teaching methods (Sankoff,2014). Plethora of studies have reported that matching the teaching style of the teachers with the learning style of the students is a novel approach to teaching (Bostrom, Olfman, & Sein, 1990; Kettel, Thomson, & Greer, 2000; Pashler, McDaniel, Rohrer, & Bjork, 2009). Although scholars recognize that there is no one 'right' approach they have tended to give little attention to different learning styles amongst students. Other studies of learning styles endeavor to clarify the diverse ways in which people learn (Reynolds 1997). Furthermore, Marton (1988) contend that learning styles, teaching methods and perceptions of the subject are inextricably linked. However, earlier research had not included learning style and teaching style congruence as an outcome of Person –Environment fit. Thus the purpose of the research described in this paper were to see if a link could be found between "teaching styles"and "learning styles" from the perspective of Person Environment Fit. And also to determine the effect of that link on student performance Teaching style and learning style congruence can be a measurement of supplementary approach to Person environment fit. Here the teaching style should supplement embellish the learning style of the students. However the major issue lies how to measure this fit or match between students. Thus the following study is an endeavour to measure the same using Felder–

Silverman Learning/Teaching Style Model. This study attempts to measure this fit with the help of student performance in terms of the student's grade (a measure of student of performance). These outcomes are in tandem with the consequences of P-E fit. Such studies have not yet been conducted in the Indian perspective.

LITERATURE REVIEW

Learning style (LS)

Learning style is the way or pattern with which an individual processes or retrieves information (Kolbe, 1984). Davis (1996) described learning style "as those preferential strategies that can facilitates the process of gathering, interpreting, thinking new information."Learning styles often control the ways people (learners) associate meanings to the topic being taught and enables them to make sense out of it (Reid,1987). Learning style aids learners to develop schemas or mental modals (long-term memory structures) about the topic and easily retrieve the information as and when required (Riding, & Sadler-Smith, 1997). Thus it creates an effective enduring picture permanently. Hence being aware of one s learning style helps one to determine the effective tools and efforts required to mastering a topic or subject (Cassidy, 2004). Dodds &Fletcher (2004) found out that informing economic students of learning style appropriate their study methods. His study showed that once the students are aware of their learning style they appears to improve their exam grades and instills confidence in the choice of study methods. Similar studies have been conducted which explicates the relationships between performance and learning style(Keefe, 1991Reid, 1987, Claxton and Murell, 1987; Riazi and Riasati, 2007; Mulalic, Mohd Shah and Ahmad, 2009; Bidabad and Yamat, 2010; Vaseghi, Ramezani and Gholami, 2012; Vaseghi, Barjesteh,and Shakib, 2013). Within the last three decades, the proposition that students learn and study in different ways has emerged as a prominent pedagogical issue. Learning styles (Claxton & Murrell, 1987; Coffield, Moseley, Hall, & Ecclestone, 2004a, 2004b) and learning style models (Gregorc & Ward,1977; Gregorc, 1979, 1985; Kolb, 1984; Felder & Silverman, 1988; Dunn & Dunn, 1989; Dunn, Dunn, & Price, 1982,Entwistle & Tait, 1979; Fleming, 2001; Duff, 2004) have offered descriptive typologies that describe the preferences for learning and studying.

Teaching Style (TS)

Facultie's teaching style is a mirror image of their learning style(Zahorick,1991). The teachers are usually selective in using a plethora of teaching styles. They only resort to those teaching strategies which are in congruence with their learning style (Domino,1971). In other words they teach the students in the fashion they have learnt a particular domain and mastered that domain. Barbe and Milone (1980) have found out that teacher are more prone to develop those teaching strategies which are in alignment of their own learning style. Thus it is a common tendency for teachers to believe that that their students shall find the easiest and most convenient way in learning a particular subject the way they themselves have learnt when they were students (Felder & Silverman, 1988). Scholars of learning style models (Claxton & Murrell, 1987; Coffield et al., 2004) postulate that students learn in different ways. Taking that as a basic premise leads to the implications that faculties should not assume that all adult students learn the same way and a faculty member's own dispositions and/or preferences for learning are broad enough to accommodate the learning needs of most or all the students in the course (Boatman, Courtney and Lee,2008).As the students have different learning styles and it is very rarely that individuals have common learning styles, so it is a responsibility of the teachers to explore their teaching style index. This would facilitate them to get exposure of different learning activities to adopt a wider field of student learning styles in order to achieve more effective learning. Hawk and Shah (2007) stated that most faculties in higher education initially adopt a teaching style that merges (1) the ways they prefer to learn and (2) approaches to teaching they saw as effective for their own learning in their higher education programs. As a result, it is likely that many faculties in higher education are either unfamiliar with their own learning style models or lack the potential to enhance the learning processes in the classroom or are not comfortable with experimenting learning styles other than their own preference because it takes them out of their own comfort zone (Grasha,2002).The implications for the learning preference of students are significant for faculty as it facilitates likely the process of coming close to the students, to reach all of the students in a given course (Grasha &Hicks,2000;Vaughn&Baker,2001).Thus the conclusion is that faculty who are consciously aware of their students' learning styles as well as their own are in a position to make more informed choices in course material, design, and learning processes to broaden the opportunities for effective

learning in their courses. Since there are a variety of students with diverse learning styles it is a Herculean Task for the teacher to adopt the learning style of so many students. So the Teacher can assess the learning style of his her class and resort to the learning style of maximum number of students. This could resolve the issue to some extent (Thompson, 1998).

Linking teaching and learning style with Person Environment Fit

Person–environment (P-E) fit research embodies the assumption that attitudes, behavior, and other person-level outcomes result not from the person or the work environment separately, but rather from the relationship between the two. Numerous studies has extensively examined the implications of P-E fit for employees and organizations.(Schmidt&Hunter,1998), stress (Matteson . et al.,1984), and work performance (Tziner, 1987). Many of the outcomes of effective P-E fit would be desirable in our management classrooms: improved student attitudes, teamwork, citizenship and ethical behaviors, and most important, performance. In what is often perceived as an increasingly consumer-driven and transactional educational environment, it may be time to consider the relevance of management research in providing tools for developing a more complete understanding of student learning environments. It has been argued that higher education class- rooms bear similarities to traditional organizational environments (Christensen, Garvin, & Sweet, 1991). Faculty often behave like managers in that they rate performance effectiveness (grading),control work process (pedagogy), provide necessary inputs and resources to accomplish tasks, and decide on feedback and communication methods and timing (Westerman &Vanka,2005). Research in P-E fit has indicated that individuals have different preferences for organizational environments and processes, and the extent to which congruence between individual needs and organizational environments can be achieved results in improved outcomes. That students have differing preferences for classroom environments is reasonable to assume, and the application of P-E fit tools in assessing the extent and impact of student fit in a management education environment may be illuminating (Langbein,2008). Lengnick- Hall and Sanders (1997) proposed a conceptual framework for the evolution of effective learning systems which includes both individual and environmental components. The authors found out that there are individual differences among students in terms of learning style “must be met by equally diverse learning process options . . . to capitalize on the range of individual differences in interests and capabilities”. The increased diversity among students facilitates the development of a better understanding of the individual- environment interaction in the learning process. This effective learning process is an urgent requirement for better student performance.For instance, Thistlewaite (1959) demonstrated that matches between the subject matter emphasized at a college and the interests of individual students resulted in higher rates of productivity and hours of study by students. However, tests of the relation between PE fit and performance based on the Holland system of interests have yielded mixed results (Holland, 1997). More targeted assessments of matching motivational orientation to learning environments have demonstrated positive results with performance in school settings (Harackiewicz, Barron, Tauer, & Elliot, 2002). These researchers demonstrated that although performance approach goals were unrelated to interest in subject matter, they were linked to better performance in terms of grades at a competitive school. That is, individuals with an achievement orientation that matched the demands of the setting tended to act in such a way that they succeeded without necessarily becoming more invested, an outcome not demanded by the environment. These previous studies have demonstrated that there may be a relationship between PE fit and the degree to which someone is satisfied and successful in the context of a job or organization. Westerman Nowicki and Plante (2002) studied the effect of three unconventional predictors of student performance and satisfaction in undergraduate classes in the management field. From the findings, the authors demonstrated the fact that personality congruence was a significant predictor of student performance and that both classroom environment congruence and values congruence were significant predictors of student satisfaction. The significance of personality similarity between an instructor and a student in predicting the student’s outcomes (grade in the class) was of particular interest, as P-O fit research in organizations tends to show a stronger pattern of results for values congruence measures (Chatman, 1989). It may be that students perceive classrooms as temporary or transient work environments and are motivated by more immediate or short-term gratifiers offered by personality- or classroom-environment fit. These findings also indicate the possibility that the various P-O fit measures may be differentially effective in improving our understanding of the relationship between individuals and their work environments based on the situation, and they may illustrate the potential for a contingency approach to fit, which has been conceptually and empirically unexamined. Westerman and

Vanka (2005) conducted similar study in the Indian and US context. They wanted to examine the difference in results in two diverse cultures. They found that value congruence was a significant predictor of student satisfaction- both for India and US. However personality congruence was a significant predictor for student satisfaction for US sample only. However Classroom Environment Fit was a measure for Student satisfaction, for both US and India. Schlee (2005) found out that Social Style (an extended form of personality) congruence of the professor and students had a positive impact on the student's satisfaction using Merrill Reid Questionnaire. However the papers cited that measures like learning and teaching style should be included in the PE assessment. In this context, learning style of the students and teaching style of faculties could be used as measures of fit in classroom ambience.

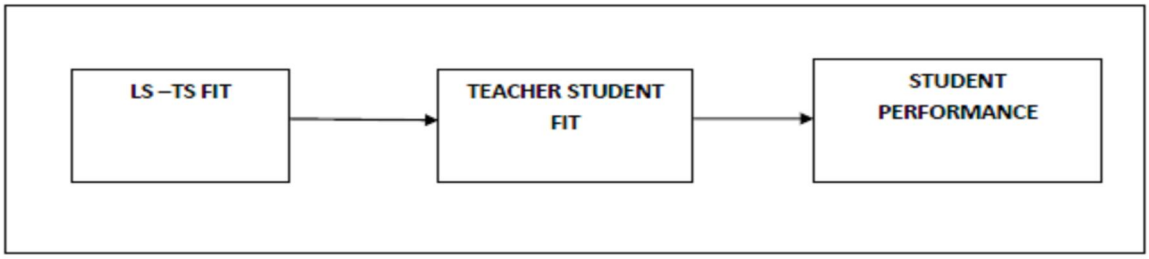
Literature review gap

The earlier studies have stated that the congruence of LS-TS leads to effective learning system. However this particular congruence can be measured as a teacher student fit in terms of supplementary approach, which is missing in the current literature. Thus this study tries to empirically test this approach in the Indian Context.

Hypothesis Development

Brown, Fry and Marshall (1999) suggest that an awareness of learning styles assists tutors in identifying teaching strategies by providing insight into the problems that students experience. Shaunessy (1998) claims that students achieved higher test scores when their tutors took account of learning style. More specifically, Onwuegbuzie and Daley (1997) and Cassidy (2004) have suggested that students' research methods performance is enhanced when teaching methods match learning styles. All students do not learn the same way. This difference in learning style among students creates a challenge for the teachers to adopt a customised teaching strategy serving the needs of all the groups. Once a teacher adopts a teaching style that matches with the learning style of student, the student can relate to the professor more and this would help him or her to have a better understanding of the topic. As a result the mental schemes he or she develops pertaining to the topic or domain remains for a longer period of time. As a result there would be an effective improvement in his performance (measured in terms of Grades). Thus where by students have a learning style matching that of the professor s teaching style are more likely to perform better in their exams. Based on the above logic , following hypothesis can be framed:

Teacher Student Fit (T-S) measured by teaching style and learning style fit is positively related to student performance.



Proposed model- Teacher Student fit

METHODOLOGY

Sample size

A student sample of 260 was taken from various management colleges across India. And a teacher sample of 16 was taken into consideration. The teachers selected were from four backgrounds-Marketing, Human Resources, Financial Management and Quantitative Techniques.

Data collection Method

Data were collected using survey by Questionnaire. (Felder Silverman Learning Style and Felder Teaching Style Questionnaire) The Questionnaires were administered to the students and the teachers respectively during normal class hours after adequate instruction and explanation provided by the researcher.

Measures Used

1. The Learning Style of the students was identified from the questionnaire using the standard method of the Silver Felderman Questionnaire. This is a 44 item Questionnaire and has the dimensions on a bidirectional scale. Each attribute takes a value of 1 to 11. For example when comparing students on the Abstract dimension with the Applied Dimension , a value of 1 would signify the abstract dimension where as a value of 11 would signify the Applied Dimension.
2. Teaching Style was also assessed based on the questionnaire administered to the professors. This is a 20 item Questionnaire and has the dimensions on a bidirectional scale. Each attribute takes a value of 1 to 11.

In both these styles, the theorists classify individuals as having preferences for one category or the other along the following four dimensions:

sensing (concrete, practical, oriented toward facts and procedures) or intuitive (conceptual, innovative, oriented toward theories and underlying meanings);

visual (prefer visual representations of presented material, such as pictures, diagrams, and flow charts) or verbal (prefer written and spoken explanations);

active (learn by trying things out, enjoy working in groups) or reflective (learn by thinking things through, prefer working alone or with one or two familiar partners); ·

sequential (linear thinking process, learn in incremental steps) or global (holistic thinking process, learn in large leaps).

Matching TS Fit

Once the learning style and teaching style is determined the match between the two is determined by taking the mod value of the difference between the learning and teaching style. Such methods are used at the organizational level where the PE Fit is measured. In PE Fit, the Individual Value difference from the organizational value is measured. TS fit following the same analogy can be measured. The following table provides the layout for measuring TS fit as given Feilder and Silverman (1988)

Dimensions of Learning and Teaching Styles

Preferred Learning Style		*Corresponding Teaching Style*	
sensory / intuitive	perception	concrete / abstract	content
visual / auditory	input	visual / verbal	presentation
inductive / deductive	organization	inductive / deductive	organization
active / reflective	processing	active / passive	student participation
sequential / global	understanding	sequential / global	perspective

RESULTS

The following tables give the detailed picture of the TS Fit. Table 1 show that subjects like Marketing and Human Resource Management did not give appropriate results for TS fit. Subjects like Quantitative Methods and Finance however were more significant predictors of TS Fit. In case of Quantitative Methods 72% (out of 260 sample size) gave significant results, where as in Finance it was 78% only. However for Human Resource Management (39%) and Marketing (32%), the values were not so significant. Table 2 shows that all the

dimensions of learning style were not the same for all the subjects for determining TS fit. For Quantitative Methods and Finance the learning style dimensions were very similar. Similar results followed for Marketing and Human Resource Management. Tables 3-6 gives detailed outline of all the subjects and the difference in mod values of particular dimension in measuring TS Fit. We see that the subjects like HR and Marketing gave overlapping results in terms of the mod values and the corresponding grade. However subjects like QT and Finance gave better results without any overlapping regions.

Table 1: T-S FIT For Various Subjects

SUBJECT	T-S FIT SIGNIFICANT INDICATOR
FINANCE	NOT SIGNIFICANT 32%
HUMAN RESOURCE MANGEMENT	SIGNIFICANT (39%)
MARKETING	SIGNIFICANT (72%)
QUANTITATIVE METHODS	SIGNIFICANT (78%)

Table 2: Learning Style dimensions for various Subjects

SUBJECT	SIGNIFICANT DIMENSION
FINANCE	SENSING ,VISUAL AND REFLECTIVE ,GLOBAL
HUMAN RESOURCE MANGEMENT	VISUAL,ACTIVE,INTUTIVE
MARKETING	VISUAL,ACTIVE,GLOBAL
QUANTITATIVE METHODS	SENSING ,VISUAL AND REFLECTIVE ,SEQUENTIAL

Table 3: T-S FIT For Finance

SIGNIFICANT DIMENSIONS	MOD VALUES	DEMARKATING GRADE
SENSING ,VISUAL AND REFLECTIVE ,GLOBAL	0-2,0-2,0-1,1-2	A
SENSING ,VISUAL AND REFLECTIVE ,GLOBAL	1-2,3-4,4-5,3-4	B
SENSING ,VISUAL AND REFLECTIVE ,GLOBAL	3-4,5,5-6,4-5	C
SENSING ,VISUAL AND REFLECTIVE ,GLOBAL	>6,>5,>6	D

Table 4: T-S FIT For Human Resource Management

SIGNIFICANT DIMENSIONS	MOD VALUES	DEMARKATING GRADE
VISUAL,ACTIVE,INTUTIVE	0-3,0-3,0-1	A
VISUAL,ACTIVE,INTUTIVE	2-4,3-4,2-5	B
VISUAL,ACTIVE,INTUTIVE	3-4-3-5,5-6	C
VISUAL,ACTIVE,INTUTIVE	>6,>5,>6	D

Table 5: T-S FIT For Marketing

SIGNIFICANT DIMENSIONS	MOD VALUES	DEMARKATING GRADE
VISUAL,ACTIVE,GLOBAL	0-3,0-3,0-4	A
VISUAL,ACTIVE,GLOBAL	4,3-4,2-5	B
VISUAL,ACTIVE,GLOBAL	4-5,5,6	C
VISUAL,ACTIVE,GLOBAL	>6,>5,>6	D

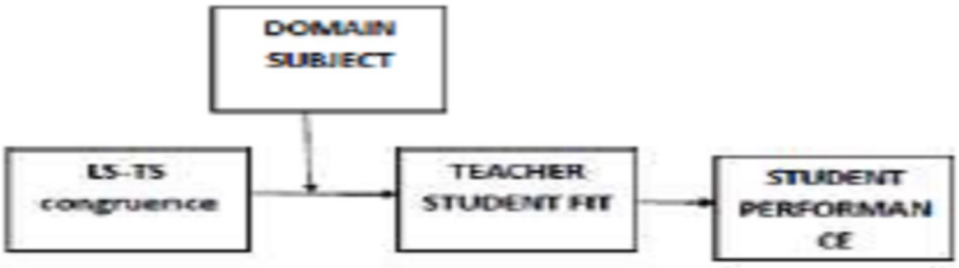
Table 6: T-S FIT For Quantitative Methods

SIGNIFICANT DIMENSIONS	MOD VALUES	DEMARKATING GRADE
SENSING ,VISUAL AND REFLECTIVE ,SEQUENTIAL	0-1,0-1,0-2,0-2	A
SENSING ,VISUAL AND REFLECTIVE ,SEQUENTIAL	1-3,2-4,2-3,2-3	B
SENSING ,VISUAL AND REFLECTIVE ,SEQUENTIAL	3-4,4-5,3-5,4-6	C
SENSING ,VISUAL AND REFLECTIVE ,SEQUENTIAL	>6,>5,>6	D

DISCUSSIONS

The results of the current study reveal certain distinct findings. Students exhibit different learning styles in different business domains. Students of marketing demonstrate more visual and active aspect where as students in Finance and Quantitative Methods exhibit more sensing and verbal domain. Another distinct learning style difference is that marketing students focuses more on global where as Quantitative Methods require more focus on the sequential dimension. The results are in sync with earlier literature which states similar findings. In fact it is proved from literature that Marketing is better understood, in terms of new concepts through visual orientations like advertisements and examples and relating the subject to practical situations(Conant, Kelley, and Smart 2003; Desai, Damewood, and James 2001; Paswan and Young 2002). Thus similar results have been found in Table2. With reference to our hypothesis which stated that learning and teaching style congruence as a powerful indicator to student performance was supported for certain subjects only like Quantitative Methods (Keefe, 1991Reid, 1987, Claxton and Murell, 1987). Unlike marketing, subjects like Finance and Quantitative Methods which has strong mathematical base had different dimensions which were significant predictors of TS Fit were different from subject like marketing. Marketing had emphasis on Intuitive, Visual and applied. However in terms of Quantitative Methods it is more a theoretical base where in people are more prone to learning concepts in an abstract format and getting the sequential and sensing aspects as well (Ambady and Rosenthal 1993; Cahn 1987; Murray, Rushton, and Paunonen 1990; Williams and Ceci 1997).In case of difference in results between the subjects like Marketing and Human Resources on one hand Quantitative Methods and Finance in other hand could be attributed to educational background of the students, so it might be that their educational background helped them in performing better. Mostly students pursuing MBA are either from engineering background, so invariably they learn the subject better than other students. This fact further proves that learning style is determined by the subject domain. Thus the earlier tables very well suggests that the learning style and teaching style congruence is a measure of TS Fit. With the results of the current study, we propose a changed model as explained below. From the results of the study it is evident LS-TS Fit is also influenced by the subject domain. So the professors can first administer the Learning Style Instrument to the class and check which particular dimension is mostly used by the students. Once the teachers is able to assess the most preferred dimension, he or she can adopt that particular style or styles and improve the class performance. Further study can be conduct to see the effect of other intervening variables like background of the students impacting the LS-TS congruence which finally has the effect on student s performance. Moreover other measures of TS Fit like student satisfaction, change in attitudes among students can also be included in the study.

Changed Model of T-S Fit



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REFERENCES

Abraham, (2002), "Evaluating the Virtual Management Information Systems (MIS) Classroom," Journal of Information Systems Education, 13 (2), 125–33.

Adkins C.L,Russell .C.J ,Werbell JD(1994)."Judgment of Fit in the selection Process:The Role of Work-Value Congruence." Personnel Psychology,47,605-623.

Ambady, Nalini, and Robert Rosenthal. 1993. Half a minute: Predicting teacher evaluations from thin slices of nonverbal behavior and physical. Journal of Personality & Social Psychology 64 (3): 431–41.

Bidabadi, F. & Yamat, H. (2010). Learning style preferences by Iranian EFL Freshman University students. Master thesis. Bangi: University Kebangsaan Malaysia. (online)

http://www.sciencedirect.com/science/article/pii/S1877042810020355 (26 April 2011).

Boatman, K., Courtney, R., & Lee, W. (2008). " See How They Learn": The Impact of Faculty and Student Learning Styles on Student Performance in Introductory Economics. *The american economist*, 39- 48.

Bose, (2003), "An E-Learning Experience – A Written Analysis Based on My Experience in an Learning.Integrative science of personality. American Psychologist, 61(3), 204–217.

Bostrom, R. P., Olfman, L., and Sein, M. K. (1990). The Importance of Learning Style in End-User Training. MIS Quarterly, 14 (1), 101–119.

Cahn, Steven M. 1987. Faculty members should be evaluated by their peers, not by their students. The Chronicle of Higher Education 34 (7): B2.

Caldwell, Reilly O (1990)" People job and Organizational Culture " University of California at Bakerly.26(1): 5–18.

Canary, Daniel J., Tara M. Emmers-Sommer, and Sandra Faulkner. 1997. Sex and gender differences in personal relationships. New York: Guilford.

Cassidy, S. (2004). Learning styles: An overview of theories, models, and measures. *Educational Psychology*, *24*(4), 419-444.

Chatman, J. A. 1989. "Improving interactional organizational research: A model of person-organization fit". Academy ofManagement Review, 14, 333–349.

Christensen, C. R., Garvin, D. A., & Sweet, A. (1755). (1991). *Education for Judsment: The Artistry of Discussion Teachins. Boston: Harvard Business School*.

Claxton, C. S., & Murrell, P. H. (1988). Learning Styles. ERIC Digest.

Coffield, F. J., Moseley, D. V., Hall, E., & Ecclestone, K. (2004a). Learning styles and pedagogy in postlearning: A systematic and critical review. London: Learning and Skills Research Centre.

Coffield, F. J., Moseley, D. V., Hall, E., & Ecclestone, K. (2004b). Learning styles: What research has to say to practice. London: Learning and Skills Research Centre.

Conant, Jeffrey S., Craig A. Kelley, and Denise T. Smart. 2003. Mastering the art of teaching: Pursuing excellence in a new millennium. Journal of Marketing Education 25 (1): 71–78.

Court ,Milesworth (2003) "Developing Teaching Strategies for Research Methods that are Appropriate to the Learning Styles of Marketing Communication Students". Journal of Marketing Management 19, 675- 697.

Desai, Suzanne, Earl Damewood, and Richard Jones. 2001. Be a good teacher and be seen as a good teacher. Journal of Marketing Education 23 (2): 136–44.

Dewey, J. (1938) Experience and Education. USA: Kappa Delta Pi.

Dodds, P., & Fletcher, J. D. (2004). *Opportunities for new" smart" learning environments enabled by next generation Web capabilities* (No. IDA-D-2952). INSTITUTE FOR DEFENSE ANALYSES ALEXANDRIA VA.

Duff, A. (2004). Approaches to learning: The revised approaches to studying inventory. *Active Learning in Higher Education*, **5**(1),56–72.

Dunn, R., & Dunn, K. (1989). *Learning style inventory*. Lawrence , KS : Price Systems.

Dunn, R., Dunn, K., & Price, G. E. (1982). Productivity environmental preference survey. Lawrence, KS:Price Systems.

Entwistle, N. J., & Tait, H. (1995). The revised approaches to studying inventory .Edinburgh, UK:University of Edinburgh Centre for Research on Learning and Instruction.

Entwistle, N. J., Hanley, M., & Hounsell, D. (1979). Identifying distinctive approaches to studying. *Higher Education*, **8**, 365–380.

