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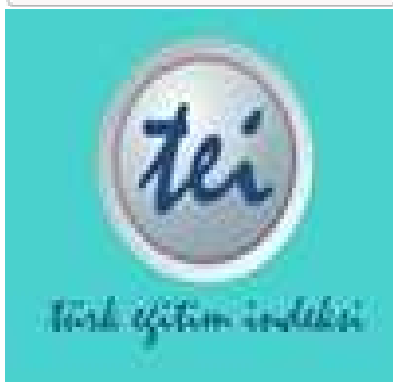E. Mail: ijonte2010@gmail.com Fax: +903124853123

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Dear IJONTE Readers,

IJONTE appears on your screen now as Volume 3, Number: 2. In this issue it publishes 14 articles. And this time, 26 authors from 7 different countries are placed. These are India, Iran, Nigeria, Taiwan, Turkey, USA and Zimbabwe.

The first article is from USA and TURKEY on "THE EFFECTS OF COOPERATIVE LEARNING ON TURKISH STUDENTS' READING FLUENCY" written by Kasim YILDIRIM, Timothy RASINSKI and Hayati AKYOL. Kasim YILDIRIM from Ahi Evran University, Timothy RASINSKI from Kent State University and Hayati AKYOL from Gazi University. A quasi-experimental design was employed to evaluate the effectiveness of cooperative learning intervention. An experimental group and two control groups participated in the study. The cooperative learning fluency instruction was used in the experimental group while the traditional fluency instruction was use in the control groups. The author analyzed the data by using a one way analysis of covariance to test the differences between the experimental and control groups on post-test scores.

The second article came from Mehmet Akif Ersoy University, TURKEY. Article is titled as "EVAULATION OF BEGINNING READING AND WRITING SOFTWARES", written by Derya ARSLAN and Abdullah ATIS. The purpose of this study to evaulate the beginning reading and writing software. In the study, documant review which is one of the qualitative research techniques was used. Nine beginning reading-writing softwares randomly selected from the education software CD's used in teaching of reading-writing in primary education of first grade students constituted the study group of the research.

The third article is from INDIA. It is on "ENHANCING SPIRITUALISM IN VIRTUAL WORLD", conducted by Kiran Lata DANGWAL, Shireesh Pal SINGH. Kiran Lata DANGWAL from University of Lucknow and Shireesh Pal SINGH from Indira Gandhi National Open University. Spiritualism is one word which puts man on the highest plinth of life. Spirituality is the way we find meaning, hope, comfort and inner peace in life. Spirituality in the virtual World is generally known as Virtual Spirituality. A goldmine of wisdom from all kinds of religious and spiritual philosophies, traditions and practices can be found in virtual World now. Technology and Spirituality together forms the material to which man can incline on to and work for the development of a globe in which war will be considered a taboo and violence a rejected dogma. Therefore there is an urgent nee to made the world a safe place to live in and the spiritual reconstruction can help us in achieving this.

The fourth article which is entitled as "READING ATTITUDES OF HIGH SCHOOL STUDENTS: AN ANALYSIS FROM DIFFERENT VARIABLES" written by Gokhan BAS from Selçuk University, Education Faculty, Konya, TURKEY. The purpose of this research is to determine the reading attitudes of high school ninth and twelfth grade students based on some variables. The researcher used 'general survey method' in the study. Totally 426 students from six public high schools, chosen according to random sampling method participated in the research. In order to answer the research questions in the study, "the Attitude Scale Towards Reading" was used.

The fifth article which is entitled as "OPEN AND DISTANCE LEARNING STUDENTS` VIEWS ON THE EFFECTIVENESS OF WEEKEND SCHOOL TUTORIALS" written by Augustine Kudakwashe MUBIKA and Richard BUKALIYA from Zimbabwe Open University ZIMBABWE. The present study was a descriptive survey carried out at the ZOU to establish the students` views on the effectiveness of weekend school tutorials. The study adopted the descriptive survey design which is essentially appropriate on areas where human perceptions are required. Due to its ability to solicit information deeply buried in the minds and attitudes of people, and its ability to reveal the true present state of affairs in a given set up, the design was seen to be the most

appropriate one. Three instruments used in data collection were the questionnaire, interview schedule and documentary evidence to enable triangulation in order to enhance validity and reliability of data. A total of 982 students from all the four faculties of the Zimbabwe Open University,

The sixth article arrived from ZIMBABWE, which is prepared on "DISTANCE EDUCATION AND THE RURAL-URBAN PROFESSIONAL MIGRATION: IMPLICATIONS FOR EFFICIENCY" written by Richard BUKALIYA from Zimbabwe Open University. This present study sought to establish the reasons as to why teachers studying through the Zimbabwe Open University were in droves, forwarding applications for transfer to go and teach in peri or urban schools in the guise of distance education. The study sought to establish which aspects of the ZOU ODL mode gave rise to rural-urban teacher migration, what the perceived gains of urban residence by the migrating teachers were, what present and existing characteristics at the present school/station inhibited successful continuous development through open and distance learning and how best the problem of teacher migration due to wanting to study through open and distance learning could be solved. Since the current study was all about teachers` perceptions, the major research design adopted was the cross sectional survey which entailed obtaining data at a single point in time and using just one questionnaire and an in-depth/ethnographic interview schedule as data collection instruments.

The seventh article came from IRAN. Article is titled as "THE EFFECTS OF PUPOSIVE DRAWING ON DYSGRAPHIC DISORDER", written by Zahra NIKMANESH, Yahya KAZEMI, and Zahra KHERADMAND. Learning Disability (L.D) may be a neurobehavioral disorder that causes defects in speaking, writing, listening, thinking, reading, spelling, or mathematical calculation. Handwriting is an important skill, related to school performance and the child's self-esteem. The present study explores the effectiveness of the Purposive Drawing Program (PDP) to treatment dysgraphia disorder. The population of this research includes 493 girl students in first grad of primary schools with dysgraphic disorder.

The eighth article arrived again from ZIMBABWE and was written on "ZIMBABWE OPEN UNIVERSITY'S BACHELOR OF EDUCATION STUDENTS' ATTITUDES ON THE USE OF ICT IN THEIR STUDIES" by Tichaona MAPOLISA and Chipo CHIRIMUUTA in Zimbabwe Open University. This case study called for a high level of commitment with research participants whose experiences researchers were trying to investigate. The study could bring to the fore the new knowledge about ODL students' attitudes towards the use of ICT in their studies so that ODL policy makers could take the necessary courses of action to correct situations that let down the quality of education their universities offer. In terms of theory, this study was guided by the critical theory.

Article nine is on IS E-LEARNING NECESSARY FOR UNIVERSITY STUDENTS? (A CASE FROM IRAN) " which is written by Faranak OMIDIAN and Fatemeh KEYVANIFARD, Islamic Azad University. This study was conducted to investigate these questions should e-learning be used to reduce travel related stress? should e-learning be offered fully online to reach students living in remote areas? should e-learning be adopted to allow working students to study from home? Pressure to use e-learning was developed as a factor to answer above questions. Data was collected through a survey of 400 post graduate students at Tehran University.

The tenth article is titled as "ASSESSING THE INFLUENCE OF UNIVERSAL BASIC EDUCATION (UBE) FACILITIES ON PUPIL ENROLMENT, TEACHER POPULATION AND TEACHER - PUPIL RATIO IN OGUN STATE PUBLIC PRIMARY SCHOOLS OF NIGERIA" from NIGERIA and was written Muyiwa ADEYEMI. This current study is with the specific objective of assessing the influence of Universal Basic Education (UBE) Facilities on pupil enrolment, teacher population and their classroom ratio in the teaching and learning process in Ogun State public primary schools of Nigeria. This was achieved by comparing schools with the UBE facilities and those without these facilities.

The eleventh article is titled as "COMPARATIVE INVESTIGATION OF ORGANIZATIONAL FACTORS CREATING OCCUPATIONAL STRESS AMONG HIGH SCHOOL PRINCIPALS IN ZAHEDAN" from IRAN and was written Abdulwahab POURGHAZ. Present research aims to determine the amount of occupational stress and to identify

organizational factors creating occupational stress among high school Principals in Zahedan. Research used was a descriptive-surveying method. Statistical population of research involved all high school principals of Zahedan city. The sample contained 150 principals (78 female, 72 male) who had been selected by stratified-random sampling. Data-collecting tool consisted of :Wiliam Dyer's" questionnaire of occupational stress and researcher made questionnaire of effective organizational factors in creating stress with 29 questions on "Lickert's" five-optional scale.

Article twelve arrived from TURKEY. The subject of the article is "DEMOCRATIC PRACTICES IN SCHOOL MANAGEMENT AND CEOCRACY" and written by Ramazan YIRCI from Sütçü Imam University, Kahramanmaraş. The purpose of this study is to give a general framework about ceocracy as a management approach that is based on people's actively participation in the decision making process, and to discuss on how to use ceocracy in educational organizations. In the light of the reviewed literature, it is clear that ceocracy can be used in the management of educational organizations.

The thirteen article is titled as "HEDGING DEVICES BY NATIVE ANF NON-NATIVE PSYCHOLOGY RESEARCHERS" from IRAN and was written Sina NASIRI. The purpose of the present study was to examine the frequency and different types of hedging devices in Discussion sections of Research Articles (RAs) in the area of Psychology. To this end, 20 RAs in English were selected form the leading journal; 10 by native English speaker researchers and 10 by Iranian researchers. After categorizing hedging devices based on Salager-Meyer's (1994) taxonomy, chi-square procedure utilized and it was found that there was no significant difference between native and non-native writers in terms of utilizing hedging devices in their Discussion sections.

The last article is from ZIMBABWE. It is entitled as "A FACTOR ANALYSIS STUDY ON TEAM COOPERATION QUALITY OF UNIVERSITY FACULTIES IN TAIWAN – DARK SIDE EFFECTS OF RELATIONSHIPS ON TEAM COHESION-" and written by Mingchang WU, Shi-Chang TSENG, Chiu-Hsiung CHUANG and Chun-Shuo HSU from TAIWAN. This study was conducted to identify the factors inspiring team cooperation among universities in pursuit of teaching quality improvement. Data were collected from 146 faculty members belonging to 18 universities in Taiwan, who participated in inter-instituted cooperative projects for teaching quality improvement.

Cordially,

Editors
Prof. Dr. Zeki KAYA, Gazi University, Ankara, TURKEY
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THE EFFECTS OF COOPERATIVE LEARNING ON TURKISH STUDENTS' READING FLUENCY

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ABSTRACT

A quasi-experimental design was employed to evaluate the effectiveness of cooperative learning intervention. An experimental group and two control groups participated in the study. The cooperative learning fluency instruction was used in the experimental group while the traditional fluency instruction was use in the control groups. The author analyzed the data by using a one way analysis of covariance to test the differences between the experimental and control groups on post-test scores. The analysis of the data indicated that there was a significant difference between the experimental and control groups on means of reading fluency (F (2, 65) = 28.884, p = 000, partial η^2 = .47). The findings revealed that the cooperative learning fluency intervention had positive effects on reading fluency for students in the experimental group. The implication can be drawn from these findings that cooperative learning can be effectively used in Turkish elementary classrooms to improve students' reading fluency and overall reading proficiency.

Key Words: Cooperative learning, reading, literacy, instruction, reading fluency.

INTRODUCTION

Today, more than ever, since the ability to read and comprehend what is read is crucial to become successful in global and information-driven society (Coonor et al., 2011), reading programs should make students acquire essential reading skills that enable them to learn and enjoy from printed materials (Torgesen, 2002).

Rosenblatt (1982) states that "reading is transaction, a two way process, involving a reader and a text at a particular time under particular circumstances" (p. 268). This definition stresses the contribution of both reader and text to make meaning. When a reader processes a text, the reader bring past experiences to form a response to current text. In this process, both the text and the reader contribute to the construction of meaning and each of them affects and is affected by another one (Rosenblatt, 1978; Short, 1986).

Proficiencies needed in order to become good reader, include phonemic awareness, phonics, fluency in reading, adequate vocabulary and reading comprehension. Lack of one of these skills may lead to unsuccessful reading (Chafouleas, Martens, Dobson, Weinstein, & Gardner, 2004; National Institute of Child Health and Human Development [NICHD], 2000; Therrien, 2004).

A growing body of evidence points particularly to reading fluency as an important factor in student reading success. Reading fluency is primarily defined as how fast and accurately with appropriate prosody or expression a person reads a passage (Hudson, Lane, & Pullen, 2005). In school settings, judgments about reading ability are often made on the basis of students' oral reading fluency. Thus, teachers, researchers, parents, and children alike generally agree on the importance of fluency (Rasinski, 1989; Rasinski, 2003a; Rasinski, 2004;

Rasinski & Hoffman, 2003; Rasisnki, Padak, Linek, & Sturtevant, 1994; Yildiz, Yildirim, Ates, & Cetinkaya, 2009; Yildirim, Yildiz, Ates, & Cetinkaya, 2009).

Since the publication of the National Reading Panel report (NICHD, 2000) and other recent scholarly reviews of scientific research (Chard, Vaughn, & Tyler, 2002; Kuhn & Stahl, 2000; Rasinski & Hoffman, 2003), reading fluency has taken center stage in discussions about student reading success and effective instruction in reading. Yet programs and materials addressing reading instruction and teacher training seldom tackle reading fluency. This lack of attention may be due to the fact that fluency has long been associated with oral reading, a form of reading viewed traditionally as having little importance in learning to read (Hudson et al., 2005; NICHD, 2000; Rasinski, 2004).

Researchers suggest various strategies to improve reading fluency, including reading aloud, repeated reading, fluency development lesson (FDL), independent silent reading, choral reading, readers theatre, paired reading, reading triads, reading buddies, modeling, peer tutoring, practice and assisted reading, coaching and formative feedback (Begeney & Martens, 2006; Chard et al., 2002; Devaulth & Joseph, 2004; Jolliffe, 2007; Mastropieri, Leinart, & Scruggs, 1999; NICHD, 2000; Opitz & Rasinski, 2008; Rasinski, 2009; Rasinski, Padak, & Fawcett, 2010; Samuels, 1979; Welsch, 2006). Unfortunately, in traditional methods, students may read aloud only once, and they may not receive sufficient feedback and support on their reading due to class time constraints. In contrast, in cooperative learning settings, students often read aloud and receive immediate feedback and support about their reading from other group members (Alhaidari, 2006). Providing feedback and support to students after they read orally can facilitate growth in reading fluency (Rasinski, 1989). Koskinen and Blum (1986) report on a model of reading fluency instruction in which paired students work together, mutually offering correction, feedback and praise.

Cooperative learning is an instructional method in which children work together to increase their own and each other's learning and accomplish shared learning goals (Johnson & Johnson, 1999; Slavin, 1983; Slavin, 1991; Slavin 1999). It has been widely used in many fields and at different grades. The common idea that lies behind cooperative learning is that children work together to learn and feel responsible for one another's learning as well as their own (Slavin, 1990a; Slavin 1990b). In cooperative learning, the teacher maintains complete control of the class, even though the children work in groups to accomplish the goal of a lesson (Tarim, 2009). The teacher monitors the process and guides students by providing materials and explanations when needed. The reasons behind the popularity of cooperative learning include its positive effects on academic achievement, peer relations, inclusion of children with special needs, self-esteem, attitude and anxiety (Johnson & Johnson, 1981; Johnson & Johnson, 1989; Sharan, 1980; Slavin, Madden, & Leavey, 1984; Slavin, Lake, Chambers, Cheung, & Davis, 2009; Tarim, 2009).

Previous studies have shown that cooperative reading in the classroom contributes to the development of students' reading skills by allowing them the opportunity to read over and over again, enabling proficient readers to help less proficient ones in heterogeneous groups, encouraging them to give continuous support and feedback on each other's reading (Fuchs, Fuchs, Mathes, & Simmons, 1997; Hoffman & Isaacs, 1991; Koskinen & Blum, 1986; Stevens & Slavin, 1995; Topping, 1989;Walczyk & Griffith-Ross, 2007).

Vaughn, Chard, Bryant, Coleman, Tyler, Linan-Thomson, and Kouzekanani (2000) examined the effectiveness of partner reading compared to a comprehension-oriented strategy for third grade students. During a paired reading session, a more proficient reader is typically paired with a less proficient peer. The proficient reader reads the material first to provide a model of fluent reading for the less proficient reader. The less proficient reader subsequently reads the text. While one student reads, the listening partner provides feedback and alerts the reader when an error has been made. In this study, proficient readers were paired with less proficient ones. The results revealed that partner reading significantly improved reading fluency. Additionally, Stevens, Madden, Slavin and Farnish (1987) examined partner reading as a component of cooperative

integrated reading and composition (CIRC). The authors found significant effects in favor of CIRC, which showed significant gains in reading compared to control groups.

Reading Instrunction in Turkey

Reading is one of the learning areas covered in the Turkish language course curriculum in Turkey. Skills of good reading (e.g., phonologic awareness, word recognition, vocabulary, reading fluency, affect, and reading comprehension) are presented to children in Turkish language course (Ministry of National Education [MoNE], 2005). However, an investigation of the literature in Turkey on the teaching of Turkish language shows that there is not enough emphasis on how to teach reading fluency and related skills, and how to develop and evaluate these skills in children. At the same time, the use of traditional teaching methods by most teachers in Turkish language course deprives students of the opportunity to interact with each other during reading activities and to contribute to each other's learning. Therefore, studies are needed to fill this gap in Turkey. The present study attempts to address this need.

METHOD

Researchers frequently need to use intact groups in educational settings for their experimental research because of availability of the participants or because of probations forming artificial groups (Creswell, 2003, 2005), thus this study used a pretest and posttest control-group quasi-experimental design. In this design, groups were selected without random assignment. All groups took a pretest and a posttest. Only the experimental group received treatment. In this research, one fifth-grade class randomly assigned as the experimental group and two as the control groups.

Participants

The study was conducted on a total of 69 fifth-grade students who were attending three different classes in two public elementary schools at the middle socio-economic status in central Kirsehir, Turkey during the fall and spring semesters of the 2008–2009 school year. One classroom of 24 (13 females and 11 males) fifth-grade students made up the experimental group, while two fifth-grade classrooms with a total of 20 (7 females and 13 males) students comprised one control group and 25 (11 females and 14 males) students comprised the other control group.

Data about the development levels of public elementary schools throughout Kirsehir were obtained from the Turkish Statistics Institute. Middle socioeconomic schools participated in the study. Two schools were selected with a total of five fifth-grade classes between the two schools. Of those five classes one experimental group and two control groups were chosen randomly for this research.

The cooperative learning fluency implementation was conducted by the researchers (first author) in the experimental group. The researchers (first author) also provided reading instruction to the first control group, while the class teacher undertook this task in the second control group. The study lasted for a total of 10 weeks.

Readability of Texts for Reading Fluency

In this study, four texts were initially chosen from Turkish language course materials recommended for fifth-grade students by the Turkish Ministry of Education (http://ttkb.meb.gov.tr/ogretmen/; Kapulu & Karaca, 2005; Karafilik, Degirmenci, Bilkan, & Ozden, 2005). The cloze technique was used to identify the readability of these texts. They were found to be at an appropriate length for fifth grade students (between 167-258 words) (Akyol, 2005) and were read as cloze passages by 80 fifth-graders who were attending a elementary school. This sample had similar characteristics to the research groups, both the experimental and two control groups.
During this piloting stage, no words were deleted from the first and last sentences in the texts. Each sixth word was then deleted, as suggested by Ulusoy (2006, 2008). A total of 25 words were deleted from each text. After

the preparation of the texts according to the cloze technique, they were given to students every other day; ample time was provided for responses. The data obtained were used to compute the readability levels of the texts. The results are given in Table 1.

Table 1 .Readability of Texts Chosen to Identify Students' Reading Fluency Levels

Texts	N	M	SD	KR-20	Percentage of correct responses
Wrestling in Kirkpinar	80	13.75	4.27	.71	%55 (instructional level)
Environmental Pollution	80	13.76	3.99	.72	%55 (instructional level)

Table 1 shows the two texts that were selected as being appropriate for fifth-graders at the instructional level so that students both below and above average reading competence would be addressed. Of these two, "Environmental Pollution" was used as the pretest and "Wrestling in Kirkpinar" as posttest to establish students' reading fluency levels before and after the quasi-experimental study.

Measuring Fluency
Similar to many other studies, this study also measured reading fluency as the number of words read correctly in a text in one minute (word correct per minute, [WCPM]) (e.g., Hasbrouck & Tindal, 1992; NICHD, 2000; Rasinski, 1990a; Rasinski & Padak, 2005; Samuels, 1979; Tindal & Hasbrouck, 2006; Valleley & Shriver, 2003; Yovanoff, Deusbery, Alonzo, & Tindal, 2005). Another component of reading fluency, including reading prosody was not incorporated into measurament process. Like other reserch, reading fluency measurement refered to reading rate. That is, reading fluency was measured as WCPM for this study.

After identifying texts at the students' level with respect to readability, individual read aloud sessions were organized at the beginning of the experimental study in order to establish the reading fluency levels of both the experimental and control group students. The researcher and the student were present in each session. These sessions were held in quiet settings provided by the administrators of the participating schools, where students would not be distracted and feel comfortable and safe. Before reading, the researcher placed a copy of the text to be read in front of himself and the student. The aim of the study was explained to the student and he/she was asked to read the text for a minute when he/she felt ready. Each student read the pretest text "Environmental Pollution" for one minute. During reading, the researcher video recorded each student's reading process, and calculated the total number of words read correctly and incorrectly by each student. The same work was undertaken to reveal students' reading fluency levels after the experiment by using the text "Wrestling in Kirkpinar" as a posttest. Students had not seen or read either text prior to reading it in the test situation.

Procedure
This study was conducted starting the first week of March through the second week of May. It was conducted both in the experimental and control groups for a total of 10 weeks during the six hours per week of Turkish language course. The activities were limited to the texts given in the fifth and sixth thematic units in the fifth-grade Turkish language inscruction curriculum. Activities on each text started and ended at the same time in all of the groups. Cooperative learning was used in the experimental group while the traditional instructional method was used in the control groups.

Prior to the study, voluntary participation consent forms were obtained from both experimental and control group students and their families.

In the experimental group, student gender and pretest reading fluency scores were used to form six coed groups with four individuals in each (24 students in total). The researcher ensured that proficient and weak readers were placed in these groups (two proficient readers and two weak readers in each group). Following

group formation, the roles to be played throughout the experimental study were explained to students in the group. Each student chose a role of their preference. The roles chosen in the experimental group were as follows:

Participation checker: Helps others join in group work. Ensures everyone gets a turn.

Organizer: Keeps everyone on task and watches the time.

Praiser: Praises individual' contributions and helps celebrate achievements.

Checker: Makes sure everyone has learned or completed the task. Checks for understanding and agreement.

Work undertaken in the experimental group was in line with the lesson plans prepared by the researcher. These plans covered all learning areas of the Turkish language instruction curriculum (reading, listening, speaking, writing, viewing and visually representing). As the present study focused solely on reading fluency, information is given about what was done to improve students' reading fluency in the Turkish language course.

Previous studies (e.g., Fuchs & Fuchs, 2005; Hudson et al., 2005; Jolliffe, 2007; Kagan, 1989, 1992, 1994; Kagan & Kagan, 1998; Koskinen & Blum, 1986; Mastropieri et al., 1999; NICHD, 2000; Opitz & Rasinski, 2008; Rasinski & Padak, 2001; Rasinski et al., 2010; Samuels, 1979; Slavin, 1995; Topping, 1989; Welsch, 2006) were used in undertaking cooperative reading fluency activities in the Turkish language course. A different text was worked on in the six hours of Turkish language courses every week (2 hr 3 times per week). In the experimental cooperative groups, cooperative reading techniques which encouraged students to interact with each other and the teacher, such as teacher and peer modeling, reading aloud, repeated reading, paired reading, round robin, peer tutoring, reading triads, independent silent reading, reading buddies, echo reading, choral reading, shared reading were used. To illustrate, in the teacher modeling technique, the researcher read the text aloud properly to the whole class while students followed it quietly from their books. Then the researcher asked the students to model his reading in the individual read-aloud activities to be held in their groups. In the shared reading technique, students in the groups worked in pairs. The text was shared between the two students in each pair, according to their preferences. While one student in each pair read the part of the text he/she preferred, the other student followed quietly and helped the reading partner when necessary and gave positive feedback. Then the students switched roles. Similarly, for paired reading, groups were again divided into pairs. One student in the pair read the text to his/her partner several times. The partner's task was to follow the text, provide help when needed and give positive feedback to the reader. After the first student read the text several times, the roles were switched. The partner became the reader and read the entire text several times as well.

In reading buddies, groups were divided into pairs once again. One student read the text to his/her partner twice. The partner's task was to follow the text and summarize what had been read. In reading triads, students worked in groups to read the text and help each other. In this activity, one student was the reader and the other three students were checkers. One student in the group read the text aloud to his/her group of friends. The other students followed the text. Checkers took notes about the mistakes that the reader made during reading. After reading, they corrected these mistakes and then helped the reader understand how to best read. All of these steps were repeated for all group members.

In choral reading, each group of the class took turns reading the text aloud chorally to whole class several times and then the teacher created variety by having groups read in echo styles. In round robin, the text was divided equally among the group members. Each student took turns reading aloud his/her part from the text to group members. All of these steps were repeated until each student had read every part of the text. After the readings, each student in the group was encouraged to read the entire text silently several times.

After the completion of weekly reading work in the experimental group, students' reading fluency levels were calculated for the given text (Words read correctly per minute-WCPM) and the benefits of reading practice, if any, were established.

The researcher took particular care to pair up proficient and less proficient readers within the same groups as the experimental students underwent these activities. At the same time, an effort was made to ensure effective communication between group members; to have reading materials ready for the groups; to have students participate actively in the activities; and to encourage reluctant students to participate. In addition to these, the researcher walked around the classroom to monitor whether students were meeting their individual responsibilities within the groups and whether they gave each other sufficient support.

In the control groups, where traditional methods were used, no intervention was made in the regular class order. The text was read aloud to the entire class by the researcher in control group 1 and by the teacher in control group 2, followed by silent reading by all students. As a final activity, each student was asked to read the text aloud. At the end of the implementation, the posttest assessment was adminstered to all students in the groups.

RESULTS

This section presents findings of this study conducted for ten weeks during the spring semester (2009) in 3 fifth-grade classes of a Turkish elementary school in Kirsehir, Turkey. Two sets of analyses were done including fluency. For the pretest analysis, the researcher used one-way analysis of variance (ANOVA) to test whether there were significant differences between the experimental and control groups on the pretests. This analysis was utilized to assess the initial equivalence of the experimental and control groups. For the posttest analysis, the researcher tested the differences between the experimental and control groups on a posttest by using one-way analysis of covariance (ANCOVA). In this analysis, the pretests served as a covariate variable where groups (experimental and control) were the independent variable, and the posttests were the dependent variable.

First, a one-way analysis of variance was conducted on the pretest scores of reading fluency for the three groups (experimental vs. control 1 vs. control 2). The ANOVA results revealed that there were no significant differences between the pretest mean scores of these groups ($F (2,66) = 2.562$, $p = .085$). Thus, there were no significant differences between the experimental and control groups in reading fluency pretest scores. This further implies that the reading fluency scores of the fifth-graders in the experimental and control groups, prior to the conduct of the experiment, were similar. The pretest and posttest means for all groups are presented in Table 2.

Table 2. Means and Standard Deviations of Reading Fluency Scores (WCPM) for Students by Groups

Groups	Pretest			Posttest		Estimated posttest[a]	
	N	M	SD	M	SD	M	SE
Experimental	24	69.79	22.58	84.37	28.32	90.90	2.38
Control1	20	76.50	26.24	66.60	22.35	66.89	2.56
Control2	25	83.80	16.04	76.40	17.49	69.90	2.33

Note. [a]Estimated posttests were adjusted for the pretest.

As a result of ANOVA, no significant differences were found between the mean scores of pretest scores. However, the means of the control groups were slightly higher than those of the experimental group. Due to these results, analysis of covariance was applied to determine whether or not the mean posttest scores of the groups differed significantly. Bonferroni's pairwise comparisons test was used to determine the direction of the difference.

Given the pretest and posttest means in Table 2, only the experimental group showed an improvement (experimental, pretest M = 69.79, posttest M = 84.37). The data were analyzed by using one-way analysis of covariance (ANCOVA) with the pretest as a covariate. A pairwise comparison (Bonferroni) was made between the groups (Table 3). The independent variable included the three groups: experimental, control 1 and control 2. The dependent variable was the posttest scores of the groups obtained from the WCPM sessions at the end of the treatment, and the covariate was pretest scores of the groups obtained from the WCPM sessions before the treatment.

A preliminary analysis evaluating the homogeneity-of-slopes assumption indicated that the relation between the covariate and dependent variable did not differ significantly as a function of the independent variable, F (2,63) = 3.097, p = .052. The analysis of the reading fluency data indicated significant overall treatment effects, controlling for the pretest, F (2, 65) = 28.884, p = 000, partial η^2 = .47. The strength of relationship between the group factor and the dependent variable was very strong, as assessed by a partial η^2, with the group factor accounting for 33% of the variance of the dependent variable, holding constant the pretest means of the groups. Regarding reading fluency scores, students in the experimental group benefited significantly more than those in the control groups (mean difference between experimental group and control group 1: 24.013; p = .000) (mean difference between the experimental group and control group 2: 21.001; p =. 000). However, there were no significant differences between control 1 and control 2 groups (mean difference control group 1 and control group 2: −3.012, p = 1.000). Based on the Bonferroni pairwise procedure, the adjusted mean for the experimental group differed significantly from that in the control groups, but adjusted means for the two control groups did not differ significantly.

Table 3. Bonferroni Pairwise Comparisons

	Mean difference	p	Direction
Experimental vs. Control 1	24.013	.000	Experimental > Control 1
Experimental vs. Control 2	21.001	.000	Experimental > Control 2
Control 1 vs. Control 2	-3.012	1.000	-

DISCUSSION

The findings obtained from this research revealed that cooperative learning fluency instruction had positive effects on reading fluency for students in the experimental group. These students practised more repeated readings, received more feedback, and received more support and modeling by peers than the students in the two control groups. This result is consistent with those of previous studies which advocate the use of partner reading, peer tutoring, shared reading, assisted reading, choral reading, and echo reading to develop reading fluency in students (Koskinen, Blum, Bisson, Phillips, Creamer, & Baker, 1999; Kuhn & Stahl, 2003; Morgan & Lyon, 1979; NICHD, 2000; Padak & Rasinski, 2004; Rasinski, 2003b; Rasinski, 2009; Stevens et al., 1987). An extensive review of the literature indicates that group practice which supports repeated oral reading with feedback and guidance leads to significant improvements in reading fluency in students (NICHD, 2000). As Faver (2009) also stated, working together in the reading process provides opportunity for students to help each other to improve reading fluency.

Thoughout the experimental process, students in the cooperative learning group repeatedly read the same text more than the students in the control groups. Such repeated practice increased the reading fluency of students in the experimental group. Previous studies have also shown that repeated reading practice contributes to students' reading fluency as guided repeated oral reading and repeated reading provide students with practice that considerably improves reading fluency (Chafouleas et al., 2004; Moskal, 2006; NICHD, 2000; Nelson, Alber, & Gordy, 2004; Rasinski, 1990b; Samuels, 1979; Therrien, 2004; Therrien, Wickstrom, & Jones, 2006; Therrien &

Kubina, 2006; Valleley & Shriver, 2003; Yurick, Robinson, Cartledge, Lo, & Evans, 2006). In the present study too, students were given the opportunity of repeated read-aloud practice in their cooperative groups in which proficient and less proficient readers worked together to guide and correct each other's reading. This resulted in the development of their reading fluency skills. As Rasinski (2003) states, "Practicing short passages three to five times can help students develop greater automaticity and expression in their reading, especially if that practice is given with formative feedback" (p. 17). Rasinski et al. (1994) also noted that repeated reading helped improve the reading fluency of second graders over a six-month period.

Alhaidari (2006) investigated the effects of cooperative learning on the reading performance of fouth and fifth grade students. The findings revealed that cooperative reading practice improved students' reading fluency skills. Alhaidari commented that this finding was the result of students helping one another during reading, giving positive feedback and encouraging each other for more reading practice. He also added that students who read together in their groups had the opportunity to read the same text many times and proficient readers helped less proficient ones.

As a result, the present study provides two key insights for literacy instruction. First, this study provides evidence that cooperative learning can be used effectively in Turkish elementary classrooms. It also provides new insights into the potential impact that cooperative learning can have on Turkish students' reading performance, particularly reading fluency.

Second, this study bears great significance for the Turkish literacy context. The elementary Turkish language curriculum does not sufficiently focus on reading fluency (MoNE, 2005). In addition, very few studies exist in the country about reading fluency and its relevant variables (Yilmaz, 2008; Yildiz et al., 2009; Yildirim et al., 2009). As a natural outcome of these factors, the needs of Turkish educators in this field remain unsatisfied and many stakeholders in education (teachers, experts, university lecturers, etc.) are insufficiently informed about the concept of reading fluency, how children may be equipped with reading fluency, how these skills may be evaluated, and how problems may be diagnosed or rectified. Teacher preparation programs in Turkey need improvement in this respect. As many of the practicing teachers in the country are insufficiently equipped with the knowledge and skills needed to resolve problems in this area, these problems persist. They are exacerbated by the lack of reading specialits in Turkish schools, lack of resources on reading skills, insufficiency of school infrastructure, failure of the media to fulfill its function, and the absence of non-governmental institutions to conduct nationwide reading studies. Studies conducted particularly in the U.S. have revealed that reading fluency plays one of the key roles in turning children into proficient readers (NICHD, 2000; Rasinski, 2009). It is hoped that the present study will guide future studies in Turkey and place emphasis on the issue of equipping Turkish children with reading fluency skills. It would then contribute directly to raising Turkish generations with better literacy skills.

In conclusion, many recommendations may be made accordingly for improvement in reading fluency in Turkey. The elementary curriculum should include strategies for diagnosing and remediating reading fluency problems. Both in-service teacher workshops and pre-service teacher programs must include specific training for reading difficulties. Teachers should be instructed to explicitly teach reading skills and strategies to their students. The public and private sectors should support nationwide reading studies financially. Standardized and informal assessment tools need to be developed to evaluate students' reading fluency. Families can be included by developing booklets and offering training seminars on reading fluency. The Turkish Higher Education Council should start infrastructure studies needed for the establishment of departments to train reading specialists in teacher preparation faculties. Finally, reading fluency standards for each grade level in elementary education should be identified through nationwide studies.

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EVAULATION OF BEGINNING READING AND WRITING SOFTWARES[1]

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ABSTRACT

The purpose of this study to evaulate the beginning reading and writing software. In the study, documant review which is one of the qualitative research techniques was used. Nine beginning reading-writing softwares randomly selected from the education software CD's used in teaching of reading-writing in primary education of first grade students constituted the study group of the research. In analysis of the data, beginning reading-writing softwares were analysed through content analysed. The assessment instrument is formed of three parts including the use of software, the stages of teaching reading-writing and technical properties. As a consequence, it was observed that the softwares are not sufficient in terms of technical properties when the beginning reading writing educational softwares are examined. The activities to ensure the student participation were included in C, G and H softwares but the number of activities can be increased. The elements to boost the learner's motivation are much more needed. Reading practices were more included in the softwares than writing practices. Reading-writing stages were followed in C, G and H softwares. Student participation can be encouraged and feedback, photographs, active songs and animation to boost the student's motivation can be employed. The softwares where students can record what s/he has done, in which s/he can continue from where s/he left and where s/he can take the printouts of what s/he has done can be developed.

Key Words: Beginning reading and writing, softwares, reading and writing softwares, first gade.

INTRODUCTION

There is a widespread expectation that information and communication technologies will change the nature of instruction and provide the learners with cognitively challenging, attractive materials. Through the use of Internet, multimedia etc., learners can engage in individualized instruction where they can investigate and learn concepts and content to meet their specific needs (Kazancı & Okan, 2009). On the one hand, learning and teaching techniques gradually change and develop (Castellani, Jeff, 2001), on the other hand it becomes easy to reach computer at schools and homes that form the child's environment (Haugland, 1997a; Judge, Puckett and Bell, 2006; Nikolopou, 2007; Sawyer, 1999).

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[1] A part of this study was presented at the 10th National Training Symposium of Classroom Teacher, in Sivas.

Educational software is one of the most important elements of computer-aided education. These are the softwares prepared in computer environment and intended for shortening the teaching process making the topic more visual and audial by taking advantage of computer environment in teaching a certain topic or problem (Kazu & Yavuzalp, 2008: 113).

The growing use of computers and technology in schools and the educational software beginning to flood the market demands careful examination of the quality of the software that children are exposed to (Shamir & Korat, 2006:541). The use of educational software in the school setting is not a simple task. Evaluating the software before applying it is even more difficult especially if the software claims that it blends education and entertainment in order to create a motivating and successful environment for learning (Kazancı & Okan, 2009:36).

As Haugland (2005) stated only about 20 % of the software and web sites available are developmentally appropriate. Developmentally appropriate software empowers children to become active participants in their own learning. It enables children to control the learning process and through exploration construct concepts and knowledge (Haugland & Ruiz, 2002).

According to Polonoli (2000:11), educational software packages all share four essential elements: (1) their conception is graunded in accepted learning theory, (2) they employ gaming features; (3) they are culturally sensitive, and (4) they posses the ability to elicit an emotional response from learner. On the other hand Haughland suggests diffrent feauters for educational softwares. Three issues are important considerations when selecting or updating software and/or web sites for children's use in classrooms or computers labs. The first issue is computer integration: products need to mesh with the goals or standards identified by the school, district or state. Second, violence should be avoided, especially if children initiate and control the violence. Third, the developmental appropriateness of programs is an essential consideration (Haugland, 2005:329). In the field are studies in which the researchers assessed the educational softawares, which they created, by employing scales (Haugland, 2005; Haugland & Ruiz, 2002; Haugland, Bailey & Ruiz, 2002; Kazancı & Okan, 2009; McKenzi, 2003; Nikolopoulou, 2007; Polonoli, 2000) and had the teachers assess them (Kazu & Yavuzalp, 2008).

The softwares in accordance with the items of pointless, nonstandard, robotic, glib, static, disneyfied, flashy and empty are evaluated in the educational software scale which McKenzi (2003) developed. Kazancı and Okan (2009), in their studies where they assessed the English teaching programmes developed for children, used the assessment instrument developed by McKenzi. Kazancı and Okan (2009) analyzed the English language teaching programme by including the evaluations of two researchers.

Haugland (2005:329), Haugland and Ruiz (2002:126), Haugland, Bailey and Ruiz (2002:191), and Nikolopoulou (2007) who used Haugland's scale, in their studies in which they evaluated educational softwares, they divided sofwares into two age groups (3-8 and 9-14) and evaluated them under the head of 8 programmes (creativity, language, math and science, multicultural, problem solving, thematic and teacher resource). In the studies, developmental appropriateness of the softwares are separately assessed in compliance with Haugland Developmental Scale for Software. The highest point in the assessment is 10, and the points between 7-10 demonstrate that software is developmentally appropriate for children. Also, the properties that software possesses is explained.

There has been a close relationship between literacy, technology and literacy instruction (Karchmer, 2001). Technology has affected both the structure and the content of books for youth that reflect the "radical change" principles of interactivity, connectivity and access (Dresang & McClelland, 1999:164). On the otherhand it is called electronic literacy. Electronic literacy refers to literacy activities that are delivered, supported, accessed, or assessed digitally through computers or other electronic means rather than on paper (Topping & McKenna,

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1999:107). Internet (Karchmer, 2001), elektronic e-books and electronic talking books (Karamaker, Pitchford & O'Malley, 2010; Medwell, 1998; Oakley, 2002), the programmes improving reading (i.e. computer-aided collaborative strategic reading, Kim, Woodruff, Klein & Vaughn, 2006) and software programmes (Balajthy, 2005; Biggs, Homan, Dedrick & Minick, 2008; Jimenez, 1997; Lovell & Phillips, 2009; McKenna, 2002; Santoro & Bishop, 2010; Sawyer, 1999; Underwood, 2000; Wepner & Bowes, 2004) are used for the purpose of improving students' reading.

The categories of software for reading and writing are: drill-and-practice software, electronic books, tutorials and multiple category. Tutorials provide initial instruction in a skill or strategy, often with some amount of drill and practice. The multiple category has a variety of types of software that are included in the same program (Balajthy, 1997:1). According to McKenna (2002:94, 95) implications for software are:1. Instruction should be systematic and direct. 2. Good phonics software facilitates teacher monitoring. 3. Good phonics software helps children progress from alphabetic to orthographic decoding.4. Good phonics software employs onset-and-rime formats. 5. Good phonics software employs make-and-break activities. 6.Good phonics software progresses from monosyllabic to multisyllabic words. 7. Good phonics software maximizes time on task. According to Baker (2003), the framework involves four levels of evaulation: theoretical perspectives of literacy, stances toward integrating literacy and technology, aspects of literacy, and types of educational software.

In additon, there are studies regarding the evaluation of reading software. Lovell and Phillips (2009), evaualed 13 commercially available, authorized software programs for teaching reading and writing in the primary grades. These programs were assessed on interface design, content, instructional design, whether manufacturers' educational claims were supported by the programs, and appropriateness to supplement reading and writing instruction. Santoro and Bishop (2010) evaluated the beginning reading softwares of the children having difficulty in reading in the first reading period. In the study where 31 products were evaluated, content analyses were used. In the study, four primary criteria were employed in order to evaluate the software. They are interface design, instructional desing, phonological awareness skills and alphabetic understanding. The headings of learner design, affordances, aesthetics and motivation were included in interface design; instructional sequences, practice activities and progress monitoring in instructional design; sound level, sentence level, word level, syllable level, onset-rime level and phoneme level in phonological awareness; letter-sound correspondence, blending, segmenting and word reading in alphabetic understanding.

Sound-based sentence method, cursive handwriting which has come to be used in Turkey since 2005 have started to increase use of technology in teaching beginning reading and writing. Publishers developed a number of booster sources to support beginning reading writing teaching and they added software cd's including beginning reading sets in addition to the books. There are different reading and writing softwares prepared by different publishers for the teaching of beginning reading-writing.

The softwares are prepared in accordance with beginning reading-writing stages. The sound-based sentence method according to Primary Education Curriculum of 2005 is made up of the stages of hearing and recognizing the sound, reading and writing the sound, syllables from the sounds, words from the syllables, forming sentences from words and composing texts from sentences. Sounds of letters, but not their names, are taught. Teaching sounds are performed in compliance with the sound groups. In the first sound group are e, l, a and t; in the second sound group i, n, o, r and m; in the third sound group u, k, ı, y, s and d; in the fourth sound group ö, b, ü, ş, z and ç; in the fifth sound group g, ç, p and h; and in the sixth sound group ğ, v, f and j. The computer software prepared is arranged in accordance with sound teaching stages.

It is important that softwares should be suitable for the beginning reading-writing stages and for the development of student, and should ensure the student's participation. Besides, according to Case and Truscott (1999), selecting the appropriate software is crucial for optimal success. When the studies are examined, no study has been encountered which analyzed the qualities of teaching softwares of reading-writing and their

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appropriateness to the beginning reading-writing education programmes. The purpose of this study to evaulate the beginning reading and writing software.

METHOD

In the study, documant review which is one of the qualitative research techniques was used. Document analysis is a systematic procedure for reviewing or evaulating documents both printed and electronic material (Bowen, 2009:27). A, B, C, D, E, F, G and H (A1, Açı, Batu, Berkay, Birset, Coşku, Okyanus, Saray and Top publications) beginning reading-writing softwares randomly selected from the education software CD's used in teaching of reading-writing in primary education of first grade students constituted the study group of the research. Publishers give teacher's set along with beginning reading-writing student sets. Beginning reading-writing CD of teaching software exists within the teacher's and student's set. The CDs in which reading-writing softwares exist were taken from the teachers in consequence of the talks made with the class teacher.

In analysis of the data, beginning reading-writing training softwares were analysed through content analysed. Content analysis involves identifying coherent and important examples, themes and patterns in the data (Patton, 1987:149). Content analysis includes the stages to be followed step-by-step such as the stages of preliminary analysis (Bilgin, 2006), encoding (Bilgin, 2006; Yıldırım & Şimşek, 2005), categorizing, or in other words, finding the themes (Bilgin, 2006; Yıldırım & Şimşek, 2005), coordination of codes and themes (Yıldırım & Şimşek, 2005), inference, that is, identification and interpretation of the discoveries (Bilgin, 2006; Yıldırım and Şimşek, 2005). According to Patton (1987:149), several readings of the data usually necessary before it can be completely indexed.

At the stage of analysis, primarily softwares were examined and notes were taken. At the second stage, the softwares were analyzed in detail. After this stage, encodings from the notes and the categories from encodings were constituted. In consequence of the study of reading-writing softwares and educational software, an assessment instrument was developed. The assessment instrument is formed of three parts including the use of software, the stages of teaching reading-writing and technical properties.

In the study, deep focus (internal validity) data were collected (Yıldırım & Şimşek, 2005). In this context, the researchers tried to discover some patterns by continually comparing, commenting and conceptualizing the results they obtained with each other (Yıldırım & Şimşek, 2005:267). In addition, the researcher analyzed the teaching of reading-writing softwares for along time, thus interacting with the softwares for a long time (Yıldırım & Şimşek, 2005).

The two researchers evaluated six softwares out of eight softwares using the assessment form developed. After that, the assessments the researchers made were compared. The number of agreements and disagreements in these comparisons was identified and inter reliability of the data of this study was calculated with Miles and Huberman's Formula. Reliability was calculated using Miles and Huberman's (1994) formula of "Reliability = Consensus/(Consensus + Dissension). Reliability percentage at the level of 90% was obtained as a result of application of the formula.

FINDINGS

The analysis of eight beginning reading-writing teaching softwares (A, B, C, D, E, F, G, H) were included in this part. The softwares are examined according to use of software, reading-writing teaching stages and the technical properties.

A software

Use of Software. It automatically opens up when CD is inserted in the computer. Main menu comes on the screen (Figure 1). Sound groups were included in the main menu. Each of the sound groups was written in different colors. Figure-2 comes on the screen when the sound taught within the sound groups is clicked. On the sound teaching page, there are buttons of "turn to main menu" on the left, then, there are the buttons of "watch the story", "writing of the sound" and "syllable/word/sentence" respectively.

Fig.1 Main page
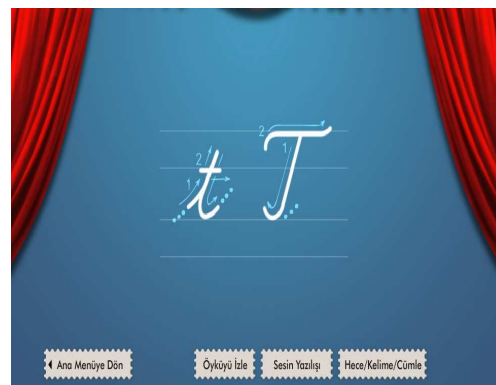
Fig. 2 Sound page

Teaching Stages

Watch the story. In order to make the sound to be heard, a story in which the sound was intensively used is told with an animation. The characters were dubbed. The stories are mostly informing texts. On the screen where the story is appeared, there are the buttons of "turn back" and "watch full screen".

Writing of the sound. Lower case and upper case letter taught are given side-by-side in line. When you click the "show" button on the lower case letter, writing of the letter is shown with a pencil. Similarly, when you click the "show" button on the upper case letter, writing of the letter is shown with a pencil. On the bottom-side, on the other hand, is the button of "turn to sound menu". Pictures are rarely used in the software.

Syllable/word/sentence. When syllable/word stage button is clicked, syllables or words come on screen. Writing of the syllable/word is shown and the syllable/word is read when any of syllable or word is clicked. Consonant letters are read. In some sounds, syllable and word stage are thought together and in others there is only syllable or word stage. On the bottom-side of the screen there are "turn the sound menu", "Syllable/word" and "Sentence" buttons respectively.

Sentences stage. When sentences stage is clicked, "sentence 1, sentence 2, sentence 3, sentence 4" come on the screen, respectively. For example if "sentences 1" is clicked, sentence 1comes on the screen and is read.

Technical Properties
It is seen that the reading-writing software which A publisher prepared is appropriate for color usage and dubbing. In this software, the actvities carried out are not registered and their printouts are not taken. The option for "Help" and the "guidelines" to direct the student are also included. "Main character" was not used in the software. When the images used are analyzed, it is observed that instead of photographs of living things and objects, their cliparts were used. In a reading-writing software, transitions between the stages are done by clicking the buttons of "backwards and forwards". In the course of teaching, the student can not participate in the process, s/he only watches. The elements and statements to boost the learner's motivation were not used.

B Software

Use of Software

Teaching of the sounds is made up of 29 videos. Each video is at the length of 48-100 seconds. The videos proceed automatically. The video can be controlled using the "play" and "stop" buttons in order to prevent the transition from one sound to the other.
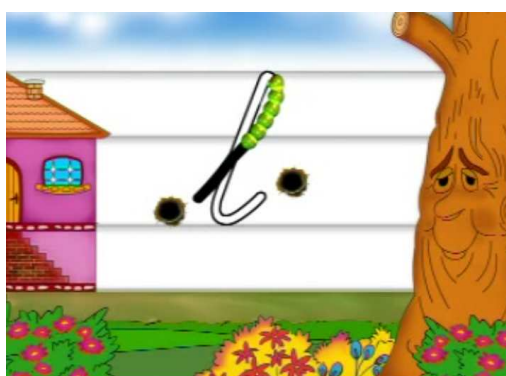
Fig. 3 Sound page

Fig. 4 Example of text

Teaching Stages

Making the students hear the letter sound. First, a picture of living things or objects in which the letter sound is taught is shown to the students. Then, two examples are given to the pictures of living things, objects which contained the sound and the writing of their names in cursive writing.

Reading-writing the sound: Writing of the sound taught (Figure 3) is illusrated with an "apple worm". First, writing of the lower case letter, then the upper case letter are shown. First, singly writing of the small letter, then its writing with other letters by combining it with them are shown. Capital letters are taught utilizing proper nouns. Only vowels are read while the letters are being written.