Felder, R. M., & Silverman, L. K. (1988). Learning and teaching styles in engineering education.Engineering Education, 78(7), 674–681. Preceded by a preface in 2002: http://www.ncsu.edu/felderpublic/Papers/LS-1988.pdf.

Filbeck G ,SmithL (2000)" Learning Styles, Teaching Strategies, and Predictors of Success for Students in Corporate Finance"

Fleming, N. D. (2001). Teaching and learning styles: VARK strategies.Christchurch, New Zealand: N.D.

Fleming.Gentry, Helgesen (1999) " Using Learning Style Information to Improve the Core Financial Management Course" financial practice and education 1999.

Grasha, A. F. (2002). The dynamics of one-on-one teaching. *College Teaching*,*50*(4), 139-146.

Grasha, A. F., & Yangarber-Hicks, N. (2000). Integrating teaching styles and learning styles with instructional technology. *College Teaching*, *48*(1), 2-10.

Gregorc, A. F. (1979). Learning/teaching styles: Their nature and effects. *NASSP Monograph*,October/November), 19–26.

Gregorc, A. F. (1985). *Inside styles: Beyond the basics*. Maynard , MA : Gabriel Systems.

Gregorc, A. F., & Ward, H. B. (1977). A new definition for individual: implications for learning and teaching. *NASSP Bulletin*, 401(6),20–23.

Gregorc, D. F. (1997). *Relating with style*. Columbia , CT : Gregorc Associates.

Hallock, Satava, and LeSage (2003),"An Exploratory Investigation of the Potential Relationship Between Student Learning Styles, Course Grade, Cumulative Grade Point Average, and Selected Demographics in On-Line Undergraduate Business Courses," Management Research News, 26 (1), 21–28.

Harackiewicz, J. M., Barron, K. E., Tauer, J. M., & Elliot, A. J. (2002). Predicting success in college: A longitudinal study of achievement goals and ability measures as predictors of interest and performance from freshman year through graduation. *Journal of Educational Psychology*, *94*(3), 562.

Hawk, Shah (2007)"Using Learning Style Instruments to Enhance Student Learning" Decision Sciences Journal of Innovative Education ,Volume 5 Number 1.

Hawk, T. F., & Shah, A. J. (2007). Using learning style instruments to enhance student learning. *Decision Sciences Journal of Innovative Education*, *5*(1), 1-19.

Holland, J. L. (1997). *Making vocational choices: A theory of vocational personalities and work environments* . Psychological Assessment Resources.

Keef, M. F. (1991), "Teaching qualitative methods: A face-to-face encovmter".Teaching Sociology, Vol.24, (2), pp.166-176.

Kettel, L., Thomson, J., & Greer, J. (2000). Generating individualized hypermedia applications.In *Proceedings of ITS-2000 workshop on adaptive and intelligent web-based education systems* (pp. 28-36).

Kolb, D. (1984), Experiential Learning, Englewood Cliffs, NJ, Prentice Hall Lawrence, M. and Veronica, M. (1997), "Secondary school teachers and learning style preferences". Educational Psychology, 17, (1/2),pp.157-171.

Kristof (1996)" Person-organization fit: An integrative review of its conceptualizations, measurement, and implications. "Personnel Psychology 49:1–49.

Langbein, L. (2008). Management by results: Student evaluation of faculty teaching and the mis-measurement of performance. *Economics of Education Review*, *27*(4), 417-428.

Lengnick-Hall, C, & Sanders, M. (1997) "Designing effective learning systems for management education: Student roles, requisite variety, and practicing what we teach". Academy of Management Journal, 40(6): 1334–1368.

Lengnick-Hall, C. A., & Sanders, M. M. (1997). Designing effective learning systems for management education: Student roles, requisite variety, and practicing what we teach. *Academy of Management Journal*, *40*(6), 1334-1368.

Lewin K(1951) "Field Theory in Social Science" New York Harper and Row.

Marton, F. (1988). Describing and improving learning. In R.R. Schmeck (ed.), *Learning strategies and learning styles*. New York: Plenum.

Matteson, M. T., Ivancevich, J. M., & Smith, S. V. (1984). Relation of Type A behavior to performance and satisfaction among sales personnel. *Journal of Vocational Behavior*, *25*(2), 203-214.

Muchinsky PM,Monahan CJ (1987). "What is person environment congruence? Supplimentary vs.Complementary Models of Fit". Journal Of Vocational Behaviour,31,268-277.

Mulalic, A., Shah, P., & Ahmad, F. (2009). Learning-style preference of ESL students. *Asean Journal of Teaching and Learning in Higher Education*, *1*(2), 9-17.

Murray, Harry G., Rushton J. Philippe, and Sampo V. Paunonen. 1990. Teacher personality traits and student instructional ratings in six types of university courses. Journal of Educational Psychology. 82 (2): 250–61.

Murrell, Patricia and Charles Claxton, 1987, "Experiential Learning Theory as a Guide for Effective Teaching," Counselor Education and Supervision (September 27), 4-14.

Onwuegbuzie, A. J., & Daley, C. E. (1999). Perfectionism and statistics anxiety. *Personality and Individual Differences*, *26*(6), 1089-1102.

Pashler, H., McDaniel, M., Rohrer, D., & Bjork, R. (2008). Learning styles concepts and evidence. *Psychological science in the public interest*, *9*(3), 105-119.

Paswan, Audhesh K., and Joyce A. Young. 2002. Student evaluation of instructor: A nomological investigation using structural equation modeling. Journal of Marketing Education 24 (3): 193–202.

Quinn, R. E., Heynoski, K., Thomas, M., & Spreitzer, G. (2014). Co-Creating the Classroom Experience to Transform Learning and Change Lives.

Ravlin EC,Meglino BM (!987).”Effects of values on perception and decision making:A study of alternative work value measures.” Journal of Applied Psychology, 72,666-673 .

Reid, J. M. (1987). The learning style preferences of ESL students. TESOL Quarterly, 21, 87-111.

Reynolds, M. (1997). Learning styles: a critique. *Management learning*, *28*(2), 115-133.

Riazi, M. Riasati. MJ (2007). *Language learning style preferences: a case study of Shiraz EFL Institutes.The Asian EFL Journal Quarterly*, *9*(1), 97-125.

Riding, R. J., & Sadler-Smith, E. (1997). Cognitive style and learning strategies: Some implications for training design. *International Journal of Training and Development*, *1*(3), 199-208.

Schlee, R. P. (2005). Social Styles of Students and Professors: Do Students’ Social Styles Influence Their Preferences for Professors?. *Journal of Marketing Education*, *27*(2), 130-142.

Schmidt, F. L., & Hunter, J. E. (1998). The validity and utility of selection methods in personnel psychology: Practical and theoretical implications of 85 years of research findings. *Psychological bulletin*, *124*(2), 262.

Shaughnessy, M. (1998). An interview with Rita Dunn about learning styles. Clearing House, 71 (3), 14 1- 145.

Thistlethwaite, D. L. (1959). College press and student achievement. *Journal of Educational Psychology*, *50*(5), 183.

Thompson, M. M. (1998). Distance learners in higher education. *Distance learners in higher education:Institutional responses for quality outcomes*, 9-24.

Tziner, A. (1987). Congruency issue retested using Fineman's achievement climate notion. *Journal of Social Behavior & Personality*.

Vaseghi, R., Barjesteh, H., & Shakib, S. (2013). Learning Style Preferences of Iranian EFL High School Students. *International Journal of Applied Linguistics and English Literature*, *2*(4), 83-89.

Vaseghi, R., Ramezani, A.E., & Gholami, R. (2012). Language Learning Style Preferences: A Theoretical and Empirical Study. Advances in Asian Social Science.

Vaughn, L., & Baker, R. (2001). Teaching in the medical setting: balancing teaching styles, learning styles and teaching methods. *Medical Teacher*, *23*(6), 610-612.

Westerman, J. W., & Vanka, S. (2005). A cross-cultural empirical analysis of person-organization fit measures as predictors of student performance in business education: Comparing students in the United States and India.*Academy of Management Learning & Education*, *4*(4), 409-420.

Westerman, James W., M. D. Nowicki, and D. Plante. 2002. Fit in the classroom: Predictors of student performance and satisfaction in management education. Journal of Management Education 26 (1): 5–18.

Williams, Wendy M., and Stephen J Ceci. 1997. How'm I doing? Change 29 (5): 12–23.

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SOCIAL COMPETENCE AS A PRECURSOR TO INCREASED SELF-CONCEPT AND SCHOOL READINESS

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ABSTRACT

This study shows support for social competence, as a strength-based construct, as a precursor to increased self-concept or self-esteem, and increased school readiness. Since positive self-concept has been shown to be a protective factor against negative social influences, and school readiness in Kindergarten has shown to predict later academic and social success, this model demonstrates a need for more focus on social *competence in the early years.* Social competence was framed as an entirely strength-based construct called positive social competence which incorporated skills, relationships and goals. Self-concept incorporated measures of the child's expression of their accomplishments, how well the child works with peers and how well he or she describes himself or herself, and how well the child copes with correction or failure. *Finally, school readiness was an environmentally-focused construct, aimed to relate to the match between the child and the school setting.* Data resulted in a well fitting model overall with significant pathways from social competence to both outcome variables. *This study indicates that developing* more programs that focus on increased social competence in the early years can help students succeed in school, and make better life choices.

Key Words: Social competence, preschool, school readiness, self-concept, self-esteem.

INTRODUCTION

The critical elements that serve as a base for learning by positively affecting children's willingness to succeed and persist in difficult situations are positive self-esteem and self-concept (Roberts, 2002). Therefore, positive self-concept may be a critical missing piece when assessing children's potential for school success. In England and Wales, guidelines for curriculum for children ages three to six include many social and emotional aspects, such as developing autonomy and the disposition to learn, positive encouragement, and constructive relationships between adults and children (QCA as cited in Roberts). This legislation specifically states, "It is crucial that settings provide the experiences and support to enable children to develop a positive sense of themselves" (QCA as cited in Roberts, p. 131). Children with increased self-concept may be less vulnerable to the negative consequences of being bullied, since these children are able to effectively generate correct assessments of self, using internal knowledge rather than allowing themselves to become diminished by other's negative assessments (Halberstadt, Denham, & Dunsmore, 2001). In addition, Braverman, Meyers, & Bloomberg (1994) proposed increased self-esteem enables children to make independent decisions when pressured to use drugs.

Most schools have a system in place to assess the child's "readiness" for school, often utilizing one or more assessment instruments, typically with the focus on academic concepts. Research has shown many academic-focused screening tests to have low predictive validity for school success (Ellwein, Walsh, Eads, & Miller, 1991). These readiness tools often exclude factors such as the students' attitudes toward the school environment and their peers, and how well the student fits in their classroom setting. Pianta and La Paro (2003) discussed potential difficulties children may reveal in their early school years and made suggestions for improving early school success. The policies recommended by the researchers were developed through a careful review of research administered by the Office of Educational Research, U.S. Department of Education with support from the National Center for Early Development and Learning under the Educational Research and Development Centers Program and by the National Institute of Child Health and Human Development (NICHD Early Childhood Research Network, 2003) Study of Early Child Care. Across the nation, 3,500 kindergarten teachers

were asked to identify specific problems infringing on the ability of children in their classroom to make good adjustments. Also, teachers were asked to identify skills they perceived as necessary for good classroom adjustment and the scope of their concerns regarding the aforementioned problems. Alarmingly, 46 percent of kindergarten teachers reported that at least half of the students in their classes demonstrated deficits in their ability to follow directions. Other factors frequently mentioned include lack of academic skills, disorganized home environments, difficulty working independently, lack of formal preschool experience, difficulty working as part of a group, poor social skills, immaturity, and communication problems.

Evaluating the list above, it is clear that teachers perceive readiness as much more than some basic academic or concept skills. Promoting social competence in early childhood populations will reduce many of the problems mentioned by teachers as barriers to early school readiness. Children who are able to make friends in the classroom are more likely to have favorable perceptions of school, whereas children who are rejected by peers in the early years of school are more likely to avoid school and have lowered school performance (Ladd, 1990). Children who are able to make mutual friendships have been found to be better liked by their peers (Lindsey, 2002). In 1988, the National Association for Education of Young Children (NAEYC) circulated several suggestions for ensuring children have a successful start in their early school years (as cited in Gullo, 1994). First, all children should start school based on age, independent of what they already know. Second, ratios of teachers to children in classrooms should be low enough to allow for individualized instruction. Third, when grouping children is necessary, groups should be flexible and change frequently. Fourth, each child should be given the opportunity to progress at his or her own pace. Finally, the curriculum should be appropriate for the age and developmental level of the students. So, why are we still not caught up when it comes to measuring readiness related to actual school success? Current views suggest that readiness should be considered from an environmental standpoint. Successful transitions include readiness on the part of the child, the teacher, the school, the parents, and the community (McWayne, Fantuzzo, & McDermott, 2004; Pianta, Cox, Taylor & Early., 1999; Pianta & Kraft-Sayer, 2003).

Houck (1999) examined the relationship between social competence and self-concept, evaluating the ability of social competence to predict subsequent self-concept and the ability of self-concept to predict later social competence. Results supported the former hypothesis, demonstrating a significant relationship between a child's social competence score at 12-months and their self-concept score at 24-months, as well as the child's social competence score at 24-months and their self-concept score at 36-months. However, when the variables were reversed, self-concept was unrelated to subsequent social competence. This is evidence of a temporal relationship between early social competence and later self-concept.

Piotrkowski, Botsko, and Matthews (2001) found parents and teachers agreed that children need to be socially competent in order to be ready for school. Howes et al. (2008) found close teacher-child relationships lead to academic gains. Thus, research demonstrates readiness is an environmental construct and the responsibility of the child, the teacher, the school, the parents, and the community (McWayne, Fantuzzo, & McDermott, 2004; Pianta et al., 1999; Pianta & Kraft-Sayer, 2003). Furthermore, high social competence at only 54-months has been found to lead to higher achievement in 5th grade (Sabol & Pianta, 2012) demonstrating long-term positive outcomes. In addition, strong self-concept in the social realm has also been seen to serve as a buffer against exposure to aggression in middle school (Miller, 2013).

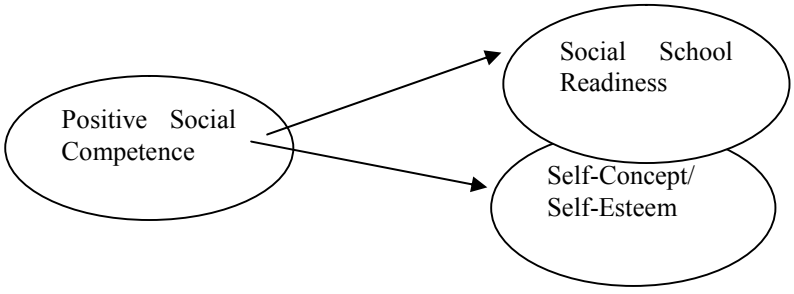

Figure 1: Three-factor Model of Positive Social Competence Related to Outcomes

This study is aimed at providing a greater understanding of social competence, and serving as a preliminary step toward larger positive social growth and overall academic success. To do this, Structural Equation Modeling (SEM) was used to evaluate a three factor-model including one exogenous variable (positive social competence) and two endogenous variables (self-concept/self-esteem and social school readiness). The theoretical model is shown in Figure 1. Each of the latent variables were comprised of three indicator variables, which are more thoroughly described in the Instruments section. Two features of this model were seen as paramount. First, Positive Social Competence indicators were chosen to align with Rose-Krasnor's pyramid (1997) because the review of the literature demonstrated that the three aspects included (skills, relationships, goals) were particularly important aspects of social competence development. Additionally, it was important to me to include social competence as an entirely strength-based construct. Therefore, I called the latent variable Positive Social Competence (PSC). The research question to be answered by this study is: Does positive social competence lead to increased social school readiness and self-concept/self-esteem for this population?

METHOD

Sample

Participants in the current study were 153 parents and children attending preschool in a large suburban preschool program in Colorado. The following demographic information was collected to better describe the sample: child's age in years and months, relationship of the respondent to the preschool child, race of the child, income level of the family, birth order of the child, whether the child receives school-based support services for a disability, and age of respondent.

Parent and family characteristics. Participants in this study were mostly parents of preschool aged children from a large preschool program in Colorado. Most of the respondents were mothers of preschool children (*n*=122). Some fathers (*n*=12), grandparents (*n* =3), or other relatives (*n* =1) of preschool aged children also participated in the study. Of the 163 surveys completed online, 25 participants did not state their relationship to the preschool child. The majority of the respondents were between 20 and 49 years of age (*n* =138). Two respondents reported being over 50 years of age, and 23 respondents did not report their age. Most of the participants had families with two children (*n*=72).

Child characteristics. For the purpose of the study, preschool children were defined as children between the ages of two and six years old. The actual sample used in the study was comprised of children in the older end of the possible distribution. One hundred and two children ages four to six years were included and forty children ages two to four were included in the study. Twenty-one participants did not provide the age of the child. Seventy-one of the children were male and 62 children were female. Seventy-three percent of the children were not receiving any special education services. Most of the children were white (n=106).

Procedure

Demographic information about the participants was analyzed in order to understand the sample population, descriptive statistics were calculated for each indicator to assess the characteristics of the items, reliability analysis was completed for each indicator, and some minor changes were made to the indicators in order to minimize problems later in the analysis. Specific descriptive analyses included an examination of frequencies, means, standard deviations, skewness, kurtosis, and intercorrelations of the items. Items producing low reliability estimates in relation to the rest of that scale could be excluded from subsequent analysis in order to improve the overall internal consistency for the scale. However, I made this decision on a case by case basis, since the ultimate decision to include or exclude an item considered both psychometric properties and the necessity of the item for the overall theoretical framework of the model. Next, informal Exploratory Factor Analysis (EFA) was used to evaluate the basic structure of the variables. Last, the CFA for the full model, were conducted and the data was fit to the model using the maximum likelihood estimation procedure.

Instruments

A survey was developed incorporating items for three indictors for each of the three latent variables (positive social competence, social school readiness, and self-concept/self-esteem). Each of the three latent variables were comprised of three indicator variables represented by either an item or a set of items. The items were adopted, adapted or developed from existing measures chosen after a thorough review of literature. The items were selected because they best represented the theorized construct, and presented as a strength-based measure, rather than the non-occurrence of negative factors.

Positive Social Competence

***Skills*.** In alignment with Rose-Krasnor's prism, the skills tier was assessed with four, five-point (*1=never to 5=always*) items representing common preschool social skills. Parents were asked to respond regarding their child's *ability* to execute the particular social skill.

Relationships and goals. The other two hypothesized factors of positive social competence were assessed with the Social Competence subscale of the Developmental Profile (Version P) (Fabes, Martin, Hanish, Anders, & Madden-Derdich, 2003) were used to measure two factors of positive social competence. The Social Competence subscale is a six-item positively worded subscale. Three items deal with relationship abilities and were hypothesized in the current study to relate to Rose-Krasnor's (1997) index level. The other three items relate to outcomes and goals and are hypothesized in the current study to represent Rose-Krasnor's theoretical level.

Social School Readiness

Initially, readiness included a child-report measure; however, initial analysis demonstrated that these items didn't align with the rest of the data and therefore, this portion of the survey was eliminated.

Fit in the school. Social school readiness, was most associated with fit in the school, which was measured by three, four-point (1=strongly disagree to 4=strongly agree) items corresponding to the Social Attention subscale of the BASE: Behavioral Academic Self Esteem-A rating scale (Coopersmith & Gilberts, 1982). The items were adapted to be assessed through parent report. The items included measured how well the child cooperates with others, the child's positive view of school, and their ability to talk and listen at appropriate times.

Self-Concept/ Self-Esteem

Behavioral academic self-esteem scales. Self-concept/self-esteem was assessed with seven parent-report items adapted to correspond to the Self-Confidence, Social Attraction, and Success/Failure subscales of the BASE: Behavioral Academic Self Esteem-A rating scale (Coopersmith & Gilberts, 1982). The measure was selected because the subscales align with aspects of self-concept in the preschool age group in the current literature. The Self-Confidence factor measures the child's expression of their accomplishments. The Social Attraction factor measures how well the child works with peers and how well he or she describes himself or herself. The Success/Failure factor measures how well the child copes with correction or failure. Although the BASE was developed over twenty years ago, recent use of the BASE with a population of three to five year olds demonstrated good internal consistency represented by Cronbach's Alpha's of .97 for success/failure, .85 for social attraction, and .83 for self-confidence (Warash & Markstrom, 2001). Furthermore, newer measures to assess preschool self-concept/self-esteem would be optimal, but after thorough review of available instruments, the BASE was selected because it is most closely aligned with the desired construct. Cronbach's alpha for these indicators variables for the current study were .71 for self-confidence, .79 for social attraction, and .58 for success/failure.

RESULTS

Confirmatory Factor Analyses for Each Latent Variable

CFA for Positive Social Competence. Positive Social Competence, a three-part construct based on Rose-Krasnor's (1997) prism model, including relationships and the ability to effectively interact with others, was

measured by a four-item scale of common social skills and two three item scales (representing goals and relationships) from the School Social Competence subscale of the Developmental Profile (Version P) (Fabes et al., 2003). The completely standardized loadings ranged from .47 to .92 and were all significant at the .05 level. The squared multiple correlations for the variables were all adequate also ranging from .22 to .84. The results of the CFA for the latent variable Positive Social Competence are contained in Table 1.

Table 1: CFA for Positive Social Competence

Indicator	λ	
Skills	.47*	.22
Relationships	.74*	.54
Goals	.92*	.84

Note. CFA=Confirmatory Factor Analysis; λ=Completely Standardized Factor Loadings; * signifies significant loading at p<.05; SMC=squared multiple correlations.

CFA for Social School Readiness. The latent variable social school readiness was ultimately included in the model as a three indicator model with each item from the social attention subscale of the BASE: Behavioral Academic Self Esteem, a rating scale (Coopersmith & Gilberts, 1982). The completely standardized loadings ranged from .58 to .84 and were all significant at the .05 level. The squared multiple correlations for the variables were all adequate also ranging from .34 to .71. The results of the CFA for the latent variable Social School Readiness are contained in Table 2.

Table 2: CFA for Social School Readiness

Indicator		λ	
Fit Item 1		.59*	.34
Fit Item 2		.58*	.34
Fit Item 3		.84*	.71

Note. CFA=Confirmatory Factor Analysis; λ=Completely Standardized Factor Loadings; * signifies significant loading at p<.05; SMC=squared multiple correlations.

CFA for Self-Concept/Self-esteem. Three subscales of the BASE: Behavioral Academic Self Esteem-A rating scale (Coopersmith & Gilberts, 1982) were used as indictors for self-concept/self-esteem. Two of the indicators were the sum of two items and one was the sum of three items from the survey. The completely standardized loadings ranged from .44 to .88 and were all significant at the .05 level. The squared multiple correlations for the variables were all significant also ranging from .20 to .77. The results of the CFA for the latent variable Self-concept/Self-esteem are contained in Table 3.

Table 3: CFA for Self-concept/ Self-esteem

Indicator	λ		
Self-confidence	.77*	.60	
Social Attraction	.88*	.77	
Success and Failure		.44*	.20

Note. CFA=Confirmatory Factor Analysis; λ=Completely Standardized Factor Loadings; * signifies significant loading at p<.05; SMC=squared multiple correlations.

Analysis of the Full Model

Next, a model was tested in order to evaluate the three-factor model, with one exogenous latent variable, positive social competence, affecting the two other variables. Post hoc modification indices suggested a better fitting model by freeing the correlated errors between indicators of the social school readiness latent variable. Since the two indicators were worded similarly, it made theoretical sense to make this modification. All of the squared multiple correlations were adequate for this model, ranging from .30 to .68 for the x-variables and .23 to .73 for the y-variables. The completely standardized factor loadings were all significant at the .05 level, ranging from .48 to .85. The paths from positive social competence to each endogenous latent variable were

also significant at the .05 level. The fit statistics for this model were χ^2=59.32(24 *df*, *n*=159), *p*=.0001; RMSEA=.097, NNFI=.96; CFI=.97, SRMR=.05. Despite the RMSEA falling in the mediocre range, three of the four fit statistics demonstrated a good fitting model. Table 4 contains the fit indices for the model.

Table 4: Fit Indices for the Full Model

Model	*df*	χ^2	RMSEA	NNFI	CFI	SRMR
Endogenous	24	59.32	.097	.96	.97	.05

Note. X^2 =Satorra-Bentler χ^2 ; RMSEA=Root Mean Square Error of Approximation; NNFI=Non-Normed Fit Index; CFI=Comparative Fit Index; SRMR=Standardized Root Mean Square.

DISCUSSION

A three-factor model was evaluated using structural equation modeling. This study shows support that social competence can lead to increases in school readiness and increases in self-esteem. Both increased self-esteem and school success, stemming from school readiness, can have long-term positive effects both academically and socially. This model shows social competence to be the main foundational element needed to drive increases in self-concept and help children be ready for school success. Environmentally-focused programs should be developed and implemented in early education to enhance social competence that include aspects of skills, relationships, and goals in order to produce these desired outcomes.

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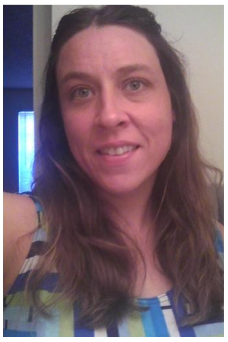

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REFERENCES

Braverman, M. T., Meyers, J. M., & Bloomberg, L. (1994). How youth programs can promote resilience. *California Agriculture,* 48(7), 30-35.

Coopersmith, S., & Gilberts, R. (1982). *BASE: Behavioral academic self-esteem, a rating scale.* Consulting Psychologists Press, Inc.

Ellwein, M. C., Walsh, D. J., Eads, G. M., & Miller, A. K. (1991). Using readiness tests to route kindergarten students: The snarled intersection of psychometrics, policy, and practice. *Educational Evaluation and Policy Analysis*, 13(2), 159-175.

Fabes, R. A., Martin, C. L., Hanish, L. D., Anders, M. C., & Madden-Derdich, D. A. (2003). Early school competence: The roles of sex-segregated play and effortful control. *Developmental Psychology*, 39 (5), 848-858.

Gullo, D. F. (1994). *Understanding assessment and evaluation in early childhood education.* New York, NY: Teachers College Press.

Halberstadt, A. G., Denham, S. A., & Dunsmore, J. C. (2001). Affective social competence. *Social Development,* 10(1), 79-119.

Houck, G. M. (1999). The measurement of child characteristics from infancy to toddlerhood: Temperament, developmental competence, self-concept, and social competence. *Issues in Comprehensive Pediatric Nursing*, 22, 101-127.

Howes, C., Burchinal, M., Pianta, R., Bryant, D., Early, D., Clifford, R., & Barbarin, O. (2008). Ready to learn?Children's pre-academic achievement in pre-kindergarten programs. *Early Childhood Research Quarterly,* 23, 27-50.

Ladd, G. W. (1990). Having friends, keeping friends, making friends, and being liked by peers in the classroom: Predictors of children's early school adjustment? *Child Development,* 61, 1081-1100.

Lindsey, E. W. (2002). Preschool children's friendships and peer acceptance: Links to social competence. *Child Study Journal*, 32 (3), 145-156.

McWayne, C. M., Fantuzzo, J. W., & McDermott, P. A. (2004). Preschool competency in context: An investigation of child competencies to early academic success. *Developmental Psychology,* 40 (4), 633-645.

Miller, J.W. (2013). The role of sociability self-concept in the relationship between exposure to and concern about aggression in middle school. *RMLE Online: Research in Middle Level Education,* 36(7). Retrieved from https://www.amle.org/portals/0/pdf/rmle/rmle_vol36_no7.pdf.

NICHD Early Childhood Research Network (2003). Do children's attention processes mediate the link between family predictors and school readiness? *Developmental Psychology*, 39 (3), 581-593.

Pianta, R. C., Cox, M. J., Taylor, L., & Early, D. (1999). Kindergarten teachers' practices related to the transition to school: Results of a national survey. *The Elementary School Journal,* 100 (1), 71-86.

Pianta, R. C., & Kraft-Sayre, M. (2003). *Successful kindergarten transitions: Your guide to connecting children, families, & schools.* Baltimore, MD: Paul H. Brookes Publishing Company.

Pianta, R. C., & La Paro, K. (2003). Improving early school success. *Educational Leadership,* 60 (7), 24-30.

Piotrkowski, C.S., Botsko, M., & Matthews, E. (2000). Parents' and teachers' beliefs about children's school readiness in a high-need community. *Early Childhood Research Quarterly,* 15(4), 537-558.

Rimm-Kaufman, S. E., & Pianta, R. C. (1999). Patterns of family-school contact in preschool and kindergarten. *School Psychology Review,* 28 (3), 426-438.

Rimm-Kaufman, S. E., Pianta, R. C., & Cox, M. J. (2000). Teachers' judgments of problems in the transition to kindergarten. *Early Childhood Research Quarterly,* 15(2), 147-166.

Roberts, R. (2002). *Self-esteem and early learning, second edition.* Thousand Oaks, CA: SAGE.

Rose-Krasnor, L. (1997). The Nature of Social Competence: A Theoretical Review. *Social Development,* 6(1), 111-135.

Sabol, T.J., & Pianta, R.C. (2012). Patterns of school readiness forecast achievement and socioemotional development at the end of elementary school. *Child Development,* 83(1), 282-299.

Warash, B. G., & Markstrom, C. A. (2001). Parental perceptions of parenting styles in relation to academic self-esteem of preschoolers. *Education,* 121 (3), 485-4.

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AWARENESS AND UTILISATION OF E – JOURNALS BY FACULTY: EVIDENCE FROM KOFORIDUA POLYTECHNIC, GHANA

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ABSTRACT

Advances in information communication and technology have revolutionalised the way in which information for academic research is accessed and disseminated. This study presents the results of a survey on the awareness and utilisation of electronic journal among faculty at the Koforidua Polytechnic. The study employed a descriptive survey with the use of questionnaires as the main instruments to elicit information from respondents. The major finding of the study revealed that there is a strong correlation between awareness and utilisation but it was not statistically significant ($p>0.05$). The study recommends that there should be an increase in awareness of electronic journals among faculty through regular workshops, use of newsletters, flyers and brochures. The study further recommends that the polytechnic should fashion the possibility to introduce remote access to electronic journals it has subscribed to.

Key Words: Awareness, utilisation, electronic journals, tertiary institution, west africa.

INTRODUCTION

Successive governments over the years in Ghana have made effort at improving the educational system in the country more especially polytechnic education. Polytechnic education has being crucial in producing middle level manpower to ensure the growth of the country and has therefore seen a constant metamorphosis in terms of the status or policies that established them.

From technical schools offering craft courses in 1960 to polytechnics upgraded to tertiary status offering higher national diploma programme in 1993 and currently conversion of polytechnics into technical universities in 2016. A change in such appeal in the polytechnic mandate requires a total overhaul of the system from infrastructure to human resource capacity issues to enhance the core business of the polytechnic which is research, teaching and learning (Ministry of Education, 2003).

Over the years, research, teaching and learning has been dominated in tertiary institutions by the use of printed materials such as textbooks, magazines, among others as a primary source of information stocked in the library. In the view of Ndinoshisho (2010) advances in information communication and technology has revolutionalised the way in which information for academic research is accessed and disseminated.

Kling (2003) in a survey pointed out that scholars highly value electronic journals and most of the scholars preferred electronic journals over print. In alluding to this, Msagati (2014) reiterated succinctly that in higher

education, scholarly electronic journals have become essential tools for research, teaching and learning as they provide access to timely, high quality and scientific information to scholars and researchers with a view to keep abreast with new discoveries and developments. In this regard the current study assesses the awareness and utilisation of e – journals by faculty, drawing on evidence from Koforidua Polytechnic, Ghana.

Statement Of Problem

The evolution of electronic journal according to Lancester (1995) begun in the 1960s and today it has managed to proclaim itself as one of the various academic tools available on the internet. The question then is, to what extend has this technological advancement of electronic journal been assimilated, incorporated and used among academics or faculty at Koforidua Polytechnic institution of higher learning. It is against this backdrop that has necessitated a research of this kind to assess the awareness and utilization of e- journals by faculty of Koforidua Polytechnic.

Objectives Of The Study

Generally, the study seeks to examine the extent to which faculty of Koforidua Polytechnic are aware of and utilise electronic journals in their teaching and research process.
The specific objectives are to:
i. Find out the level of awareness of e – journal among faculty at Koforidua Polytechnic
ii. Evaluate the impact of e- journal on teaching and research at Koforidua Polytechnic
iii. Establish the relationship between awareness and utilisation of e-journals at Koforidua Polytechnic.
iv. Establish an association between awareness and perceived usage of electronic journals among faculty at Koforidua Polytechnic

Research Questions/Hypothesis

i. What is the level of awareness of e – journals among faculty at Koforidua Polytechnic?

ii. H_1 there is an impact of e- journal on teaching and research among faculty at Koforidua Polytechnic.

iii. H_2 there a relationship between awareness and utilisation of e-journals among faculty at Koforidua Polytechnic.

iv. H_3 there is an association between awareness and perceived usage of electronic journals among faculty at Koforidua Polytechnic

LITERATURE REVIEW

One of the most frequently used electronic resources is the electronic journal. Most people have diverse perceptions as well as impressions of what electronic journals are. According to Chan (1999) the term is often referred to as electronic publishing, electronic serials, online journals or electronic periodicals. Electronic journals play a significant part in any academician's scholarly work and are the most preferential tools of the trade apart from books. Tenopir et al (2003) described the trend of electronic journals as '' evolutionary process'' as there has been a gradual increase in the use of electronic journals. He further posited that e – journals have become an important information format as they are published, distributed and accessed electronically.

In a study undertaken by Tenopir (2003), he analysed the results of over 200 studies of the use of electronic resources in libraries published between 1995 and 2000. The findings of the study revealed that electronic journals have been rapidly adopted in academic spheres, though the behaviour varies according to the discipline. In a similar research conducted by Naughan (2003) at the Duke University chemistry library between 1991 and 2001 showed the use of print journals by academic researchers was very low as compared to electronic journals. Faizul and Naushed (2013) in their research revealed that most of the users are aware of electronic journals and are not only using them for building and updating their knowledge but also for collecting relevant materials for their study and research purpose.

Other studies conducted by Gardner et al (2008) and Olle and Borrego (2010) revealed that the quality of circulation and the ability to support teaching and research have been improved tremendously as a result of the use of electronic journal as well as an appreciation of 75% of survey respondents stating they consult and read more journal articles than they did in the past.

It is of no doubt that the rise in the popularity of use of electronic journals among academics can be attributed to the perceived advantages in its usage. Stressing on the essential benefit of electronic journals, Linda (1999) and Wiles (1998) posits that ''It will no longer be necessary for users to browse through the paper journal contents page hoping to find an article of interest. Instead users will be able to register their areas of interest and the electronic publishing system will deliver articles which match those requirements to the readers desktop''.

However, a research conducted by Baro et al (2011) at the Delta State University, revealed that electronic scholarly journal databases were underutilised. The users in the study cited the lack of awareness of the existing resources as the primary constraint they had. Similarly, Ajegbomogun (2007) posits that, while electronic journals have become essential tools for learning, teaching and research, most of the scholars and researchers are not fully utilising them.

Okolo and Magara (2008) posit that the major obstacle to the underutilisation in the use of electronic journals in higher learning institutions was the lack of awareness about the resources. In the study by Oyedapo and Ojo (2013) on the use of electronic resources in Obafami Awolowo University observed very low usage of electronic resources. They outlined that the major reason that contributed to low utilisation of electronic resources was limited searching skills. Other factors leading to underutilisation of electronic resources according to Manda (2015) included lack of accessibility to computers connected to internet, low internet bandwidth and unrealisable supply of power.

RESEARCH METHODOLOGY

This study is a descriptive survey with the use of questionnaire as the main instrument to elicit data and information. Convenient sampling method was used to sample the participants of the study. This consisted of 251 respondents drawn from academic staff of the polytechnic. The participants included an associate professor, senior lecturers and lecturers. A 13–item questionnaire consisting of open and closed ended were administered by the researchers on the campus of Koforidua Polytechnic.

Ethical consent was obtained from the Registrar of the study setting before the administration of questionnaires. Out of 251 questionnaires distributed, 201 were completed and retrieved. This represented 80% of the sample size and valid for analysis. The study was conducted during the latter part of the second semester of 2014/2015 in June. With the aid of Statistical Package for Social Science (SPSS) version16.0 computer software the data obtained were analyzed.

FINDINGS AND DISCUSSIONS

Biographical Data

Table 1: Gender of Respondents

Gender	Frequency	Percentage
Male	171	85.1
Female	30	14.9
Total	201	100

Source: survey data, June, 2015

From Table1, out of total respondents of 201 captured for the study, 171(85.1%) were male while 30(14.9%) were female. The implication was that most of the respondents were male.

Table 2: Title/ Rank of Respondents

Title	Frequency	Percentage
Professor	-	-
Associate Professor	1	0.5
Senior lecturer	15	7.5
Lecturer	185	92.0
Total	201	100

Source: survey data, June, 2015

From Table 2, out of the total respondents of 201, captured for the study, 1(0.5%) was an associated professor, 15(7.5%) were senior lecturers and 185(92.0%) were lectures. This meant that, most of the faculty members are lectures in terms of ranks.

Table 3: Type of Employment of Respondents

Types of employment	Frequency	Percentage
Permanent	195	97
Part time	5	2.5
Others	1	0.5
Total	201	100

Source: survey data, June, 2015

From Table 3, out of the total respondents of 201 captured for the study, 195(97%) were permanent staff, 5(2.5%) were part time staff, 1(0.5%) were on other form of employment. This meant that, most of the faculty members are permanent staff of the polytechnic.

Table 4: Length of Employment of Respondents

Length of Employment	Frequency	Percentage
Between 1-5years	65	32.3
6-10years	90	44.8
11-15years	41	20.4
16-20years	5	2.5
Total	201	100

Source: survey data, June, 2015

From Table 4, out of the total respondents of 201 captured for the study, 65(32.3%) had served the institution between 1-5years, 90(44.8%) had worked for between 6-10years, 41(20.4%) had been in the job for between 11-15years while 5(2.5%) had worked for between 16-20years. This meant that, most of the faculty members had worked for a considerable number of years in the polytechnic.

Table 5: Awareness level of e- journals of Respondents

Awareness Level	Percentage	Frequency
Yes	165	82
No	36	18
Total	201	100

Source: survey data, June, 2015

From Table 5, out of the total respondents of 201 captured for the study, 165(82%) were aware of e-journals in the institution, whereas 36(18%) were not aware of the existence of e-journal in the institution. This meant

that, most of the faculty members were aware of the existence of the e-journal in the polytechnic. This study concur with that of Ali (2005) whose research at the Indian Institute of Technology on the use of electronic information services (EIS) revealed that 95% of the users are aware of EIS provided by the library. Other studies such as that of Kindilchie and Samarraie (2008) also came up with similar results confirming the findings of this current study.

Testing of hypothesis

Relationship between awareness and utilization of e-journals

Table 6: Relationship between awareness and utilisation of e-journals

	Chi – Square	Correlation	Df	Sig.
Pearson	1.02	0.89	6	.065

Source: fieldwork (June, 2015)

Although, a strong positive correlation (.89) was found between awareness and utilisation, it was not statistically significant (P>0.05).

Impact of e- journal on teaching and research

Table 7: Impact of e- journal on teaching and research

	Chi – Square	Correlation	Df	Sig.
Pearson	1.08	0.91	3	0.00

Source: fieldwork (June, 2015)

A strong positive correlation (.91) was found between e- journal on teaching and research, it was statistically significant (P>0.05). The findings on the impact of e – journal on teaching and research reflects the results of Rowlands (2007) and Eason et al (2000) whose work showed that electronic journals have significant impact on researchers and scholars.

Association between awareness and perceived usage

Table 8: Association between awareness and perceived usage

		awareness	perceived usage
awareness	Pearson Correlation	1	0.13(**).
	Sig. (2-tailed)	.	0.001
	201	201	201
perceived usage	Pearson Correlation	0.13(**).	1
	Sig. (2-tailed)	0.001	.
	201	201	201

** Correlation is significant at the 0.01 level (2-tailed).
(Source: survey data, June 2015)

In Table 8, the correlation coefficient between awareness and perceived usage is 0.013 which is significant at1%. The results indicate significant positive relationship between awareness and perceived usage; therefore the null hypothesis is rejected.

CONCLUSION AND RECOMMENDATIONS

From the research outcome it is clear that, most of the faculty members are aware of the existence of the e-journal in the polytechnic. However, the hypothesis test on the relationship between awareness and utilization of e-journals, reveals a strong positive correlation (.89) but it was not statistically significant (P>0.05). This meant that, been aware of the existence of e-journals in the institution do not mean that faculty members make use of it.

Again, testing the hypothesis on impact of e- journal on teaching and research confirmed a strong positive correlation (.91) found between e- journal on teaching and research, which was statistically significant (P>0.05). This meant that the use of the e-journal by faculty contributes 91% to research and teaching in the polytechnic. Besides, there was a correlation between awareness and perceived usage at 0.013 which is significant at1%.

Based on the findings, the study recommends the following as a way of increasing awareness and utilisation of e – journals among faculty at the Koforidua Polytechnic in Ghana.

There is the need for the library to carry out massive publicity to the user community on the availability and use of e – journals. Such awareness and support can be enhanced through regular information literacy programme and regular workshops to promote usage of e – journals. Other strategies such as the use of newsletters, posters, flyers and brochures can also be deployed widely in staff offices and also during exhibitions, conferences and other academic fairs.

The polytechnic should fashion the possibility to introduce remote access to e – journals it has subscribed to. Remote access allows for off campus access to e – journals which can increase use and capitalise on faculty's time as they can read appropriate articles anywhere.

Again, frequent capacity building workshops should be organised for users on how to access electronic journals effectively. Apart from the above, the polytechnic authorities should expand and maintain subscription to print journal subscription.

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REFERENCES

Ajegbomogun, F.O.(2007). Impediments to harnessing scholarly electronic Journals on the internet in developing countries: A Nigerian case study. Library hi tech, Vol. 24 (6):27 -32.

Ali, N. (2005). The use of electronic resources at IIT Delhi Library: A study of search behaviour. The electronic library, Vol. 23 (6): 691 – 700.

Borrego, A. et al. (2007). Use and users of electronic journals at Catalan universities: The results of a survey. Journal of academic librarianship. Vol.33 (1): 67 – 75.

Chan, L. (1999) .Electronic journals and academic libraries. Library hi tech, Vol. 17 (1): 10 – 16.

Eason, K.,Yu, L., and Harker, S .(2000). The use and usefulness of functions in electronic journals: experience of super journal project program, Vol.34 : 1 -28.

Faizal, N., and Naushad Ali, P.M.(2013). Awareness and use of electronic journals by IIT Delhi and Delhi University library users. Collection building, Vol.32 (2):57 – 64.

Gardner, S.J., Juricek, J.C., and Xu, F.G. (2008). An analysis of academic libraries web pages for faculty. Journal of academic librarianship. Vol.34 (1): 16- 24.

Kindilchie, A.I., and Samarraie, I.F. (2008). Interaction and impact on electronic information resources on Qatar University faculty. Libri: International journal of libraries and information services, Vol.58 (4):281 – 293.

Lancaster, F.W. (1995). The evolution of electronic publishing. Library trends. Vol.43 (4).

Ndinoshiho, H.M. (2010). The use of electronic information services by undergraduate nursing students at the University of Namibia's Northern Campus: A descriptive study. Information development. Vol.26 (1):57 – 65.

Okello – Obura, C., and Magara, E. (2008). Electronic information access and utilisation by Makerere students in Uganda. Evidence based library and information practice. Vol. 3 (3): 39 – 56.

Olle, C., and Borrego, A. (2010). A qualitative study of the impact of electronic journals on scholarly information behaviour. Library and information science research. Vol.32 (3): 221 – 228.

Rowlands, I. (2007). Electronic journals and user behaviour: A review of recent research. Library and information science research. Vol. 29:369 -396.

Tahir, M., Mohamood, K., and Shafique, F. (2010). Use of electronic information resources and facilities by humanities scholars. The electronic library. Vol.28 (1): 122 – 136.

Tenopir, C. (2003). Use and users of electronic library resources: an overview and analysis of recent research studies. Washington: Council of library and information r1esources.

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INFLUENCE OF LOCALITY, EMOTIONAL INTELLIGENCE AND PERSONALITY ON CLASSROOM PERFORMANCE OF SENIOR SECONDARY SCHOOL TEACHERS

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ABSTRACT

The present study is an attempt to study the Classroom Performance of Senior Secondary School Teachers, who are said to be the real builders of the nation. Their performance is not only affected by demographic factors like Age, Gender, Experience and Locality etc., but also by the other factors like Emotional Intelligence and Personality. In doing so, multistage random sampling procedure was employed to elicit responses from 425 senior secondary school teachers identified in various parts of the State. The data was analyzed by 2x2x2(ANOVA) and t-test. The findings of the study revealed that (1) the senior secondary school teachers have been found to be 'substantially effective' in their performance; (2) there is significant independent effect of locality, emotional intelligence and personality on performance of senior secondary school teachers; and (3) there is significant two factor interactive effect of variables on classroom performance of senior secondary school teachers.

Key Words: Classroom Performance, Locality, Emotional Intelligence and Personality.

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 work force- most especially the teaching personnel. A teacher is the yardstick that measures the achievement and aspirations of the nation. The work and potentialities of a country get evaluated in and through the work of a teacher. The people of a country are the enlarged replica of their teachers. Teachers are the real nation builders. They constitute the oil that lubricates the factors of academic performance and educational enterprise as a whole.

But in this advanced and technological society teaching is not a leisure time activity. It has become highly goal oriented and productive instrument to raise the standards of children and society at large. It is undoubtedly an extraordinarily complex task. It is not like inducing a chemical reaction; it is much more like painting a picture, writing a poem or composing a beautiful piece of music. Since the failure or the success of an educational system depends on the teacher, so he/she has to become very efficient and effective. In order to make a teacher effective his/her performance in the classroom matters a lot. Senior secondary stage is a very decisive stage of education in students' life. At this stage new vistas are opened up before them. So the role of the teachers has become more important now a day.

The effectiveness of the process of education is rightly seen in the effectiveness of the teachers. Only effective teachers can materialize policies and plans of education in the classrooms. Effective teaching, to a great extent is the result of teachers' performance in the classroom. Teachers' performance is a very ambiguous concept. It is what a teacher does in the job; rather what he or she can do. Teacher performance is specific to the job situation; it depends on the competence of the teacher, context in which the teacher works, and the teacher's ability to apply his or her competence at any given point in time (Medley, 1982).

Teacher's performance is the extent of teacher's mastery over the subject matter, his or her desirable personal qualities (conducive to the profession) such as confidence, regularity and emotional resilience, relationship with students and colleagues, communication skills, planning and preparation, task orientation and evaluation

(Pandya 1996). It is very essential for teachers at senior secondary level that they should have mastery over the subject matter, possess excellent communication skills, good academic record and have knowledge of development process that takes place in a student. Research evidences have shown that classroom performance of teachers is influenced by many demographic variables like age, gender, locality, experience etc. (Misra, 1999; Srivastva, 2005; Sridhar and Bedai, 2006; Sharma,

2011) and other psychological and sociological variables like organizational climate, job satisfaction, adjustment, emotional intelligence, level of aspiration and various personality dimensions (Shah,1991; Mishra,1999;; Vijaylakshmi, 2005; Saikia and Goswami, 2010; Sharma, 2011).

Earlier it was considered that teachers' performance depends only on his level of intelligence. Recently, psychologists have realized that intelligence is not enough to achieve success in life. Previous researches show that IQ alone is no more a measure of personal and professional success. It accounts for only 20 % and the rest 80% is contributed by emotional and social intelligence (Goleman, 1995, 1998). Fiest and Barron (1996) concluded that emotional and social competencies were four times more important than IQ in determining professional success and prestige. Highly emotionally intelligent people are more punctual and take maximum initiative on the job; they put much amount of efforts to expand their job. This finding was also supported by Cooper and Sawaf (1997); Tischler, et al (2002) and Thilam and Kirby (2002). So a teacher with innumerable degrees can not necessarily be termed as a good teacher. His behaviour not only as person but also as a teacher is predominately controlled by his emotional behaviour, which in turn depends upon the degree of emotional intelligence possessed by him (Sethi and Patel, 1985; Salovey and Slutyer, 1997; Goleman, 1998). In this way, what makes a teacher successful in his classroom is nothing but his ability to manage and understand the emotions of self and his students.

According to career ratings on the basis of the EQ requirement, teaching job stands fifth on the continuum from top. Jobs which require contact with other people or require one to empathize with or understand others, demand a high level of emotional intelligence. Teaching is one which demands high EQ level due to constant interaction with students (Yate, 1997). Numerous studies have shown that people with high level of emotional intelligence possess better profile of personal effectiveness (Sethi and Patel, 1985; Joseph-Hee-Woa Jae,1998; Sharma,2000; Singh,2003; Pradhan,Bansal and Biswal, 2005; Rabinder Kumar, P. 2005; Bansi Bihari and Surwade, 2006; Srinivasa, 2010)

Personality is another cardinal factor for effective performance of teachers. According to Hogan (1991), a person personality is a relatively stable precursor of behavior; it underlies an enduring style of thinking, feeling and acting. However, Guthrie et. al (1998) stated that personality can be defined as a predisposition to act or behave in a characteristic fashion in response to one's environment. Based on Pervin et. al (2005), personality refers to the characteristics of the person that account for consistent patterns of feeling, thinking and behaving There is a relationship between personality and classroom performance of teachers which leads to the achievement of teaching effectiveness(Polk, 2006; Curtis and Liying, 2001; Mullins, 1992; Hughes, Costner, and Douzenis, 1988; Mayhew, 1986; Bridgwater 1982; Sherman and Blackburn, 1975). Barrick and Mount (1991), found that conscientiousness had consistent and positive relationship with job performance across a variety of occupational groups. It supported by Ree and Earles (1992) which they stated that general intelligence and conscientiousness have been found to be valid predictors of training and job performance.