Text stage: At the last stage, the text comes on the screen, yet reading is not performed. The texts' not having integrity in the teaching of first sounds can be understood, but integrity is observed in the texts in the proceeding sounds. When the text in Figure-4 is examined, it is observed that the text has no unity while a meaningful text is expected to be formed because the sound "d" is included in the third group.

Technical Properties

It is seen that the reading-writing software prepared by B publisher is appropriate in terms of color usage and dubbing. In this software, the actvities carried out are not registered and their printouts are not taken. The option for "Help" and the "Guidelines" to direct the student are not included. "Main character" was not used in the software. When the images used are analyzed, it is observed that instead of photographs of living things and objects, their cliparts were used. In B reading-writing software, the videos proceed by itself. It is necessary to click the "stop" button to stop the video and the "play" button to start it. In the course of teaching, student does not participate in the process, but only watches. The elements and statements to boost the learner's motivation are not used. Also, in B software there is a music in the background during the sound teaching.

C Software

Use of Software

CD automatically opens up when it is inserted in the computer. Main menu comes on the screen (Figure 5). In the main menu, the buttons of "I'm Learning the Sounds", "Word Bank" is included on the left, and "I'm Learning the Numbers" and "Activities and Evaluations" on the right. While the page is opening up when the buttons are clicked with the mouse, the segment you entered, that is, the one on which the button is printed is also sounded vocally. When "I'm Learning the Sounds" is clicked, six sound groups come on the screen. Each of the sound group is written in different colours (Figure-6).

Fig. 5 Main page
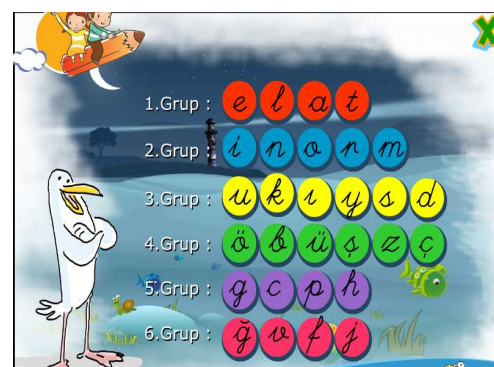
Fig. 6 Sound groups page

Teaching Stages

Making the students hear the letter sound. Teaching of the letter sound starts with a song about the sound. The song is sung by the children. The same composition is used in all of the songs. Only the lyrics change according to the sound taught. The song is sung monotonously. An open notebook comes on the screen while the song about the sound taught is sung (Figure-7). On the left page of the notebook, the sound's lower case or upper case writing is seen on the screen, changing. On the right page of the notebook, on the other hand, pictures of the objects starting with the sound, their writing and their manuscript-capital, manuscript-small, cursive-small, cursive-capital writings come on the screen respectively.

On upper right of the screen is off button and on the right bottom (from left to right) are the buttons of main character, repetition, back and forward. When the main charecter Picture is clicked, the interface in which the sound groups are included comes on the screen. The pictures which contains the sound taught are exemplified, the students are asked to mark whether the sound is heard "at the beginning, in the middle or at the end".

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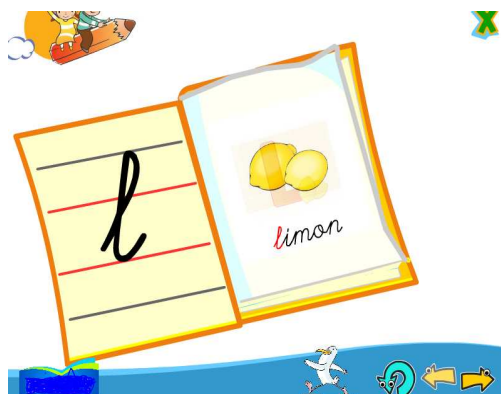
Fig. 7 Learning sound
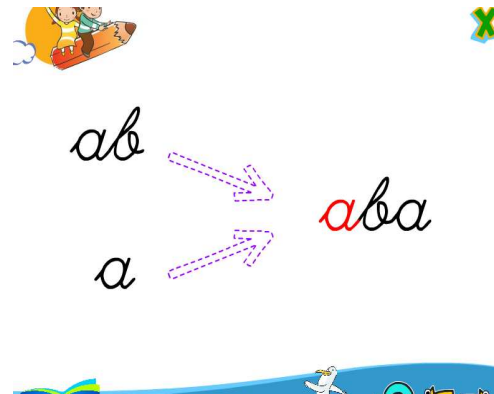
Fig. 8 Syllable page

Writing of the sound. First of all, written form of the sound comes on the screen. At the second stage, main charecter writes by slipping over the sound. At the third stage, it is written with a pencil. At the last stage, the combined writing of the sound is made. By continually clicking "forward" button, the next phase was proceeded.

Syllable/word Stage. Syllable/word is formed combining the sound or syllables with an arrow. Sounds/syllables are read separately, they are also read when forming syllable/word. Incorrect spelling is taught to the students (Figure-8). Syllable or word is incorrectly spelled, while is must be as "a-ba", it is taught as "ab-a".

Sentence stage. Sentences come on the screen. The students are asked to read the sentences. After reading the sentence, students can control their pronounciation by clicking on "play" button at the beginning of the sentence (Figure 9).
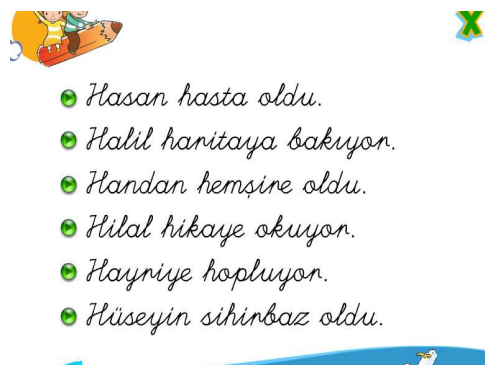
Fig. 9 Reading sentences
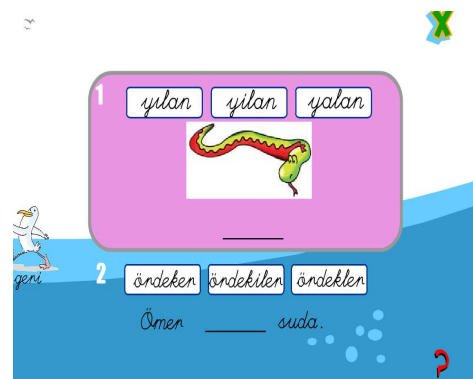
Fig. 10 Examples of drills

Activities and evaluations. The practices made in the "activities and evaluations" sections on the main menu are organized according to the sound groups. For example, when you click the second sound group, the activities belonging to this group can be performed. In the first example, the picture of the object which is given is selected and it is moved to the blanks below. The word driven by the mouse does not fill to the blanks if it is incorrect, if it is correct, it fill the blanks and heard positive sound.

In the second practice, three words are given. Of these three words, one is correctly written, and the other two are incorrectly written. For instance, it is necessary that among the words of **"dukcs, dkucs, ducks"**, the

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appropriate word be selected by the students and moved to the place left empty. However, the first grade student may not select the correct word among the three words given because the words are similarly written to each other.

The number of activity in each sound group cannot be known. In the first sound group are the words composed of the sounds the students have not learned. For instance, the sound "p" which is included in the word "ip" is not taught in the first sound group. Instead, the picture of "ip" can be given instead of the word in which the sound "p" is heard. Under the last activity regarding the each sound group is "try again" button. On the left is "backward" button, on the rigth buttom, "help" and upper right "shutdown".

Word bank. When the word bank button is clicked, sentences come on the screen. The student is asked to read the sentences. The student can use the "play" button given at the beginning of sentence to control what s/he read.

Technical Properties

It seen that the reading-writing software prepared by C Publisher is appropriate in terms of color use and dubbing. In this software, the student can not record the actvities s/he carried out and s/he cannot take the printouts. In the C software there is the option of "help", apart from the other softwares. The "guidelines" to direct the student are included vocally. With the help of "main caharacter", voice/sound teaching is performed in the software. When the images used in the software are analyzed, it is observed that instead of photographs of living things and objects, mostly their cliparts were used. In the C reading-writing software, transitions between the stages are done by clicking the buttons of "backwards and forwards". In the course of teaching, except for activities and evaulation student does not participate in the process, but only watches. The statements to boost the learner's motivation were not used.

D Software

Use of Software

Teaching of the sounds is made up of 31 videos. Each video is at the length of 120-136 seconds. The Cd opens up with a media player programme. The video proceeds automatically. The videos can be taught in parallel with sound booklets the publisher prepared. The main character tells the things to be done by introducing itself. It indicates the things to be done with the same words in teaching of the each sound.
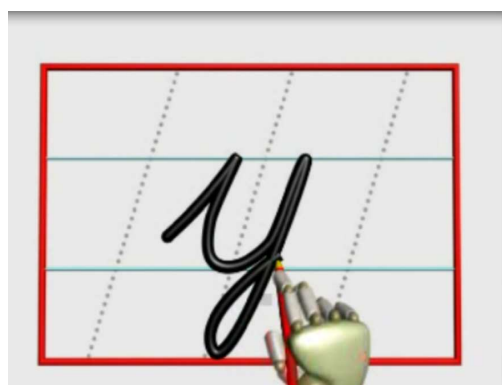
Fig. 11 Writing sounds
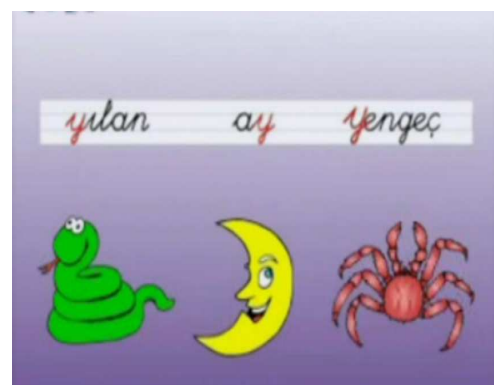
Fig. 12 Example of words

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Teaching Stages

Making the students hear the letter sound. In the CD of "D" software, there are not any practices for having the letter sound heard such as story or song in which the sound is used.

Reading-writing the sound. The main character shows writing of the sound, in the meantime it reads it. At the same time, the student is asked to write the sound in the air. Small and capital form of the sound is given simultaneously. Pictures of the words where the sound is heard and their written forms are given together. Consonants are read when they are thought.

Syllable/word stage. There is no syllable/word stage, the sentence stage is directly gone on.

Text stage. Text stage and sentence stage are mixed. While the text with headings are given in teaching of some sounds, only sentences are given in teaching of some sentences. In addition, some texts are not appropriate for student's level, abstract sentences/texts are included. At the end of the teaching of each sound, main character beams up the sound board to the space.

Technical Properties

It is observed that the reading-writing software prepared by D publisher is appropriate for color use and dubbing. In this software, the actvities carried out can not be recorded and their printouts cannot be taken. There is not an option of "help" in the D software. The "guidelines" to direct the student are included vocally. With the help of "main caharacter", sound teaching is performed in the software. It is observed that when the images used in the software are examined, mostly the cliparts were used. In the D reading-writing software, transitions between the stages are done by clicking the buttons of "backwards and forwards". In the course of teaching, student does not participate in the process, but only watches. The elements and statements to boost the learner's motivation were not used. Additionally, in the D software, music is used in the background during the sound teaching.

E Software

Use of Software

The CD opens up automatically when it is inserted in the computer. The buttons of "I'm reading, I'm writing, Easy reading, reading according to the themes, writing book with leading lines, product file, teacher's guidebook" come on the screen (Figure 13). When any of these buttons is clicked, sound is heard. For instance, when "I'm reading and writing" buton is clicked, booklets come on the screen. When any of these booklets is clicked, first sound of school bell is heard. When the "forward" arrow in bottom right-hand corner and the "backward" arrow in bottom left-hand corner are clicked, one can visit pages of the booklet. The Publisher transferred its books into digital environment. Student is able to study with pencil and eraser on the page (Figure 14).

Fig. 13 Main page

Fig. 14 Drill just like on paper

Teaching Stage

Having the letter sound heard. The studies for having the letter sound heard does not exist because it is page of the book, but there is only the writing and pictures.

Reading-writing the sound. The studies for reading the sound and showing its writing were not included. Capital letters are thought upon to the curriculum.

Syllable/word stage. There is no syllable and word stage, all of these practices are included in a written form.

Text Stage. There is no text stage, it is also included in a written form.

Measurement and evaluation. There is a part of assessment and evaluation, but it is given in a written form. The student cannot control what s/he has done.

Technical Properties

It is seen that the reading-writing software prepared by E publisher is appropriate for color use and dubbing. Dubbing was not performed since the books were transferred into digital environment one-to-one. In this software, the actvities carried out can not be recorded and their printouts cannot be taken. There is no option for "help". The "guidelines" to direct the student are provided in a written form as they were in the books. "Main character" was not used in the software. It is observed that when the images used in the software are examined, mostly the cliparts of living things and objects were used instead of their photographs. In the E reading-writing software, transitions between the stages are done by clicking the buttons of "backwards and forwards". In the course of teaching, student does not participate in the process, but only watches. The elements and statements to boost the learner's motivation were not used.

F Software

Use of Software

The CD opens up automatically when it is inserted in the computer. The main menu in which the buttons of letter box, magical letters, I'm learning the numbers and games in the bottom right-hand corner, and the buttons of switch off and full screen in upper right-hand corner come on the screen (Figure 15). The involved buton is clicked according to the exercise to be performed with the students.

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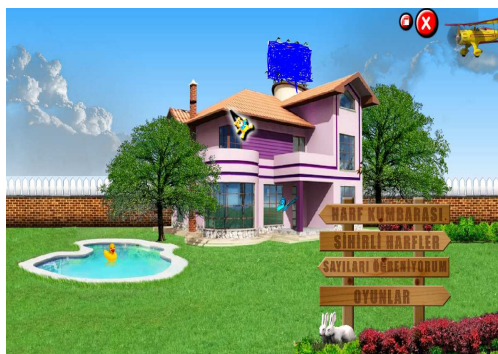
Fig. 15 Main page

Fig. 16 Writing sound

Teaching Stages

Having the letter sound heard. A song related to the letter sound is sung in the study of having the letter sound heard (Figure 16). On the bottom left-hand corner are "forward" and "backward" signs, and bottom right-hand corner is the "main page". Upper left-hand are "stop" and "play" buttons beside the square papers where the letters are written, and upper right-hand is the repeat button. On the right-hand of the screen is the "letter menu" button. When the letter menu button is clicked, the sounds appear in accordance with the groups and alphabetical order.

Reading-Writing the sound. The practices for writing the sound is only performed by writing capital "t" and small "t" letter in cursive under it to the papers hung on the upper left-hand on the screen while a song related to the sound is sung. Writing of the sound in cursive can be repeated by clicking the sign "repeat" on the left hand of the papers. Manuscript style of the letters are also thought. Also, first small then capital of the sound taught comes on the screen on an unlined board after the song is sung. In the mean time, the consonant sounds are read.

The samples of the words where the sound is used. The samples of the words in which the sound is used after the sound is read are seen on the screen together with their pictures and shapes in the forms of cursive writing and the words are read.
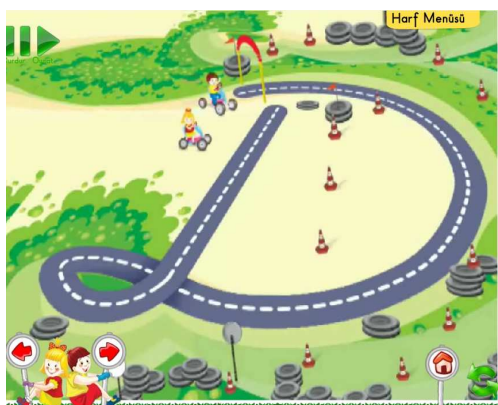
Fig. 17 Writing the sound

Fig. 18 Game page

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The Magical Letters. In the magical letters, for instance, the path the student created while going home forms "a" sound written in cursive. In the meantime, information is also provided about the walking child. "B" is likened to eye glass or the path the children created with their bicycles is likened to "d" sound (Figure 17). However, rather than likenings, the shape developed on the screen is linked to the shape of sound taught as a result of a certain action of the main character. Information about the topic is given in the formation of each letter. A little more attention could have been paid to the shape to which the letters are likened, some letters have nothing to do with the shape of the letters.

The Games. When "games" button is clicked in the main menu, two game options come on the screen as shown in Figure 18. The games are card matching and jigsaw puzzle. In jigsaw puzzle game, the shapes of sounds created in the magical letters are given as the pieces of jigsaw puzzle. There is button of "give clue". However, when "give clue" button is clicked, nothing can be seen. How the game can be played is told in a written way, and there is not any audible help. When jigsaw puzzle is completed, writing of "you completed, congratulations" comes on the screen flashing. In card matching game, as will be understood from its name, the game of finding matches is played by opening the reversed cards.

Technical Properties

It is observed that the reading-writing software prepared by F publisher is appropriate for color use and dubbing. In this software, the actvities carried out can not be recorded and their printouts can not be taken. There are no option for "help" and the "guidelines" to direct the student. "Main character" was not used in the software. It is seen that when the images used in the software are examined, the cliparts of living things and objects were mostly used instead of their photographs. In the F reading-writing software, transitions between the stages are done by clicking the buttons of "backwards and forwards". In the course of teaching, student does not participate in the process, but only watches. The elements and statements to boost the learner's motivation were used in the F software. In addition, in the F software, music is used in the background during the sound teaching.

G Software

Use of Software

The CD opens up automatically when it is inserted in the computer (Figure 19). The main menu consisting of the buttons of painting, line exercises, numbers, letters, listen and read, word game and close come on the screen. When the Mouse is taken into each division, what is written is read vocally.

Fig. 19 Main page

Fig. 20 Painting

Teaching Stages

Painting. There are eight pictures in this section. The desired color on the paint is clicked with the brush drifted with the help of Mouse. Then, the related part of the picture is painted by clicking it to the desired part of the picture (Figure 20).

Line Practices. When line practices is clicked in the main menu, nine line practices come on the screen. When the selected line practice is clicked, the directive of "friends, you also follow with your finger" is given.

The Letters. When letters is clicked in the main menu, six sound groups appear on the ballons in different colors on the screen. When the balloon of studied sound group is clicked, the balloon shines out on the screen. When one of the sounds on the balloon is clicked, the buttons of adumbration, syllable-word-sentence-text and assessment and evaluation come on the screen.

Fig. 21 Hear the sound

Fig. 22 Syllable/word/sentence/text page

Having the letter sound heard: When "adumbration" button is clicked, "listen to the song, natural sounds, words, writing of the sound and balloon game" sections come on the screen. These sections are seen in clouds in a written form. When the cloud in which "listen to the song" is written is clicked, the related section opens up. In the words section, the students are asked to provide an example for the name where the taught sound is used, to distinguish the related sound in the images where the taught sound is used and to provide example for the words in which the sound is used (Figure 21).

Reading-writing the sound: When "writing of the sound" button is clicked, small letter is written and read. On the upper right-hand, small and capital forms of the letter are given. Whichever forms of the letter, capital or small, is clicked writing of the sound is shown and the sound is read (Figure 21).

Balloon game: The students are asked to catch the learned sound in a flying balloon.

Syllable stage: In the syllable stage, while one of the sounds is being read, the other is covered with a cloud. Then, the sounds are combined and read. Right after this, assessment and evaluation section appears. The syllables are given in turn and the student is asked to read them. When the student fail to read or would like to check what s/he read, s/he can check it with "listen" button. At the last syllable, "play again" button comes on the screen next to "listen and continue" buttons (Figure 22).

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Word stage: In the word stage, while one of the syllables is being read, the other is covered with a cloud. Then, the syllables are combined and the composed word is read. Images of the word come while it is being read. Later, writing of the word is shown on a single line. Right after this, assessment and evaluation part comes on the screen. The student is asked to write what is seen on the picture thanks to the given sound. When the student cannot read or would like to check what s/he read, s/he can check it through "listen" button. At the last syllable, play again button comes on the screen next to "listen, continue, check and clean" buttons (Figure 22).

Sentence stage: In the sentence stage, sentences come on the screen in turn. The student is asked to read the sentences and then to check them by clicking on "listen" button (Figure 22).

Text stage: In the text stage, the student is expected to read the text appearing on the screen and to write it on his/her notebook (Figure 22).

Measurement and evaluation: There is an assessment and evaluation section. At the last section, the student is asked to read the sentences written on the screen and to have an adult or someone older then him/her to check it. In the directive given later, an older person is asked to read and the student is asked to write what the older person read.

Technical Properties

It is observed that the reading-writing software prepared by G publisher is appropriate for color use and dubbing. In this software, the actvities carried out can not be recorded and their printouts cannot be taken. There is no option for "help" in this software. The guidelines are vocally given via main character. "Main character" was used in the software. It is seen that when the images used in the software are examined, the pictures of living things and objects were mostly used instead of their actual photographs. In the G reading-writing software, transitions between the stages are done by clicking the buttons of "backwards and forwards". There are elements and statements to boost the learner's motivation in the G reading/writing software.

H Software

Use of Software

The CD opens up automatically when it is inserted in the computer. Primarily, the main character and the writing of "I'm learning reading and writing" come on the screen, then the sounds are arranged in accordance with the order of sound groups. At the upper right-hand corner is the switch off button, and two flower figures at the bottom left-hand. In one of these flowers, "abc" is written, and there are book symbols in the other one. When "abc" is clicked, three lines comes on the screen. At the bottom left-hand corner is the sign of returning the main menu and the clavier appears when the two flowers in the area near to the middle are clicked. There are the buttons of "print" and "save" at the bottom right-hand corner. The student, if s/he wishes, can use his/her own computer's clavier, or if s/he wishes, s/he can use the screen clavier. When the symbol of book is clicked, the Publisher is introduced. In the Cd, there are sorted flowers at the bottom of the page on the whole training teaching pages. In addition to forward-backward buttons, the next page can be viewed by clicking these flowers. Any directive as regards the use of buttons in the main menu is not given.

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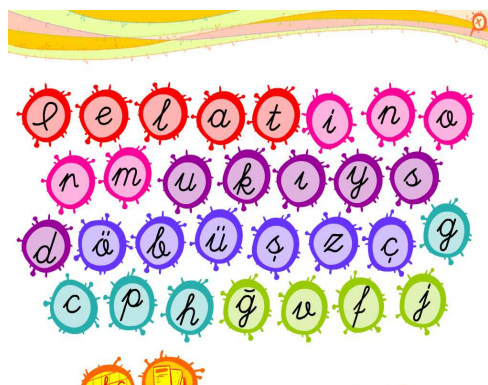
Fig. 23 Main page

Fig. 24 Line practices

Teaching Stages

Line Practices. When the symbol located at the beginning of the sounds in the main menu is clicked, line practices come on the screen. There are 13 line practices in the section. One can proceed in the line practices by clicking the flowers located under the page. The dots are combined by crossing with the pencil over the dotted lines. It is understood from the symbol at the upper left-hand corner in which section the person works. At the bottom left-hand corner is the sign of main menu and at the bottom rigth-hand corner are the symbols of backward, repeat and forward in three flowers.

Having the letter sound heard. When the taught sound is clicked in the main menu, a song primarily aiming at having the sound uttered by the main character and its friends. While the main character is singing the song, the words to motivate the student are pronounced. Besides, samples are given for the words in which the sounds are used, images are shown and the student is asked to repeat them. At the second stage of adumbration, pictures of the objects where the sound is heard are shown, and the student is asked to tick up the images where the sound is heard. Warning sound is heard when the student does a mistake and the sign cross (X) comes on the screen, when s/he does correct, a possitive warning sound is heard and the sign tick (√) comes on the screen. One can proceed by clicking the flowers, but it is necessary to process by clicking the forward button at the third flower. The flowers stand for the sections. Therefore, it is necessary to proceed by clicking "forward" and "backward" buttons so as not to skip some stages.

Fig. 25 Example of incorrect spelling

Fig. 26 Example of drills

Reading-writing the sound. One of the characters bears the taught sound when the forward button is clicked or the flowers are clicked. Writing of the sound is firstly performed on an indistinct letter, then performed directly with a finger and finally done by a pencil over dotted letter. Writing of the sound is repeated until the forward button is clicked. Student is provided with loud directive as to how s/he will write it. Also, the student is asked to write with finger and the pencil in the air respectively. Finally, the sound's continually cursive writing is written with a pencil. Apart from the other softwares, there is a sound button at the upper right-hand corner on this screen. The sound is read while it is being written. However, consonant letters are not read while vowel letters are being read.

Syllable stage. In the syllable stage, firstly a sound appears on the screen and it is read. At the second stage, the other sound appears at the bottom of the screen and it is read. At the third stage, the sounds are combined with an arrow and they constitute a syllable. However, consonant letters are not read. Incorrect spelling is taught in the syllable section (such as in-i, al-i, nar-in, mor-al, em-el, iz-i, bal-on, üt-ü, ad-a, kal-em, ıl-ı, an-ıl, ay-a, at-eş, çek-iç, ağ-a, ag-a, ev-e, gün-eş, ec-e, can-er, ip-i, pil-ot, ah-a, hak-em, gör-ev, ef-e, af-iş...) and then the spelling taught incorrectly is tried to be corrected.

Word stage. In the word stage, first of all, a syllable comes on the screen, and then it is read. At the second stage, the other syllable appears on the screen at the bottom, and then it is read. At the third stage, the sounds are combined with an arrow and they form a word, then it is read. At the word stage, a sample is given to the forms of two words which are perpendicularly and cursively written (including the forms of capital and small forms the taught sound).

The studies of evaluation are carried out at the end of word teaching from "n" sound onwards. In the first exercise, the student is asked to combine the syllables given in the box by dragging them with the Mouse and to form a word. A positive warning sound is heard and green tick comes on the screen when the word is correctly formed. When a wrong word is formed, a negative warning sound is heard and red cross comes on the screen. In the second exercise, the student is asked to write the object, whose picture is given, by dragging the disorderly given letters and correctly ordering them at the bottom row. When the word is incorrectly written, a positive sound is heard, and green tick (√) and shape/form of the perpendicularly and basically written word comes on the screen. When the word is incorrectly written, a negative sound is heard and red cross comes on the screen.

Sentence stage. In the sentence stage, first of all, the practice of "listen to the sentence and repeat it" is performed. Secondly, the student is asked to complete the missing words of the sentence given below with the words provided. Then, the student is asked to compose a sentence in the following line by dragging the given words with the Mouse. If the sentence is correct, a positive sound is heard and green tick (√) comes on the screen, and if the sentence is wrong, then a negative sound is heard and red cross (X) comes on the screen. The sentences are also given with perpendicular, basic writing from "g" sound onwards. The sentences are only given with the perpendicular, basic writing from "ğ" sound onwards. In the H reading-writing software, transitions between the stages are done by clicking the buttons of "backwards and forwards" or by clicking the flowers given below.

Text stage. In the text stage, the student is primarily asked to analyze the picture and to tell what s/he sees. At the second stage, the student is asked to listen to the text coming on the screen. At the third stage, the text and the image come on the screen together, and the student is asked to read the text. Headings of the texts and the text are related to each other. All of the texts constitute an integrity. However, the number of words repeated in the texts are few, and this situation makes the texts, particularly the initial texts, difficult for the students. The texts are taught through manuscript handwriting style after the "Ğ" sound.

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Measurement and evaluation: There is not an assessment and evaluation section. In the word and sentence stages, the practices made after the instruction can be considered within the evaluation studies.

Technical Properties

It is observed that the reading-writing software prepared by H publisher is appropriate for color use and dubbing. In this software, the practices written on a empty page with the clavier can be saved and the printouts can be taken. There is no option for "help". The guidelines are audibly given thanks to the main character. Main character is used in the software. It is seen that when the images used in the software are examined, the pictures were mostly used. There are elements and statements to boost the learner's motivation in the H reading/writing software. For instance, the students are tried to be motivated by the statements such as "you are wonderful, superb".

CONCLUSIONS

Computer and educational softwares have become an important art of education today. Computer experiences which are developmentally appropriate make it possible for the child to explore, gain experience and reflect them and to compare with others. In addition, the softwares that are developmentally appropriate enable the children to control their own learning processes (Haugland, Bailey & Ruiz, 2002; Haugland & Ruiz, 2002).

The assessment, while buying a software or using a web page, helps the users make reasonable decisions which suit with their reading and writing targets (Baker, 2003:195). In the selection of softwares, teacher's role is important because s/he will choose the most appropriate software for his/her class, will organize the learning activities and also will organize his/her class (Nikolopoulou, 2007:178). For this reason, the appropriateness of educational softwares, e-books and web pages for the student's level, his/her developmental characteristics and programme are a significant research topic. Thus, the purpose of this study is to assess the beginning reading-writing educational softwares.

Nine softwares were examined in the study. The softwares were assessed in terms of use of the software, teaching reading-writing stages and technical properties. It is seen that the use of color and dubbing in A, B, C, D, E, F, G and H softwares are appropriate. It was determined that in the software prepared by E publisher, the same of book pages was included and dubbing did not exist. Haugland (2005:330) states that computer experiences should not be electronic worksheets and this is a poor use of a powerful leaning tool. Different from other softwares, in the software prepared by H publisher, password was used on entry in teaching of each sound in order to prevent the students from moving on to the sounds that they did not learn.

The student cannot save the activities included in A, B, C, D, E, F, G and H softwares after s/he has done them, however, in the H software, the student can save the writing practices of lines s/he has done on an empty page in lines and can take their printouts. According to Haugland (1997), printing and saving are important technical properties. The printouts are records of computer experiences of the child, especially those who cannot tell his/her experiences, and these printouts can also be put in the portfolio files. Besides, if the student can save what s/he has done, s/he can continue from the point where s/he left. Haugland and Ruiz (2002) state that when students are given an opportunity to share the things which s/he has done in the computer, they far better learn the topics and that rich and social environment in which they discuss their experiences, achievements and opportunities enhance their critical thinking skills as well as their problem-solving skills.

While there is no option for "help" in A, B, D, E, F, G and H softwares, C software has an option for "help". The fact that there is no option for "help" in the softwares cause the student to proceed on his/her own by trying the buttons. This situation can slow down the student. The "guidelines" is given through the "main character" in F and G softwares, while it is audibly given in C, D, G and H softwares.

In all of the softwares, mostly the cliparts of living things and objects are used instead of their photographs. In A, C, E, F, G and H softwares, one can proceed by clicking "forward-backward" buttons, nevertheless, one can also proceed by clicking the flowers icon given at the bottom of page as it happens in H software. The Cds belonging to B and D softwares automatically proceed. The reason for this is that they are prepared via "flash player". While there is no main character in A, B, E and F softwares, sound teaching in C, D, G and H softwares is performed under the guidance of main character.

Student participation is not favored in A, B, D, E and F softwares, it is only supported in the softwares prepared by C, G and H publishers. Student, by complying with the directives, try to do what are taught in the software or does the activites on his/her own. Only in the C, G and H softwares, the student is given feedback as regards what s/he has done when s/he completes the activity. Lovell and Philips (2009) state that reading-writing educational softwares do not include the student in the process and do not provide feedback. In G and H softwares, there are elements to boost the student's motivation. For instance, in the H software, student is tried to be motivated by the main character with the statements like "you are wonderful, superb".

The stages of beginning reading-writing are preparation, hearing and recognizing the sound, reading and writing the sound, syllables from the sounds, words from the syllables, sentences from the words and last reading and writing. While teaching stages are separately included in some softwares, in some softwares the stages are mixed or they are not included in the software. For example, in some softwares, syllable stage and word stage, sentence stage and text stage are given together. In their study in which they assessed reading softwares, Santoro and Bishop (2010), by departing from phonetic awareness and from the points of understanding the alphabet, established that software developers focus their attention on one of the early reading skills. In addition to this, reading practices are more included in the softwares than writing practices.

In beginning reading-writing softwares, a preparation study is carried out before moving on reading-writing stage. The line studies, which mostly prepare students for writing practices and aim to develop the students' small muscles, are not included in the softwares. Students are given instruction for drawing in the air in the line studies of G and H softwares. Besides, only G software has the painting practice in order to develop the students' small muscles.

When beginning reading writing softwares are examined in terms of hearing and recognizing the sound, the sound is tried to be heard through a story told with an animation in A software, through pictures in B software, via a song, Picture and likening in C software and thanks to a song in F software. Also, images of the sound, where the sound is used, are exemplified in F and G softwares. In B and G softwares, a separate song Cd is given in beginning reading writing educational software kit in the use of sound teaching. There are no stages of having the sound heard in D and E softwares.

In the stage of writing of the sound, writing of the sound is taught in different ways in each softwares. Writings of capital and small letter are shown on lines together in A software, in B software writings of first small then capital letter are shown on lines by an apple worm. In C software, the letter's written form comes on the screen. Later, the letter is written on lines with a pencil while the main character is writing it by slipping on the sound. Finally, the continual writing of the sound is demonstrated on lines. In C software, instruction of capital letter is performed by making use of proper name according to the programme after the instruction of small letter. Capital letter is written over the dotted letter with a pencil on lines. Writings of both small and capital form of the sound on lines are shown respectively in D software. Writing of the sound, in F software, is demonstrated on lineless papers in the form of square contained in the left of the screen, including capital form of the letter above, small form of it below, at the stage of having the sound heard. In the corner of square papers is repeat button. In G software, on the other hand, writing of the sound is shown on lines. Capital/small form of the letter to be written on lines is decided by clicking either capital or small forms of the sounds

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contained in upper-right hand corner. In H software, writing of the sound is demonstrated first with finger over shadow of sound included in lines, at the second stage with finger on lines, at the third stage with a pencil over dotted line and at the fourth stage with a pencil over the letters in order. In D, G and H softwares, student is given an instruction to participate in the practices of drawing in the air. Instruction of capital letter, in B, C, E and H softwares, is performed in accordance with the programme.

Syllable stage was thought together with word stage in C software, nevertheless, it is given separately in A, G and H softwares. On the other hand, syllable stage was not included in B, D and F softwares. Syllable or word is formed by combining sound or syllables with arrow. Stages of syllable and word are separately included in G and H softwares. The syllable to be read is covered by cloud while the syllable or word is being constituted in G software. Then, the syllable to come out appears and the student is asked to read first syllable then the whole of it. In H software, arrows are made use of as it happens in the C software. In C and H softwares, syllables are taught to the students by making wrong spelling. The reason for this is that in the curriculum of Turkish lesson in the first grade elementary education, the syllable to be used in order to move from closed syllable (el, al, at….etc.) to open syllable (ele, ala, ata….etc.) is taught. The instruction in this way causes the student to read the word by spelling wrong. Akyol (2006) states that it is difficult for a syllable taught in the form of "El-a" to corrected, therefore it is truer for the word to be taught in the form of "E-la". In the softwares as well, syllables or words can be written and read by giving correct spelling, without including the wrong spelling. Thus, the reading errors that might occur in students' reading can be prevented.

While the sentence stage is separately included in A, C, G and H softwares, in D software it is included in the text stage. On the other hand, there is no sentence stage in B, E and F softwares whatsoever. However, only in written form are sentence and text stages included in E software. Sentences are given in C, G and H softwares, then student is asked to read the sentences, and the student is able control whether the thing that s/he reads is correct by clicking the control button contained beside the sentence. In A software, the sentences are read while they are being given. Sentence and text stages are mixed in D software. In H software, the student is asked to perform the stages of reading the given sentence, completing the sentence and forming the sentence.

Text stage is included in B, E, G and H softwares. On the other hand, it is not included in A, C and F softwares. There is text stage in B software, but it is not read or the student cannot check what s/he read. In D software, text or sentence stages are mixed. In E software, text stage is given only in written form as it is in the book. While student is expected to write and read the given text in G software, the text is first read, then the student is expected to read in H software.

While there is no measurement and evaluation stage in A, B, D and F softwares, it does exist in C, E and G softwares. The evaluation practices included in the sound teaching stages in H software. However, in E sofware the section of measurement and evaluation is the same of that of the book. In some softwares, the evaluation paractices are included in each section, for instance, in sound, syllable, word or sentence. In C, F and G softwares, a game is included in the software for the purpose of supporting the sound teaching.

As a consequence, it was observed that the softwares are not sufficient in terms of technical properties when the beginning reading writing educational softwares are examined. The activities to ensure the student participation were included in C, G and H softwares but the number of activities can be increased. The elements to boost the learner's motivation are much more needed. Reading practices were more included in the softwares than writing practices. Reading-writing stages were followed in C, G and H softwares. The instruction wrong spelling was included in C and H softwares. The reading practices of manuscript handwriting were very little. The practices such as game, song and story can be selected more carefully.

Beginning reading writing educational softwares can be improved in terms of technical properties such as color, sound, saving, printing, help and guidelines. Student participation can be encouraged and feedback,

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photographs, active songs and animation to boost the student's motivation can be employed. In addition, the student should only watch the teaching and the softwares should also enable the student's individual use. The softwares where students can record what s/he has done, in which s/he can continue from where s/he left and where s/he can take the printouts of what s/he has done can be developed. An instruction can be programmed in accordance with reading-writing stages, and particularly the writing facilities can be increased. Much more places can be devoted to measurement and evaluation sections.

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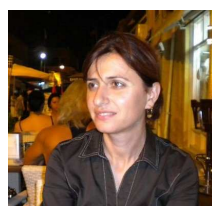
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ENHANCING SPIRITUALISM IN VIRTUAL WORLD

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ABSTRACT

Spiritualism is one word which puts man on the highest plinth of life. Spirituality is the way we find meaning, hope, comfort and inner peace in life. Spirituality in the virtual World is generally known as Virtual Spirituality. A goldmine of wisdom from all kinds of religious and spiritual philosophies, traditions and practices can be found in virtual World now. Technology and Spirituality together forms the material to which man can incline on to and work for the development of a globe in which war will be considered a taboo and violence a rejected dogma. Therefore there is an urgent nee to made the world a safe place to live in and the spiritual reconstruction can help us in achieving this.

Key Words: Spiritualism, Virtual World, Online Technology

INTRODUCTION

In the fast running era of technology, human does not get time to be Spiritual. Day by day he is becoming mechanical and in his mechanical life he is going far away from spiritual life. Spiritualism is a junction of science, philosophy and religion. It focuses to endorse an individual's personal experience with God. God is a supreme power, rooted in a religion, nature or some kind of unknown essence. Spirituality is based on the idea that there exists something, outside the experience of our five limited senses. God created everything exist in this world but there is no technology which can even make a single seed of a fruit. Technology is respected because all knowledge of technology matters are emanated from Vedas and are useful to all human beings. In the present era of technology human beings are busy in the study of technology but he is not getting time to involve himself in spiritualism and wonderful acts of God which are beyond computation and mind's eye. In the present era possibility of a spiritualism emerging in the globalization of electronic communications that is virtual World. The detonation of spirituality and technological innovation continues to influence realization in contemporary, high-tech society that is virtual World.

VIRTUAL WORLD

Virtual World is the virtual space created in computer mediated world. It represents the paradoxes because at the same time globalizing and decentralizing, bringing about a collective unity of consciousness while simultaneously allowing the flowering of individual empowerment and self-expression. The virtual world has encircled Planet Earth like a new electronic layer of the planetary brain.

Virtual World is a world where we all can communicate with lots of people with using their mind rather than their body, we just use your. One could imagine a very ascetic sort of life growing out of this, where the body is ignored. Virtual World has become part of our daily life, which is in the form of the Internet. They offer a framework that makes sense to the people and the world around us. Virtual World is just like another lok, in which psychological interaction can be done, without considering real or unreal, important and unimportant.
Now a day's people are well aware of the framework of Virtual World. Playing in Virtual World can become a flow, because of its transparent immediacy where the medium seems to disappear. When spirituality is concerned with a metaphysical framework, technology can be a way of revealing. Techno-savy are the people who, playfully, give a sacred meaning to technology. They are a marginal group; the majority of the users of technology will see it as a tool instead of a sacred entity. One of the main characteristics of virtual reality in virtual World is the interaction with the computer in an artificial environment. The interaction can be experienced as real and the user can even be immersed in this reality. Immersion can occur when the interaction with the computer is so real that daily structures of time and space seem to disappear especially when the virtual reality is three-dimensional.

SPIRITUALISM: JUNCTION OF SCIENCE, PHILOSOPHY AND RELIGION

Spiritualism is a religion that is not based on a relationship with a particular savior. it is based upon the idea that we are all to form our own relationship with God, and to obtain guidance and accept responsibility for our actions based on our interaction with that personal guidance.

Spiritualism is the Science, Philosophy and Religion of continuous life, based upon the demonstrated fact of communication, by means of mediumship, with those who live in the Spirit World (1919).

Spiritualism Is called a Science because it investigates, analyzes and classifies facts and manifestations demonstrated from the spirit side of life and called Philosophy because it studies the Laws of Nature both on the seen and unseen sides of life. Spiritualism is a religion because it strives to understand and to comply with the Physical, Mental and Spiritual Laws of Nature, which are the laws of God. A Spiritualist is ;
- the process of self-discovery.
- to better understand self and others' beliefs.
- it is connected to our self and also rooted with others and with the world around us.

Spirituality benefits our life emotionally and physically and give a sense of purpose and help stature out where we are most passionate in our professional, social, and personal life. Spirituality is a way to find own unique place and path in life. Human is unique in every way and on a spiritual level he has a journey tailored to suit. When a person look within him, he discover authentic spiritual part called Self through which he live his entire life. True fulfillment in life means living life the way we believe we ought to. The ultimate purpose of life is to find out what we are about on that deeper spiritual level and then to live it.

SPIRITUALITY AND TECHNOLOGY

Spiritualism and technology are the two concordant as well as complementary aspects of one Truth. As Einstein said, "Science with out religion is lame; religion with out science is blind". Science is the systematic knowledge derived from hypothesis, experimentation, observation and explanation of the results to test the hypothesis. Spirituality is the final distilled essence of all religious principles. Science is the religion of the known and religion is the science of the unknown. At the same time science does not need religion; religion does not need science; but humans need both. "Technology is not in itself opposed to spirituality and to religion. But it presents a great temptation" (Thomas Merton quotes).

In the present era most of the time human is living with technology. Technology is a great blessing to mankind. Technology has come to relieve us of our ignorance and to lighten our toil. Man has begun to enjoy innumerable benefits of technology in his daily life. These Technological developments let to the belief that man is all powerful and God, only a fantasy concept. People began to loose faith in that Supreme power.

Technology provides some physical comforts but at the cost of man's moral and spiritual development. It turned man into a creature without any faith but only supercilious ideas to inspire and guide him. It destroyed man's simple faith, belief fellow outlook, liking and sympathy. Technology alone cannot give peace and happiness to mankind. It must be related to religion and mere technology makes man materialistic, but spiritualism upholds his faith in the higher spiritual value of life.

Spiritualism is one word which puts man on the highest plinth of life. Spirituality is the way we find meaning, hope, comfort and inner peace in life. Spirituality in the virtual World is generally known as Virtual Spirituality. A goldmine of wisdom from all kinds of religious and spiritual philosophies, traditions and practices can be found in virtual World now. Technology and Spirituality together forms the material to which man can incline on to and work for the development of a globe in which war will be considered a taboo and violence a rejected dogma. Therefore there is an urgent nee to made the world a safe place to live in and the spiritual reconstruction can help us in achieving this.

SPIRITUALITY IN VIRTUAL WORLD

Technology is referred to as an instrument of mass production related to profit and loss. Technology as mere instrument is correct but it keeps us from understanding the essence of technology and its relation with truth. Multimedia technology can serve as a pivotal tool of communications, especially among the younger generation. Now the question arises that how we can enlighten through modern technology in virtual World. It has been a very complicated, strenuous and challenging effort to make any concept or content digitalized for virtual World that is extraordinarily fulfilling in the material, intellectual and spiritual senses. For over a decade, Austrian film-maker Titus Leber has immersed himself to encode Lord Buddha's teachings into a modern language of computerized pixels, which is very good example of spiritualism and technology. In the present era if we want to reach enormous audiences, we can adopt this new form of communication world, which encompasses narrative structure, special effects, animation, racy computer graphics and potentially 3D and all this we can get in virtual World.

Spirituality is often connected to nature, especially in New Age thinking. There seems to be no place for the supernatural in a highly technologically controlled world. Virtual World is a product of highly complex computer technology. Therefore, we need to get a grasp of the essence of spiritualism in this technological world.

VIRTUAL WORLD LEAD TO SPIRITUALISM

In virtual World Internet is one way to communicate with lots of people use their mind without using their physic. It is interesting technology pointing in direction, where one could image a very abstinent sort of life where the body is ignored.

A higher power, whether rooted in a religion, nature, or some kind of unknown essence Spirituality is, in the most basic sense, matters pertaining to the spirit and is based on the idea that there exists something, be it a state of mind, a being, or a place, that is outside the experience of our five limited senses. Spirituality is the personal relationship of the individual to this state of mind, being or place and often emphasizes the notion of a path, that spirituality is a goal in achieving understanding, or an improved relationship with the sacred.

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Spirituality can be either a part of a particular religion or independent of religion, in a self directed and personal inner path. As part of a larger religious journey, spirituality is usually descript and predictable, relating to one's personal relationship to god or the divine goal.

As the explosion of spirituality and technological innovation continues to affect consciousness in contemporary, high-tech society, it is just as likely that the non-dual realization may find new forms and relevance to the emerging culture on the new frontier of virtual World.

The convergence of global telecommunications, the Internet, World Wide Web, networked computers and information technology, commercial online services, electronic bulletin boards, satellite and broadcast radio and television, cable networks, virtual reality multimedia entertainment, is forming an expanding and internally propagate interdependent web of connectivity that is integrating our physically separate individual and corporate intelligence into a shared collective mind which is creating possibility of spiritualism, emerging in the globalisation of electronic communications. This rapidly unifying communication is bringing us together into an emerging planetary field for spiritualism.

The increasingly sophisticated high-tech telecommunications infrastructure is actually, beginning provides subtle channels through which the omnipresent Self can circulate and reveal itself. The evolving hardware, computer technology, networking capabilities, fiber-optics, increased bandwidth, blazing modems, all facilitate the flow of digital on-off impulses of light traveling almost instantaneously through a timeless, space less continuum of immediate communications in virtual World. It is beginning to replicate how mind creates the sensory experience of the physical manifestation itself. In virtual World, the extension of mind, is rapidly providing the instruments by which we can see through the maya of form to the underlying light of consciousness itself.

Virtual World is an extraordinarily vivid and dramatic technological-electronic expression of the play of realization. Our great opportunity now in virtual World is to see through the electronic extensions of mind to recognize our identity with this deeper reality, already present within every breath, within every bit and byte, which is the light and screen on which information, multi-media and virtual reality are being projected.

Within this field of rapidly growing electronic clusters of people in virtual World who are beginning to relate and communicate with one another as new high-tech versions of spiritualism. Virtual World community is an emerging spiritualism within which the impersonal global guru may function to awaken a segment of the planet's population to their identity as being consciousness. This is also true that for a certain segment of the population, virtual World is a spiritual experience. The spirituality is in both the medium and the message. Beneath the surface objectives people seek on the Internet and World Wide Web communications, information, education, entertainment, relationship, community is the deeper pull to ultimate fulfillment.

There are strong, vibrant discussions of spiritual content in virtual World, discussions of ultimate things and the most extraordinary collection of old and new religious forms, rituals and sentiments. Virtual World is a pitch in which ultimate questions are being discussed fervently. As Sherry Turkle pointed out, the computer is not only a business tool, it is a "metaphysical machine" which can trigger meditative awareness, the flow experience, and deep speculation on ultimate questions. The unique capabilities of global telecommunications create a special quality for the virtual World:

1. Sitting silently in front of the computer with such focused concentration could have the power of a meditation retreat.
2. The computer late at night is the sacred ritual of many souls who may welcome to recognize their own light reflected on the screen of consciousness.
3. Paradoxically, the anonymous and the personalizing aspects of electronic communication create conditions for the intimate communion of spiritualism.

4. People often feel much freer in virtual World to cut through superfluities quickly and seem more willing to reveal, confession-like, their inner-most essence, which they otherwise usually keep locked up within. The electronic transmission of disembodied intelligence provides greater freedom from the personal characteristics that often distract attention from the Self.

5. The practice of repeating a mantra in virtual World, of embracing the vibrational quality of a given esoteric expression over a period of time, builds up a cognitive structure in the mind. Mantras are good for mental structure, to replace it with something more resonant with this modern era.

6. The sublime force generated by its mantra japa can vibrate in the subtle as well as the external world. Its immediate benefit of purification and enlightenment of the intellect is the key to spiritual refinement and evolution of personality.

7. Using virtual prayer to connect to the highest source of all qualities allows the spirit to grow.

8. Virtual World make possibilities to create the setting in minute detail to suit the spiritual theme, even in ways not possible in real life, make it easier to create a spiritual ambience

9. Virtual World enhances the ability to communicate irrespective of time and space in virtual World should serve as a reminder to humanity to recover our innate, intuitive and telepathic abilities, which the modern civilisation has mostly lost.

10. Mantra is as an integral part of life-style. The vibrations of this universal mantra can spread this invisible Atmic light to the other people near or far and spiritual upliftment of humanity. In virtual World we can attain invaluable divine blessings.

11. Virtual World can lead to acting without regret or accountability, in a spiritual sense, it can be a beautiful thing, allowing for free flowing of ideas and theories without judgment.

12. In virtual World the patients can get relief from pain or overcome their phobias by immersing themselves in computer-generated worlds.

13. Researchers are finding that, working in virtual World can ease pain, both physical and psychological. The researchers found that severely burned patients, who often face unbearable pain, can relieve their discomfort by engaging in a virtual-reality program during wound treatment. Virtual-reality applications are capable to help phobic patients overcome their different kind of irrational fears.

Research that is more recent has shown the benefits of virtual-reality therapy are not limited to burn patients. The team conducted a study involving 22 healthy volunteers, each of whom had a blood pressure cuff tightly wrapped around one arm for 10 minutes. Improving the quality of the virtual-reality system increases the amount of pain reduction. A significant positive correlation between the potency of the illusion - how strongly the subjects felt they were immersed in the virtual world - and the alleviation of their pain.