Need of the Study

Senior Secondary Stage is a very decisive stage of education in a student's life, because at this stage new vistas are opened up before the students. Today, there is rapid increase in technology. As technology increases, teacher must be effective in preparing students for their future roles. His/her role has become more important as he/she provides guidance, counselling and inspiration to students for their career development. The effectiveness of the process of education is rightly seen in the effectiveness of the teachers. Only effective teachers can materialize policies and plans of education in the classroom. So, their performance in the classroom matters a lot. Teacher performance in the classroom depends, to a great extent, on emotional intelligence and personality of the teacher.

Previous researches show that IQ alone is no more a measure of personal and professional success. Emotional Intelligence of the teacher is a vital necessity for the welfare of the students in particular and the nation in general. Review of literature also shows that personality had an effect on teaching practices as well as teaching effectiveness. With this assumption the present study is designed to see the influence of emotional intelligence and personality on classroom performance of senior secondary school teachers.

Objectives

1. To assess the level of classroom performance of senior secondary school teachers.
2. To study the influence of locality, emotional intelligence and personality and their interaction on classroom performance of senior secondary school teachers

METHOD

Research Design

For the purpose of the present investigation, factorial design based upon three independent variable viz., Locality, Emotional Intelligence and Personality was followed. The independent variable Locality (A) varied in two ways-rural (A_1) and urban (A_2) the second independent variable Emotional Intelligence (B) varied in two ways-high emotional intelligence (B_1) and low emotional intelligence (B_2); the third independent variable personality (C) varied in two ways- introvert (C_1) and extrovert (C_2); In order to analyze the data, three ways ANOVA (2 x2x 2factorial design) was applied to see the interactional effect of locality, emotional intelligence and personality on classroom performance of teachers. In case of significant main effects as well as interactions, the results were supplemented by t-test.

Sample and Procedure

The respondents in this study were teachers who were randomly selected from various senior secondary schools of state Haryana. The state Haryana was divided into four zones namely North, South, East and West. Out of each zone, one district was picked up by using the lottery technique. A list of Govt. Sr. Sec. Schools was obtained from the concerned D.E.O of the selected districts and 20 schools from each district were selected at random making total schools to 80. From each school 5-10 teachers were selected.

Initially 550 respondents were chosen. Out of this, the responses of only 425 could be taken for analysis, as only extreme ends were taken into consideration in case of independent variables. As per the requirement of 2x2x2 cells (40 in each cell of the paradigm) the sample of 320 teachers was chosen.

Table: Distribution of Sample (N=320)

Locality	Emotional Intelligence	Personality	
Rural(160)	High Emotional Intelligence (80)	Introvert (40)	Extrovert (40)
	Low Emotional Intelligence (80)	Introvert (40)	Extrovert (40)
Urban(160)	High Emotional Intelligence (80)	Introvert (40)	Extrovert (40)
	Low Emotional Intelligence (80)	Introvert (40)	Extrovert (40)

Tools

The following tools were used in the present study to obtain reliable data:

Self–Evaluation Teacher Performance Scale (SETPS) developed by S.Pandya (1996)

This scale contains 63 items belonging to seven dimensions i.e Teacher's mastery over subject matter, personal qualities, and relationship with students, communication skills, planning and preparation, task orientation and evaluation. The minimum possible score is 63 and maximum possible is 252. Teachers' performance is classified

into five categories according to the range of the scores. The split-half and test-retest reliability coefficient of the scale was found to be .85 and .79 respectively.

Teachers' Emotional Intelligence Inventory (tEQi) developed by S. Mangal (2008)

It consists of 200 items covering four different factors, namely; Awareness of self and others, Professional orientation, Intra personal management and self regulation and Interpersonal management. The split-half and test-retest reliability coefficient of the inventory was found to be .95 and .96 respectively.

Introversion- Extroversion Inventory developed by Dr. P. F. Aziz and Dr. Rekha Gupta

The inventory consists of 60 items 30 pertaining to an introvert's characteristics and 30 to an extrovert's characteristics. The test-retest reliability coefficient of the inventory was found to be 0.95.

ANALYSIS AND INTERPRETATION

In pursuance of the objectives data was analyzed and interpreted under the following heads (1-2):

1 Overall Performance of Senior Secondary School Teachers

Mean and S.D. of 425 teachers of senior secondary schools of Haryana was calculated to assess the level of their performance.

Table 1: Mean and S.D. of the Classroom Performance of teachers

N	Variable	Mean	S.D.
425	Teacher Performance	213.73	14.46

As the obtained mean scores falls in the category D as per the manual of the scale, this can be safely interpreted that Senior Secondary School Teachers of Haryana have found to be ' substantially effective' in their Classroom Performance.

2. Influence of Locality, Emotional Intelligence and Personality and their Interaction on Classroom Performance of Teachers

Table 2: Summary of (2x2x2) ANOVA for Classroom performance of teachers (N=320).
Locality (A), Emotional Intelligence (B) and Personality (C)

Source of Variance	df	Sum of Squares	Mean Squares	F– ratio	Sig. Level
A	1	1620	1620	13.01	.01
B	1	15820.31	15820.31	127.08	.01
C	1	520.2	520.2	4.17	.05
AxB	1	52.81	52.81	0.42	-
AxC	1	2553.8	2553.8	20.51	.01
BxC	1	525.31	525.31	4.21	.05
AxBxC	1	66.62	66.62	0.53	-
Error Within	312	38842.75	124.49		
Total	319				

Significant 'F' value according to 'F' table 'F' (1,312) at .05 Level = 3.87 and at .01 Level = 6.72

Locality

The results indicate that in case of Locality, F-ratio 13.01(vide Table-2 for df 1/312) is significant at .01 level. This means that Locality has a significant independent effect upon the classroom performance scores of senior secondary school teachers. In order to interpret this t-test was applied. The results for the same have been given in Table 3.

Table 3:Mean, S.D and t-ratio of Classroom Performance score on Locality.

Sr. No	Groups	Mean	SD	t- ratio	Sig. Level
1	A_1	209.77	13.53	4.69	.01
2	A_2	216.77	13.48		

Table 3 shows that t-ratio 4.69 between the teachers belonging to rural and urban area is significant at .01 level. When results were seen in the context of mean scores, it was found that the mean classroom performance scores of teachers belonging to urban area was higher (M=216.77) than the mean classroom performance scores of teachers belonging to rural area (M=209.77). This shows that teachers from urban area perform better.

Emotional Intelligence

F-ratio 127.08 (vide Table-2 for df 1/312) for emotional intelligence of teachers is significant at .01 level. This means that Emotional Intelligence has a significant independent effect upon the classroom performance scores of senior secondary school teachers. In order to interpret this t-test was applied. The results for the same have been given in Table-4.

Table 4: Mean, S.D and t-ratio of Classroom Performance score on Emotional Intelligence

Sr. No	Groups	Mean	SD	t- ratio	Sig. Level
1	B_1	221.55	10.52	12.64	.01
2	B_2	204.99	12.85		

Table 4 depicts that t-ratio 12.64 between teachers with high Emotional Intelligence and low Emotional Intelligence is highly significant at .01 level of significance. This indicates that significant difference exists in the mean classroom performance scores of teachers with high Emotional Intelligence and low Emotional Intelligence. Teachers belonging to high level of Emotional Intelligence got higher classroom performance scores (M=221.55) than the teachers belonging to low level of Emotional Intelligence (M=204.99). It means that teachers with High Emotional Intelligence are more efficient than the teachers with Low Emotional Intelligence.

Personality

F-ratio 4.17(vide Table-2 for df 1/312) for personality of teachers is significant at .05 level. This means that personality has a significant independent effect upon the classroom performance scores of senior secondary school teachers. In order to interpret this t-test was applied. The results for the same have been given in Table 5.

Table 5:Mean, S.D and t-ratio of Classroom Performance score on Personality

Sr No	Groups	Mean	SD	t- ratio	Sig. Level
1	C_1	210.74	13.40	3.15	.01
2	C_2	215.54	13.82		

Table 5 depicts that t-ratio 3.15 between teachers with introvert and extrovert personality is significant at .01 level of significance. This indicates that significant difference exists in the mean classroom performance scores of teachers with introvert and extrovert personality. Teachers with extrovert personality got higher classroom performance scores (M=215.54) than the teachers with introvert personality (M=210.74). It means that teachers with extrovert personality are more efficient than the teachers with introvert personality.

Locality (A) X Personality (C)

Table 2 further reveals that the first order interaction between Locality and Personality of teachers is significant at .01 level of significance (F – ratio 20.51 for df 1/312). This means that there is particular combination of Locality and Personality (AxC) which affects the classroom performance scores. In order to interpret this further, t-test was applied to find out the difference between mean classroom performance scores of different combination group. The results for the same have been given in Table 6.

Table 6: t-ratio for different combinations of A x C levels for Classroom Performance Scores of teachers

Groups	**A_1 C_I**	**A_1 C_2**	**A_2 C_1**	**A_2 C_2**
Mean (S.D)	205.67	213.87	215.82	217.72
A_1 C_I (205.67)		4.03**	5.17**	5.96**
A_1 C_2 (213.87)			0.91	1.76
A_2 C_1 (215.82)				0.90
A_2 C_2 (217.72)				

**** Significant at .01 Level

Table 6 shows that t-ratios 4.03, 5.17 and 5.96 for the group A_1C_1 vs A_1C_2, A_1C_1 vs A_2C_1, and A_1C_1 vs A_2C_2 respectively are significant at .01 level. This indicates that these combinations, for which t-ratios are significant, differ significantly on mean classroom performance scores. Urban teachers with extrovert personality have the maximum classroom performance scores and rural teachers with introvert personality have the lowest classroom performance scores. This shows that urban teachers with extrovert personality are more effective than the rural teachers with introvert personality.

Emotional Intelligence (B) x Personality (C)

Table 2 further reveals that the combined interaction between Emotional Intelligence and Personality of teachers is significant at .05 and (F-ratio 4.21 for df 1/312). This means that there is particular combination of Emotional Intelligence and Personality (BxC) which affects the classroom performance scores. In order to interpret this further, t-test was applied to find out the difference between mean classroom performance scores of different combination group. The results for the same have been given in Table 8.

Table 7: t-ratio for different combinations of B x C levels for Classroom Performance scores of teachers

Groups	**B_1 C_I**	**B_1 C_2**	**B_2 C_1**	**B_2 C_2**
Mean	219.06	224.04	202.43	207.55
B_1 C_I (219.06)		3.11**	9.96**	5.96**
B_1 C_2 (224.04)			12.49**	8.32**
B_2 C_1 (202.43)				2.57*
B_2 C_2 (207.55)				

* Significant at .05 Level ** Significant at .01 Level.

Table 7 shows that t-ratio 2.57 for the group B_2C_1 vs. B_2C_2 is significant at .05 level, while the t-ratios (3.11, 9.96, 5.96, 12.49 and 8.32 for the groups B_1C_1 vs. B_1C_2 ; B_1C_1 vs. B_2C_1; B_1C_1 vs. B_2C_2, B_1C_2 vs. B_2C_1 and B_1C_2 vs. B_2C_2 ; respectively are significant at .01 level of significance. This indicates that these combinations, for which t-ratios are significant, differ significantly on mean classroom performance scores. Teachers with high Emotional Intelligence and extrovert personality have the maximum classroom performance scores and the teachers with low Emotional Intelligence and introvert personality have the lowest classroom performance scores. This shows that teachers with high Emotional Intelligence and extrovert personality are more effective than the teachers with low Emotional Intelligence introvert personality.

DISCUSSION

Classroom Performance and Locality

The results indicate that teachers from urban area are more effective in their classroom performance than the teachers from rural background. It may be due to the better living facilities, working conditions, infrastructure and other amenities available in urban areas which help the teachers to perform better. The results are in consonance with the findings of Srivastava (1982) Sharma (1985) and Sharma (2011). The results may be explained in the words of Bhambri (1971) that urban environment provides excellent educational facilities which feeds and stimulates the minds of people. Moreover, in urban areas there are ample opportunities of libraries, public lectures and literary societies. Good library facilities, good book stalls, regular availability of newspapers and magazines in urban areas help a lot in adding to capabilities as well as creative potentials of the teachers. Further in urban areas distinct recreational facilities are available which make life joyful and comfortable. These help in providing ample opportunities to ambitious and energetic people to display their talents. Other factor which seems to be contributing towards difference in the performance of urban and rural subjects may be that the rural persons tend to be rigid. They have to follow the direction of elder members blindly. In other words, lack of individuality is more in rural area as compared to urban. Perhaps, this open mindedness, change in value system makes urban teachers more effective in their performance in classroom as compared to their counterparts. Moreover, in urban areas there is great scope for adopting different line of action in a progressive environment which may lead them to production of new ideas. This urban environment perhaps provides encouragement for better performance. Perhaps, it is because of these reasons that teachers from urban area were more effective than the teachers coming from rural areas.

Classroom Performance and Emotional Intelligence

Another finding in the present study reveals that there is significant difference in the performance of teachers with respect to emotional intelligence i.e. teachers with high level of emotional intelligence perform better than the teachers with low level emotional intelligence. The reason for better performance may be because teachers with high emotional intelligence are superior in managing and understanding the emotions of self and others (Mayer and Salovey 1997; Salovey and Slutyer 1997). Self aware teachers have a high degree of self confidence and knowledge of their abilities. They express their emotions positively without actually threatening the students. High emotionally intelligent individuals perceive and manage their emotions in a better way and use them in their thoughts appropriately. Solving emotional problems likely requires less cognitive efforts on part of these individuals. They tend to be more open and agreeable than others. The high emotionally intelligent person is attracted towards those professions which involve more social interaction such as teaching, counselling, administration and management etc. and they are more likely to have possession of sentimental attachment and interpersonal skills. Such individuals are more adapt at describing motivational goals, aims and mission as reported in the findings of Sethi and Patel (1985), Joseph-hee-woa Jae (19980; Pradhan et al (2005) and Bansibihari and Surwade (2006); Srinivasa (2010). They also found that people with high level of emotional intelligence possess better profile of personal effectiveness.

Another reason for better performance of teachers with high emotional intelligence can be seen in their ability to avoid stress at work place. Application of emotional intelligence at the work place enables them to develop a better conducive work environment in three important ways. Firstly, it helps them to see grievances as 'Helpful Critiques.' Secondly, it helps in creating an atmosphere in which 'Diversity is Valued.' Thirdly, it enables to create 'Effective Networks' where differences are respected and individuals are motivated to work towards a common goal. (Mayer and Salovey, 1997; Goleman 1998; Bar On, Brown, Kircaldy and Thome 2000; Gardner, 2006). Perhaps, these may be the ways which might be helping the highly emotionally intelligent teachers of Sr. Sec. School of Haryana to perform better in their classrooms and adds to group IQ, i.e. the ability of group members to harmonize and work together effectively.

Apart from all this, high emotionally intelligent teachers may exhibit responsible behaviour in front of the students. They are in a position to create a healthy classroom interaction. As a result, students are encouraged, motivated and take active part in all discussions initiated by the teacher. In other words, highly emotionally

intelligent teachers try to give enough space to the students' ideas and feelings during classroom interaction. Because of this, an environment of mutual understanding and trust and a group feeling is created where students are encouraged to communicate freely (Sethi and Patel, 1985 and Bansibihari and Surwade, 2006).

Classroom Performance and Personality

The result also indicates that Personality of teachers is also a contributive factor for their better performance in the classroom. Teachers with extrovert personality perform better than the teachers with introvert personality. Perhaps, it may be because extrovert teachers are more social, receptive and open minded. They like changes. They are creative, analytical, logical and intuitively thinking teachers with strong imaginations (Smith et.al., 1993). They believe in using various strategies and technology as compared to sentimental teachers with realistic and social qualities. To them learning is every bit a shared experience. In the best of worlds, extroverts add energy and verbal enthusiasm to a classroom. They can motivate and encourage their students, and they love working on teams. That is perhaps the reason for their better performance. Results of present study get support from the study of Clark and Watson,(1991) who found that extraversion was associated with task performance and creativity, probably because of the fact that extraverts tend to experience positive effect .

Interactional effect of Locality, Emotional Intelligence and Personality on Classroom performance of teachers

Regarding interactional effect, the joint effect of locality and personality; emotional intelligence and personality is found significant on classroom performance of teachers. The probable reason for significant interaction effect may be due to the two different ways in which each factor is varying.

EDUCATIONAL IMPLICATIONS

The present study will be very helpful to the education planners, policy makers and administrators in bringing about better classroom performance by improving their emotional intelligence and personality The findings of the present investigation bears significant educational implications .

Emotional well being is increasingly recognized as a predictor of success in school, family and work life, bringing it to the attention of educational scholars who are starting to link cognition with emotional intelligence. This alert reviews the rationale for promoting emotional intelligence as early as elementary school. According to Talent Smart, 90% of the performance at the work place possesses high EQ, while 80% of low performance have low EQ. Emotional Intelligence is absolutely essential in the formation, development, maintenance and enhancement of close personal relationship. Unlike IQ, which does not change significantly over a lifetime, the EQ can evolve and increase with one's desire to learn and grow. The EQ of the teachers can also be enhanced by the ability to deal with their own negative emotions. Perhaps no aspect of EQ is more important than the ability to effectively manage their own negative emotions, so that they don't overwhelm them and affect their judgment. It is imperative that teachers are provided with early interventions that involve emotional intelligence skills building. Particular attention should be paid to improve emotional intelligence competencies of teachers in early employment. Training in appropriate skill is essential for preparing teachers for career success and fulfillment. Educational planners have the responsibilities to provide their teachers with a strong foundation in both teaching and emotional training so that they will be well rounded individuals and hence worthy employees, effective managers and dynamic teachers. So the Emotional literacy programme should be organized for teachers. This programme will be beneficial and helpful to teachers in improving their Emotional Intelligence.

Again, since teaching profession is classified as a social occupational type and people in social occupations tend to be extroverted, receptive and open minded, They are able to properly communicate with others in the society and workplace so that these have the ability to act naturally with people in a way that will make them much more successful than introvert, hence, extrovert people should be recruited in teaching profession and can be trained how to deal with work pressure, it is then that the hope can be made to increase the level of satisfaction and as a consequence the effectiveness of teachers.

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REFERENCES

Aziz, P. F. and Gupta, R. (2002). Introversion Extroversion Inventory. National Psychological Corporation, Agra.

Bansi Bihari, P. and Surwade, L. (2006). The effect of emotional maturity on teacher effectiveness. *EduTracks* Vol.6 No-1.

Bar On,R., Brown,J.M.,Kircaldy,B.D.andThome,E.P.(2000). Emotional Expression and Implications for occupational stress, an application of the Emotional Quotient Inventory. Personality and Individual Differences, 28, 1107-1118.

Barrick, M.R. and Mount, M.K. (1991). The big five personality dimensions and job performance: A meta-analysis. *Personnel Psychology,* 44, 1-26.

Bhambhri, C.P. (1971). The administrative elite and political modernisation in India-a study of the value attitude of IAS probationers. *Ind. J.Pub.Adm*. 17(1), 150.

Bridgwater, C. A. (1982). Personality characteristics of ski instructors and predicting teacher effectiveness using the PRF. *Journal of Personality Assessment*, 46, 164-168.

Clark, L.A. and Watson, D. (1991). General affective dispositions in physical and psychological health. In C.R. Snyder and D.R. Forsyth (Eds.) *Handbook of social and clinical psychology: The health perspective*. New York: Pergamon.

Cooper, R.and Sawaf,A. (1997) *Exective EQ: Emotional Intelligence in Bussiness*.London: Orion.

Curtis, A. and Liying, C. (2001). Teachers' selfevaluation of knowledge, skills and personality characterstics needed to manage change. *Asia - Pacific Journal of Teacher Education*, 29, 139-143.

Feist,G.J.andBarron,F.(1996) *Emotional Intelligence and Academic Intelligence in career and life success.* Paper presented at the Annual convention of the American Psychological Society,San Francisco,CA.

Gardner, L. (2006). *Emotional intelligence development programs for teachers.* Ph.D Program. Cited in Research Papers of Swineburne center of Neuro-psychology, Adolescent Emotional Intelligence Research Unit, Swineburne University.

Goleman, D. (1995*). Emotional intelligence, why it can matter more than IQ*, NewYork Bantam Books.

Goleman, D. (1998). *Working with emotional intelligence*; NewYork Bantom Books.

Hogan, R. (1991). Personality and personality assessment. In M. D. Dunnette and L. Hough (Eds.), *Handbook of industrial and organizational psychology* (2nd ed., pp. 873–919). Chicago: Rand McNally.

Hughes, T. M., Costner, M. J., and Douzenis, C. (1988). Personality and Motivation Variables in Tomorrow's Teachers*: A Center of Excellence. Education*, 108, 393-400.

Humphrey, G and Argyle, M (1962). *Social psychology through experiment*, Bombay. *Asia Publishing House*.

Joseph-Hee-Woa Jae (1998). *EQ more important than IQ for work success* at www.eqi.mhs.com/press 1.htm dec 15, 2000.

Magno, C. and Sembrano, J.(2008). The Role of Teacher Efficacy and Characteristics on Teaching Effectiveness, Performance, and Use of Learner-Centered Practices*. The Asia Pacific-Education Researcher*. Vol 14 (1) 73-90.

Mangal, S.(2008). *Teachers' Emotional Intelligence Inventory*. National Psychological Corporation, Agra.

Mayer, J. D. and Salovey, P (1995). Emotional intelligence and the construction and regulation of feelings. *Applied and Prevention Psychology*, 1995, 4(3)197-208.

Mayer, J. D. and Salovey, P (1997). What is Emotional Intelligence? Implications for educators. In Salovey, P and Sluyter, D (Eds) *Emotional Development, Emtional Literacy and Emtional Intelligence*. New York: Basic Books.

Mayhew, L. B. (1986). Personality and teaching. *Journal of Communication*,2, 83-89.

Medley, D. M. (1982). Teacher Effectiveness. In H.E. Mitzel (Ed) *Encylopaedia of Educational Research* (5th ed. Vol. 4) New York: The Free Press.

Mullins, S. S. (1992). Qualities of the great teachers. *The Instrumentalist*, 46, 17-25.

Murray, H. G., Rushton, J. P. and Paunonen, S. V. (1990). Teacher personality traits and student instructional ratings in six types of university courses. *Journal of Educational Psychology*, 82(2), 250-261.

Pandya, S. (1996). *Self Evaluation of Teacher Performance Scale* S.N.D.T. Women University Mumbai.

Pervin, L. E., and John, O. P.(2002). Personality: theory and research, translated Mohammad Jaafar Javadi and Parvin Kadivar, 1st Ed., Tehran: Aaij.

Pervin, L.A., Cervone, D. and John, O.P. (2005). *Personality: theory and research*. New York: John Wiley and Sons, Inc.

Polk, J. A. (2006). Traits of effective teachers. *Arts Education Policy Review*, 107, 23-30.

Pradhan, R.K., Bansal, D. and Biswal, R.K. (2005). Emotional intelligence and personal effectiveness. *Hyderabad: Journal of Community Guidance of Research* 22(3), pp. 250-266.

Rabinder Kumar, P. (2005) Emotional Intelligence and personal effectiveness. *Journal of Community Guidance and Reasearch.* 22(3);pp 250-266.

Ree, M. J. and Earles, J. A. (1992). Intelligence is the best predictor of job performance. *Current Directions in Psychological Science,* 1, 86- 89.

Saikia, L.R and Goswami, M (2010) Teacher Freezing among the secondary school teachers in relation to school organizational climate. *Indian Journal of Psychometery and Education*. 41,(1):5-11.

Salgado, J.F. (1997). The five-factor model of personality and job performance in the European Community. *Journal of Applied Psychology*, 82, 30-43.

Salovey,P. and Slutyer, D. (1997) *The emotional development and emotional intelligence: Educational implications*. New York, BasicBooks.

Sethi, A. and Patel, D. (1985) Creativity, intelligence, emotional maturity and self acceptance in relation to teacher effectiveness. *Asian Journal of Psychology and Education*, vol-15 (4); 24-27.

Shah, B. (1991*)* Determinants of teacher effectiveness. Independent Study Rohil Khand Uni, In M.B.Buch (Ed.) *Fifth Survey of Research In Education*(1988-92) NCERT.

Sharma, A. (2000) Emotional Intelligence;A theoretical prospective. Agra; *Indian Journal of Psychometry and Education* Vol.31, No-1, pp. 53-56.

Sharma, A. (2011). *A Study of Classroom Performance of Senior Secondary School Teachers in relation to their Level of Aspiration and Emotional Intelligence*. Unpublished Ph.D. Thesis M.D. University, Rohtak.

Sharma, H.L (1985) *A comparative study of engineers and civil services personnel belonging to different socio-economic status in relation to their interest and creativity*. Unpublished Ph.D Thesis, Kurukshetra University, Kurukshetra.

Sherman, B. R. and Blackburn, R. T. (1975). Personal characteristics and teaching effectiveness of college faculty. *Journal of Educational Psychology*, 67, 124-131.

Singh, D. (2003) *Emotional intelligence at work: A professional guide*. Response Books, New Delhi.

Sridhar,Y.N. and Badiei Hamid Reza (2006) Teacher efficacy and emotional intelligence of primary school teachers. *The Primary Teacher* (July and Oct-2006, Vol-XXXI, No.3-4.

Srinivasa, K.S (2010). Emotional Intelligence and work performance. *Indian Journal of Psychometry and Education.* 41(2) 186-188.

Srivastava ,R.K.(2005). Teacher-effectiveness of upper primary school teachers. *Psycho*. *Lingua* 35 (2): 160 - 165.

Srivastava, B. (1982). A study of creative abilities in relation to socio-economic status and culture. *Perspectives in Psychological Researches*, 5(2).37-40.

Thilam, L and Kirby, S. (2002). Is Emotional Intelligence advantage? *The Journal of Social Psychology*, 142(1), 133-145.

Tischler,L., Biberman,J.andMckeage,R.(2000). Linking Emotional Intelligence,Spirituality .and Workplace performance:Definitions,models and ideas of research*. Journal of Managerial Psychology.*17,203-218.

Vijaylakshmi, G. (2005). Teacher effectiveness and job satisfaction of women teachers. Edu Tracks Vol. IV, No-7, pp 29-30.

Yate, M.J. (1997). *Career smart: Jobs with a future.* NewYork: Ballantine.

Young, S. and Shaw, D. G. (1999). Profiles of effective college and university teachers. *The Journal of Higher Education*, 70, 670-687.

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THE IMPACT OF CMC ON IRANIAN ABSOLUTE-BEGINNERS' PROPER USE OF DEFINITE AND INDEFINITE ARTICLES

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ABSTRACT

The present study demonstrates that technology can be adopted and integrated into the language classes and it should be considered as an effective and useful teaching tool for English language teachers. The purpose of this article is to investigate the effectiveness of a TAMA software, an educational content development, in Iranian absolute-beginners' proper use of definite and indefinite article. computer assisted instruction on students' grammatical knowledge . Forty participants were homogeneously assigned to two experimental and control groups; each group consisting of twenty participants. The experimental group were taught with the materials created through computer software material designer in the class with Interactive White Board (IWB). The control group was taught through their regular course books. During the treatment, for the experimental group, the materials were presented through both their regular coursebooks and TAMA software. However, the control group was taught, the materials only through their coursebooks. The results of the two independent samples t-tests showed that the experimental group significantly outperformed the control one.

Key Words: Computer Assisted Language Learning, Computer Mediated Communication, TAMA Software, Interactive Whiteboard.

INTRODUCTION

In resent years, computer assisted language learning (CALL) has come to the forefront of language learning and teaching. Computer-Assisted Language Learning (CALL) can be defined as "any process in which a learner uses a computer, and as a result, improves his or her language" (Beatty, 2013:7). Computer assisted grammatical knowledge has been considered to be one of the most common applications of CALL. Teaching students is one of the highest priorities in every country of the world. Most of those studies shared a common finding that is related to the effectiveness of technology in education and how it assists teachers in developing teaching methods and students' knowledge (Hartmann, 2015; Sasaki & Takeuchi, 2010; Liaw & Master, 2010; Chao & Lo, 2011). Computers like any other forms of technology have been integrated into people's lives, jobs, hopes, and dreams As researchers repeatedly argue, CALL practitioners' computer literacy knowledge and skills for creating and maintaining successful CALL environments contribute greatly to the efficacy of CALL (Egbert & Hanson-Smith 2007; Guichon & Hauch, 2011; Stockwell, 2009) . Computer-mediated communication (CMC) is defined by Walther (1992) as "synchronous or asynchronous electronic mail and computer conferencing, by which senders encode in text messages that are relayed from senders' computers to receivers". In other words, communication between people in different places via the instrumentality of computers could take place

synchronously (at the same time) and asynchronously (at delayed time). Musa, Mohamed, Mufti, Abdul Latiff, Mohamad Amin (2015) CMC has assisted students in expanding their ideas, in utilizing time more efficiently, in working collaboratively via online, in accelerating work progress, and without the boundaries of time and space. CMC applications, when appropriately designed for pedagogical goals, instructional context, content, and learners, can closely approximate authentic communications "equivalent to real-life learner-to-leaner or teacher-to-learner communication" (Hoven, 2006:241; Sims, 2000)

AbuSeileek (2004) studied the advantage of a computer program on Jordanian writing ability in English language. The study showed that there were statistical differences between mean scores of the writing task of the control group who received instruction via the traditional approach and the experimental group who received writing instruction via computer which was in favor of experimental group. Moradi (2015) Computer can be utilized as a useful tool by language teachers to help English language learners to improve their language abilities. He also said Computers can improve reading and writing skills and as well they can function as a supplemented tool in teaching to develop vocabulary and verbal language. Computers can affect in English language classes to teach vocabularies. Language learners need to learn the vocabulary with suitable illustrations and visual clues in context; this will help them to understand the words. Computers can easily provide effective contextual environment for learning vocabulary. Grammatical rules as one of the skills seems to play an important role in learners' language achievement. TAMA computer software is an educational program which develops language learning contents based on textbooks. The present study explores the nature and effectiveness of learning with TAMA computer software on Iranian EFL learners. CALL has been gaining immense popularity in foreign language teaching and more educators and learners are embracing it in learning environments (Nicholas, 2010). The present brief survey of the related literature reveals that few researchers, to the best of our knowledge, have so far embarked on investigating the effects of computer softwares on Iranian absolute-beginners' grammatical knowledge. Thus, the aim of the present study was to investigate the extent to which the TAMA computer software might be effective in increasing the correct use of the simple present tense for Iranian absolute-beginners and the following question was proposed.

Q1. Does TAMA computer software affect on Iranian absolute-beginners' proper use of definite and indefinite articles?

METHOD

Participants

The participants of this study were chosen homogenies from the pool of absolute beginners students at a language school in Tehran. According to Jones (2007) absolute beginners are students with no knowledge of written or spoken English. There is no knowledge to elicit from the students. The most basic knowledge must be taught first, before the students can be asked simple questions to complete simple requests. The children were aged between 7 and 9. The reason for selecting the participants as zero beginners is that they have no English background. The participants were assigned to the experimental and control groups. The assignment of the participants of the groups was random as well. Each group consisted of 20 participants (N=20). The experimental group (N=20), in addition to their regular course books, were taught with the materials created through TAMA computer software in the class with Interactive White Board (IWB). The control group (N=20) were taught through their regular course books.

Instruments

1. The participants of this study were presented with their regular coursebooks developed by Wernham and Lloyd (2010), i.e., The Phonics Series1, 2, 3. The other utilized book was Phonics Workbook by Pejmanfar and Ranjbar (2012) which had a lot of sentences related to Phonics coursebooks. Phonics coursebooks at Enekas Language Institute comprise of 19 units and each unit is further divided into two parts, and every part is covered in one session lasting for an hour and 30 minutes. In the first session, one sound, e.g., *g*, from Jolly phonics book is taught. Session two covers practicing some sentences including various items such as true/false, multiple choice, multiple answer, short answer, matching, ordering, and game developed by TAMA software. These sentences were fed into the software from Phonics Workbook by Pejmanfar and Ranjbar

(2012) for Jolly Phonics coursebooks. The classes were held twice a week. The total of twenty-two sessions covered the whole of the three terms lasting for four and a half month dedicated to this study. The participants were required to do Phonics Workbook for Jolly Phonics from the second session on as home assignment every week. At the end of the treatment, the participants' grammar improvement on definite/indefinite articles, and prepositions were assessed using the following instruments as their posttest:

2. TAMA software to develop educational content: practicing some sentences including various items such as true/false, multiple choice, multiple answer, short answer, matching, ordering, and game developed by TAMA software. These sentences were fed into the software from Jolly Workbook for Jolly Phonics coursebooks.

Procedure

Data collection was carried out in the following order.

1) Prior to the treatment, educational contents were developed from the absolute beginners books with TAMA software, and relevant CDs were given to each student. There are two groups of students: one experimental group and one control group. The two groups received 18 weeks of instruction at Enekas language Institute as the treatment. The participants in the experimental group received materials using computer-assisted program of TAMA.

2) Later on in the first session, one sound such as upper case c, i.e., C, and lower case c, i.e., c, was taught then, then the participants practiced some sentences which were related to this sound like It is a cat.

3) From the second session on, The participants of the experimental group were given enough time to practice those sentences on the Interactive whiteboard (IWB) with the computer program .In addition, they required to provide immediate feedback, letting students know whether their answers were correct or not. If an answer were incorrect, the program showed the students how to answer the question correctly, and this helped them strengthen their procedural knowledge of English grammar, then they were given Jolly Work Book for Jolly Phonics provided by the teacher as the assignments. The book had the same sentences and vocabularies as the computer software which were made using the TAMA program.

The current researcher used inductive grammar to teach the students which was created with TAMA educational software shown on the Interactive Whiteboard in the class. To teach the grammar inductively, the teacher does not provide the grammar rules directly; instead, the structures are taught indirectly in the context.

4) Finally, after the treatment, the participants received the post-test. The post-test items were selected from the phonics handbook by Sue Lioyd (1998).

Pilot Study

Before embarking on collecting the required data for the present study, a three-week pilot study was carried out prior to the actual experimentation. The aim of the pilot study was to test the applicability of TAMA software and also identify and correct any unforeseen problems as well as testing the amount of time allocated for answering the post-test items and procedures during the actual data collection phase. The pilot study was conducted with 15 zero-beginner children with similar characteristics to the actual participants of the study. The exact situation favorable for the future study was tried to be implemented by the current researcher. During the three weeks of piloting, the participants were presented with their regular materials taught through the required coursebooks and the TAMA software. For the administration of the post-test, the time allocated to answer the items was set to 40 minutes and all the participants were able to successfully complete the task. To be on the safe side, the researcher decided on 45 minutes as the required time for the actual study.

In conclusion, by conducting the pilot study, some technical and timing problems for the future experimentation were done away; additionally, it gave the researcher an invaluable insight into the required

procedures and effective ways to conduct the data collection most convenient to both the researcher herself and the participants.

Reliability and Validity

In this study, in order to make sure of the reliability of post-test instruments, test-retest reliability method was applied. Prior to the actual data collection and following the pilot study, another class of zero-beginners including 15 participants was selected in order to check the post-testing instruments' reliability. In the tenth session of the semester, the first administration took place. The second administration was exactly two weeks later with the same learners under the same circumstances as the first administration. It is worth mentioning that in the meantime, no treatment on the correct use of the grammar instruments and the TAMA software was provided whatsoever. This procedure generated two sets of scores for each participant (see Appendix for the participants' scores on test-retest) and the correlation coefficient between these two sets of scores was the degree of test-retest reliability for the post-test items prior to the experiment. Pearson correlation coefficient was found to be: r =.898, $-1 < r < 1$. The result showed that the post-test was totally reliable as it yielded high correlation at the significance level of p=.001 between the two administrations of the same testing instruments to the same learners.

After the actual treatment and collecting the required data, in order to make sure of the reliability of the post-test results', inter-rater and intra-rater methods of reliability were carried out. Inter-rater reliability determines the extent to which two or more raters obtain the same result when using the same instruments. Intra-rater reliability assesses rating the same instrument on two or more occasions by the same rater. Regarding the inter-rater reliability, the scores of the 40 participants in the post-test were calculated by the current researcher and one of her colleagues at Enekas language school. The results of the Pearson correlations for the inter-rater reliability were found to be very high for the experimental and control groups: r= .994 and .988, respectively; $-1 < r < 1$.

Regarding the intra-rater reliability, the scores of the 40 participants in the post-test were calculated by the current researcher twice with one week interval. The result of the Pearson correlation for the experimental and control groups proved very high: r = 1.000 and .996, respectively; $-1 < r < 1$. See Appendix for inter-rater and intra-rater scores.

FINDINGS

The table.1. provides the results of the descriptive statistics for the experimental and control groups in terms of the correct use of articles.

Table 1: Descriptive Statistics for the Groups' Use of articles

	groups	N	Mean	Std. Deviation	Std. Error Mean
Article scores	Control	20	87.45	3.364	.752
	Experimental	20	93.00	3.509	.785

In order to carry out the inferential statistics and gain insight into the relationship between the experimental and control groups in terms of the correct use of definite and indefinite articles, an independent samples t-test at the alpha level of p=.05 was performed. The table.2. shows the results of the analysis.

Table.2: Independent samples t-test for the groups' use of articles

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
scores	Equal variances assumed	.211	.649	-5.106	38	.000	-5.550	1.087	-7.750	-3.350
	Equal variances not assumed			-5.106	37.932	.000	-5.550	1.087	-7.751	-3.349

As is shown in this table, the significance level for Levene's Test for Equality of Variances is .649. This is larger than the primary significance level of .05. According to Pallant (2007: 235), "This means that the assumption of equal variances has not been violated; therefore, when you report your t-value, you will use the one provided in the first line of the table."

In order to find whether there is a significant difference between the two groups, the section named t-test for Equality of Means should be referred to. According to the Levene's test, the values for equal variances assumed should be considered. The Sig. value in the first line of the table is .000 which is smaller than .05; therefore, it can be concluded that there is significant difference between the scores of the independent group (*M*=93.00, *SD*=3.509) and the control group (*M*=87.45, *SD*=3.364) in terms of the correct use of articles; t(38)= -5.106, *p*=.000.

DISCUSSION

Computer can facilitate language learning in various effective ways. The results of the analyses in this study have shown that the use of computer- mediated applications alongside traditional materials can help learners significantly outperform those who are just presented with their regular books. The findings of the present study lend further support to a well-established body of research substantiating the effectiveness of computer-mediated instructions. According to Moradi (2015), Computer can be utilized as a useful tool by language teachers to help English language learners to promote their language abilities in English. CALL has been gaining immense popularity in foreign language teaching and more educators and learners are embracing it in learning environments (Nicholas, 2010).

CONCLUSION

The main objective of this study was to investigate the effectiveness of software-assisted grammar teaching on leaners' grammatical accuracy via IWB in the classroom. The present study explores the nature and effectiveness of learning with TAMA computer software on Iranian EFL learners. The findings of this study also intended to use a computer program, i.e., TAMA software, which provides opportunities for both teachers and students to use different learning strategies and feedback on their performance. It also contains some features that would be quite appealing specifically to young children such as colorful pictures, animation, and game-like activities; all of which play a vital role in increasing young students' motivation. The results of the study showed that using computer-designed materials to teach grammar has a great impact on the learners' grammar learning and improvement.

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REFERENCES

AbuSeileek, A. (2004). The effect of using a computer-based program on students' writing ability in English. Unpublished Doctoral Dissertation, Arab University, Amman, Jordan.

Beatty, K. (2013). *Teaching & researching: Computer-assisted language learning*. Routledge.

Chao, Y-C., & Lo, H-C. (2011). Students' perceptions of Wiki-based collaborative writing for learners of English as a foreign language. *Interactive Learning Environments, 19*(4), 395–411.

Egbert, J., & Hanson-Smith, E. (eds.) (2007). *CALL environments*: *Research, practice, and critical issues* (2nd ed.). Alexandria, VA: TESOL.

Guichon, N., & Hauck, M. (2011). Teacher education research in CALL and CMC: More in demand than ever. *ReCALL, 23*(3), 187- 199. doi:10.1017/S0958344011000139

Hartmann, C. (2015). *The effect of computer-assisted language learning on Micronesian students' writing achievement*. (Doctoral Dissertation, Walden University). *ProQuest Dissertations and Theses*. Retrievable from ProQuest Dissertations & Theses.

Hoven, D. (2006). Communicating and interacting: An exploration of the changing roles of media in CALL/CMC. *CALICO Journal, 23*(2), 233–256.

Jones, B. (2007). TEFL Teaching Efl to Beginners: Initial Approaches & Techniques. International TEFL & TESOL Training. Retrieved May 10, 2014, from http://www.teflcorp.com/articles/86-tefl-teaching-beginner-students/269-teaching-efl-to-beginners-initial-approaches-a- techniques.htm

Liaw, M.-L., & Master, S. B.-L. (2010). Understanding telecollaboration through an analysis of intercultural discourse, *Computer-Assisted Language learning, 23*(1), 21–40.

Lloyd, S. (2010). *The phonics handbook*. Essex:UK.

Moradi, H. (2015). The role of technology in the development of language skills. *International Journal of English and Education. 4*(1), 112-117.

Musa, F., Mohamed, M., Mufti, N., Abdul Latiff, R., & Mohamad Amin, M. (2015). Incorporating computer-mediated communication in project work. *International Education Studies. 8*(5), 150-157.

Nichols, M. (2010). Student perceptions of support services and the influence of targeted interventions on retention in distance education. *Distance Education, 31(5)*, 93-113. doi:10.1080/01587911003725048

Pallant, J. (2007). *SPSS Survival Manual. A Step by Step Guide to Data Analysis using SPSS for Windows*. McGraw-Hill: Open University Press.

Penjanfa, M., R& Ranjbar, R. (2012). *Jolly work book*. Jungle Publication. Tehran: Iran.

Sasaki, A., & Takeuchi, O. (2010). EFL students' vocabulary learning in NS-NNS email interactions: Do they learn new words by imitation? *ReCALL, 22*(1), 70–82.

Sims, R. (2000). An interactive conundrum: Constructs of interactivity and learning theory. *Australian Journal of Educational Technology, 16*(1), 45–57.

Stockwell, G. (2009). Teacher education in CALL: Teaching teachers to educate themselves. *Innovation in Language Learning and Teaching*, *3*(1), 99-112. doi:10.1080/17501220802655524

Walther, J. B. (1992). Interpersonal effects in computer-mediated interaction a relational perspective. *Communication research*, *19*(1), 52-90.

Wernham, S., & Lloyd, S. (2010). *Jolly phonics activity book*. Essex:UK.

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WRITTEN CORRECTIVE FEEDBACK AND THE CORRECT USE OF DEFINITE/INDEFINITE ARTICLES

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ABSTRACT

This study investigates the effectiveness of written corrective feedback–explicit/implicit, on increasing the correct use of definite/indefinite articles. To this end, sixty Iranian pre-intermediate EFL learners were randomly assigned to two experimental groups, receiving explicit and implicit feedback, respectively; and one control group receiving no feedback. Each group included twenty participants (N=20). The homogeneity test of KET preceded the treatment. Prior to the treatment, a pre-test was administered to gain insight into the participants' current command of English articles. After the treatment, the same set of tests was administered as post-test to assess the probable increase in the correct use of definite/indefinite articles for the experimental groups compared to the control group. Analysis of the results through two separate ANOVAs revealed that the experimental group 1 who received explicit corrective feedback significantly outperformed the experimental group 2 and the control group in terms of the correct use of indefinite articles. In terms of definite articles, there were no statistically significant differences among the three groups. The results of this study indicate that language learners benefit from teacher-provided feedback in improving their grammatical accuracy in writing. Furthermore, more research is merited as there is a lot to be investigated in this field.

Key Words: Corrective feedback, Explicit, Implicit, Noticing hypothesis.

INTRODUCTION

According to Erel and Bulut (2007), "Research on foreign and second language writing has mostly been based on why and how to respond to student writing" (p. 2). Most EFL and ESL teachers are of the opinion that responding to students' writing through appropriate corrective feedback (CF) is an inseparable part of any writing course and students require teacher feedback on their errors (Ferris & Roberts, 2001). Feedback in writing is also considered as an important aspect to the development of students' language perception so that they can perform effectively in producing the language.

With regard to the ever-increasing interest in teacher provided CF and its pedagogical benefits, a growing body of research has investigated the potential efficacy of written CF (WCF) and the way student errors are treated in language learning environments. This error treatment, according to Chaudron (1988) can be viewed as "any teacher behavior following an error that minimally attempts to inform the learner of the fact of error" (p. 150). Lightbown and Spada (1999) define CF as "Any indication to the learners that their use of the target language is incorrect; this includes various responses that the learners receive" (p. 171-172). This feedback encompasses the gap between what the learner has learned and his/her competence and the attempts made to bridge these gaps (Furnborough & Truman, 2009).

The effectiveness of WCF has been controversial regarding whether error correction is beneficial to the learning process or not. On the one hand, CF has proved to be effective in promoting language learning (Sheen, 2007; Lee, 1997); yet on the other hand, as Truscott (1996) claimed, it could be obstructive or even detrimental. In an extreme view on CF, Truscott argued that the application of CF on the learners' writing should be totally avoided as it hinders and harms writing development. According to Truscott, "grammar

correction has no place in writing courses and should be abandoned" (p. 328). In line with Truscott, Kepner (1991) also found that error feedback is not effective for developing accuracy in L2 student writing.

More recent studies support the positive contributions of CF to language learning and in particular writing skills (e.g., Bitchener & Knoch, 2008; Sheen, 2007). Gass (1997) also stated that CF enables learners to notice the "gap" between their interlanguage and the target language resulting in more focused and accurate learning. Additionally, in accordance with general research on language learning, CF studies have specifically focused on the ways CF can alter and promote "learning processes" and "linguistic competence" (Sheen, 2010b: 204). Soori and Abd. Samad (2011) also cite Yates and Kenkel (2002) and mention that the main concern nowadays is not to whether provide CF for the learners but rather "when and how to provide feedback on the students' errors" (p. 349). As cited in Rezaei, Mozaffari, and Hatef (2011), Schmidt's (1990, 1995, 2001) Noticing Hypothesis suggests that "noticing is a prerequisite of learning, continuing that conscious attention must be paid to input in order for L2 learning to proceed." (p. 22). Thus, CF provides learners with clues indicating what is wrong and draws their attention to erroneous forms.

Grammar accuracy and writing improvement have also been shown to benefit from feedback. CF on learners' writing will help them avoid the possibility of future errors and promote accuracy of their writing with more focus on meaning (Ashwell, 2000). According to Ferris (2010), "the studies on written CF … examine whether written CF facilitates long-term acquisition of particular linguistic features and if so, how" (p. 188). Soori and Abd. Samad also refer to Russell and Spada (2006) and state that they "investigated the impacts of corrective feedback on second language grammar learning. The outcomes of this study revealed that corrective feedback was helpful for L2 learning." (p. 350).

Furthermore, Erel and Bulut (2007) refer to various studies (e.g., Ferris & Roberts, 2001) for "motivating" and "encouraging" effects of WCF on learners and state that, "it is believed ... that if a teacher indicates a written grammatical error on a student's paper and provides the correct form in one or another way, the student will realize the error and will not repeat it in his/her future writings"; consequently, "the ability of writing accurately will be improved" (p. 398). Additionally, Ferris and Roberts's (2001) experiment with different types of WCF substantiated the efficacy of CF on improving learners' structural accuracy.

As stated by Erel and Bulut (2007), numerous studies (e.g., Ashwell, 2000; Ferris & Roberts, 2001; Leki, 1991; Chandler, 2003) show the effectiveness of CF in promoting lerners' writing skills as well as grammatical accuracy:

Teachers believe that correcting the grammar of student writers' work will help them improve the accuracy of subsequent writing. Research evidence on error correction in L2 writing classes shows that students who receive error feedback from teachers improve in accuracy over time. There is also research evidence which proves that students want error feedback and think that it helps them improve their writing skill in the target language. (p. 398).

Similarly, Leki (1991) and Zhang (1995) in their studies found out that the learners themselves greatly appreciate teacher-provided CF; this clearly shows that "L2 students have positive attitudes towards written feedback" (Kaweera & Usaha, 2008: 86). Ferris (1997) also found that CF provided by teachers led to the development of learners' writing skills. It is also noteworthy that, "many scholars and researchers agree that feedback is essential and has a positive effect on students' writing. Thus, feedback on writing can be selected as a means of helping students to make revision and can help students improve their writing skills" (Kaweera & Usaha, 2008:. 85).

According to Lyster and Ranta (1997), different types of CF have been identified including explicit, metalinguistic, elicitation, repetition, recast, translation, and clarification requests (see Appendix A for brief definitions and examples of CF strategies proposed by Lyster and Ranta, 1997 as cited in Sauro, 2009: 99). According to Rezaei et al. (2011), "all of these techniques are placed in an explicit-implicit continuum." (p. 22).

Findings on Written Corrective Feedback

In order to further explore the issue of CF in writing development, numerous researchers have focused on the effectiveness of different types of CF in dealing with learners' errors (e.g., Ferris & Roberts, 2001; Chandler, 2003; Bitchener, Young, & Cameron, 2005; Bitchener, 2008). These studies have focused on the continuum ranging from explicit (direct) to implicit (indirect) CF. Ferris (2002) defined explicit feedback as one "when an instructor provides the correct linguistic form for students (word, morpheme, phrase, rewritten sentence, deleted word[s] or morpheme[s]" (p.19). implicit feedback, on the other hand, "occurs when the teacher indicates that an error has been made but leaves it to the student writer to solve the problem and correct the error" (p.19). Sheen, Wright, Moldawa (2009) support direct and indirect CF and their contributions to writing development by stating that "…CF may enhance learning by helping learners to (1) notice their errors in their written work, (2) engage in hypotheses testing in a systematic way and (3) monitor the accuracy of their writing by tapping into their existing explicit grammatical knowledge" (p. 567).

According to Ellis's (2009) and Bitchener's (2008) findings, explicit CF provides learners with direct information as to what has gone wrong especially if learners are not proficient enough to come up with a solution to the problem. Explicit CF has also proved to enhance acquisition of certain grammatical structures (Sheen, 2007). As opposed to explicit CF, indirect CF does not provide learners with overt indicators to erroneous parts, nor does it provide the corrected structures. Instead, some clues or hints attract their attention to the problematic areas (Ferris & Roberts, 2001). It has also been argued that explicit CF, by nature, does not involve learners in deep internal processing as it is the case in implicit CF. Therefore, indirect CF is more probable to result in long-term learning than direct CF (Ferris & Roberts, 2001). Ferris (2002) argues that direct CF is more preferable to indirect CF when dealing with lower-level learners as they have not yet acquired enough grammatical knowledge to self-correct their errors.