Technology has always been seen as progress to a better future. David Nobel argues in his book, The Religion of Technology, those Christian scientists tried, with the use of technology, to regain paradise and to restore perfection. Computer-mediated virtual environments attract neo-pagans who consider technology as spiritual.
There are many spheres of existence that are invisible to us because they function in a different manner from earth. Millions of vibrations of sound are lost to us because they are outside the range of our hearing and millions of vibrations of sight fail to be registered because they are beyond the scope of our eyes. Many technological devices like Microphones and radio receivers enable us to hear what is normally beyond the range of our ears. The microscope, telescope and television bring into focus what is beyond our vision. The inhabitants of the spirit world are very real even though we cannot see or hear them. In virtual World everything exists virtually. In virtual World cities, empires, trade, and communication can be seen in a very traditional mythical world and also find a place for ones' own culture. It created introspection on what it meant to be human; ritual and tradition couldn't provide every answer needed in the new era. The modern era started this process of confronting the need to address these questions a new, experiencing new technology and globalization which causes people to have to interact and live interdependent lives. We need to develop a way of thinking an intellectual and spiritual means to comprehend and contemplate human existence in virtual World.

There are various ways to enhance spiritualism in virtual World:

➢ Virtual Preaching
➢ Virtual healing
➢ Virtual ethical stories
➢ Virtual Satsang

Above are the tools which we can get in virtual World to enhance our spiritual essence within us. One's spiritual behaviour is called into action the moment one turns towards atmic action. Spiritual actions convert our physical and intellectual pursuits into self-awareness pursuit.

The ever-expanding Virtual World has changed the way we mediate, preach and worship. Virtual World helps improve the communication between human and almighty in many ways. We do not require any outside stimulus to open and expand our state of spirituality to inspire our being. We have been given the tools of strength and balance in our body, mind and spirit connection. All this we can achieve in virtual World where material world does not exist. As we program our computer to its language, in the same way we can program our universe to the language of love. Using visualization, sound, music, etc. we can concentrate and retrain our mind upon a single purpose. We can unlock hidden, spiritual potential within our own being. Virtual meditation is used for many purposes and in many ways to produce energies and feelings of calm and peace and to get spiritualism.

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READING ATTITUDES OF HIGH SCHOOL STUDENTS:
AN ANALYSIS FROM DIFFERENT VARIABLES

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ABSTRACT

The purpose of this research is to determine the reading attitudes of high school ninth and twelfth grade students based on some variables. The researcher used 'general survey method' in the study. Totally 426 students from six public high schools, chosen according to random sampling method participated in the research. In order to answer the research questions in the study, "the Attitude Scale Towards Reading" was used. In accordance with the purpose of the study, percentage, mean, standard deviation, independent samples t-test, ANOVA and Tukey-HSD tests were employed in the study. For the statistical analyses SPSS 17.0 was used. According to findings of the study, it was seen that high school students had moderate level of reading attitudes. It was also understood in the study that high school students' reading attitudes differed significantly according to gender, grade level, school type, father's and mother's educational level and the financial income of the family variables.

Key Words: Reading, attitude, high school, gender, grade, education level, income.

INTRODUCTION

Reading plays a very important role in our lives. It is so much a part of everyday living that one can hardly imagine a life without it. In the age of the Internet and information technologies, reading retains its importance as an essential skill for learners of any language (Alderson, 1984). Reading is amongst the most crucial determinants in developing an individual's vision that shapes his or her personality and that makes him or her become closer to other individuals. Reading makes individuals truly free and protects them from ignorance and false beliefs (Ünal, 2010). Also, skills in reading enable individuals to benefit from educational activities, and to participate fully in the social and economic activities in which they take part (N'Nambi, 2005).

Reading has been described in a variety of ways to explain the process of what happens when one reads and how one comprehends a text. However, a widely accepted explanation of reading is not found in the literature (Dubin, Eskey and Grabe, 1986). According to Allen and Bruton (1998), reading as a complex process of making meaning from a text, for variety of purposes and in a wide range of contexts. Grabe and Stoller (2002) define reading as the ability to draw meaning from the printed page and interpret the information appropriately. Reading is a psycholinguistic process in that it starts with a linguistic surface representation encoded by a writer and ends with meaning which the reader constructs (Goodman, 1995). The common characteristics of definitions relating to reading are that it is an activity that is realised through comprehension. Reading is not an activity that takes place individually but one that encompasses many events and situations (Ünal, 2010). A large number of reading specialists view reading as an interactive process (Barnett, 1988). This means that the

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reader's mental processes occur at different levels and he or she engages themselves in an interaction with the print to create meaning (Carrell, Devine and Eskey, 2000).

Because reading is a complex and multifaceted activity (Demiröz, 2010) and it is a complicated skill since it requires the combination of attention, memory, perceptual processes, and comprehension processes (Kern, 1989). Thus, reading involves both comprehension and interpretation of a text by using questions formulated by the reader (Grabe, 1991) and various levels of cognitive processes are required for efficient reading process. Reading can not be regarded as a set of mechanical skills to be learned once and for all, but rather as a complex process of making meaning from a text, for variety of purposes and in a wide range of contexts (Allen and Bruton, 1998). In the reading process, readers use their background knowledge about the text's topic and structure along with their linguistic knowledge and reading strategies to achieve their purpose for reading (Peregoy and Boyle, 2001). As Goodman (1995) states reading is a psycholinguistic process in that it starts with a linguistic surface representation encoded by a writer and ends with meaning which the reader constructs; there is thus an essential interaction between language and thought in reading. In this sense, reading not only includes encoding the language or the written word, it also goes beyond the information in relation with the world (Freide and Macedo, 1998).

There is a direct correlation between reading habits of students and applications in the education system. It seems not possible to improve students' reading habits in an education system that leads students to memorise things that are taught to them. Students can improve their reading habits in a student-centred education system. In an education system like this, students not only develop their researching skills, but also they can approach events critically dealing both with himself/herself and their environment (Gömleksiz, 2004). On the other hand, reading habits are closely related with economical development as well as social development (Bircan and Tekin, 1989). Economical development as a natural process makes social change and development faster and the importance of reading can be felt very closely in developed societies (Yılmaz, 2008). Thus, in order to raise the production of information and follow up the innovations in a society, it is seen necessary to make students gain continuing reading habits (Özbay, Bağcı and Uyar, 2008). For this purpose, students should have positive attitudes towards reading in a society.

Allport (1967) defines attitude as emotional and mental readiness or a preliminary tendency based on experience, knowledge, emotion or motivation on any subject, social topic or event. An attitude is attributed to an individual and it is a tendency that arranges in an orderly manner that individual's thoughts, feelings, and behaviours in relation with a psychological object (Smith, 1968). Most of the researches show that the success in reading skills is closely correlated to the attitude towards reading (Guthrie and Wigfield, 2000; Wigfield and Asher, 2002; Morgan and Fuchs, 2007). In this regard, it has been concluded that students' attitudes towards reading are the leading factor that directly affects their reading performances (McKenna and Kear, 1990; Kush, Marley and Brookhart, 2005). While some researchers state that the positive attitudes towards reading make academic success increase, the others state that success in reading comprehension makes students develop positive attitudes towards reading (Kush and Watkins, 1996; Kush, Matley and Brookhart, 2005). However, it is known that the longer the time spent on reading the greater the probability that students' reading comprehension success is affected positively (Mazzoni, Gambrell and Korkeamaki, 1999). According to the researches (Altunay, 2000; Kılıç, 2004; Balcı, 2009) carried out in the literature, as the level in students' attitudes towards reading rises the marks they obtain from exams on reading comprehension also increase and the time devoted to reading increases as well.

Reading comprehension level of Turkish students was found to be under international standards in examinations carried out in international arenas such as the PIRLS (MEB, 2003). Because of this academic failure of Turkish students in international examinations, the Turkish Education System has been revised and the elementary and high school curricula have been renewed under the light of international educational progresses in order to develop students' academic skills such problem solving, critical thinking, effective

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listening as well as reading comprehension. When the related literature is viewed in Turkey, it can be seen that there are some studies (Çakıcı, 2005; Yücel, 2005; Keleş, 2006; Kovacıoğlu, 2006; Ünal 2006; Topçu, 2007; Sallabaş, 2008; Balcı, 2009; Özbay and Uyar, 2009; İşeri, 2010; Ünal, 2010) for students' reading attitudes in elementary level of education, but it is seen that the number of studies on attitudes towards reading of students in high school level of education is very limited in the literature (Mitchell and Ley, 1996). Besides, developing positive attitudes towards reading is also crucial in terms of measuring and assessing the objectives of reading skills (Roettger, Szymczuk and Millard, 1979 as cited in Ünal, 2010). On the other hand, the determination of reading attitudes of high school students is believed to contribute to policymakers, curriculum developers and teachers in order to design better high school curriculum that will enable students to read more and get higher marks from examinations as such the university entrance examinations, known as YGS and LYS.

Purpose of the Research

The purpose of this research is to determine the reading attitudes of high school ninth and twelfth grade students based on some variables. Hence, the problem statement of the research can be posed as, "What is the attitude level of high school ninth and twelfth grade students towards reading?" In order to answer this research question, the following sub-questions will be tried to be answered in the research.
1. Is there a significant difference between high school students according to gender?
2. Is there a significant difference between high school students according to grade level?
3. Is there a significant difference between high school students according to school type?
4. Is there a significant difference between high school students according to father's education level?
5. Is there a significant difference between high school students according to mother's education level?
6. Is there a significant difference between high school students according to financial income level of the family?

METHOD

The researcher used 'general survey method' (Karasar, 2005), which is one of the most commonly-applied methods in the literature (McMillan and Schumacher, 2006). That method was also used to receive a variety of responses from a number of subjects participated in this study (Ekiz, 2003).

Participants

The population of this study consisted of students in high schools during the 2011-2012 academic year within the borders of Nigde province. In order to detect the sampling of the study, from high schools in cosmos, 426 students from six public high schools were chosen according to random sampling method, volunteered to participate in the research (McMillan and Schumacher, 2006). Approximately 70 (%16,45) students were chosen from the schools. The subjects were assured for the anonymity and confidentiality for their responses in the study. Of the total, 237 (%55.64) of the students were female and 189 (%44.36) of the students were male and 226 (%53.06) students were in the ninth grade and 200 (%46.94) students were in the twelfth grade in the sampling group of the research.

Data Collection Instrument

In order to answer the research questions in the study, "the Attitude Scale Towards Reading" (Gömleksiz, 2004) was used in the study. The information for this scale is given below.

The Attitude Scale Towards Reading

In this study, "the Attitude Scale Towards Reading", developed by Gömleksiz (2004) was used in order to collect data to answer the research questions. The scale consists of 30 items. There are 21 positive, 9 negative attitude items in the scale. The Cronbach's alpha coefficient of the scale was calculated as .88. This result shows that the scale is reliable. KMO value of the scale was found as .83 and Bartlett's test result was determined as

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2202.200. The higher the total score on the scale, the higher the level of attitudes towards reading of students. The conclusion reached in the scale was that the reliability level of the scale was high.

Analysis of the Data

In accordance with the purpose of the study, percentage, mean, standard deviation, independent samples t-test, ANOVA (variance) and Tukey-HSD tests were employed in the study in order to examine the data obtained in terms of some variables (gender, grade level, school type, father's and mother's education level, and the financial income of the family). For the statistical analyses SPSS 17.0 was used.

FINDINGS

The main question of the research was "What is the attitude level of high school ninth and twelfth grade students towards reading?" When the main points regarding the attitudes of students towards reading obtained in the research is analysed, the reading attitude levels of the students participated in the study were found as *X*= 3.09; Std.Dev= 24.93. According to this finding obtained, the answers to the questions denote as "partially agree" level. In other words, the conclusion was found out is that the reading attitudes of high school students were in a moderate direction. The finding to the fist sub-question of the research in relation to gender variable is given in Table 1 below.

Table 1: Reading attitudes of students in relation to gender

Gender	η	X	Std. Dev.	df	t	p
male	189	2.95	20.99			
female	237	3.22	27.66	424	-3.348	.001*

When Table 1 is analysed, it was found out that reading attitudes of high school ninth and twelfth grade students showed a significant difference [$t_{(424)}$= -3.348, *p*<.05] according to gender variable in favour of female high school student. The finding obtained for the second sub-question of the research in relation to grade level variable is given in Table 2 below.

Table 2: Reading attitudes of students in relation to grade level

Grade	η	X	Std. Dev.	df	t	p
ninth grade	226	3.20	26.32			
twelfth grade	200	3.02	23.82	424	2.275	.023*

As looked at Table 2 above, one can see that there was a significant statistical difference [$t_{(424)}$= 2.275, *p*<.05] between ninth and twelfth grade high school students in relation to grade level variable in favour of ninth grade students. The finding obtained for the third sub-question of the research in terms of school type variable is presented in Table 3 below.

Table 3: Reading attitudes of students in relation to school type

School Type	η	X	Std. Dev.	F	P
industrial/occupational high school	104	2.28	12.89		
anatolian high school	225	2.97	14.08	659.263	.000*
science high school	97	3.90	10.73		

When Table 3 given above is analysed, it can be seen that reading attitudes of high school students showed a significant difference [$F_{(2-423)}$= 659.263, $p<.05$] according to school type variable amongst industrial/occupational, anatolian and science high school students. In order to determine the source of the difference amongst the groups, Tukey-HSD test was conducted. According to the result of this test conducted, a significant difference was found between industrial/occupational and anatolian and science high school students in favour of anatolian and science high school students. This result obtained in the research is for the disadvantage of industrial/occupational high school students. The finding obtained for the fourth sub-question of the research in relation to father's education level variable is shown in Table 4 below.

Table 4: Reading attitudes of students in relation to father's education level

Father's Educational Level	η	X	Std. Dev.	F	P
illiterate	-	-	-		
elementary school	84	2.03	3.86	1006.077	.000*
high school	235	3.08	11.59		
graduate school	107	4.13	9.11		

In analysing Table 4 given, it was found that reading attitudes of high school students differed statistically [$F_{(2-423)}$= 1006.077, $p<.05$] in relation to father's educational level variable. In order to determine the source of the difference amongst the groups, Tukey-HSD test was conducted. According to the result of this test conducted, a significant difference was found amongst elementary, high school and graduate school levels in favour of graduate and high school levels of father's educational level variable in the research. This result obtained in the research is for the disadvantage of students whose father had elementary school level of education. The finding obtained for the fourth sub-question of the research in relation to mother's education level variable is shown in Table 5 below.

Table 5: Reading attitudes of students in relation to mother's education level

Mother's Educational Level	η	X	Std. Dev.	F	P
illiterate	35	1.98	3.52		
elementary school	168	2.94	14.61	562.868	.000*
high school	144	3.78	6.96		
graduate school	79	4.16	8.12		

When Table 5 given is analysed, it can be seen that reading attitudes of high school students showed a significant difference [$F_{(2-423)}$= 562.868, $p<.05$] according to mother's education level variable. In order to determine the source of the difference amongst the groups, Tukey-HSD test was conducted. According to the result of this test conducted, a significant difference was found amongst illiterates, elementary school, high school and graduate school levels in favour of graduate and high school levels of mother's educational level variable in the research. This result obtained in the research is for the disadvantage of students whose mothers were illiterates and had elementary school level of education. The finding obtained for the last sub-question of the research in relation to family's financial income level variable is shown in Table 6 below.

Table 6: Reading attitudes of students in relation to family's financial income level

Financial Income Level	η	X	Std. Dev.	F	P
100-500 TL	-	-	-		
501-100 TL	84	2.00	4.32		
1001-1500 TL	163	3.04	12.86	542.777	.000*
1501-2000	124	3.74	11.16		
2001 + TL	55	4.15	8.20		

In analysing Table 6 given above, it was found that reading attitudes of high school students differed statistically [$F_{(2-423)}$= 542.777, $p<.05$] in relation to family's financial income level variable. In order to determine the source of the difference amongst the groups, Tukey-HSD test was conducted. According to the result of this test conducted, a significant difference was found amongst 501-100 TL (Turkish Liras), 1001-1500 TL, 1501-2000 TL and 2001 and above TL income of family's financial income level variable in the research in favour of 2001 and above and 1501-2000 TL financial income level. This result obtained in the research is for the disadvantage of students whose family's financial income level is under 1000 TL a month.

DISCUSSION AND CONCLUSIONS

According to the results of the research, the attitude levels of high school students towards reading were found out to be in a moderate direction. Keleş (2006), Ünal (2006) and Arıcı (2005) found out similar findings to the related finding of this research. On the other hand, reading attitudes of high school students showed a significant difference according to gender variable in favour of female students. In studies carried out by Kush and Atkins (1996), Küçük (1998), Güngördü (2006), Sallabaş (2008), Anastasiadou (2009), Balcı (2009), İşeri (2010) and Ünal (2010), it was found out that female students showed more positive attitudes towards reading than male students in the research. So, it can be said that in the light of these findings, the finding in relation to gender variable of this research is paralleled to the studies in the literature. It is considered possible that female students compared to male students showed higher responsibility for studying their lessons, thus they spend more time on reading (Sidekli and Buluç, 2006; Balcı, 2009; Ünal, 2010). Besides, it can be rooted from the cultural point of view of the society since female students are made stay at home and study their lessons, whereas male students are mostly allowed to go out and meet their friends outside, thus they read less compared to female students. However, Akyol (2005) and Suna (2006) found out no significant difference between female and male students in terms of attitudes towards reading. Although there are opposite findings on reading attitudes of students in relation to gender, it is stated a common belief that gender is not a significant determinant factor in reading attitude in the related literature.

The attitudes towards reading of ninth and twelfth grade students indicated significant difference according to grade level in favour of ninth graders. McCoy et al. (1991), Hayes (2000), İşeri (2006), Keleş (2006) and Suna (2006) found out in their studies that as the years of educational experience of students at school rise, attitudes of students towards reading follow down. Hence, it can be said that the finding in relation to grade level variable in this research is paralleled to studies in the related literature. Twelfth grade students, in other words the final graders of high school level of education, take the university entrance examinations, known as YGS and LYS in the same year. Most of the students spend their time not on reading books but on solving problems in tests in order to better practise for these examinations in their last year. Besides, most of these students spend their time in order to better study for the exams in private test preparatory courses both after school and at the weekends. Thus, the related finding in regard of grade level obtained in the research can be said to be significant from this perspective. On the other hand, it was also found out in the research that attitudes of students towards reading differed significantly in terms of school type variable in favour of

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students who were being educated at anatolian and science high schools. In studies carried out by İşeri (2006), Keleş (2006), Anastasiadou (2009) and Ünal (2010), it was found out that school type and the settlement place of the school differed significantly in terms of attitudes of students towards reading. Hence, it can be said that the finding in relation to school type variable in this research is paralleled to the studies in the related literature. Both anatolian and science high schools accept their students after some examinations at elementary level of education. However, high schools such as industrial and occupational high schools do not accept their students with examinations, so whoever wants to study in these schools can enter without taking any exam. Besides, the students studying at anatolian high schools, especially the students in science high schools enter in these schools with high examination marks. Thus, they have to study and read more in order to enter in these high schools and it can be perceived possible the students studying in these schools have positive attitudes towards reading. Also, the expectations of families on students studying in these schools and their socio-economic indicators can have a positive effect on the reading attitudes of the students. On the other hand, Yavuz (2009) concluded in his study that education is assumed to be a means of achieving social evolution, common exams can be an especially important barrier to vertical social evolution for students whose parents are poorly educated.

According to results obtained in the research, it was found that attitudes of high school students towards reading differed significantly in relation to father's and mother's educational level in favour of students whose fathers and mother had high school and/or graduate level of education in the study. These results obtained in the research were for the disadvantage of students whose father and mothers were illiterates and/or had elementary school level of education. Devrimci (1993), Küçük (1998), Keleş (2006), Anastasiadou (2009), Campbell, Voelkl and Donahue (2000) and Guthrie (2001) found out in their studies that reading attitudes of students differed significantly in terms of father's and mother's educational level. However, Suna (2006) found out a significant difference between reading attitudes of students and their mother's educational level, but not their father's educational level. So, it can be said that in the light of these findings, the findings in relation to father's and mother's educational level variable of this research are paralleled to the studies in the literature. These findings can be explained from two perspectives. The first reason can be explained by Bandura's (1977) social learning theory since students observe their parents. When students have parents who are poorly educated, they will not have enough academic, emotional and social support from their parents as well as they will not see their parents while reading. The second reason can be explained with financial income level since parents who are poorly educated do jobs for low socio-economic status and they reserve less money for their children's education. However, Ünal (2010) found no significant difference between students' reading attitudes and their parents' occupations. Thus, the result obtained by Ünal (2010) does not correspond to the related finding obtained in this research.

According to the last finding of the research, the attitudes towards reading of high school students indicated significant difference according to the financial income level of family variable in favour of 2001 and above and 1501-2000 TL financial income level. This result obtained in the research is for the disadvantage of students whose family's financial income level is under 1000 TL a month. According to Coşkun (2003), one of the factors which determine one's socio-economic status is the financial income level. In this regard, as Tosunoğlu (2002) states, there is a strong correlation between reading books and the financial income level. While parents whose financial income level is high can meet their children's needs, whereas parents whose financial income level is low cannot meet their children's needs. So, this issue can cause parents not to make their children have reading habits. In researches carried out by Devrimci (1993), Keleş (2006), Campbell, Voelkl and Donahue (2000) and Guthrie (2001), it was found out that financial income level of families differed significantly in terms of attitudes of students towards reading. Hence, it can be said that the finding in relation to family's financial income level variable in this research is paralleled to the studies in the related literature. Hence, there exists a considerable body of results showing that monthly income level of the family affects students' reading attitudes levels positively in the related literature. Other research has shown the relationship between family's

income level and academic achievement while there are other results that show that this relationship is low or non-existent (Yavuz, 2009).

In conclusion, it can be recommended that future studies should be carried out in order to better understand the reasons of reading attitudes of high school students. Also, experimental studies can be carried out in order to understand whether the time spent on reading affects reading attitudes of students. A similar study can also be carried out in elementary level in comparison with high school level.

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OPEN AND DISTANCE LEARNING STUDENTS` VIEWS ON THE EFFECTIVENESS OF WEEKEND SCHOOL TUTORIALS

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Abstract

The present study was a descriptive survey carried out at the ZOU to establish the students` views on the effectiveness of weekend school tutorials. The study adopted the descriptive survey design which is essentially appropriate on areas where human perceptions are required. Due to its ability to solicit information deeply buried in the minds and attitudes of people, and its ability to reveal the true present state of affairs in a given set up, the design was seen to be the most appropriate one. Three instruments used in data collection were the questionnaire, interview schedule and documentary evidence to enable triangulation in order to enhance validity and reliability of data. A total of 982 students from all the four faculties of the Zimbabwe Open University, Mashonaland West Region made up the population. Out of this population, 393 made it into the sample as follows: 126(32%) from the faculty of Arts and Education, 98(25%) from Applied Social Sciences, 63(16%) from Science and Technology and 106(27%) from the Faculty of Commerce and Law. Results show that generally resources were made available for the weekend school tutorials. However, transport from regional centre to venue was a problem. Most students benefitted from tutorials through sharing ideas. However, documentary evidence shows that only a few students attended tutorials due distance to the tutorial centre which was considered a challenge. Inadequate tutor preparation also paved way to non attendance. Inadequate tutorial hours per semester per course was another of the several problems raised by the students. The study recommended that ZOU should increase in the number of weekend school tutorial hours per semester to a minimum of ten tutorial hours per course per semester. Because modules are an important type of educational media in distance education, ZOU should ensure that all course modules are available for all the courses. Programme Coordinators need to thoroughly supervise tutors thoroughly.

Key words: Open and distance learning, Effectiveness, school tutorials.

INTRODUCTION

One of the most important instructional elements of contemporary distance education is interaction and this has traditionally been through face-to-face as faculty and students share information and ideas. It is widely held that a high level of interaction is desirable and positively affects the effectiveness of any distance education course. However, it is not clear from research or evaluation data that interaction does improve the quality of learning in most distance education programmes (Kearsley, 1995). Open and distance learning is characterised by less face-to-face interaction between the tutor and the students. This has created challenges resulting in student disgruntlement. It is for this reason that it has become necessary for the study to establish

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the students` views on the effectiveness of weekend school tutorials with a view to finding out their perceptions on this issue. One of the major contentious issues is the too few hours set aside for these weekend tutorial sessions.

Background of the study

Open and Distance Learning has been hailed the world over for being the panacea towards solving the challenges associated with manpower shortages particularly in the Third World states. Lack of capacity to produce adequate graduates through conventional means brought to the fore the issue of Open and Distance learning as conventional educational institutions can not cope with the demand for education and training of a greater magnitude. In Zimbabwe, the Zimbabwe Open University (ZOU) was established for that purpose. ZOU is a state Open and Distance Learning (ODL) institution in Zimbabwe, established on 1st March 1999 through an Act of parliament (Chapter 25:20. Currently, in 2011, ZOU has four faculties; the Faculty of Arts and Education, the Faculty of Science and Technology, the Faculty of Commerce and Law and the Faculty of Applied Social Sciences, offering over 60 diploma and degree programmes. Students are drawn from the country`s ten geo-political provinces as well as the Virtual Region encompassing students outside the country. To foster interaction between students and tutors and between students and students, ZOU has in place a number of initiatives meant to bring the different groups together regardless of geographical distance. Some of these initiatives include making use of self directed instructional materials such as the printed module, CD-ROM, e-learning and weekend school tutorials. However, ODL institutions in some developed nations have now resorted to the use of up to date sophisticated technology which then includes on-line support, real time chat and e-mail discussion groups with staff and students (Ray and Day, 1998; Peat and Helland, 2002), among others. At the ZOU the main form of interaction is through weekend tutorials which are held three times per semester per course. It is in light of this background, therefore, that this study sought to establish the students` views on the effectiveness of weekend school tutorials.