Recent studies on CF also support the positive contribution of feedback to writing improvement (e.g., Chandler, 2003; Bitchener & Knoch, 2009; Bitchener, 2008). In an earlier study, Lalande (1982) showed that indirect CF had better results than direct CF in learning. As opposed to Lalande's (1982) findings, Chandler (2003) investigated different types of WCF, including direct and indirect types. She concluded that, direct CF had significant effects on the improvement of learners' writing grammar accuracy. Liang (2008) conducted an experiment with different groups of participants receiving different types of WCF as well. Results of this study showed that, both direct and indirect CF helped learners promote certain aspects of their writing.

As stated by Campillo (2003), Lightbown and Spada (1990) examined and "analysed the effect of explicit corrective feedback in an intensive communicative classroom. … Their results corroborated the hypothesis that the teaching of formal aspects … contribute to the learners' linguistic accuracy" (p. 210). Spada and Lightbown (1993) later conducted another study similar to their previous study demonstrating that "explicit corrective feedback increased linguistic accuracy" (Campillo, 2003: 211). Another study was undertaken by White, Spada, Lightbown, and Ranta (1991) comparing "the performance of explicit corrective feedback learners with those who didn't receive the treatment. … Again, the groups exposed to explicit teaching and explicit corrective feedback showed a higher level of linguistic accuracy than in control groups". Likewise, alongside with explicit CF, "implicit corrective feedback has also been widely investigated and can be implemented in different ways" (Campillo, 2003: 211).

Kim and Mathes (2001) examined the effectiveness of explicit and implicit CF; their findings revealed that the both types were quite effective in diminishing the chances of error repetition in the future. In a survey conducted by Ancker (2000), it was concluded that most of the surveyed learners supported the teacher-provided CF, whereas teachers indicated that it is not necessary to correct errors all the time as it might hinder negotiation of meaning. Nabel and Swain (2002) also investigated the degree of learners' awareness towards CF provided by the teacher.

Numerous studies (e.g., Lyster & Ranta, 1997; Panova & Lyster, 2002) have revealed that recasts are the most frequently used type of CF. Lyster and Ranta (1997) also conclude that recasts are beneficial as they reduce the

possibility of interruption in the flow of communication of meaning. Campillo (1993) also argues that, "nevertheless, not all corrective feedback techniques have been regarded as equally effective" (p. 212). He also refers to some recent studies (e.g., Lyster, 1998) and states the need "to explore the effect of combinations of corrective feedback, as opposed to isolated techniques" (p. 212) in a way that learners "can benefit from different ways of providing corrective focus on form" (Guenette, 2007: 47).

In conclusion, the literature on WCF indicates some inconsistencies in the research and studies so far. Zamel (1985) refers to Hendrikson in the early 1980s and says that "current research tells us very little about ESL teachers' responses to student writing. We know that teachers respond imprecisely and inconsistently to errors" (p. 84). Later on, Ferris (2004) emphasizes the little progress in this field and states that "we are virtually at Square One, as the existing research base is incomplete and inconsistent, and it would certainly be premature to formulate any conclusions about this topic" (p. 49). Therefore, the main purpose of this study is to gain further insight into the preferences of Iranian EFL learners for error correction techniques and the effectiveness these techniques on increasing the correct use of articles in their writing.

The Present Study

The present brief survey of the related literature reveals that most investigation in this field have so far primarily dealt with the impact of recasts and meta-linguistic types of corrective feedback in ESL contexts (e.g., Kim & Mathes, 2001; Loewen, 2002; Lyster, 2004). In addition, Dabaghi Varnosfadrani (2006) refers to various researches (e.g., Havranek & Cesnik, 2003; Muranoi, 2000) and states that not enough studies "have investigated the effectiveness of error correction in EFL contexts" (p. 35). Therefore, the aim of the present study was to investigate the extent to which written CF such as explicit and repetition implicit might be effective in promoting Iranian EFL learners' correct use of English articles which, according to Faghih (1997), are among the most difficult and troublesome features of EFL for learners and the following research questions were proposed:

Q1. Does written corrective feedback have any significant effect on increasing Iranian EFL learners' correct use of *definite* article?

Q2. Does written corrective feedback have any significant effect on increasing Iranian EFL learners' correct use of *indefinite* articles?

METHOD

Participants

The participants of this study consisted of adult pre-intermediate EFL learners from the Iran Language Institute (ILI) in Tehran aged 16 or more whose mean age was 22. The reason for selecting pre-intermediate learners was that it was assumed that since they were post beginners, they were already familiar with the basics of EFL syntax. In order to make sure of the learners' homogeneity, Key English Test (KET, 2009), developed by Cambridge University, was administered prior to the treatment. Out of the subject pool, sixty participants (N=60) were randomly identified as two experimental groups and one control group, i.e., each group consisted of twenty participants (N=20). The experimental group 1 received explicit corrective feedback, the experimental group 2 received implicit repetition corrective feedback, and the control group received placebo feedback.

Instruments

The participants of this study were presented with their regular coursebooks developed by the ILI. Pre-intermediate coursebooks at the ILI comprise of eight units and each unit is further divided into two sections and every section is covered in one session lasting for an hour and forty-five minutes. Session one covers conversation, grammar, and vocabulary. Session two covers reading, grammar, and listening. Classes are held twice a week. The total of twenty-one sessions covers the whole term for each of the three pre-intermediate levels at the ILI. Prior to the treatment, the participants received the pre-test of articles. Then, they received the written treatment. At the end of the treatment, the same set of tests was administered as post-test. Pre-test and post-test items were as follows:

1. Definite/indefinite articles:

1.1. Twenty-two independent sentences to be filled with appropriate articles including thirty-six gaps for *the*, twenty gaps for *a*, and seven gaps for *an* (Neylor & Murphy, 1996; Vince & Emmerson, 2003; Murphy, Altman, & Rutherford, 1989).
1.2. Twenty-seven independent sentences to be filled with appropriate articles or no article (Walker & Elsworth, 2000).

Procedure

Prior to the treatment, the participants were presented with the pre-test to provide the researcher with clear picture of their current level of proficiency on articles. Then, they were told that they were supposed to write at least one paragraph or maximum two consisting of 150 to 200 words at the beginning of each session. From the second session on, they were required to write on a topic in line with their regular coursebook contents provided by the researcher in the classroom. All the participants in the three groups received the same topic every session. The total of twenty writing topics was provided for the participants during the experiment. The experimental group 1 received explicit corrective feedback, i.e., the instructor indicated that an error had been made, identified the error and provided the correction, to which repetition was required by the participants as modified output.

The experimental group 2 received implicit repetition corrective feedback, i.e. the instructor utilized emphatic stress by underlining the erroneous part(s), to which reformulation by the participants was required as modified output. It is worth mentioning that the role of the emphatic stress was thoroughly explained to the participants because it required the participants to grammatically correct the underlined parts by adding, deleting, changing, and modifying the surrounding or within words. It was also emphasized that the underlined words had nothing to do with spelling mistakes.

In order to make sure of noticing the teacher-provided CF, the participants of the experimental groups were obliged to provide their modified output as an independent piece of writing after having written on the next topic.

The control group received placebo feedback, i.e., “topic relevant response that does not contain the target form in the same context”, for example: “student: In Sweden the global warming is a problem. Native speaker: Many people believe it's a problem everywhere” (Sauro, 2009: 104) to which no modified output was required.

Teacher-provided CF for the experimental groups mainly focused on the correct use of definite/indefinite articles. Other grammatical deviations were not brought to their attention. At the end of the treatment, the participants of the three groups were presented with the same sets of tests as the post-test assessing the extent to which the treatment was successful in enhancing the experimental groups’ ability over the control group’s to correctly apply the articles. This study was conducted within the period of 10 weeks in the spring semester of 1393(2014) at the ILI in Tehran.

RESULTS AND DISCUSSION

Having collected the required data, two one-way ANOVAs were calculated to investigate the effectiveness of the treatment in increasing learners’ correct use of definite/indefinite articles. Differences among the experimental and control groups’ means were considered significant at the p=.05 level of significance.

Analysis of the Results on the Pre-Test of Articles

In order to investigate the relationship among the participants’ scores on the pre-test of definite and indefinite articles before the treatment, two separate one-way ANOVAs were run. The results of the one-way ANOVA showed no statistically significant difference at the p=.05 level of significance for the three groups in terms of the correct use of definite article: $F(2, 57) = .954$, $p = .391$. The descriptive statistics on definite article are shown in the following table.

Table 1: Descriptive statistics on definite article

Groups	N	Mean	Std. Deviation	Std. Error	Minimum score	Maximum score
Experimental 1 (Explicit)	20	29.30	2.296	.514	26	34
Experimental 2 (Implicit)	20	30.00	2.938	.657	23	36
Control	20	30.45	2.685	.600	24	35

With regard to indefinite articles, the results of the one-way ANOVA showed no statistically significant difference at the *p*=.05 level of significance for the three groups: F (2, 57) =2.623, *p* = .081. The descriptive statistics on indefinite articles are shown in the following table.

Table 2: Descriptive statistics on indefinite articles

Groups	N	Mean	Std. Deviation	Std. Error	Minimum score	Maximum score
Experimental 1 (Explicit)	20	20.95	2.350	.526	16	25
Experimental 2 (Implicit)	20	22.60	2.371	.530	18	27
Control	20	21.50	2.236	.500	18	26

The differences between the groups' mean scores on definite/indefinite articles prior to the treatment are presented in the following figure.

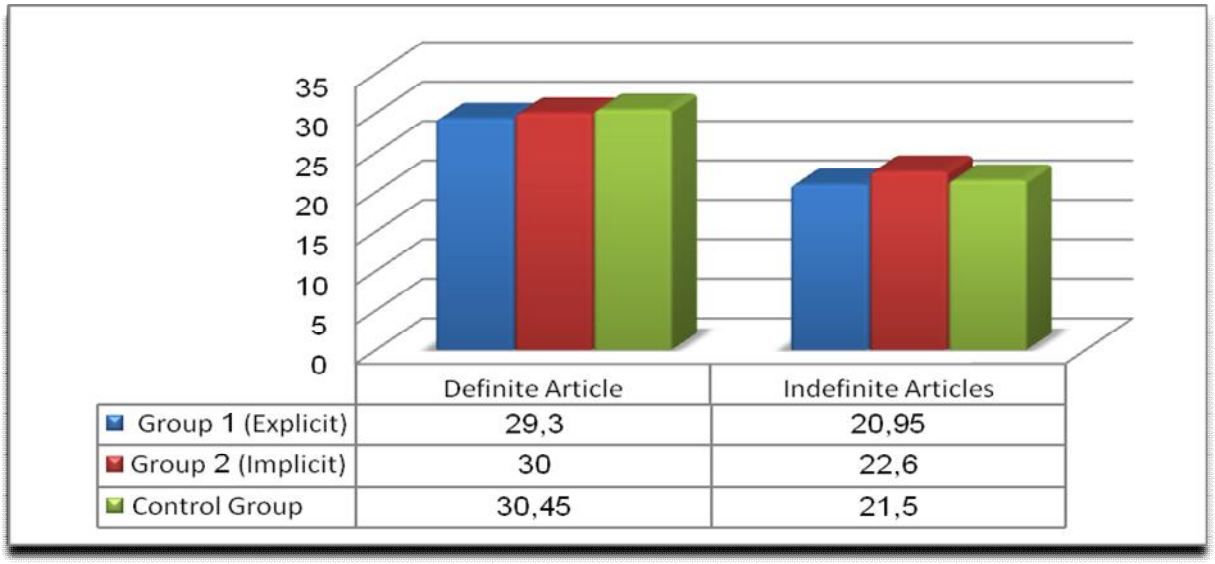


Figure 1: Group means on definite and indefinite articles

With regard to the analysis of the results, it became apparent that there was no statistically significant difference among the participants of the three groups in terms of their current proficiency in articles prior to the treatment at the p=.05 level of significance and therefore, their homogeneity was guaranteed.

Analysis of the Results on the Post-Test of Articles

In order to investigate the relationship among the participants' scores on the post-test of definite and indefinite articles after the treatment, two separate one-way ANOVAs were run. The results of the one-way ANOVA showed no statistically significant difference at the *p*=.05 level of significance for the three groups in terms of the correct use of definite article: F (2, 57) =2.487, *p* = .092. The descriptive statistics on definite article are shown in the following table.

Table 3: Descriptive statistics on definite article

Groups	N	Mean	Std. Deviation	Std. Error	Minimum score	Maximum score
Experimental 1 (Explicit)	20	31.80	1.963	.439	28	36
Experimental 2 (Implicit)	20	33.40	3.844	.860	27	40
Control	20	31.15	3.703	.828	24	37

With regard to indefinite articles, the results of the one-way ANOVA showed statistically significant differences at the *p*=.05 level of significance for the three groups after the treatment: F (2, 57) =25.162, *p* = .000 < .05. The descriptive statistics on indefinite articles are shown in the following table.

Table 4: Descriptive statistics on indefinite articles

Groups	N	Mean	Std. Deviation	Std. Error	Minimum score	Maximum score
Experimental 1 (Explicit)	20	25.90	1.944	.435	23	31
Experimental 2 (Implicit)	20	22.90	2.125	.475	18	27
Control	20	21.65	1.755	.393	19	26

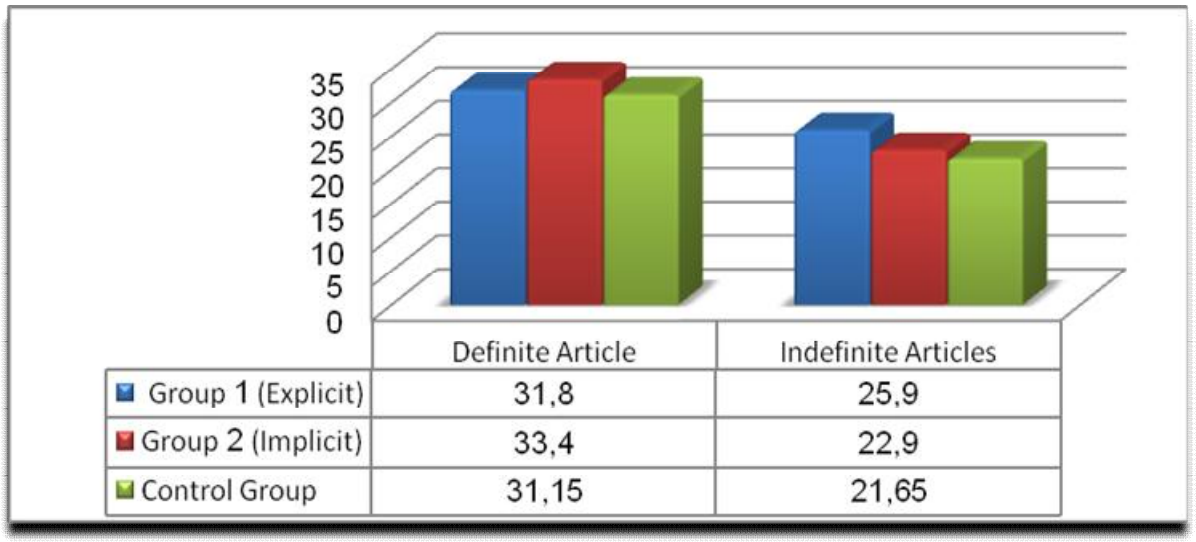
Additionally, to find out where the difference(s) lie regarding the mean scores of the three groups, post-hoc comparisons through the Tukey HSD tests were carried out. The following table summarizes the results of post-hoc tests.

Table 5: Post-hoc tests results on indefinite articles

Groups	Groups	Mean Difference	Std. Error	Sig.
Experimental 1 (Explicit)	Experimental 2 (Implicit)	3.000*	.616	.000
	Control	4.250*	.616	.000
Experimental 2 (Implicit)	Experimental 1 (Explicit)	-3.000*	.616	.000
	Control	1.250	.616	.114
Control	Experimental 1 (Explicit)	-4.250*	.616	.000
	Experimental 2 (Implicit)	-1.250	.616	.114

*. The mean difference is significant at the 0.05 level.

Table 5 shows that the mean differences between the experimental group 1 (M=25.90, SD=1.944) and the experimental group 2 (M=22.90, SD=2.125), and the experimental group 1 and the control group (M=21.65, SD=1.755) were statistically significant with the significance levels of .000 < .05. There was no statistically significant difference between the experimental group 2 and the control group since the level of significance was .114 > .05. The differences between the groups' mean scores on definite and indefinite articles are presented in the following figure.



	Definite Article	Indefinite Articles
Group 1 (Explicit)	31,8	25,9
Group 2 (Implicit)	33,4	22,9
Control Group	31,15	21,65

Figure 2: Group means on definite and indefinite articles

Given this limited range of studies, the present study sought to expand the base by investigating the effect of different types of CF on the accuracy performance of the targeted linguistic error categories in learners' pieces of writing. Although most studies support the efficacy of feedback on improving structural accuracy (e.g., Lyster & Ranta, 1997; Campillo, 2003), the results of the present study both negate and support this tenet. In this respect, it can be stated that whereas Ferris et al. (2000) found no reduction in article errors, Ferris and Roberts (2001) reported some increase in the accurate use of articles. This difference in findings of the previous studies is not altogether surprising when one considers the complex rule structure associated with the correct usage of definite/ indefinite articles in different linguistic environments (Master, 1995).

Research question 1 dealt with the investigation of whether the teacher-provided CF could increase the correct use of definite article, i.e., *the*. The results revealed no statistically significant improvement for the experimental groups over the control group.

Research question 2 dealt with the investigation of whether the teacher-provided CF could increase the correct use of indefinite articles, i.e., *a* and *an*. The results showed that the experimental group 1 who received explicit CF significantly outperformed both the experimental group 2 who received implicit repetition CF and the control group. But the experimental group 2 did not show any significant improvement over the control group.
The findings of the first research question proved to be controversial compared to the current view on the effectiveness of CF as no significant results were found regarding increasing the correct use of definite article for the experimental groups over the control group. Apparently, the findings are in line with an earlier view held by Truscott (1996) claiming that "grammar correction has no place in writing courses and should be abandoned" (p. 328). Fazio (2001) also did not find support for the effectiveness of CF on accuracy. Regarding Iranian learners, Faghih (1997) noted that articles are among the most difficult and troublesome features of EFL for all learners. In support of the present study, Adams, as early as 1962, maintained that "Persians tend to omit *the*, although they do use it unexpectedly" (p.57). Additionally, Faghih and Hosseini (2012) conducted a study on the effectiveness of online CF on the correct use of definite article and no significant results were reported. However, in contrast, by looking at a variety of studies in the field (e.g., Lee, 1997; Sheen, 2007; Faghih & Hosseini, 2012; Hosseni, 2012; Hosseini, 2013) and also the findings of the second research question, it would be wrong to generalize these findings to all aspects of language learning and CF as there is ample evidence confirming the applicability and efficacy of CF on grammar improvement.

Findings of the first research question can be accounted for if we look at Persian and English contrastively. Generally, Iranian EFL learners are already familiar with indefinite articles. For example:

Persian: /man yek ketab va yek sib daram. ketab ra doost daram. /
Transliteration: (I a book and an apple have. Ø book like I.)
English translation: (I have a book and an apple. I like the book.)

By looking at these examples, it becomes apparent that indefinite articles are already present in Iranians' interlanguage and they can positively transfer them into their target language thus, benefiting from the CF explicitly provided by the teacher. In contrast, English definite article is not present in Persian, as it is shown in the aforementioned example by the sign Ø. Thus, learners might have negatively transferred incorrect structures into their target language. Accordingly, following reasons may as well account for the results. First, definite article might require deeper levels of processing than indefinite articles as it should be acquired after indefinite ones and it is not present in learners' interlanguage. Second, the treatment that both of the experimental groups received might have not been effective in enabling them to apply the correct use of definite article in different testing instruments. Third, since by answering the items of indefinite articles, the definite article items automatically revealed themselves, the control group might have successfully drawn on their previous knowledge on indefinite articles to answer definite article instruments. Fourth, the participant of this study might have had previous experiences in learning EFL affecting the testing results. Fifth, psychological factors might have affected their performance on the test, since reminding learners of their mistakes might act as psychological barriers to their uptaking of the teacher-provided feedback resulting in the inefficacy of the treatment. On the other hand, the control group might have interpreted their writings as perfect, since they didn't receive any feedback.

Explicit CF proved effective in drawing learners' attention to the differences between their output and target norm. Therefore, the findings of the second research question support Schmidt's (1990) Noticing Hypothesis in enabling learners to notice the gap resulting in the improvement of grammar accuracy. Fathman and Whalley (1990) also found that students who received CF made fewer errors. Accordingly, superiority of explicit corrective feedback in increasing the correct use of indefinite articles by Iranian EFL learners further supports St. John and Cash (1995) findings on the efficacy of CF on the structural accuracy of learners' written output. Bitchener et al. (2005) found out that explicit written feedback increases the correct use of articles and is quite effective when the grammatical error is rule governed, such as articles and present tenses. Similarly, Ellis, Sheen, Murakami, and Takashima (2008) supported the efficacy of feedback on increasing the correct use of articles. The results of the present study are also in line with the findings of Bitchener (2008), Bitchener and Knoch (2009), and Ellis et al. (2008), confirming the effectiveness of explicit corrective feedback on indefinite articles. In a series of recent studies conducted by Faghih and Hosseini (2012) and Hosseini (2012, 2013), it was found that WCF can improve low-level English learners grammatical structures such as indefinite articles, prepositions, and tenses. This superiority can be due to various factors. First, Iranian EFL learners generally tend to rely on their teachers to provide them with correct structures when they make mistakes. In this sense, they are most responsive when teachers locate the error, correct it, and require them to modify their language. Second, they tend to overlook teacher-provided CF especially on their writings when the incorrect structure is indirectly brought to their attention. Third, they tend to use erroneous structures less frequently for which teachers provide some clues and they fail to apply them correctly.

Additionally, with respect to the aforementioned reasons, the experimental group 2 who received implicit corrective feedback showed no significant improvement over the control group. This could be due to the fact that the participants had low proficiency levels and implicitly requiring them to correct their errors might have demanded deeper levels of processing than correcting explicitly which they might lack at this stage (Roper, 1977). In other words, the learner's "proficiency level was not high enough to understand why they made such errors. If the learners didn't know about the rules of definite/indefinite articles, it may have caused confusion when they were using articles" (Lu, 2010: 97–98).

CONCLUSION

In this study, the impact of written corrective feedback on increasing the correct use of indefinite/definite articles was investigated. On the basis of the results, it became evident that explicit CF had a significant effect on increasing the correct use of indefinite articles but failed to increase the correct use of definite article. In the same sense, implicit CF didn't have any significant effects on increasing the correct use of definite and indefinite articles over both the experimental group 1 and the control group. Regarding appropriate feedback, Researchers have long since sought to provide evidence and plausible answers to the questions proposed by Hendrickson (1978) but so far, have not been successful in drawing a clear picture of different aspects of CF. These five questions on CF have been the basis for most of the ongoing studies in this field. According to Hendrickson (1978), CF generally should aim at answering the following questions:

"1. Should learner errors be corrected?
2. If so, when should learner errors be corrected?
3. Which learner errors should be corrected?
4. How should learner errors be corrected?
5. Who should correct learner errors?" (p. 389)

The findings of the present study also provide further implications as to the positive contributions of written CF to second and foreign language learning. In conclusion, it is believed that the findings of this study are motivating since the way teachers react to learners' language production errors play a vital role in their future learning. Interested researchers are also encouraged to experiment on different aspects of the language using various or combinations of feedback techniques as there is still plenty of room for further research in this field.

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REFERENCES

Adams, A. (1962). Where is THE? *Some Contrastive Pattern Practices Language Learning, 12*(1), 57-67.

Ancker, W. (2000). Errors and corrective feedback: updated theory and classroom practice. *Forum*, 38 (4), 20–28. Retrieved June 21, 2007 from http://exchanges.state.gov/forum/vols/vol38/no4/p20.htm

Ashwell, T. (2000). Patterns of teacher response to student writing in a multiple-draft composition classroom: Is content feedback followed by form feedback the best method? *Journal of Second Language Writing, 9*(3), 227–258.

Bitchener, J. (2008). Evidence in support of written corrective feedback. *Journal of Second Language Writing, 17*(2), 102–118.

Bitchener, J., Young, S., & Cameron, D. (2005). The effect of different types of corrective feedback on ESL student writing. *Journal of Second Language Writing, 14*(3), 191–205.

Bitchener, J., & Knoch, U. (2008). The value of a focused approach to written corrective feedback. *ELT Journal, 63*(3), 204–211.

Bitchener, J., & Knoch, U. (2009). The relative effectiveness of different types of direct written corrective feedback. *System, 37*(2), 322–329.

Campillo, P. S. (2003). An Analysis of Implicit and Explicit Feedback on Grammatical Accuracy. *Journal of English and American Studies, 27*, 209–228.