Research questions

The present study aimed at answering the following research questions:
1. Are the resources meant for the face to face tutorials per course per semester adequate?
2. What benefits are derived by the student from the face-to-face interaction during weekend tutorials?
3. What are the challenges affecting the students in their attempt to benefit from attendance of weekend tutorials?
4. How best could attendance at weekend school tutorials be boosted for the benefit of the students?

Literature review
What are weekend school tutorials?

wordnetweb.princeton.edu/perl/webwn defines a tutorial as a method of transferring knowledge used as a part of teaching/learning. According to en.wikipedia.org/wiki/Tutorial, a tutorial is a self-paced learning exercise; a lesson prepared so that students can learn at their own speed, at their convenience. It can also be defined as an interactive class taught by a tutor to students at university or college, individually or in small groups.

A tutorial is also defined as a small class of one or only a few students, in which a member of the academic staff gives focus to individuals' work. This study defines a tutorial as a small interactive class with a tutor that allows discussion and clarification of material covered.

Weekend school tutorials at the Zimbabwe Open University

These are face to face meetings between the tutors and learners and between learners and learners. They replace the distance teacher (the module) and help in breaking the isolation of the distance learner. These are not lecturers but encompass techniques such as group discussions, presentations, demonstrations and explanations. The tutor, during the tutorials merely assists the students to understand the teaching in the

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module and helps students to understand the course teaching in the module and to understand the course structure and clears the grey areas students might have accumulated during their reading or studying of the module. During tutorials the tutor has the following roles to undertake: She/he

1. offers study guidance
2. explains assignments
3. gives feedback on assignments for example, on items they need to work hard on
4. adds onto the ideas provided by the learner so that there is full coverage of topics
5. answers questions raised by the learner in particular sections of the modules
6. facilitates learning through guiding the learners as they engage in group discussions
7. helps learners to identify sources of material when these are not easily available.

Therefore, you can notice the difference between tutorials and lectures. Three tutorials of two hours each are held per semester per course. Each course has six contact hours per semester.

In Tutorial 1, the students receive the course outline unit by unit, guidance on assignments writing, study skills and where to get information. The tutor also advises the learner on how to use the module for learning purposes. During Tutorial 2, the tutor attends to challenges the learners are facing and also gives feedback on assignments through purposeful comments that are meant to improve the learners' learning (Koul, 1976). The last session, Tutorial 3 is devoted to revision and preparation for examinations that come at the end of each semester. It is therefore, imperative that learners attend all the sessions owing to their significance.

Previous research studies

In this section of the study we review literature that is concerned with the conduct of weekend face-to-face tutorials. We focus mainly on the adequacy of resources for the face to face tutorials and the benefits derived by the students from attending these face-to-face weekend tutorials. We also look at the challenges affecting the students in their attempt to benefit from attendance of weekend tutorials and lastly, we look at how best attendance at weekend school tutorials can be arranged in order to benefit the students.

Benefits derived by the students from attending face-to-face weekend tutorials

A research by Barker (1995) indicates that interaction is important for a variety of types of learning, learner satisfaction, and persistence of distance students. Further strengthening the importance of studying interaction was Jackson (1994) who described interaction as one of the central issues related to distance education today. In 1993, Acker and McCain made the following statements concerning the importance of interaction through face-to-face. They stated that "interaction is central to the social expectations of education in the broadest sense and is in itself a primary goal of the larger educational process and that feedback between learner and teacher is necessary for education to develop and improve" (Acker & McCain, 1993).

Face –to-face interaction is an educational topic which has been studied for several decades. Flanders (1970), as well as others, has published entire books dedicated to the subject of interaction. Although these books offer useful insights into the study, they limit themselves to the study of "classroom" or face-to-face interaction.

Moore (1989) further states that interaction is divided it into three categories: learner-content interaction, learner-instructor interaction, and learner-learner interaction. A fourth component of interaction was defined by distance education researchers as learner-interface interaction which takes into account the interaction that occurs when a learner must use intervening technologies to communicate with the content, negotiate meaning, and validate knowledge with the instructor and other learners (Hillman et al, 1994).

Hillman et al (1994) demonstrate that the majority of students in a study they carried out indicated that they felt that experiences in a face-to-face learner-instructor interaction were moderately to very positively related

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to their success in their learning. They also indicated that they felt instructor interest, teaching skills, and personal interaction with the students aided the learning process. Opportunities to discuss assignments and/or course work with instructors was viewed positively by all three groups of students.

The majority of respondents taking part in courses via videotape felt that they felt inclined to real face to face interaction which they viewed as very important to their learning. However, a few of the respondents indicated that being physically separated from the tutor did not pose a considerable challenge to learning (Howard, 2009; Hillman et al, 1994). They also indicated that they felt personal enthusiasm for their class interaction was moderately to very positively related to their learning.

Some students indicated that they did not feel that learning individually was a hindrance to their education but others indicated a dislike for being the only student at a particular learning site or being physically separated from the tutor.

The effect of poor instructor use of education technology was felt to be slightly to extremely negative by each of the groups of learners who felt that this dissuaded them from attending tutorials. The students also felt that talking during class, being ignored by the instructor, and the instructor treating some class members differently than others was also positively related to their non attendance of tutorials thus they detested face-to-face interaction (Howard, 2009; Hillman et al, 1994).

Breuch (2005) argues for face-to-face interaction as opposed to online interaction when he argues that because contributions to online chats are slowed by technology, they result in conversations appearing differently than they would in face-to-face environments.

Sapp and Simon (2005) arguing for face-to-face interaction remark that there are multiple issues introduced by online learning systems. For example, the presence of non-verbal cues common in the traditional classroom face-to-face tutorials, cause instructors to be at ease in determining student engagement and understanding. There is more social interaction, and such interaction is attributed to creating a conducive learning atmosphere. Sapp and Simon (2005:478) assert that "increased interpersonal contact between teachers and students (and among students) is necessary" and that, though online synchronous elements may facilitate some additional opportunities for interaction, they may insufficiently "simulate real-time interaction," which they imply contributes to a sense of "interpersonal camaraderie," the students' level of learning motivation, and their development of interpersonal skills critical for personal and professional development.

Stodel et al (2006) argue that face-to-face classroom interaction enables students to be energised by the classroom discussions and interaction. They further ague that there is robust dialogue and students perceive others and in turn they are also perceived. Furthermore, students get to know classmates and develop real-world friendships. Face-to-face tutorials also enabled the use of non-verbal cues which are used to avoid misinterpretation of ideas as opposed to a situation where students are only confronted with the module. The face-to-face tutorials also enabled students to freely speak among themselves rather than always being required to write down notes (Stodel et al., 2006).

Howard (2009) argues that face-to-face interaction in ODL programmes would likely help instructors to better accommodate learners who would normally have preferred or been more inclined to succeed in the traditional classroom. The face-to-face medium would also give tutors an opportunity to ease those uncomfortable students who find the content of instruction very unfamiliar.

According to a research study conducted by Sapp and Simon (2005) online courses needed to foster more interpersonal accountability, hence the absence of human mediation and interaction through face-to-face negatively affected levels of procrastination and motivation among students who would not have their tutor

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advising them physically on the need to do their work in time. Kibby (2007) concurs by remarking that the face-to-face experience may carry with it a higher sense of responsibility and provides students with more built-in incentives to perform and complete course assignments.

Challenges hindering students benefiting from their attendance of weekend tutorials
According to Howard (2009), actual face-to-face meeting demands class space that may or may not be available. In addition, students who are either bound to unpredictable schedules or reside geographical zones far away from the source of instruction, in the case of ZOU, far away from regional and district centres, and may not be able to participate in a live face to face interaction.

METHODOLOGY

The study adopted the descriptive survey design which is essentially appropriate on areas where human perceptions are required. Due to its ability to solicit information deeply buried in the minds and attitudes of people, and its ability to reveal the true present state of affairs in a given set up, the design is seen to be the most appropriate. Three instruments to be used in data collection are the questionnaire, interview schedule and documentary evidence to enable triangulation in order to enhance validity and reliability of data.

Population
A total of 982 students who were duly registered during the January to June 2011 semester from all the four faculties of the Zimbabwe Open University, Mashonaland West Region made up the population. Out of these 393 made it into the sample as follows: 126(32%) from the faculty of Arts and Education, 98(25%) from Applied Social Sciences, 63(16%) from Science and Technology and 106(27%) from the Faculty of Commerce and Law as shown in Figure 1 below.
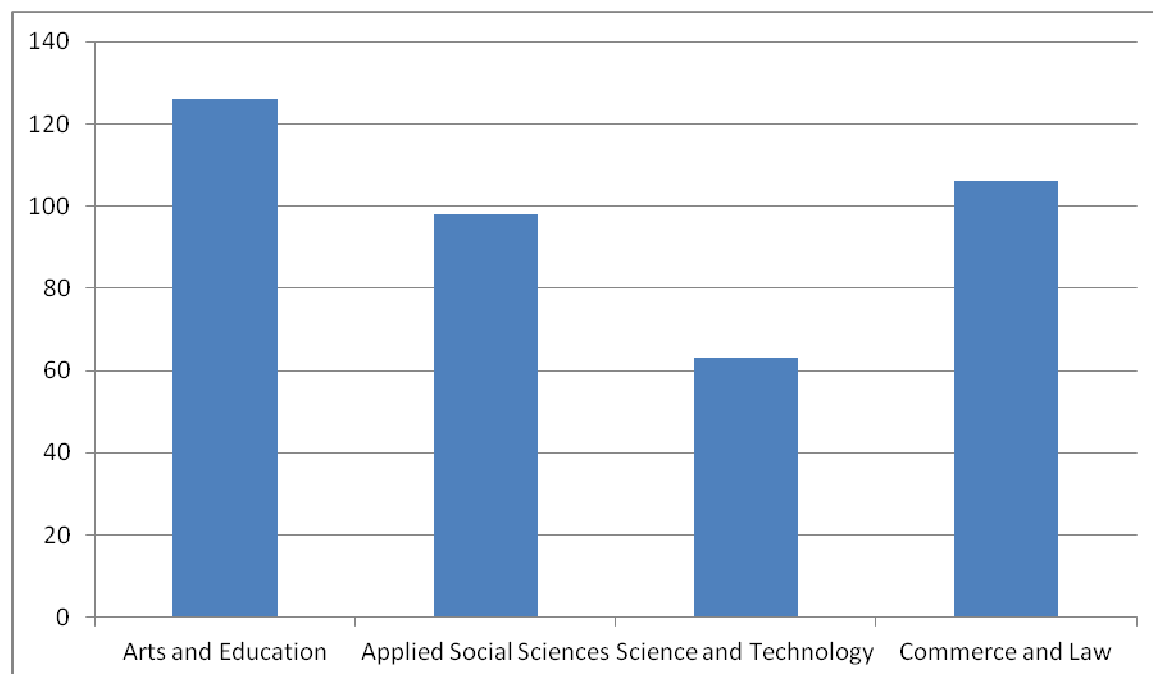
Fig 1: Distribution of the population by faculty

Sampling and sampling procedure

In order to accord each of the four faculties proportional representation, the current study adopted the stratified random sampling. The four faculties made up the four strata from where a sample was chosen. Each of the respondents from the four strata was then chosen through simple random sampling at the rate of 20% per strata. This therefore, implied that out of a total population of 982, 393 were chosen into the sampling.

Data presentation and discussion

Data for the current study were gathered form a sample of 393 respondent students from the four faculties of the Zimbabwe Open University. Hereunder, we present the results of the survey in tables.
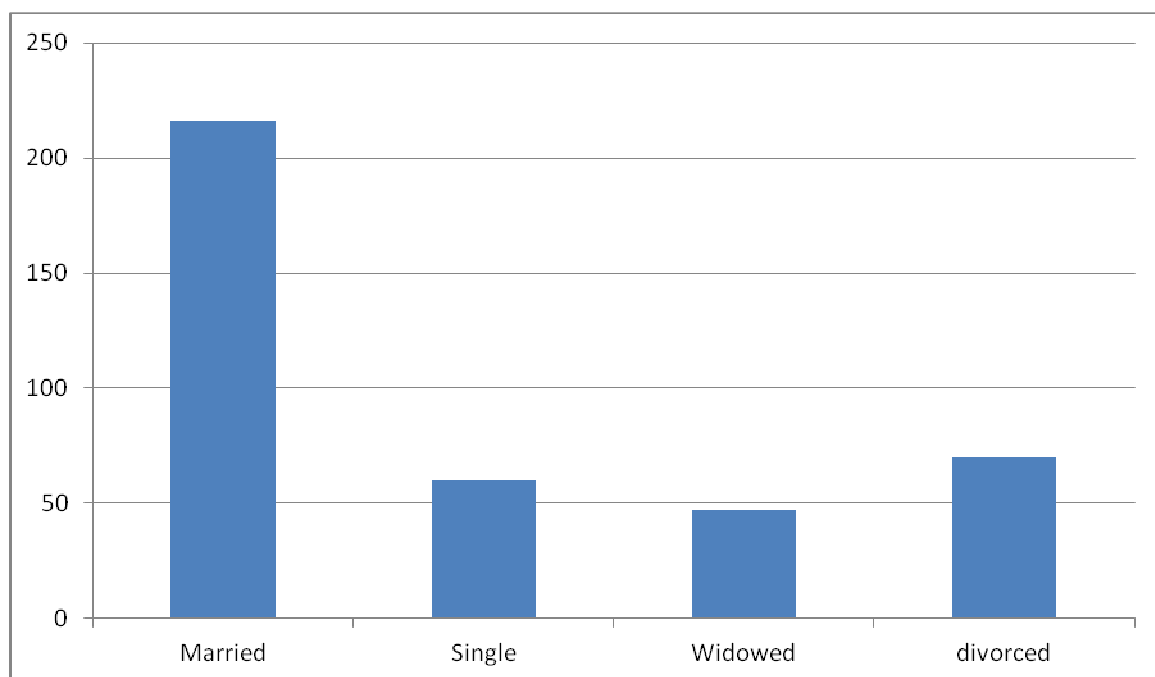
Fig 2: Distribution of respondents by marital status

Figure 2 shows the majority of the respondents were married. These were 216 and constituted 55% of the population. Sixty (15%) were single while 47 (12%) were widowed and 70 (18%) were divorced. The characteristics shown in the table are typical of open and distance learning students. As such they have so many social demands on them which consequently affect their studies positively or negatively.
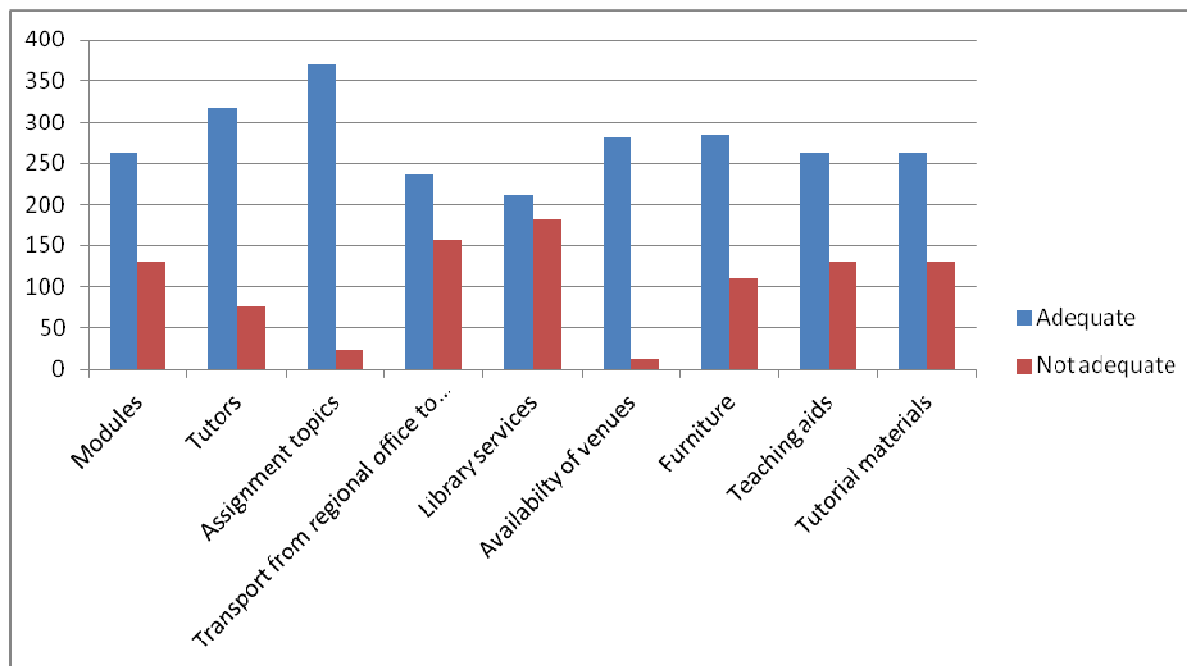
Fig 3: Respondents` views on the adequacy of resources for the face to face tutorials

Fig 3 shows that generally resources were made available for the weekend school tutorials. A majority of 263(67%) stated that modules were available with only 130(33%) indicating otherwise. Tutors were available according to 318(81%). Observations have also revealed the same as in some instances tutors outnumber the students. Only a minority of 24(6%) indicated they had problems in accessing assignment topics during tutorials. According to them only a few were made available and those who fail to get them are instructed to do their own photocopying. However, the majority of 393(94%) saw no problems with assignment topics. Transport from regional centre to venue was a problem for 236(60%) who failed transport should be provided form the centre. Students who get to the regional centre to do some administrative undertakings such as paying fees and collecting modules need to get to the venue of tutorials since the two are separated. Library services were adequately provided for 212(54%) while 181(46%) indicated that the services was not available to them. The major problem indicated by those who failed to get the service was that both librarians were not available as they were also attending tutorials as students. The majority of 281(97%) felt the availability of venues was not a problem. However, a minority of 12(3%) thought otherwise. Furniture was seen to be adequate by 283(72%) while teaching aids were adequate according to 263(67%). One hundred and thirty (33%) thought teaching aids were not adequate. Tutorial materials were adequate for 263(67%) students while another 130(33%) felt tutorial materials were inadequate.
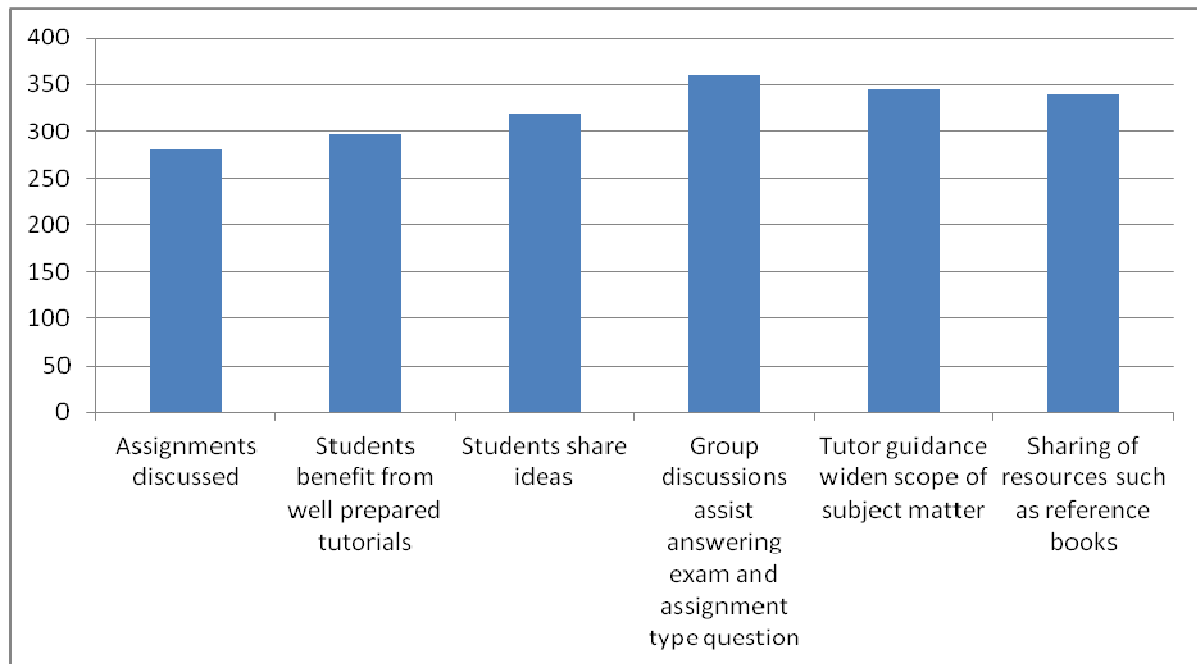
Fig 4: Respondents` views on the benefits derived from the face-to-face interaction during weekend tutorials

Figure 4 presents the respondents` views on the benefits of attending tutorials. The majority of 280(71%) indicated that assignments were discussed to the advantage of those attending the tutorials. Kibby (2007) concurs by remarking that the face-to-face experience may carry with it a higher sense of responsibility and provides students with more built-in incentives to perform and complete course assignments. Another 296(75%) students thought they benefitted from well prepared tutorials. Asked to substantiate this claim in an interview one student remarked that most questions that appeared in examinations had their stuff discussed during tutorial sessions. Most of the students, 320(81%) felt tutorials enabled them to share ideas amongst themselves while 360(92%) thought the group discussions they undertook during the tutorials assisted in answering examination and assignment questions. Stodel et al (2006) concur by arguing that face-to-face classroom interaction enables students to be energised by the classroom discussions and interaction. There is robust dialogue and students perceive others and in turn they are also perceived. Students involved in the interviews stated that they gave each other parts of the module and previous examination papers to go and prepare delivery notes. They would then come as a group and make presentations to each other. These findings are in line with findings elsewhere which found out that opportunities to discuss assignments and/or course work with instructors was a cause for students attending tutorial sessions (Hillman et al, 1994; Moore, 1989; Jackson, 1994). These contradict with findings by Howard (2009) and Flanders (1970) who argue that the absence of the tutor did not cause any considerable challenge to learning. However, Sapp and Simon (2005) further assert that tutorials increased interpersonal contact between teachers and students to the benefit of both.

Some 345(88%) felt tutor`s guidance at the tutorial sessions helped to widen the scope of the course subject matter presented in the modules. One student during an interview remarked saying "we have benefitted from well prepared tutors. They read widely and present content that is very useful and very often the tutors are widely read." The same opinion was shared by quite a significant number of interviewees (56%). There is sharing of resources such as reference books at the tutorials according to a majority of 340(87%). The same results were replicated in the interview with the majority remarking that various resource books were made available by the various students who attended the tutorials. This variety was shared among the students

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hence a diversity of sources and material was made available giving the students the opportunity to compile comprehensive notes.