Chandler, J. (2003). The efficacy of various kinds of error feedback for improvement in the accuracy and fluency of L2student writing. *Journal of Second Language Writing, 12*(3), 267–296.

Chaudron, C. (1988). *Second language classrooms: Research on teaching and learning*. Cambridge, UK: Cambridge University Press.

Dabaghi, V. A. (2006). *A Comparison of the Effects of Implicit/Explicit and Immediate/Delayed Corrective Feedback on Learners' Performance in Tailor-Made Tests.* Unpublished doctoral dissertation, Auckland University, New Zealand.

Ellis, R. (2009). A typology of written corrective feedback types. *ELT Journal, 63*(2), 97–107.

Ellis, R., Sheen, Y., Murakami, M., & Takashima, H. (2008). The effects of focused and unfocused written corrective feedback in English as a foreign language context. *System, 36*(3), 353–371.

Erel. S., Bulut, D. (2007). Error Treatment in L2 Writing: A Comparative Study of Direct and Indirect Coded Feedback in Turkish EFL Context. *Sosyal Bilimler Enstitüsü Dergisi Sayı, 22*, 397–415.

Faghih, E. (1997, May). A Contrastive Analysis of the Persian and English Definite Articles. *IRAL, 35*(2), 127–138.

Faghih, E., & Hosseini, S. B. (2012, January). Asynchronous Computer-Mediated Corrective Feedback and the Correct Use of Definite/Indefinite Articles. *International Journal of Instructional Technology and Distance Learning, 9*(1), 21–36.

Fathman, A., & Whalley, E. (1990). Teacher response to student writing: Focus on form versus content. In B. Kroll (Ed.), *Second language writing: Research insights for the classroom* (pp. 178–190). Cambridge: Cambridge University Press.

Fazio, L. (2001). The effect of corrections and commentaries on the journal writing accuracy of minority- and majority- language students. *Journal of Second Language Writing, 10*, 235-249.

Ferris, D. R. (1997). The influence of teacher commentary on student revision. *TESOL Quarterly, 31*(2), 315–339.

Ferris, D. R. (2002). *Treatment of error in second language student writing*. Ann Arbor: University of Michigan Press.

Ferris, D. R. (2004). The "grammar correction" debate in L2 writing: Where are we, and where do we go from here? (and what do we do in the meantime . . . ?). *Journal of Second Language Writing, 13*, 49–62.

Ferris, D. R (2010). Second language writing research and written corrective feedback in SLA: Intersections and practical application. *Studies in Second Language Acquisition, 32*(2), 181–201.

Ferris, D. R., & Roberts, B. (2001). Error feedback in L2 writing classes: How explicit does it need to be? *Journal of Second Language Writing, 10*(3), 161–184.

Ferris, D. R., Chaney, S. J., Komura, K., Roberts, B. J., & McKee, S. (2000). *Perspectives, problems, and practices in treating written error*. In Colloquium presented at International TESOL Convention, Vancouver, B.C., 14–18.

Furnborough, C., & Truman, M. (2009). Adult beginner distance language learner perceptions and use of assignment feedback. *Distance Education, 30*, 399-418.

Gass, S. (1997). *Input, Interaction, and the Second Language Learner*. Mahwah, NJ: Lawrence Erlbaum.

Guenette, D. (2007). Is feedback pedagogically correct? Research design issues in studies of feedback on writing. *Journal of Second Language Writing, 16*(1), 40–53.

Havranek, G., & Cesnik, H. (2003). *Factors affecting the success of corrective feedback*. In S. Foster-Cohen & A. Nizegorodzew (Eds.), EUROSLA Yearbook, 1, 99-122.

Hendrickson, J. M. (1978). Error correction in foreign language teaching: Recent theory, research, and practice. *Modern Language Journal, 62*(8), 387–398.

Hendrickson, J. M. (1980). *Error correction in foreign language teaching: Recent theory, research, and practice.* In K. Croft (Ed.) Readings on English as a second language (pp. 153–173). Cambridge, MA: Winthrop.

Hosseini, S. B. (2012, October). Asynchronous Computer-Mediated Corrective Feedback and the Correct Use of Prepositions: Is It Really Effective? *Turkish Online Journal of Distance Education, 13*(4), 95–111.

Hosseini, S. B. (2013, January). The Impact of Asynchronous Computer-Mediated Corrective Feedback in Increasing Iranian EFL Learners' Correct Use of Present Tenses. *International Journal on New Trends in Education and Their Implications, 13*(1), 138–153.

Kaweera, C., & Usaha, S. (2008). The Impact of Different Types of Teacher Written Feedback on EFL University Students' Writing. *KKU Res J (GS), 8*(2), 83– 94.

Kepner, C. G. (1991). An experiment in the relationship of types of written feedback to the development of second-language writing skills. *Modern Language Journal, 75*(3), 305-313.

Kim, H-R., & Mathes, G. (2001). Explicit vs. implicit feedback. *The Korean TESOL Journal, 4*(1), 57–72. Retrieved June 21, 2007, from http://www.kotesol.org/files/u1/KTJ2001.zip

Lalande, J. F. (1982). Reducing composition errors: An experiment. *The Modern Language Journal, 66*(2), 140–149.

Lee, L. (1997). ESL learners' performance in error correction in writing. *System, 25*(4), 465–477.

Leki, I. (1991). The preferences of ESL students for error correction in college-level writing classes. *Foreign Language Annals, 24*(3), 203–218.

Loewen, S. (2002). *Attention to Grammar in Incidental Focus on Form*. Unpublished doctoral dissertation. Auckland University, New Zealand.

Liang, Y. (2008). The effects of error feedback in second language writing. *Second Language Acquisition and Teaching, 15*, 65–79.

Lightbown, P. M., & Spada, N. (1990). Focus on form and corrective feedback in communicative language teaching: Effects on second language learning. *Studies in Second Language Acquisition, 12*(4), 429–448.

Lu, Y. (2010). *The value of direct and indirect written corrective feedback for intermediate ESL students*. Unpublished Dissertation, Auckland University of Technology.

Lyster, R., & Ranta, L. (1997). Corrective feedback and learner uptake: Negotiation form in communicative classrooms. *Studies in Second Language Acquisition, 19*, 37–66.

Lyster, R. (1998). Recasts, repetition and ambiguity on L2 classroom discourse. *Studies in Second Language Acquisition, 20*(1), 51–81.

Lyster, R. (2004). Differential effects of prompts and recasts in form-focused instruction. *Studies in Second Language Acquisition, 26*(3), 399-432.

Master, P. (1995). Consciousness raising and article pedagogy. In D. Belcher, & G. Braine (Eds.), *Academic writing in a second language: Essays on research and pedagogy*. Ablex Publishing Corporation: Norwood, NJ.

Muranoi, H. (2000). Focus on form through interaction enhancement: Integrating formal instruction into a communicative task in EFL classrooms. *Language Learning, 50*(4), 617-673.

Murphy, R., Altman, R., & Rutherford, W. E. (1989). *Grammar in Use: Reference and Practice for Intermediate Students of English*. Cambridge: Cambridge University Press.

Nabel, T., & Swain, M. (2002). Learner awareness of recasts in classroom interaction: A case study of an adult EFL student's second language learning. *Language Awareness, 11*(1), 43–63.

Neylor, H., & Murphy, R. (1996). *Essential Grammar in Use Supplementary Exercises*. Cambridge: Cambridge University Press.

Panova, I., & Lyster, R. (2002). Patterns of corrective feedback and uptake in an adult ESL classroom. *TESOL Quarterly, 36*(4), 573–595.

Rezaei, S., Mozaffari, F., & Hatef, A. (2011, March). Corrective Feedback in SLA: Classroom Practice and Future Directions. *International Journal of English Linguistics, 1*(1), 21–29.

Roper, W. J. (1977). Feedback in computer assisted instruction. *Programmed Learning and Educational Technology, 14*(1), 43–49.

Russell, J., & Spada, N. (2006). The effectiveness of corrective feedback for the acquisition of L2 grammar. In J. D. Norris, & L. Ortega (Eds.), *Synthesizing Research on Language Learning And Teaching* (pp. 133–164). Philadelphia: John Benjamins.

Sauro, S. (2009, February). Computer-mediated corrective feedback and the development of L2 Grammar. *Language Learning and Technology, 13*(1), 96–120. Retrieved April, 19, 2010, from http://llt.msu.edu/vol13num1/sauro.pdf

Schmidt, R. (1990). The role of consciousness in second language learning. *Applied Linguistics, 11*(2), 129–158.

Schmidt, R. (1995). Consciousness and foreign language learning: A tutorial on the role of attention and awareness in learning. In R, Schmidt (Ed.), *Attention and awareness in foreign language learning* (pp. 1–63). Honolulu: University of Hawaii Press.

Schmidt, R. (2001). Attention. In P. Robinson (Eds.), *Cognition and second language acquisition* (pp. 3–32). Cambridge: Cambridge University Press.

Sheen, Y. (2007). The effect of focused written corrective feedback and language aptitude on ESL learners' acquisition of articles. *TESOL Quarterly, 41*(2), 255–283.

Sheen, Y. (2010b). Differential effects of oral and written corrective feedback in the ESL classroom. *Studies in Second Language Acquisition, 32*(2), 203–234.

Sheen, Y., Wright, D. & Moldawa, A. (2009). Differential effects of focused and unfocused written correction on the accurate use of grammatical forms by adult ESL learners. System, 37(4), 556–569.

Soori, A., & Abd. Samad. A. (2011). The Efficacy of Immediate and Delayed Corrective Feedback in the Correct Use of English Definite and Indefinite Articles. *Journal of American Science, 7*(4), 349–354.

Spada, N., & Lightbown, P.M. (1993). Instruction and the development of questions in L2 classrooms. *Studies in Second Language Acquisition, 15*(2), 205–224.

Truscott, J. (1996). The case against grammar correction in L2 writing classes. *Language Learning, 46*(2), 327–369.

Vince, M., & Emmerson, P. (2003). *Language Practice: First Certificate with Key*. London: Macmillan.

Walker, E., & Elsworth, S. (2000). *Grammar Practice for Elementary Students*. London: Longman.

White, L., Spada, N., Lightbown, P. M., Ranta, L. (1991). Input enhancement and L2 question formation. *Applied Linguistics, 12*(4), 416–432.

Yates, R., Kenkel, J. (2002). Responding to sentence-level errors in writing. *Journal of Second Language Writing, 11*(1), 29–47.

Zamel, V. (1985). Responding to student writing. *TESOL Quarterly, 19*, 79–101.

Zhang, S. (1995). Reexamining the affective advantage of peer feedback in the ESL writing class. *Journal of Second Language Writing, 4*(3), 209–222.

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Appendix A

Characteristics of Lyster & Ranta's (1997) categories of corrective feedback

Corrective Feedback Type	Definition	Example(s)	Nature of Error Indicated	Target-like Reformulation Provided	Elicited Output
Explicit Error Correction	Explicit provision of the target-like reformulation	You should say visited.	Yes	Provided directly	None or repetition
Metalinguistic Feedback	Comments, information or questions (that may or may not contain metalanguage but do not include the reformulation) related to the ill-formedness of the utterance	There's a mistake.	No	No	Identification of error and/or reformulation
		It's past tense.	Yes	Provided indirectly through metalinguistic hint at correct reformulation	Reformulation
		Did you use the past tense?	Yes	Provided indirectly through metalinguistic question concerning rule governing reformulation	Metalinguistic response, yes/no response, or reformulation
Elicitations	A prompt for the learner to reformulate	Try that again.	No	No	Reformulation
		How do we say that in the past tense?	Yes	No	Reformulation
		Yesterday we ...	Sometimes	No	Reformulation
Repetitions	Repetition of all or part of the utterance containing the error, often accompanied by a change in intonation	Yesterday we visit my aunt.	Sometimes	No	None or repetition
Recasts	Implicit reformulation of all or part of the learner's utterance	Yesterday we visited my aunt.	Yes	Reformulation provided	Repetition
		I visited my aunt last week.	Yes	Reformulation provided	Repetition
Translations	Target language translation of unsolicited use of the L1.	***	Yes	Reformulation provided	Repetition
Clarification Requests	An utterance indicating a problem in comprehension, accuracy or both.	Pardon?	No	No	Repetition, reformulation, or meaning elaboration

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GRAMMAR GLEAMING: TOWARD A HUMANISTIC APPROACH

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ABSTRACT

Although the bulk of the research in second language acquisition has highlighted the significance and necessity of grammar instruction in EFL contexts, fertility of challenges, debates and grammar methods concerning how to teach grammar more effectively has put EFL teachers in a state of dilemma and confusion. The current paper historically and critically examined grammatical perspectives and approaches from 1950 to 2014 with the aim of empowering EFL teachers to get rid of monotony, repetition, memorization and frustration of grammar classes as often quoted by students. Being aware of there is no size to fit all, the researcher suggested that more humanistic approach is needed to teach grammar due to peculiarity of grammar classes compared with other classes. Teachers are suggested to be primarily sensitive to the students' affective factors and their positive emotions in a learner-centered setting to stimulate enjoyment and relaxation. Unlike traditional methods which mainly dealt with grammar instruction with respect to cognition, current views on teaching grammar emphasize a high correlation between grammar and affection. Meanwhile, teachers should also be cautious and autonomous in selecting and integrating grammar techniques due to mediating effect of contextual factors so that they can teach all the students.

Key Words: EFL grammar instruction, critical and historical overview, humanistic approach.

INTRODUCTION

After twenty years of teaching English in Iran, I am frequently interrupted by questions from my learners: 'Is it grammatically correct, teacher"? "Could you introduce me a good grammar book?" What is the difference between 'who' and 'whom'? Some learners are also afraid of producing language in my classes due to the fear of committing grammatical errors. In fact, they are right. Without grammar, sentences become meaningless and confusing. Ellis (2006) argued that teachers still need to resolve the issue of grammar instruction. Ur (1994) stated that grammar- manipulating and combining words to builds larger units of meaning- is essential for mastery of language. Thombury (1999) argued that grammar governs sentences and it communicates meaning. Azar (2007) pointed out the grammar mastery is inevitable and essential since it allows learners to discover the nature of language. Lightwon (1391) & Ellis (2006) suggested teaching grammar even in initial stages of SLA help learners to develop a basis for later learning. The debate between to teach or not teach grammar is no longer valid. Therefore, very few studies deny the invaluable role of grammar instruction for successful mastery of second language acquisition. The debate is how to teach grammar?

Grammar is not only the concern of EFL learners but also a serious concern of EFL teachers as well. There has always been debate about the most effective way to teach grammar. Gladys Jean & Daphnee Simard (2011) argued that grammar teaching and learning in EFL contexts are necessary but boring. Teachers have been surrounded by different methods to teach grammar. The majority of these methods have dealt with the cognition of the learners and neglected the affective dimension of grammatical competence. As quoted by the learners, the most exhausting and boring classes are grammar classes in EFL contexts.

While grammar classes are often associated with tiredness, frustration and lack of concentration, affect and emotion have received little attention in such classes. To develop a grammar competence, learners have to go through some developmental stages. They tend to backslide to previous stages. It implies that learners in grammar classes make frequent errors as they are inevitable part of the grammar growth. Although these

errors help both teachers and learners in the processes of learning, they may demoralize learners. In fact, the pernicious effect of grammatical errors should not be neglected on the learners' affections and emotions. They may shape the wrong perceptions that they are no making progress. Grammar teachers are suggested to pay special attention to the generations of positive emotions and feelings. Garret & Young (2009) asserted that 'affect and emotion are terms that have been in the shadows of discussions of foreign language learning, where the primary focus has been on the development of knowledge and the use of new knowledge.

Grammar misconceptions

The widespread misconceptions about grammar are not rare. May be, grammar is one part of language that has experienced many ups and downs. The simple one is that language is an area of knowledge rather than skill. Some think that grammar is just accuracy while grammar means using language accurately, meaningfully and appropriately. (Celece Murcia, 2001). A number of EFL teachers wrongly claim that explicit grammar teaching is not needed since language is acquired implicitly. This may be true for the contexts where learners are sufficiently exposed to daily use of language. Another misconception is that there is always one correct answer without considering the context and circumstances under which the sentence has been used. (Larsen Freeman, 2003). A big mistake was also made by Krashen in his so called 'non interface position' that grammar is not needed at all!

Grammar and the dualism problem

Grammar theories, like the majority of SLA theories, suffer from the issue of dichotomy which reduces the complexity of the issue. Prescriptive grammars were concerned with formality-informality debate. Generative grammarians dealt with core-peripheral dichotomy, Halliday's systemic functional grammar detected form-function bipolarity. Van Patton's input processing model stressed form-meaning connection. Tomasello's usage based grammar emphasized item by item grammar instruction. Debates between explicit vs. implicit; and inductive vs. deductive methods of grammar instruction are further examples of the dualism problem. The dualistic nature of the grammar reduces its complexity in that it restricts grammar into two distinct categories. This notion is incompatible with the principles of pedagogical grammar, the kind of grammar used in applied linguistics, describing how grammar should be taught in EFL classrooms.

Grammar and continuity of an 'inert knowledge' problem (1920)

EFL learners often find it difficult to transfer the grammar they perform in formal settings to communicative settings in and outside the classroom. Alfred North Whitehead in 1929 coined, 'inert knowledge', the kind of explicit passive grammar knowledge that learners have in mind but unable to put into use in different contexts. Related to this notion is Jack C. Richards's (2014) distinction between grammatical *knowledge* from grammatical *ability*. The former is judgment made about the grammaticality of sentences while the latter refers to using grammar as a communicative resource in spoken and written discourse. Larsen Freeman (2003) argued that grammar instruction involves integration of form, meaning and use. Declarative Knowledge of grammatical rules without application in context of use is not the goal of grammar instruction. How, when and under what conditions explicit declarative knowledge grammar converts to implicit procedural knowledge is a controversial issue. Anderson (1993) suggested 'communicative practice', Swain (1995) attributed it to 'output practice', Frodeson (2001) proposed 'transformation drills' and Nunnan (1998) emphasized the role of 'contextualization'.

Focus-on-forms: accuracy (1950s)

Focus-on-forms is associated with traditional grammar-based classes which is consistent with PPP (presentation, practice and production) model of language instruction. It highlighted the importance of explicit grammar teaching during grammar translation in 1950s, cognitive code approach and audio-lingual method in 1960s. Learners were assumed to accumulate grammar in teacher-oriented classes through a deductive technique (rule based) without making grammatical mistakes. (Rutherford, 1987). Aside from taking a building block view of language, focus-on- forms sacrificed fluency at the expense of accuracy. The emphasis was on grammar competence rather than grammar performance. That is, knowing about grammar was more important than knowing grammar. Focus-on-forms has been criticized for being teacher-centered, artificial,

boring and for not allowing meaningful communication, which is essential to language acquisition (Long, 2000). Besides, no attention was paid to the learners' affection.

Focus-on-meaning: fluency (1980s)

Focus-on-meaning, on the other hand, which was introduced by Krashen and Terrell's (1983) Natural Approach to second language (L2) acquisition, completely rejected any direct instruction on grammar, explicit error correction, or even consciousness-raising, as L2 is claimed to be naturally acquired through adequate exposure to language or 'comprehensible input' (Krashen, 1982:64; Krashen, 1985:2). According to this view (non-interface position), explicit knowledge about language and error correction is unnecessary and even harmful as it may interfere with the natural acquisition process. Thus, this position claimed that there was no interaction between explicit and implicit knowledge. Similar to Krashen's view, deep version of CLT and early version of Task Based Language Teaching, although it didn't last long, were criticized for taking anti-grammar position. Focus on meaning was also criticized in that mere exposure to language input along with zero grammar instruction was a large number of grammatical errors in production which finally led to fossilization (Lightbown & Spada, 1994; Skehan, 1996; Swain, 1985; Swain & Lapkin, 1995; White, 1987). Later, two influential theoretical concepts focus-on-form and consciousness raising, contributed to revitalization of grammar. (Thornbury, 1999).

Focus-on-form: fluency and accuracy (1990s)

Long (1991) initiated focus-on -form as a reconciliation of form and meaning. Focus-on-form can be defined as "any pedagogical effort that is used to draw the learners' attention to language form either explicitly or implicitly". (Spada, 1997). Learners are involved in communication but occasional shift of stress is given to formal features of language. Doughty (2001) defined focus- on-form as paying attention to the form without going back to traditional grammar based teaching. Although early Task Based Language Teaching (TBLT) and strong version of CLT were criticized due to exclusion of focus-on-form activities, weak versions of both TBLT and CLT accept that some focus-on-form activities are necessary for developing communicative competence. Simply speaking, they value both fluency and accuracy. Focus-on-form activities like underlining, coloring, highlighting and italicizing within a written text make certain target structures more salient and help students to notice them. This is what Sharwood Smith (1993) called *input enhancement*. A second means of calling attention to form is through *input flooding*. For example, talking about historical events would give learners abundant opportunities to notice the past tense. Focus-on-form can also be done through an implicit negative corrective feedback known as *recast* (Long & Robinson, 1998).The benefits of focus-on-form over other approaches like focus-on-forms and focus-on-meaning have been widely accepted (Spada & Light bowen, 2008), but again, there was no attention to the generation of positive emotions, feelings, motivation of the learners which are crucial in grammar classes.

Consciousness raising (CR)

Related to the notion of focus-on-form is consciousness raising initiated by Rutherford (1987) and Sharwood Smith (1981) .It is based on the assumption that grammar forms are best learned if we raise the of learners' awareness to notice particular linguistic structures while maintaining a focus on meaning. CR is often associated with Schmitt's noticing hypothesis arguing conscious awareness of grammatical details is necessary (early version) and helpful (later version). Ellis (2002) asserted that CR tasks, unlike practice, develop explicit declarative knowledge rather than procedural knowledge. He added that CR contribution to L2 acquisition is indirect and delayed. Such noticing or CR contributes to second language in three ways: "learning will be faster'. The quantity of production will be greater and it will extend the context in which the rule can be applied (Rutherford , 1987) .CR activities like 'input flood' can be easily criticized for the large amounts of intellectual efforts they place on young learners. Sharwood Smith (1993) later replaced the term 'input enhancement' as a better term for CR since the former referred to internal state of the learner. Again, we can see no trace of affective factors in this approach.

Significance of form-focused instruction (1990s)

Both focus on form and consciousness raising together comprised paying-attention-to-form argument. (Thornbury, 1999). Long (1991) emphasized the beneficial effects of using explicit form focused instruction without worrying about learners' age, gender and proficiency levels. He added that formal instruction is more useful than exposure. Ellis (1990) stipulated this claim by saying that this was right if there were opportunities for informal language use. He, moreover, demonstrated that explicit form focused instruction contributed to declarative knowledge. In fact he believed in indirect and delayed effect of form focused instruction in second language acquisition. Moreover, Norris & Ortega's (200) meta-analysis of 49 studies proved that explicit grammar instruction has a better and long lasting effect on target structures. Benati (2008) argued that explicit instructions, although speeded up the rate of acquisition, could not alter the route of acquisition. Another benefit of grammar instruction is that it helps students 'notice the gap' between new features in a structure and those in learners' interlanguages (Schmidt & Frota, 1986).Grammar instruction can also help students to generalize their knowledge to new structures (Gass, 1982). Finally, Baker (2006) noted that advanced learners benefited form-focused instruction more because they could notice the structures and feedback more than intermediate learners.

GRAMMAR INSTRUCTION

Deductively, inductively, abductively, explicitly or implicitly?

Proponents of explicit techniques simply use L1 to explain grammar rules while implicit techniques expose learners to target features so that they struggle to discover the rules by themselves (For Rutherford (1988). Charles Sanders Peirce at the end of 19th century questioned deductive (rule driven) and inductive (data driven) in favor of abduction (experience driven) -making sense of new experiences, working with possibilities in context. Leo Van Lier (2007) asserted that hypothesis testing and grammar learning in second language learning are neither inductive nor deductive but abductive. Krashen's (1981) 'non-interface hypothesis' suggested that teachers should teach only simple structures explicitly while de Graaff (1997) stated that complex structures should be taught explicitly to make them more noticeable. Robinson (1996) stated that explicit instruction was more effective with adult English learners in simple structures while implicit learners did not outperform explicit learners with complex structures. Pienemann (1984) claimed that some structures, like question formation, do not need any instruction at all since they follow fixed developmental stages. The aforementioned statements reveal that effectiveness of a grammar technique is mediated by contextual factors such as learners 'age learning style preferences, developmental readiness, proficiency levels and nature of the target structures since there is no size to fit all. Therefore, teachers should not only be reflective and cautious enough to select and integrate techniques during grammar instruction but should also create a friendly atmosphere in grammar classes to reduce anxiety, tiredness and frustration associated with such classes.

From PPP model to III model

The linear PPP (*presentation-practice-production*) took a building block view of the grammar within structuralism framework. It targeted to help learners to avoid errors. Johnson (1996) correlated PPP model to Anderson's ACT model of skill learning in which the (P1) equals declarative knowledge and (P2 & P3) played the role of procedural knowledge. Due to the nature of practice (mechanical vs. communicative practice), this comparison may not be, from my point of view, plausible. With the decline of audio-lingual method, PPP model came under sever attack. Lewis (1993) noted that PPP model says nothing about the nature of language learning. Although this model benefited the merits of noticing and awareness due to production element (p3), it was, however, deficient to fulfill needs of the grammar let alone those of the term 'grammaring' which was pedagogically more demanding. It was in 1995s that McCarthy III Model (*illustration, interaction, and induction*) replaced PPP model. Illustration phase means examining real data presented in terms of choices of form with respect to context and use. Interaction, here, highlights the importance of negotiation of meaning and form in discourse sensitive activities. In the induction stage, learners were encouraged to draw conclusion about the interpersonal functions of lexico-grammatical choices and finally develop a capacity for noticing these features.

These two models, although contributed to teaching grammar, refused to notice the crucial role of affective and emotional factors in grammar classes.

Grammar as an organic process

Unlike the traditional linear based view of grammar which can be likened to building a wall by individual bricks, the organic view considers grammar development as a hierarchal process (Rutherford, 1987 & Larsen Freeman, 2001). A strong evidence of organic view is the concept of U-shaped learning (Ellis, 2008) during acquisition irregular verbs. (went - goed-wanted - went). These stages show that learners moves from accuracy to fluency to accuracy in a zig zag fashion. The organic view supported by U-shaped learning implies that grammar learning is developmental and nonlinear. In addition, this view of grammar learning which fluctuates between learning and unlearning reveals restructuring since more efficient rules are replaced with existing rules. This notion is in line with Benati's (2008) argument that explicit instructions, just speeds up the rate of acquisition rather than route of acquisition.

Grammaring: accuracy, fluency and appropriacy (2003s)

The term 'grammaring' coined by Larsen Freeman (2003), saw grammar as the fifth dynamic skill rather than a mere component of language. It necessitates using grammatical structures accurately, meaningfully and appropriately. This notion criticized dichotomies like Van patten's form-meaning connection or Halliday's form-function approach in favor of form-meaning-function (use) approach. These three dimensions of teaching grammar are consistent with Celece Murcia's notion of grammar pie chart, involving syntax, semantics and pragmatics. Renandya (2002: 152) also introduced comprehensibility and acceptability as main components of grammatical competence. The terms 'appropriacy', 'acceptability' and 'pragmatics' in above definitions display the significance of utterance meaning (intended meaning) which is, unlike sentence meaning, is context dependent. Moreover, viewing grammar as a skill necessitates following cognitive, associative and autonomous stages of skill learning by the use of communicative practice for the purpose of proceduralization (Anderson, 1983). Larsen Freeman's grammaring is more sophisticated than former approaches to teaching grammar, it, however, did not address the vital role of humanistic factors in grammar classes.

Input-based grammar instruction

Input can be defined as the language "that learners hear or see to which they attend for its propositional content or message" (VanPatten, 1996: 10). In other words, it is the sample of language that the learners are exposed to and attempt to process for meaning. Input can be both oral and written. Input based grammar construction is based on the assumption that grammar can be noticed and learned through designing activities which provide comprehension and exposure of target structures. Van Patton's input processing, textual enhancement, input flood and grammar contextualization are subsumed under input- based grammar instruction.

I. VanPatton's input processing model

The input processing model has tried to show how learners process input in their mind and how they derive intake from input while their focus is on meaning. Central to this theory are the following questions: (1) How does the learner process the input to which he or she is exposed? (2) What is it that makes some input more difficult to process than other input? and (3) What are the processes that impede or delay the acquisition of input?

Input processing model uses processing instructions through 'structured input' activities to help learners to make form-meaning connections and thus overcome the faulty input processing strategies. For example, an investigation showed that learners usually have difficulty detecting the agent of action in causative construction due to default processing strategy that the first noun in the sentence is the doer of the action. The following structured input activity designed to make learners aware of this misconception.

- **Listen and decide who has done the action.**

John had his student write an essay.
Then, teacher asks:

1. Who wrote the essay? a. John b. student

Van Patton's input processing model in grammar instruction can be easily questioned in that it neglected the invaluable role output played in noticing the target structures and syntactic processing (Swain, 1995). Some learners tend to benefit output more than input or some target language structures may be less frequent and salient to be acquired merely though comprehension. Another shortcoming of his input based model to teaching grammar was lack of attention to affective factors needed to process and internalize the input.

II. Textual enhancement

Sharwood Smith (1993) argued that visual enhancement (color-coding, underlining, boldfacing, and enlarging the font) of target structures within written texts helps learners to notice them because visual enhancement or even audio enhancement of some parts of the input make them more salient. Unlike processing instruction which seeks form-meaning connection and is often integrated with explicit instruction, textual enhancement attempts to make the forms salient in the text (Vanpatton, 2002).

III. Input flooding

Input flood is based on the premise that frequency of occurrence of specific target structures in a text makes them more salient, which helps learners to notice the target structures. For example, exposing learners to texts related to habitual daily activities provides learners with abundant opportunities to notice simple present tense. Aside from making certain features in the input more frequent and thus more salient, another function of input flooding is that it might prime the production of a certain structure.

Grammar and contextualization

Discourse based view of grammar instruction raises awareness of grammar teaching to functional and contextual consideration. Tugrul Mart (2013) asserted that teaching grammar in context helped learners to understand the nature of language which would facilitate their understanding of language. There are several reasons to teach grammar in the context. The first reason is that teaching grammar via isolated sentences is in line with PPP model which has restricted grammar merely to pure accuracy of different forms. The second is that contextualization helps learners to discover the relationship between form, meaning and function, so it leads to more retention. (Nunnan, 1998) .The third reason is that decontextualized grammar instruction will not provide opportunities for the application of grammatical knowledge. Frodeson (2001) argued that the purpose of grammar instruction is not recognition of ungrammaticality but application of rules in communicative context. Utterance meaning, an important element of grammatical competence, is context dependent. One way of teaching grammar in the context is the use of dialogues. Thornbury (1999) spoke of using a recorded dialogue chosen from a textbook as a useful tool to teach adverbs of frequency in simple present tense.

Grammar and output

Believing the inadequacy of comprehensible input in second language acquisition, Swain (1985) suggested 'comprehensible output". According to Swain, comprehensible output moves learners from semantic to syntactic processing, offers opportunities for learners to notice target structures, facilitates automaticity, generates better input and tests their hypotheses. The significance of output is multiplied when it is done collaboratively because learners scaffold each other through feedback while engaging in social interaction. (Vygotsky, 1978).Collaboration allows learners to negotiate within their Zone of Proximal Development, and move from their actual development to their potential development (Nassaji & Swain, 2000). Swain and Lapkin (2001) noted that, through collaborative output, not only is meaning jointly constructed but the language itself is improved as well. Dictogloss and jigsaw tasks are examples of collaborative output tasks. This approach to teaching grammar also failed to consider the essential role of affections and emotions in grammar for development of grammar competence.

I. Dictogloss

It is a collaborative output tasks in that learners hear the text as it is read by the teacher. Then, they talk, reconstruct, analyze, reflect and negotiate the accuracy of the text collaboratively. This task raises the

awareness of the learners because it pushes the learners to generate output and see the gaps in their grammatical competence.

I. jigsaw tasks

Pica, Kang, and Sauro (2006) described the steps in designing such tasks. First, the teacher reads the original passage to students. Pairs of students receive the modified versions of the passage, with one student receiving version A and the other version B. Next, students attempt to choose the correct order of individual sentences as they appear in the original version. Then, students attempt to choose between different sentences in versions A and B and find those that are the same in terms of grammatical accuracy as those in the original text. They also attempt to justify their choices. Finally, students compare their assembled passage with the original passage and identify any possible differences.

Grammar and teachers' cognition

Borg (2006) has classified language teacher cognition in grammar teaching in terms of three major areas:1) teachers' declarative knowledge about grammar 2) teachers‟ stated beliefs about grammar 3) teachers' cognition as expressed through their grammar teaching practices. Grammar instruction is influenced by the teachers' grammar cognition. According to Borg (1999a: 25), "grammar teaching is a multi-faceted decision making process". Teachers are expected both to know grammar and to know about grammar. They are, in addition, expected to know the complexity of form, complexity of meaning and complexity of form-meaning connections. They should be competent enough to make sound decisions like how much emphasis to place on grammar, what techniques to use and how individual differences and nature of target structures affect grammar instruction. Hatch (1974) distinguished between two different types of learners: rule formers with analytic mind and data gatherers with memorization ability. Pienemann (1984) demonstrated that some structures followed fixed developmental stages, implying that grammar instruction is irreverent for such structures while other structures may be easily acquired through form focused instruction. Moreover, the other frequent and salient structures will be mainly acquired through meaning focused activities. (Doghty 2003; Lightbown; 2004; Ellis, 2008; Van patten 2002).Therefore, grammar teachers should be aware of the roles different variables play like style preferences, age, gender, motivation, emotions, attitude and developmental readiness of the students play in grammar instruction while choosing and integrating different grammar techniques .

Grammar and humanistic psychology

More important than teachers' cognition is the learners' affection in grammar classes. In fact, the most serious shortcoming of grammar approaches has been the negligence of humanistic psychology, which is not only person-centered but also learner- centered. It considers individual differences and is based on 'whole person learning'. At the heart of humanistic psychology is the concern for affective and emotional factors. Simply speaking, it allows learners to share and verbalize their thoughts and feelings together. This stress free approach can be a resolution for grammar classes which are often boring, confusing and burdensome. This is due to the cognitive burden such classes put on the learners without giving learners much freedom, cooperation and self-initiation. Learners are needed to process complex abstract rules, make a connection between form, meaning and use together, and finally restructure target structures in their minds. In addition, explicit declarative knowledge of grammar cannot be immediately converted into implicit procedural knowledge. Mastering each of these tasks involves committing a large number of grammatical errors on the part of the learners. In simpler terms, grammar classes are often replete with various grammatical errors. Although these errors are an inevitable process of developing grammatical competence from the pedagogical point of view, they jeopardize the stress free environment which is an essential condition for mastering a grammar competence. These errors hurt learners' positive feelings, emotions, motivation and attitude so that they may wrongly shape the perception that they are not going in the right direction. Regardless of the techniques used, teachers should always cultivate learners' curiosity and maintain their motivation while teaching grammar. In other words, aside from possessing theoretical and pedagogical knowledge of grammar, teachers should be sensitive to their learners' affective factors in grammar classes.

Gladys Jean & Daphnee Simard (2011) demonstrated that grammar teaching and learning in EFL contexts are necessary but boring. It seems that syntactic processing of target structures more than any other concept of language needs attention, concentration, positive emotions, relaxation and interest. The key to start grammar instruction successfully is to clearly establish interest and motivation (Dkhissi, 2014). Grammar classes are often, as quoted by the students, associated with frustration and tiredness. So it is plausible to claim that a much learner centered class which stimulates interest, positive feelings, motivation and positive attitude are crucial in grammar instruction. Teaching grammar through techniques like games, music, videos, pictures, visualization and languaging helps teachers to provide a stress free environment. This facilitates to grab the learner attention for more efficient syntactic processing. Neurological research has also shown that musical and lingual processes take place in the same section of the brain. Affective oriented techniques in teaching grammatical structures can help EFL teachers to convert students' nervousness into excitement in grammar classes.

Languaging

Language learners may be engaged in verbalization about language. By languaging, Rattya (2013) refers to a procedure where students speak out their thinking processes and strategies they use when doing an exercise. The languaging verbalizes the procedure for the students themselves, for their co-students and for their teachers (Swain, Lapkin, Knuzi, Suzuki & Brooks, 2009). They defined languaging as self-reflection in language 1 about language 2. Languaging also consists of paraphrasing in the L1, inferencing, analyzing, self-assessment, and rereading (Swain et al, 2009). Form-focused instruction promotes languaging by making target forms more conspicuous to both ESL and EFL learners. (Nassaji, 2009). Swain (2009) defines langauging as a "dynamic never ending process of using language to make meaning". Swain et al (2009) developed a text explaining voice in French and asked participants to read it loudly and explain. They, then, classified their subjects, based on their explanation of the text into five languaging unites (analysis, inference, rereading, self-assessment and paraphrase) .Next, they divided their students into low, middle, and high langaugers based on their quality of performance on the languaging units. The findings of the study revealed that languaging has facilitative effect on understanding of voice by French learners. In another study, Negueruela (2008) asked the participants to explain the grammatical concepts taught in class to themselves six times over 16 weeks. The outcome of the study showed the effectiveness of verbalization on the development of grammatical structures.

TTT approach

Vitta (2013) introduced a TTT approach (Task-Teach-Task) to teach grammar to young learners as a replacement of traditional PPP approach (presentation- practice –production). The purpose of this approach is to create grammar structures in enjoyable activities. The TTT approach in teaching grammar allows students to have a voice over what is done and taught in the classroom. It has three advantages. First, it is better applicable in student centered classes. Second, it makes sure that teachers do not spend time on what students already know. It seeks variety rather than monotony associated with traditional teacher oriented PPP approach. Third, it shares agency and offer opportunities for the self-expression. Fourth, this approach creates more collaboration and interaction among the students. Meanwhile, this model of teaching grammar gives priority to affections and emotions in EFL classes.

Games

Often the grammar classes are complicated and create fear and frustration for the EFL learners. One way to eliminate fear and anxiety arising from grammar classes is using exciting games. Researchers universally agree that using a variety of grammar games in grammar classes provides a friendly and cooperative participation and interaction among students to master grammatical points. Schwartz, (2012) argued that " The more people play, the more positive emotions are generated, which in turn make the play easier and thus helps to generate even more positive emotions". Thomas's (2005) study of using various games and electronic activities like *gramma gories* and *bingo set* proved to reinforce grammar in a college writing classroom. He further asserted that games helped to build foundational grammar skills. Margaret (2007) used a game *'sentence survivor'* to increase and reinforce accuracy of writing skill via using long compound-complex sentences. Students in small groups were asked to delete at least three words per turn so that the rest of the words remained a complete sentence, no matter if the meaning changed. A typical example was: *Barking loudly at the mailman, the big*

black dog sacred the children playing nearby, so they ran quickly to their mother in the yellow house in the corner." Teaching grammar through games is a successful and effective approach".(Musilova, 2010). Unlike the previous study, he utilized a single game, named "lost *treasure game'* to teach grammar. The participants of the study were fifth grade English students. They had to solve grammatical exercises in order to find the hidden treasure. The findings showed that the game exposed learners to different grammatical elements in one activity. Tengku & Yussof's (2012) investigation revealed the significant role the *Board game* played in retention of grammar rules .Besides, Yolageldili & Arikan (2013) explored the effectiveness of using games to teach grammar to young EFL Turkish learners. The findings indicated the significant effect of the games on the learners' grammar, motivation and participation. All aforementioned studies concluded that a properly organized game in grammar classes not only increases the grammatical accuracy of EFL learners but also automatically stimulate interest, enjoyment and relaxation. So, games are not considered marginalized activities by effective grammar teachers.

Music

Trollinger (2010) asserted that there is a strong correlation between musical perception and language processing. Neurological research has also shown that musical and lingual processes take place in the same section of the brain. If we accept that music and popular songs enhance the concentration and quality of attention in grammar classes, it can be concluded that processing and accuracy of grammatical structures improve as well. In addition, Kara & Aksel's (2013) experimental survey analysis showed that majority of learners preferred popular music and songs mainly in grammar classes . The rationality behind this preference, also quoted by the students, was to overcome monotony, repetition and memorization arising from grammar classes.

Visualization

Visualizations in the form of pictures, videos and posters help language teachers to contextualize target grammatical features. Scarcella & Oxford (1992) stated that simultaneous use of linguistic elements and pictures fosters comprehension of grammar points. Similarly, Bardos (2000) asserted that visualization in the form showing pictures to the students helps students learn grammatical structures implicitly. Implicit instruction of grammar through pictures makes the students engaged and motivated. It also provides enjoyable and entertaining education which gives them a sense of accomplishments. (Thekes, 2011). A study done by Ghapanchi & Sabouri (2012) provided statistical evidence that implicit grammar instruction through specially designed pictures improved Iranian EFL learners' speaking and writing abilities. Moreover, video as a widespread multimedia too enjoys both visual and audio content. Zhu (2012) focused on the 'diversity' aspect of videos, arguing stimulating curiosity and interest via 'sound, image, color and shape'. Meanwhile, findings of the research conducted by Ibrahim's (2014) concerning the effect of video presentation technique on the use of grammatical structures among senior secondary students in Nigeria revealed a statistically significant difference between experimental and control group. The results of the posttest in this study indicated that video clips of grammar not only made the treatment class enjoyable but also helped learners to utilize noun, adjectival and adverbial phrases in the right contexts. Finally, Zhu (2012) focused on the 'diversity' aspect of videos, arguing stimulating curiosity and interest via 'sound, image, color and shape.

Visualization and languaging

The method of langauging and visualization have been trialed during the years 2010-2013.This method combines concepts from constructivism, socio-cultural language learning theories, metacognition and metacognitive experiences as well as conceptual change theory. In simpler terms, they combine metalinguistic elements, verbal and visual elements. While learning grammar, students find it difficult to mix different grammatical categories. Problems may also appear in the form of reduced definitions of concepts. Languaging and visualization help learners to make the meaning clear and express their grammatical thinking through different modes: speaking, writing and drawing. Grammatical concepts are made visible by charts and hierarchies, which contribute to learners to comprehend the ontological differences between the categories.

CONCLUSION

Development of grammatical competence is the necessary part of second language acquisition. The present article has historically and critically examined different approaches and techniques of grammar instruction, aiming at raising the awareness of EFL teachers to give special attention to affective factors in teaching grammar. Traditional grammar instruction failed to detect the peculiarity of grammar classes which are often, as quoted by the students, boring, frustrating and demanding and are often associated with grammatical errors. These errors hurt the healthy emotions, feelings, motivation and attitude of the learners toward language learning. The current paper targeted at highlighting the vital role of affective factors (i.e. relaxation, enjoyment, motivation, positive emotions and attitudes etc.) in teaching grammar. The position taken here is that development of grammatical competence requires affective oriented techniques, humanistic teachers, learner centered classes and a funny atmosphere. Techniques of teaching grammar like games, pictures, videos, languaging and visualization are suggested to be utilized by EFL teachers to stimulate interest and generate positive feelings. This helps EFL learners to overcome the psychological frustrations and barriers arising from grammar classes.

Moreover, teachers are suggested be quite eclectic, cautious and systematic while selecting and integrating grammar techniques. Different approaches of teaching grammar may negatively or positively correlate with individual differences (e.g. proficiency level, developmental readiness and learning style preferences etc.) and nature of grammatical structures. In simpler terms, different learners benefit the same grammar techniques differently or some target structures may not need instruction at all.

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REFERENCES

Azar, B. (2007). Grammar-Based Teaching: A Practitioner's Perspective. *TESL-EJ.* 11(2). 1-12 Retrieved September 12, 2012 from <http://www.tesl-ej.org/ej42/a1.pdf.

Borg, S. (2003b). Teacher cognition in grammar teaching: A literature review. *Language Awareness, 12(2),* 96-108.

Benati, A., & Lee, J. (2008). Grammar acquisition and processing instruction: Secondary and cumulative effects. Clevedon: Multilingual Matters.

Celce-Murcia, M. (1991). Grammar pedagogy in second and foreign language teaching. *TESOL Quarterly*, *25*(3), 459–477.

Celce-Murcia, M., and Larsen-Freeman, D.(1999). *The grammar book: An ESL/EFL teacher's course* (2nd ed.). Boston: Heinle & Heinle

Ellis, R. (2002). Grammar Teaching: Practice or Consciousness-raising? In J. c. Richards, W. A. Renandya (Ed.), *Methodology in Language Teaching* (pp. 167- 174). Cambridge: Cambridge University Press.

Ellis,N. 2005. 'At the interface: dynamic interactions of explicit and implicit language knowledge'. Studies in Second Language Acquisition 27/2: 305–52.

Ellis, R. (2006). Current issues in the teaching of grammar. *TESOL Quarterly*, *40*, 83-107. Retrieved from http://faculty.weber.edu/tmathews/SLI/Readings/Ellis%202006.pdf. http://dx.doi.org/10.2307/402645

Ellis, R. (2008). Grammar in language teaching. In E. Hinkle, & S. Fotos (Eds.), *New perspectives on grammar teaching in second language classrooms* (pp. 13-15). New York: Routledge.

Frodesen. J .(2001).Grammar in writing .In M. Celce Murcia. (Ed). Teaching English as a second or foreign language. (3rd ed).(pp. 233-248). Boston, MA: Heinle and Heinle.

Harmer, J. (2007). *How to teach English*. Oxford: Pearson Longman.

Jean & Simard .(2011). Grammar Teaching and Learning in L2: Necessary, but Boring? Foreign Language Annals· VOL. 44, NO.3.

Krashen, S. (1981). *Second language acquisition and second language learning.* Oxford, England: Pergamon.

Krashen, S. (1982). *Principles and practice in second language acquisition.* Oxford, England: Pergamon.

Krashen, S., & Terrell, T. (1983). The natural approach: Language acquisition in the classroom. Oxford: Pergamon.

Nassaji, H., & Fotos, S. (2004). Current developments in research on the teaching of grammar. Annual Review of Applied Linguistics, 24, 126–45.

Larsen-Freeman, D. (2003). Teaching language: From grammar to grammaring. Heinle: Newbury House.

Long. (2000). Focus on form in task-based language teaching. In R. D. Lambert, & E. Shohamy (Eds.), Language policy and pedagogy: Essays in honor of A. Ronald Walton (pp. 179–92). Philadelphia, PA: John Benjamins.

Long, M., & Robinson, P. (1998). Focus on form: Theory, research and practice. In C. Doughty, & J. Williams (Eds.), Focus on form in classroom language acquisition (pp. 15–41). Cambridge: Cambridge University Press.

Long, M. H. (1991). Focus on form: A design feature in language teaching methodology. In K. de Bot, R. Ginsberg, & C. Kramsch (Eds.), *Foreign language research in cross-cultural perspective* (pp. 39–52). Amsterdam: John Benjamins.

Mackey, A., & Gass, S. (Eds.). (2006). Pushing the methodological boundaries in interaction research (special issue). Studies in second language acquisition (Vol. 2)

Margaret Tomlinson Rustick (2007). Grammar Games in the Age of Anti-Remediation. ProQuest Education Journals.

Nassaji.H (2009). Effects of recasts and elicitations in dyadic interaction and the role of feedback explicitness. Language Learning, 59, 411–52. Musilova L. (2010). Grammar Games in ELT. Bachelor Thesis. Retrieved on 20 August 2012 from http://is.muni.cz/th152741pedf/Grammar Games_in ELT.pdf.

Nassaji H, Fotos S. (2011.) Teaching Grammar in Second Language Classrooms. New York: Routledge.

Nunan, D.(1998). Teaching grammar in context. ELT Journal, 52, 101–9.

Pienemann, M. (1984). Psychological constraints on the teachability of languages.Studies in Second Language Acquisition, 6, 186–214.

Richards, J. C. (2002). Accuracy and fluency revisited. In E. Hinkel, & S. Fotos (Eds.), New perspectives on grammar teaching in second language classrooms (pp. 35–50).

Rutherford, W. (1987). Second language grammar: Learning and teaching. New York:Longman.

Schmidt, R. W. (1990). The Role of Consciousness in Second Language Learning. *Applied Linguistics, 11,* 129-158.

Sharwood Smith, M. A. (1981). Consciousness-raising and the second language learner. *Applied Linguistics, 2*(2), 159-168.

Sharwood Smith, M. A. (1993). Input enhancement in instructed SLA. *Studies in Second Language Acquisition, 15*(2), 165-179

Spada, N. (1997). Form-focused instruction and second language acquisition: A review of classroom and laboratory research. Language Teaching, 29, 1–15.

Spada N & Lightbown PM 2008. Form-focused instruction: Isolated or integrated? *TESOL Quarterly*, 42(2):181-207. Available at http://www.jstor.org/stable/40264447. Accessed 13 January 2014.

Swain, M., Lapkin, S., Knouzi, I., Suzuki, W., & Brooks, L. (2009). Languaging: Students learn the grammatical concept of voice in French. Modern Language Journal, 93, 5–29.

Tammenga-Helmantel, Arends & Canrinu (2014). The effectiveness of deductive, inductive, implicit and incidental grammatical instruction in second language classrooms. journal homepage: www.elsevier.com/locate/system. 45 , 198-210.

Tengku Paris & Rahmah Lob Yussof. (2012). Enhancing Grammar Using Board Game. Universiti Teknologi MARA, Malaysia. Elsevier Ltd.

Thornbury, S. (1999). How to teach grammar? Harlow: Pearson Education.

Mart, T. (2013). Teaching Grammar in Context: Why and How? Department of Langauges, Ishik University, Erbil, Iraq

Ur, P. (1988). Grammar practice activities: A practical guide for teachers. Cambridge: Cambridge University Press.

VanPatten, B. (2002). Processing instruction: An update. *Language Learning*, *52*, 755–803.

VanPatten, B. (1993). Grammar teaching for the acquisition of rich classroom. Foreign Language Annals, 26, 435–50.

YolageliIL & Arikan. A. (2011). Effectiveness of Using Games in Teaching Grammar to Young Learners. Elementary Education Online, 10(1), 219-229, http://ilkogretim-online.org.tr

Vygotsky, L. S. (1978). Mind in society: The development of higher psychological processes. Cambridge, MA: Harvard University Press.