However, documentary evidence shows that out of 982 registered students at the Zimbabwe Open University, Mashonaland West Region, only 263 turned for the tutorials. Therefore this could imply that there were challenges to their attendance. This then prompted the researchers to find out what some of these challenges are. In Table 4 below we present the findings on the students` views on challenges associated with non attendance at tutorials at the ZOU.
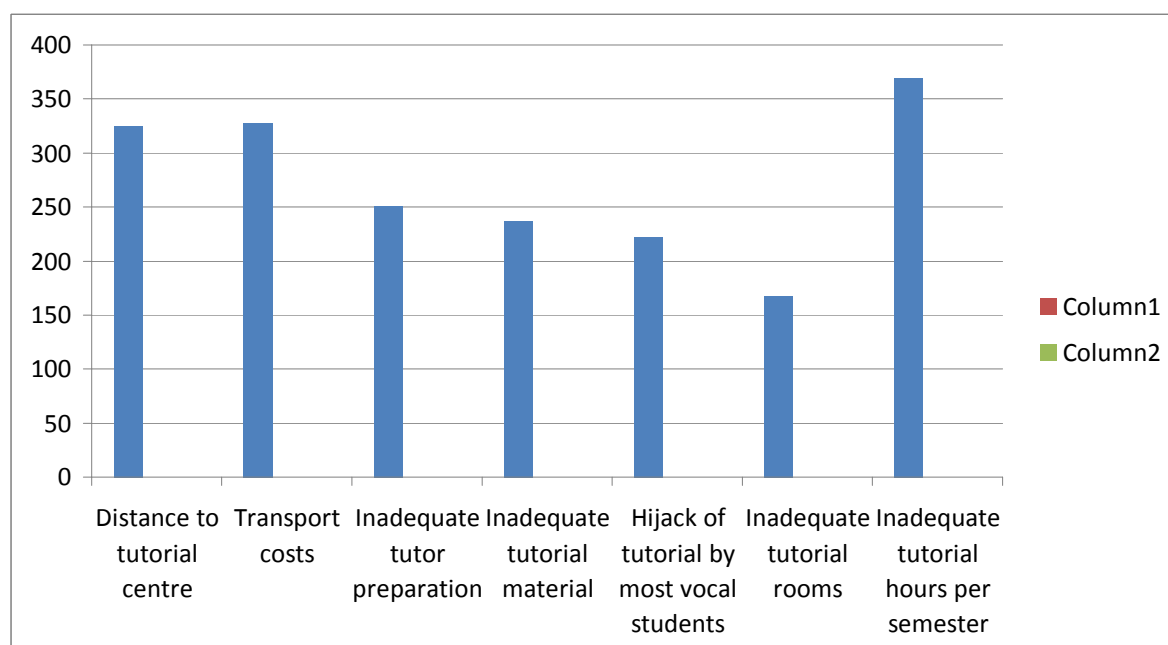
Fig 5: Challenges encountered in weekend school tutorials

Figure 5 shows that distance to the tutorial centre was considered a challenge by 325(83%) while transport costs challenged a majority of 328(84%). Another majority of 251(64) felt inadequate tutor preparation was a challenge encountered at the tutorials. Some students interviewed said that some tutors were of the habit of reading the module without making any other input to the discussion. Such students felt that reading of modules by the tutor does not assist them in any way since they are capable of reading on their own. There was also inadequate tutorial materials according to 237(60%). The results replicate those elsewhere on the effects of poor instructor use of education technology which was felt to dissuade learners from attending tutorials (Hillman et al, 1994: Howard, 2009). A majority of 223(57%) felt the tutorials were hijacked by the most vocal students. Results from the interviews also revealed that group discussions were taken over by those who were talkative but not necessarily relevantly informative and gifted. A majority of 168(43%) felt there was inadequate tutorial rooms at the venue. Probed in the interview on the inadequacy of rooms, a significant number, 45 indicated that at times different programmes were made to learn in the same room. This arrangement paved way for noise as groups could hear what other groups were discussing. There was therefore, interference among groups making it almost impossible to benefit form the noisy arrangement. Inadequate tutorial hours per semester was another of the several problems raised by the students. ZOU currently offers six contact tutorial hours per semester per course. Students interviewed indicated that they could not travel to attend these few hours since it was uneconomic on their part because only learnt a few aspects. One student interviewed suggested that tutorial hours should be increased from the present six per course per semester to ten hours. Under such circumstances, therefore, the vast majority did not find any

reason to attend tutorials. However, contrary to these findings Breuch (2005) advocates for these tutorials as opposed to other modes of learning.

Due to the diminishing numbers of attendees at tutorials, the researchers wanted to find out what strategies could be adopted in order to woo back the students to attend weekend school tutorials. We present the findings in Table 5 below.

Table 1: How best attendance at weekend school tutorials can be boosted for the benefit of the students

Solution	Number	Percentage
Increase the number of weekend school tutorial hours per semester	375	95
Decentralise weekend school venues to district centres	373	95
Ensure availability of modules for each course	375	95
Tutors to be adequately and appropriately prepared for tutorials	240	61
Ensure adequacy of tutorial rooms	235	60
Further help ODL students understand the usefulness of weekend school tutorials	260	66

Table 1 shows that 375(95%) advocated for an increase in the number of weekend school tutorial hours per semester. Generally, interview results seem to concur with the results in the table on contact hours. Students generally require a minimum of ten tutorial hours per course per semester. Owing to distance travelled to tutorial centres, a majority of 373(95%) students felt there was urgent need to decentralise weekend school venues to district centres. According to one interviewed student, decentralisation would help cut expenses drastically thereby ensuring that all tutorials were attended without fail. Because modules were an important type of educational media in distance education, 375(75%) students advocated for the availability of modules for each course. Some student were going without modules and had no starting point, even the course outline, according to some of the remarks obtained in the interviews. According to 240(61%) respondents, tutors need to be adequately and appropriately prepared for tutorials. Some students remarked that tutors were in the habit of giving haphazard deliveries which were indicative of unpreparedness. At most some of such tutors were those that resorted to module reading. In order to avoid group interference, 235(60%) respondents advocated for the provision of adequate tutorial rooms. However, for the majority of those who attended the tutorials, they felt they had benefitted hence they advocated for the Programme Coordinators to help ODL students understand the usefulness of weekend school tutorials.

CONCLUSIONS

From the findings presented and discussed above the researchers drew the following conclusions:
- Tutors are available and according observations in some instances tutors outnumber the students who attend the tutorial sessions.
- Transport from regional centre to venue is a problem for students.
- Library services are to large extent provided for.
- The suitability and availability of venues is not a problem.
- Furniture and teaching aids are adequate, but in some instances furniture is not appropriate for the adult learner.
- Tutorial materials are adequate.

From the look of things, it appears resources are generally available in some areas for the weekend school tutorials. There is therefore, need for improvement in areas such as transport, library service, furniture and venue appropriateness.

RECOMMENDATIONS

Also based on the findings, the following recommendations are made. It is recommended that:

- ZOU should increase in the number of weekend school tutorial hours per semester to a minimum of ten tutorial hours per course per semester.
- There is urgent need to expedite the decentralisation of weekend school venues to district centres in order to help cut expenses drastically thereby ensuring that all tutorials are attended without fail.
- Because modules are an important type of educational media in distance education, ZOU should ensure that all course modules are available for all the courses.
- Programme Coordinators need to thoroughly supervise tutors to ensure that they are adequately and appropriately prepared for tutorials.
- In order to avoid group interference during tutorials, adequate tutorial rooms should be hired.
- Programme Coordinators should help ODL students understand and appreciate the usefulness of weekend school tutorials.

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DISTANCE EDUCATION AND THE RURAL-URBAN PROFESSIONAL MIGRATION: IMPLICATIONS FOR EFFICIENCY

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ABSTRACT

This present study sought to establish the reasons as to why teachers studying through the Zimbabwe Open University were in droves, forwarding applications for transfer to go and teach in peri or urban schools in the guise of distance education. The study sought to establish which aspects of the ZOU ODL mode gave rise to rural-urban teacher migration, what the perceived gains of urban residence by the migrating teachers were, what present and existing characteristics at the present school/station inhibited successful continuous development through open and distance learning and how best the problem of teacher migration due to wanting to study through open and distance learning could be solved. Since the current study was all about teachers` perceptions, the major research design adopted was the cross sectional survey which entailed obtaining data at a single point in time and using just one questionnaire and an in-depth/ethnographic interview schedule as data collection instruments. The population for the current study consisted of all the 255 primary and secondary school male and female teachers who had applied for transfer into or near Chegutu urban secondary or primary schools, indicating the need to pursue further studies with the Zimbabwe Open University as their major reason for lodging the transfer. They were on the Chegutu District Education Office 2006-2010 teacher transfer list. Out of the population of 255, 128, (50.2%) were sampled through the simple random sampling method. Results show that the unavailability of e-resources, library services internet and e-mail services in the locality of most rural schools paved way for dissatisfaction among the majority of teachers. A number of situational factors at the teachers` current schools were not conducive to study through distance education. The physical location of the respondents` schools had much bearing also on the desire to relocate. The majority of the schools were not easily accessible by road, the places were difficult to move in particularly for motor vehicles and floods sometimes marooned the teachers from the rest of the world. Some schools were secluded making it very difficult for the students to form study groups. Poor ODL organization and management practices also contributed heavily to teacher professional migration. Dates for tutorial were mostly inappropriate for the rural based teachers who were without transport or were officially engaged in their rural schools over the weekends. Poor postal services and in the rural set up as well as working full days were another source of contention giving the rural teacher the impetus to migrate. In view of these findings it was recommended that synergies be formed between the Ministry of Education and the Zimbabwe Open University in the interest of maintaining quality in schools and preserving the diminishing numbers of students at the Zimbabwe Open University.

Key Words: Distance education, professional migration, implications for efficiency.

BACKGROUND OF THE STUDY

The supply of qualified teachers has been adversely affected in most Sub Saharan countries where retention rates are low for newly trained teachers or where significant numbers of teachers are being lost through HIV-AIDS or in rural areas which have difficulties in recruiting and retaining teachers (Perraton, 2001). As a saviour, distance education has been often been hailed as the answer to African governments' problems of educational

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provision since it has improved the access to quality education with extensive and increasing use being made of it in teacher development globally (Robinson & Latchem 2003) and in post independent Africa in particular, where the demand for teachers outstripped the supply from the country's conventional colleges. It was, therefore, out of this consideration that most countries, in response, launched a number of unconventional approaches for training both graduate and non graduate teachers for both primary and secondary schools (Chivore;1992), in an attempt to equip all schools regardless of location with qualified teachers.

However, while distance education has come as a blessing to many marginalized communities which went without qualified teachers for time on end, a rather disturbing trend has started to take shape as furthering one`s education for the already qualified and enrolling for undergraduate studies for those intending to get tertiary education through distance education, has been cited by the would-be transferees, as reason for the transfer from current rural stations to urban educational centers, a move that has deprived and depleted the already choking rural school of the appropriate human resources. A research by Nyakudzuka (2010) on the rural to urban migration by teachers revealed that out of the 180 respondents almost 50% of them indicated that their transfer or imminent transfer to or near an urban setting had been instigated by the desire to further one`s professional qualification through distance education with the Zimbabwe Open University. However, it is worth noting that the Zimbabwe Open University being an open and distance learning institution, all tuition was going to be offered at a distance without the need to relocate. Literature is in abundance on the traditional reasons offered for one to transfer form one station to the other. However, open and distance learning as a cause for staff geographical mobility needs further investigation. It is, therefore, the intention of this current study to explore those factors linked to ODL being attributed to the migration of teachers from rural to urban schools, a situation that has caused a general decline in the quality of education being in rural schools to an extent that has resulted in some rural schools recording a 0% pass rate at both Ordinary and Grade seven levels (Interim Strategic Plan for the Ministry of Education, Arts, Sport and Culture; 2010).

OBJECTIVES OF THE STUDY

The current study aimed at
- establishing the link between the desire to undertake further studies through distance education and the rural-urban professional drift
- unearthing those problems associated with distance education for particular students or prospective students normally resident in rural schools
- bringing to the fore the students` concerns about studying through distance education whilst in remote rural areas.

RESEARCH QUESTIONS

The present study sought to answer the following research questions:
- Which features of the ZOU ODL mode are giving rise to rural-urban teacher migration?
- What are the perceived gains of urban residence by the migrating teacher?
- What present and existing characteristics at the present school/station inhibit successful continuous professional development through open and distance learning?
- How best can the problem of teacher migration due to wanting to study through open and distance learning be solved?

REVIEW OF RELATED LITERATURE

Concept definition- What is distance education?

How distance education is best defined or differentiated from other educational approaches has been the subject of much debate. From the perspective of many educational technologists, distance education is "inexorably linked to technology" (Garrison, 1987). It is made possible at a distance by means of media which can cover long distances. In agreement, Portway & Lane (1994) assert the term to mean teaching and learning situations in which the instructor and the learners are geographically separated, and therefore, have to rely on electronic devices and print materials for instructional delivery. This is in direct contrast with 'direct education' or 'face-to-face education': a type of education that takes place with direct contact between lecturers and students. Distance education is, therefore, a planned and systematic activity which comprises the choice, didactic preparation and presentation of teaching materials as well as the supervision and support of student learning and which is achieved by bridging the physical distance between student and teacher by means of at least one appropriate technical medium (Delling; 1966).

What is rural –urban professional migration?

The term professional migration has been called by various terms or names. Synonymous to the concept are terms such as brain drain and geographical mobility of skilled manpower. For the purpose of this study all these terms are taken to mean the same but a distinction is presented between international brain drain and internal (rural-urban) professional drain. Internal rural-urban migration, according to Waugh (1990), is a process that can either be a voluntary or involuntary (forced) movement of highly skilled personnel from a rural set-up for a variety of reasons some of which could be social, political or economic. The definition spells out two major issues. Professional migration could be either voluntary or involuntary (forced). Waugh (1990) further asserts that voluntary professional migration arises from migrant's choice, wish or desire to move whereas with involuntary migration, the prospective migrant leaves due to pressure mostly external and due to the dissatisfaction with the present situation.

Another definition is offered by Dilworth (2007) who defines the term as the drifting of highly skilled citizens in the fields of health, education, sciences and engineering from one area to the other without crossing country boundaries. Similar to this definition is that given by Munowenyu and Pritchard (2004) who assert the term to mean the movement of the educated population within a country but without changing jobs, due to push-pull factors.

Both the above citations fall short of spelling out the point departure and the point of destination. However, it should be noted that the migration is to a large extent from rural to urban centres. Despite this oversight, the two authorities view internal labour mobility as movement from one place to another as long as it is within the boarders of a given country. It can therefore be concluded that internal labour mobility needs to be specified in terms of where labour is migrating from and the intended destination. In order to distinguish internal brain drain from international brain drain, UNESCO (1991) defines international brain drain as an abnormal form of scientific exchange between countries, characterized by one way flow in favour of most developed countries. Chimanikire (2005) defines the term as the migration of professional people from one country to another for higher salaries or better living conditions. Accordingly, the situation depicted is tilted in favour of the developed countries thereby aggravating the existing disparities between two types of economies.

Therefore, unlike international labour mobility, internal (rural-urban) professional migration entails a process whereby skilled personnel such as teachers, doctors, nurses and Agricultural Extension officers, among others, desert rural areas in preference to urban work stations where conditions are attractive. This, therefore, is a form of brain drain from rural areas to towns and cities, voluntarily or involuntarily.

Theoretical Framework

Quite a significant number of theories have been advanced by researchers and economists on the factors that are believed to give rise to geographical mobility of labour. Among the most elaborate ones are theories by Todaro (1992), Lewis and Sharon Russell (2002). These models could help uncover the reasons as to why

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people, in general, seek to relocate. Some such models of migration are discussed hereunder. However, theories of motivation as propounded by Abraham Maslow, McGregor, Hertzberg and others can also be applied to help unearth the causes of the rural-urban professional drift but these can be applied in other future researches to test their applicability to the problem at hand.

THEORIES OF MIGRATION

Todaro's Migration Model

The model assumes that professional migration is an economic phenomenon and thus economic considerations pave way economic decisions to migrate. With the manifestation of the potency to migrate, the prospective individual migrant sees the potential move to be quite a rational decision in economic terms. The model also assumes that differences in gains between urban and rural dwellers pave way for the drift. Todaro (1992) assumes that the migrating individual compares expected gains for a given time horizon in the urban area with rural benefits and therefore one may migrate if conditions in one area are more conducive than in the other area. Migration is seen, therefore, as a result of individual considerations that are rational in terms of benefits and costs accrued due to the psychological benefits to come due to the move.

However, the model may not be appropriate to answer the reasons for the drifts in the least developed countries (LDCs) as some tend to seek employment in the rural sector where the cost of living is low. It, therefore, fails to account for the reason why potential labour in LDCs still continues to drift to rural areas.

Furthermore, the LDCs employment opportunities may be hard to come by in urban set ups hence the drift is inadvertent as people get placed in the rural agriculture sector. However, the model may help answer the puzzle why some teachers in rural schools due to perceived gains in terms of the newly introduced teacher incentives (Director's Circular No 2 of 2009) in which urban teachers have tended to benefit more than their rural counterparts particularly those in poor rural communities. These have failed to pay the teacher incentives even in the form of agricultural produce or in kind and Minister of Education, Arts, Sport and Culture, Senator David Coltart advised that the incentives would soon be scrapped to avoid the disparities that have seen rural based teachers get nothing (Sunday Mail, 22 November, 2009). Almost similar to Todaro`s model is the Lewis-Fei Model and this is discussed below.

THE LEWIS-FEI MODEL OF MIGRATION

The model postulates that any economic set up in underdeveloped countries, for which Zimbabwe is one, is characterized by two sectors which are traditional agricultural subsistence sector located in rural areas, where there is always a surplus of labour and the modern urban industrial sector. In this sector there is high productivity and the surplus labour in agricultural subsistence sector gets attracted to this the modern urban industrial sector and gradually moves into urban set up.

The primary focus of this theory is the existence and growth of employment due to high productivity in industry and the manner in which the labour force gets attracted to the urban industry (Waugh 1990).To a limited degree, the model may explain why some teachers get attracted to urban schools. Due to the existence of more resources in urban schools and the subsequent significant levels of academic achievement and pass rates, some teachers would, therefore, want to be associated with the high performing schools in urban schools, hence they transfer to such schools.

On the contrary, the Lewis-Fei Model may fail to justify the rural-urban mobility particularly given the fact that according to Lewis urban wages should have to be at least 30% higher than the average rural income to entice teachers to migrate to the urban school. This is because the Zimbabwe Public Service pay system is universal regardless of geographical location. As long as people are in the same job and grade, they receive the same

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basic salary. A further contradiction would be the more incentives paid to rural based school teachers and other civil servants in rural areas in the form of rural allowances. One would have thought, therefore, that civil servants in rural areas would remain put due to those rural incentives that government used to pay before the introduction of the multi-currency system. Despite this weakness, however, the model is still significant explaining why other rural dwellers continue to migrate to urban areas (Todaro; 1992).

PREVIOUS RESEARCH STUDIES

Migration decisions are complex decisions where the professional teachers weigh numerous issues before deciding whether or not to move. While a substantially large number of factors have been attributed to the propensity to migrate, studying through distance education has of late been an oncoming factor most professionals attribute to their intended migration. The Tennessee Advisory Commission on Intergovernmental Relations (2000) carried a survey on ODL students intending to establish from them what the major factor was that had influenced their decisions to change schools. In a given a list of 32 factors, opportunities for professional advancement/degree or certification was ranked among the top ten factors that affected teachers` decisions to change stations (Tennessee Advisory Commission on Intergovernmental Relations; 2000). This automatically sends some signals that ODL, despite being a teaching and learning mode in which the instructor and the learners are geographically separated, some aspiring students may not develop their potential through ODL and, more so, most likely never to do so through other means that have traditionally been reserved for a few. It was behind this background, therefore, that this present study sought to establish which aspects of the ZOU ODL mode were giving rise to rural-urban teacher migration, what the perceived gains of urban residence by the migrating teachers were, what present and existing characteristics at the present school/station inhibited successful continuous development through open and distance learning and how best could the problem of teacher migration due to wanting to study through open and distance learning be solved.

PUSH/PULL FACTORS INHERENT IN ODL SYSTEM GIVING RISE TO THE PROPENSITY TO DRIFT TO URBAN OR PERI-URBAN SCHOOLS

Costs incurred as a result of long distances between student and regional centers

Distance education knows no geographical boundaries and this implies that the further one gets from the regional centre the more the indirect costs incurred to get education. It, therefore, means that distance education provision is especially difficult and costly in the rural areas where the need is greatest and requires problem-solving in particular contexts. However, the tendency by those offering the distance mode of delivery has been to shift the bulk of financial burden to the student especially where there is need to purchase technological gadgets for communication with those remotely placed. This has resulted in low retention rates as the affected students drop out in the face of failure to move into the vicinity of the regional centre. That being the case though, Craig and Perraton (2003) note that distance education has been and should continue to be used extensively for the continuing professional development of teachers in particular and seems to have the following advantages, an ability to reach teachers, who are often isolated, and provide them with professional development without taking them away from their home or moving them away from their current workplaces.

Difficult levels of modules and assignments

Providing teachers with learning and teaching resources where ever they maybe, is one of the major goals of distance education (Mattson, 2004; Moon, 2006; GCE, 2006). However, as Adler, Slonimsky and Reed (2002) teachers located in remote and isolated schools, with a poor knowledge base, struggle to rise to the demands of the programmes in which they are enrolled and appear to leave the programme with little added to their repertoire of subject teaching, mostly due to the difficult levels of their study materials. This struggle appeared most acute where teachers were working in very impoverished contexts. The majority of these teachers

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struggled with syllabus content coverage in their subject (Adler, Slonimsky and Reed; 2002) as they suffer due to lack of colleague and instructor contact (Dillon, Gunawardena, and Parker; 1992).

Isolated environments

According to Jegede, Fraser & Fisher (1998), teachers often work in isolation from one another instead of exploiting and sharing their joint strengths due to their geographical isolation and they end up being bogged down hence may drop out of the programme due to lack of assistance. These, therefore advocate for a distance education programme that recruits students in pairs, teams and/or clusters; which requires team work in in-text activities and assignments; provides guidelines and support for student-led study groups and offers occasional face-to-face sessions at which cooperative and collaborative teaching and learning are modeled can go a long way towards breaking down the barriers between individual teachers, classrooms and schools. This probably helps to reduce the students` propensity to move closer to where they get assistance, mostly closer to the regional centre (Mattson; 2004).

PUSH/PULL FACTORS OUTSIDE THE ODL SYSTEM GIVING RISE TO THE PROPENSITY TO DRIFT TO URBAN OR PERI-URBAN SCHOOLS

Unavailability of traditional as well as e-resources and poor postal and communication services in the vicinity of work stations

The perceived absence of infrastructure, for example, availability of latest information and technology influenced geographical mobility of labour as those that are usually domiciled in difficulty prone areas feel the urge to migrate (Kaempf and Singh; 1987, Dillon, Gunawardena, and Parker, 1992). In a study that examined learner support systems in a state-wide instructional television program, Dillon, Gunawardena, and Parker (1992) noted that students listed the following factors as hindering their performance: Lack of instructor contact, unavailability of library resources and poor "courier service," (distribution of course materials to sites). Where problems of postal services do exist, students find themselves having to delay in receiving and sending assignments. The implication is, therefore, that the assignments are failed due to not having submitted within the deadline. Some may not receive important information in time, if they receive it at all (Dillon et al, 1992).

REMEDIES

Theory and practice has shown that remedies do exist for the problems bedeviling the rural teacher who opts for transfer in order to progress with studies through distance education. Some have advocated for technological change (Sewart, 1993), an innovation less likely in the least developed countries such as Zimbabwe. Others have suggested that distance education providers, such as Zimbabwe Open University should aim at creating a local student support services platform that take cognisance of the course materials, particularly given the entry level of the student (Agrawal, 1991; Sewart, 1993). The local student support service centre, apart from helping students in learning and comprehending the course materials, also is a forum for helping settling student queries (Agrawal, 1991) rather than travel to regional centres which are inaccessible to some of them. Perraton et al (2001) have advocated for the use of simple communications infrastructure such as the use of radio technologies as used in Burkina Faso. Since most of Zimbabwe receives radio signals and simple radio sets being affordable even to the poorest teacher, this method can be adopted and teachers in the rural areas can get assistance on air on specific areas they need assistance in. In some more expensive innovations, televisions may be used to offer help to the struggling rural teacher who often finds himself or herself struggling with studies due to the isolation of his or her present workstation. This is taking place in support of school groups in Brazil (Perraton et al, 2001). Some have suggested the provision of postal library services (Bhatnagar and Saihjpal, 1996) in which students from remote areas are allowed to borrow books for a period of a month upon payment of a security deposit fee and some countries have introduced

mobile libraries but only in places reachable by road. However, this means an extra cost to the distance distant learner.

RESEARCH METHODOLOGY

The present study adopted a mixed mode approach in which both the qualitative and quantitative paradigms were used. The quantitative aspect entailed obtaining quantitative data through questionnaires and describing, recording, analyzing and interpreting results through the use of statistical analysis. The qualitative approach entailed data collection using in-depth interviews in the schools under study. This qualitative approach assisted the researcher to obtain the *emic* (insider`s) view of issues, events and situations that may help to tackle the rural-urban professional drift due to the need to study through the distance education mode.

The Research Design
Since the current study was all about teachers` perceptions, the major research design adopted was the cross sectional survey strategy which entailed obtaining data at a single point in time and using just one questionnaire or other data collection instruments (Fogelman in Coleman and Briggs;2004). Leedy (1997) argues that surveys are the best designs to adopt where perceptions, views and beliefs of subjects are sought, hence the researcher`s option of the cross sectional survey.

 According to Hutton (1990), the survey research is a method of collecting information by asking a set of pre-formulated questions in a predetermined sequence in a structured questionnaire, to a sample of individuals drawn so as to be representative of a defined population. That being the case, however, Fogelman in Coleman and Briggs (2004) argues that surveys need not be restricted to questionnaires only but also to unstructured and structured instruments such as interviews, hence the use of these two instruments in the current research.

Research Instruments and data gathering methods
The current study employed a multi-technique approach to data collection in order to obtain a holistic or total view of the subjects under investigation on issues of quality education. A combination of the questionnaires and in-depth/ethnographic interviews, as data collection instruments, was therefore, preferred in order to collect qualitative data. This enabled the facilitation of gathering valid and reliable data from the respondents over and above enabling triangulation to cross validate the validity and reliability of the solicited data. Twelve research assistants were recruited form a local technical college (where they are training in business studies) according to their original places of residence. These were trained on the basic data gathering and interviewing techniques. Data collection lasted over a period of three months (November through to January 2011). Hereunder, the results of the study are presented and discussed.

The Population
Best and Khan (1993:13) define a population as "any group of individuals that have one or more characteristics in common that are of interest to the researcher". These may be people such as all school teachers, all female teachers or schools to whom the findings of the study apply. The population for the current study consisted of all the 255 primary and secondary school male and female teachers. These 255 out of 371 teachers had applied for transfer into or near Chegutu urban secondary or primary schools, indicating the need to pursue further studies with the Zimbabwe Open University as their major reason for lodging the transfer. They were on the Chegutu District Education Office 2006-2010 teacher transfer list, needless to indicate that all these teachers were highly qualified because the policy in Zimbabwe dictates that untrained or temporary teachers do not transfer at there own wish.

The Sample and Sampling Procedure

A sample is a small proportion of the population selected for observation and analysis (McMillan and Schumacher; 1993, Best and Khan; 1993). Out of the 255 teachers on the transfer list, who wanted to study through ODL, only 128, (50.2%) were sampled through the simple random sampling method. Discs numbered from 1 to 255 were prepared and these numbers corresponded with the numbers occupied by the transferees on the list. The numbered discs were then mixed thoroughly and at each interval, a disc was picked, until a total of 128 respondents were obtained. However, the stratified random technique could have been employed in order to ensure that a diversity of categories such as male/female or primary school/secondary school teachers were proportionally represented in order to obtain a balanced representation of views.

PRESENTATION AND DISCUSSION OF FINDINGS

The intent of the research was to determine the extent to which distance education was a contributory factor towards the decisions by rural based school teachers to transfer from one school in order to be employed in another within the same district or province. Data was obtained through interviews as well as questionnaires distributed to 128 teachers.

Table 1.1 Present highest qualifications held by respondents

QUALIFICATION	NUMBER	%
Certificate in Education	23	18
Diploma in Education	66	51.5
Bachelor`s Degree	37	28.9
Master`s Degree	2	1.6
TOTAL	**128**	**100**

Data form table 1.1 shows that all 128(100%) respondents were, by Zimbabwean standards, highly qualified teachers. However, Diploma holders were in the majority accounting for 66(51.5%) of the respondents, followed by certificate holders, 23(18%). There were 39 degree holders (at both Masters (1.6%) and Bachelors (28.9%) levels. It is these qualifications that these respondents sought to upgrade through the Zimbabwe Open University, hence their desire to migrate from their present stations.

Availability of e-resources and library services in the locality of the teachers
The results obtained from the survey show that the majority of the workstations do not possess the required paraphernalia conducive to further studies through distance education. Only a paltry 11(9%) out of 128 indicated they had access to computers, the majority of which had been donated through the benevolence of a local bank`s management after the equipment became obsolete at the turn of the century. Email facilities were available only to 21(16%) with the majority of 107(84%) not having access to this very important facility especially were distances mattered most. The same number of respondents 21(16%), had access to internet facilities while the majority 107(84%) did not. Those who had these facilities had them on their mobile cell phones through the On-the-go service offered by a local cellular phone provider, ECONET Wireless. However, for purposes of downloading bulky documents, the service was not appropriate, thereby crippling research efforts by the students. One hundred and five (82%) claimed they had no access to a library as opposed to only 23 (18%) whose present schools were located in the vicinity of libraries that could assist in assignments as well as reading for examinations and research projects. Dillon, Gunawardena, and Parker (1992) established that the absence of libraries and other services affected student performance and in some cases this resulted in the increase in drop outs.

Open and distance learning: organization and management practices attributed to teacher professional migration

Related to the management and organisation of the programmes, concern was raised on the timing of the tutorials. Fifty-four (42%) respondents indicated that tutorials were badly timed. The weekends during which these were held were mostly inappropriate for the rural based teachers who either went without transport for the particular weekend or there were official school weekend engagements in the rural schools. Tutorials were also poorly timetabled, according to 65(51%). Tutorials running into late Sunday afternoon meant the rural teacher would always run the risk of being absent form duty and thereby be reprimanded by the authorities. This may be compared to a situation in which students would receive no support from the institution and would merely be required to study on their own and sit for an examination. These rarely complete the course (Sewart, 1993). Assignment dates were also a push factor, as according to 79(62%), these were at times required during work days which would mean taking a day off to submit them to the regional centre. On the contrary, those in urban schools enjoy easy access to a reliable transport network to and from the regional centre. Better still, they are in double sessioning or hot sitting schools were some teachers are on duty form 730 a.m to 1215 midday. Others takeover from 1215 in the afternoon and continue up to 5 o`clock in the afternoon. This, therefore, means ample time for the urban teacher to read, prepare and submit assignments to the regional without inconveniencing the school children through absence form duty. The same can be said of examination timetabling. One hundred and four (81%) respondents felt compelled to transfer due to ill timing of these examinations. Normally semester examinations at the ZOU are held during May-June and November-December during which time schools are in session. Rural teachers would not normally have the chance to go and sit for the examination in the morning or afternoon and be at liberty to return for duty. In most instances, urban located teachers can write in the morning and return to school in the afternoon, or vice versa.

Another administrative shortcoming exposed by the present research was that of not availing modules and other resource material in time. Asked how this was a push factor to transfer to the urban area, the majority 121(95%) of the respondents lamented lack of libraries in the rural schools. Their counterparts in the urban schools could simply get the course outlines form the regional centre and read from books in the libraries, during the day or at night, a process that could be more expensive for the rural based since most urban libraries do not loan out their books even for overnight borrowing. Issuing of the CD-ROM to the students when they did not possess computers attributed to 123 (96%) wanting to move to urban areas where all the schools have computers and at least some form of reliable electricity power. According to Kangai and Bukaliya (2010), at the height of Zimbabwe`s economic woes, the Zimbabwe Open University could not afford to produce modules hence opted for the cheaper CD-ROM. However, in rural schools where there is no electricity and in most cases computers do not exist, the CD-ROM has remained a useless piece of technology to the ZOU student. Many teachers might have returned to their studies after a long lay off (Sewart, 1993), so they may need a lot of constructive help which might not be available in rural set up. Some 125(97%) indicated unfamiliarity with the self-learning materials, the modules and assignments. They could ask for some guidance on assignment writing but with the rural set up, this attempt was to no avail. Faced with all these problems the rural teacher-cum ZOU student is compelled to file for a transfer to an urban or peri-urban school where conditions are nearly or are normally conducive to professional development through distance education.

Factors inherent in the current location impeding studies through ODL
The physical location of the respondents` schools had much bearing also on the desire to relocate. The places were not easily accessible road (84%) with physical features in the locality making the places difficult to move in, particularly for motor vehicles (69%). Floods sometimes isolated some of the areas from the rest of the world. Some schools, according to 122(95%), were isolated from the others making it very difficult for the students to form study groups so that students could assist each other in times of need. Full sessioning, according to 123(96%), made them want to migrate to town. Most schools in rural areas operate full time from 8 o`clock in the morning to 5 o`clock in the afternoon unlike in towns were there is double sessioning. This characteristic of urban education has, therefore, attracted the rural teacher who is short of time to study since

he/she is officially occupied for the better part of the day unlike the urban counterpart who is officially occupied for half a day.

Suggested remedies to curb brain drain resulting from the need to pursue professional development through open and distance learning

Asked to provide remedies which they thought would help reduce the propensity to migrate, 98(77%) respondents advocated for the establishment of rural libraries (Bhatnagar and Saihjpal, 1996) in schools which should be stocked with ZOU modules and other materials. One hundred and twenty-three respondents favoured decentralization of services to rural service centres where these services could be accessed with much ease and an equal number advocated for the electrification of the schools so as to be able to use communication technology such as computers for internet connection. There are, therefore, these pressures to provide a good service in rural areas both from the teachers based in the institutions as well as from the local communities, who also want the future generation to enjoy the benefits of the study centres. One hundred and twenty-five favoured the appointment of locally based mentors who would assist students in the hour of need. The creation of study centres in school clusters was advocated for by 122(95%) respondents. They felt the need for student contact as well as obtaining the much needed services in terms of technology (Pulist, 2004; Agrawal, 1991). The Zimbabwe Open University as a distance education provider, should therefore, aim at creating a local student support services platform that take cognisance of the course materials, particularly given the entry level of the student (Sewart, 1993). Special entrants and the weak students need to be assisted in appreciating and understanding module or course material. This would therefore suppress any motive either to move or dropout.

CONCLUSIONS

Based upon the above research findings, the following conclusions were drawn about the motives driving rural school teachers want to transfer in order to continue or to want to pursue further studies through distance education.

The unavailability of e-resources, library services internet and e-mail services in the locality of most rural schools paved way for dissatisfaction among the majority of teachers. The majority of the workstations do not possess the required paraphernalia conducive for further studies through distance education, hence teachers filed for transfers.

A number of situational factors inherent in the teachers` current location impeded studies through ODL. The physical location of the respondents` schools had much bearing on the desire to relocate. The majority of the schools were not easily accessible by road, the places were difficult to move in particularly for motor vehicles and floods sometimes marooned the teachers from the rest of the world. Some schools were secluded so much that the isolation made it very difficult for the students to form study groups so that they could not get in touch with each other.

Poor ODL organization and management practices also contributed heavily to teacher professional migration. Related to the management and organisation of the programmes, concern was raised on the bad timing of the weekend tutorials, examination dates and assignment submission dates. These were set on dates and days which were mostly inappropriate for the rural based teachers who either went without transport for the particular days or had official engagements during weekends.

Poor postal services and unavailability of courier services in the rural set up, as well as working full days were other sources of contention giving the rural teacher the impetus to migrate. With poor postal services,

communication proved complicated if not impossible, resulting in delayed assignments, thus the teachers subsequently failing courses.

Based on the assumptions of Todaro`s and Lewis Fei`s model of migration, it is concluded that the expected gains for a given time horizon in the urban area in terms its conduciveness to studying through distance education were enough to propel teachers to migrate to urban schools so that they could continue with their professional development through the ODL mode as did their urban counterparts.

IMPLICATIONS AND RECOMMENDATIONS

The findings of the current research have implication for the future operations of the Zimbabwe Open University and the maintenance of quality education in the schools in and around Chegutu. Assuming the transfers are given the nod, most rural schools will go without trained teachers who are already in short supply due to international migration and a plethora of other reasons. This then impacts negatively on the quality of teaching and learning in the rural schools and helps perpetuate disparities between rural and urban schools. For the Zimbabwe Open University drop out and low attrition rates will continue to be experienced thereby failing to get education to the learner`s doorstep.

The following are, therefore, some of the suggestions that if implemented may help solve the brain drain that has arisen in the name of professional development through the need to learn using the ODL mode.

➢ Formation and creation of convenient study groups and study centres where students get access to modern day technology and get to share ideas without the strain of movement to far off places in search of technology as well as assistance on how to answer assignments questions
➢ Design materials and course outlines that are user friendly and ease to understand but at the same time maintain quality
➢ Creation of synergies with the Ministry of Education`s BSPZ Programme to provide library and reprographic services to students studying through distance education
➢ nomination and resourcing of a locally based programme coordinators in the reach of the students to offer assistance in assignment and examination preparation
➢ the provision of an appropriate venue for the on-site teaching in the rural schools in Chegutu`s 34 clusters, for example renting classrooms from schools within which the students are normally resident to avoid movement to off school regional tutorials
➢ organization and funding of locally available and school mentors who hold the requisite qualifications; and
➢ organization and invigilation of examinations locally within the rented schools

All the above recommendations come with a cost to the university but such a cost is absorbed in the numbers that eventually come on board due to bringing open and distance learning to the doorstep of the rural students. However, the burden of curbing the rural to urban professional drift must be a multifaceted sectoral approach involving the Ministry of Education, Arts, Sport and Culture, the Zimbabwe Open University and other stakeholders to ensure rural schools are not depleted of the qualified teachers who flee these schools in the name of professional development through Open and Distance learning. Equipping the schools will enhance their appeal to the prospective migrant who then decides to stay put in light of the improved conditions of study. Without such synergic attempts, quality education for the rural population remains illusive in Zimbabwe while on one hand, for the Zimbabwe Open University, the possibility of achieving economies of scale becomes unwinnable.

IMPLICATIONS FOR FURTHER RESEARCH

Issues that warrant further investigation as a result of them falling out of the scope of this current investigation but having arisen out of the foregoing research are suggested below:

➢ Determining the extent of the impact of teacher migration on quality education in rural areas as a result of the need to pursue further studies through distance education

➢ An analysis and evaluation of some distance education materials with the hope of simplifying the content therein for the benefit of the not so much gifted ODL learner who is very remotely isolated from other learners

➢ Assessing the possible impact of the rural-urban professional migration on both the quality of primary and secondary education in the rural schools

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THE EFFECTS OF PUPOSIVE DRAWING ON DYSGRAPHIC DISORDER

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ABSTRACT

Learning Disability (L.D) may be a neurobehavioral disorder that causes defects in speaking, writing, listening, thinking, reading, spelling, or mathematical calculation. Handwriting is an important skill, related to school performance and the child's self-esteem. The present study explores the effectiveness of the Purposive Drawing Program (PDP) to treatment dysgraphia disorder. The population of this research includes 493 girl students in first grad of primary schools with dysgraphic disorder. A sample comprised of 40 subjects that were randomly assigned into two experimental and control groups, 20 subjects in each one. **Wechsler** Intelligence Scale for Children (WISC-R), the Attention Deficit Hyperactivity Disorder (ADHD), Conduct Disorder test (CD) and a research made spelling test were research instruments. Results of t-test and Analysis of Covariance showed that that change in the dysgraphic disorder for the experimental group is significantly more than the control group and the PDP reduced disorders of writing and spell Deficits. Thus, the PDP is effective in dysgraphia disorder treatment.

Key Words: Learning, Dysgraphia, Purposive drawing program.

INTRODUCTION

In the last decade, there has been increasing importance to investigate on LD (D'Amico and Passolunghi, 2009). The National Joint Committee on Learning Disabilities (NJCLD) defined LD as a neurological dysfunction that may be reflected in cognitive problems, such as understanding, reading, writing, and doing math. This definition was accepted by most researchers now (Freilich and Shechtman, 2010). Discrepancy, heterogeneity, and exclusion are the essential components in the definition of LD (Fletcher, Foorman, Boudousquie, and Barnes, 2002). The assessment of LD is influenced by the operational definition that accepted by the United States Office of Education. Accordingly LD is a discrepancy between achievement and mental ability in one or more of the following subjects: 1) oral expression; 2) listening understanding; 3) written expression; 4) basic reading skill; 5) reading understanding; 6) mathematics calculation; or 7) mathematic reasoning. Therefore, if the inconsistency between intellectual ability and achievement be affected by a visual, hearing, or motor handicap; mental retardation; emotional disturbance, or social difficulties or economic disadvantage are not identified as LD Freilich and Shechtman, 2010).

Dysgraphia is an LD; in which children with normal intelligence have difficulties in writing by hand and visual-motor deficiency. Dysgraphic children may have difficulty in required speed of writing and doing homework needs continuous long hours that results in unreadable handwriting (Rosenblum and Aloni, Josman; 2010). Dysgraphia may stem from neurological damage (Del Castillo, et al, 2010) and organizational ability deficits

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(Rosenblum and Aloni, Josman; 2010). The children with dysgraphia learning a shallow orthography suffer deficiencies in delayed acquisition of the sub-word-level routine together with deficiency in orthographic lexical acquisition (Zoccolotti and Friedmann, 2010). Smits-Engelsman and Van Galen (1997) revealed that control of spatial accuracy rather than allograph retrieval or size control differentiates dysgraphic children from normal differences of psychomotor development. Rosenblum, Dvorkin and Weiss (2006) indicated that dysgraphic children have not a completely automated process, and their handwriting may be slow and unclear. Therefore legibility, performance time and visual-motor skills are important in dysgraphic assessment (Fletcher, Foorman, Boudousquie and Barnes, 2002). The dysgraphic measures include the number of the raw segments, reverse segments, letters per minute, and the mean of "In-Air" time between letters. Writing problems are pervasive in children with dyslexia and spelling problems (Ibid).

On the other hand, art therapy contributes to children with LD. For example, Freilich and Shechtman (2010) indicated that art therapy influences in adjustment of children with LD and their academic achievement. Art therapy brings to consciousness repressed emotions and allows exhibiting them through the images created. Drawing therapy is a suitable replacement for behavior modification programs (Carrigan, 1993). It is also argued that free drawing and painting can treat Dysgraphia (Tabrizi, 2009, and Alizadeh, 2007).

Accordingly, this study investigated the effect of the Purposive Drawing Program (PDP) on treatment dysgraphia disorder in spelling tests in first grade children. Therefore, a hypothesis that was examined in this research is that "Significantly different effects on the dysgraphia disorder of Grade 1 students will result from the PD program."

METHODOLOGY

The study employed an experimental method with the design of two groups of control and experimental and pretest. The participants were matched in two groups according to their dysgraphia disorder in spelling in the pretests. Each group was assigned randomly to the control or experimental group. Only the students in the experimental group participated in the PDP. The PDP ran for forty five days over twelve sessions. During this time the control group participated in a regular artistic program. The design of the research can be presented as follows:

$O_1 \ O_2 \ M \ R \longrightarrow X \longrightarrow O_3 \longrightarrow$ Experimental Group

$O_1 \ O_2 \ M \ R \longrightarrow Y \longrightarrow O_3 \longrightarrow$ Control Group

O_1 —pretest, O_2 — ***distinguisher*** tests, O_3 — posttest, M — matched by results of pretest, R — random assignment, X—participated in the PD program, Y—no participation the PD program.

The statistical population for this research comprised of 493 female students in first grad of primary schools with dysgraphic disorder. Sampling was conducted purposively. The pretest showed that 87 students had severe dysgraphic disorder that the sample selected from this group. A sample comprised of 40 subjects that randomly, 20 subjects were assigned into experimental and 20 subjects in control groups. Statistical analysis was conducted using the t- test for two independent samples.

Instruments
Wechsler Intelligence Scale for Children (WISC-R), the Attention Deficit Hyperactivity Disorder (ADHD), and Conduct Disorder test (CD) as ***distinguisher tests were conducted in the pretest. Validity and reliability of these tests are obtained by a lot of researches.*** A researcher made spelling test was administrated in the pretests and posttests as a research instrument to assess dysgraphia disorder. Its validity was obtained by 6 primary teachers and its reliability obtained 0.85 by using retest.

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Content of the Purposive Drawing program (PDP) was conducted in 20 hours and 10 sessions that are outlined as follows:

1) *First session, enhancing the accuracy*: Drawing teacher gave practices to students in working with pencil, seating in the proper manner on the bench; putting sheet on the table in the proper manner. She also taught the students to learn an practice on painting, working with pencil; drawing various shapes of border boxes by small shapes such as square, triangle, circle, plus and cross signs, and small flowers.

2) *Second session, enhancing the accuracy and enhancing visual and auditory perception*: Around the paper that is provided in the first session training, was decorated as a cadre according to students' interest by using shapes such as small squares or circles and triangle. Then Drawing teacher trained the students to draw familiar and simple shapes such as people, houses, trees and balloon in the border box.

3) *Third session, Learning and conducting of order, enhancing accuracy and visual and auditory perception*: students learnt to draw the border box around paper with consecutive triangles and circles. They also drew inside the cadre two similar trees and a different tree, and two consecutive short and long mountains.

4) *Fourth session, enhancing visual memory*: a cadre was prepared with trained shapes such as small flowers or small squares or other shapes. Whales and fish were drawn on the class board by using a few curved lines on wave. The students were asked to look at the drawn shapes. Then painted shapes were erased from the class board and the students were asked to remember what they had seen and draw it.

5) *Fifth session, enhancing auditory memory and enhancing accuracy*: two simple, short and attractive stories were narrated and the students were asked to listen and then, to draw one of the two stories that they had heard.

6) *Sixth session, assessment and enhancing perception and accuracy of students*: First, an image that represents the desert and drought, with which full of thorns and rocks and snakes were introduced and described for students, then they were asked if the drought ends and it rains, how will this change and what Things will be replaced by the desert and drought. The student drew new situation according to description.

7-10) *Seventh to tenth sessions, enhancing accuracy, enhancing visual and auditory perception and enhancing visual and auditory memory*: in four sessions drawing by words and numbers were taught to facilitate the students' drawing. This task was very interesting and attractive for the students.

RESULTS

The results of comparing the pre tests showed there were no significant differences between the two groups in regards to the dysgraphia disorder (M_e = 1, M_c = 1, t = 0.06, df = 38, $p \geq 0.05$) This result shows that the two groups were matched at starting of the study.

Hypothesis: Significantly different effects on the dysgraphia disorder of Grade 1 students will result from the PDP.

For this analysis, the subtractions of pretest from posttest were obtained (changes from pretest to posttest) and the mean scores of experimental and control groups were compared by using t test for two independent groups. The use of the *t* test with Equality of Error Variances, F= 0.0, $p \geq 0.05$ showed the following results.

Table 1: Results of the changes in dysgraphic disorder from pre test to post test

Groups	Mean	Std. deviation	df	t	Sig.
Experimental	-3.73	4.1	38	2.87	0.007
Control	-0.05	4.9			

Table 1 shows that the mean score of changes for the experimental group, M = -3.73, Sd = 4.1, is significantly more than the mean score of changes for the control group, M = -0.05, Sd = 4.9, t (38) = 2.87, $p \leq .007$. That is, change in the dysgraphic disorder for the experimental group that participated in the PD program, become significantly lower than the dysgraphic disorder in the control group.

DISCUSSION

The learning disorder (LD) may involve speaking, listening, and basic reading, reading comprehension, math calculations, math reasoning and written expression. Therefore its treatment is important and this research is to investigate on effects of the Purposive Drawing Program (PDP) in treatment of dysgraphia disorder.

Hypothesis: Significantly different effects on the dysgraphia disorder of grade 1 students will result from the PDP.

Results of examination of this hypothesis indicated that change in the dysgraphic disorder for the experimental group is significantly more than the control group. That is, the PDP reduced the dysgraphic disorder in the spelling of first grade students more than control group. Therefore it can be suggested that the PDP is influence in reduction of the dysgraphic disorder.

This finding supports Edalati (2005) results that showed drawing is effective to improve students' spelling and their interest toward it. Tabrizi (2009) argued that drawing desirable lines by using fine liner pen, small whiteboard and smooth chalk is effective for treatment of dysgraphic disorder. Furthermore, this result is in agreement with Freilich and Shechtman (2010) findings that showed that art therapy contribute to progress in academic achievement. Carrigan (1993) argued that drawing therapy can be a good replacement for behavior modification programs. Alizadeh (2007) argues that dysgraphia is treated through free drawing and painting.

This research indicated that the PDP reduced the dysgraphic disorder in the spelling of first grade students. Therefore, learning and conducting of order, enhancing accuracy, enhancing visual and auditory perception and enhancing visual and auditory memory is an effective program for reducing of dysgraphic disorder in students of first grade of primary schools.

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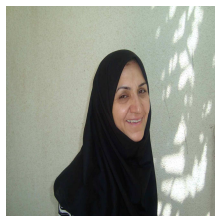
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ZIMBABWE OPEN UNIVERSITY'S BACHELOR OF EDUCATION STUDENTS' ATTITUDES ON THE USE OF ICT IN THEIR STUDIES

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ASTRACT

The study sought to examine the Zimbabwe Open University's (ZOU) Bachelor of Educational Management Students' attitudes on the use of ICT in their studies. Qualitative research paradigm anchored the study because of its usefulness of facilitating data gathering from human subjects. It was a case study of five regional centers of the Zimbabwe Open University (ZOU). This case study called for a high level of commitment with research participants whose experiences researchers were trying to investigate. The study could bring to the fore the new knowledge about ODL students' attitudes towards the use of ICT in their studies so that ODL policy makers could take the necessary courses of action to correct situations that let down the quality of education their universities offer. In terms of theory, this study was guided by the critical theory. In their open responses, participants indicated the following issues as themes that portray positive attitudes of the ZOU's Bachelor of student on the use of ICT in their studies.

Key Words: Zimbabwe Open University, Educational Management, Students' attitudes,

INTRODUCTION

This document describes the Zimbabwe Open University's (ZOU) Bachelor of Education (Educational Management) students' attitudes on the use of ICT in their studies. About 60 students participated in the study .First, definition of key terms will be made, and the background to the study. Statement of the problem, research questions and significance of the study shall ensue. In the second part, the related literature review in the form of theoretical framework will be given. The third part will present the research methodology .The third part comprises the results, general conclusions and recommendations.

Key Terms
The study begins by defining the following key terms:
- Attitudes refer to the degree of value attached to the use of ICT by the ZOU's Bachelor of Education (Education management) undertaking their studies.
- ICT
- Studies denote the courses under taken by the ZOU's Bachelor of Education (Educational Management) students in the Bachelor of Education (Educational Management) Programme during the sixteen semester/four year duration of the programme.

Background to the study
It is common knowledge that ICT is the in thing in the wake of technological advances as a deliberate drive towards enhancing not 90 not only efficient and effective, but quality learning through Open and distance Education Programmes (Nzepa, 2011).Traditional teaching and learning approaches no longer have a place in

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ODL Universities and let above a very fast changing world. Today's world is demanding for not only efficient and effective ways of educating its inhabitants at a much more faster rate than before (Ndlovu, 2009).According to Veltman (2003) there are some dangers that are associated with lack of exposure to ICT by learners. Such dangers include overzealous commercialism, anti-technology among scholars, anti-universal narratives, forgetting the past and more systematic dangers are felt when new users of ICT come face to face with the technology. In Africa, the situation is even worse as evidenced by the lack of adequate capacity to implement and enforce public interest policies, limited participation in global ICT negotiation and inadequate cooperation and coordination at regional levels (Nzepa,2011:5).The unavailability of telecommunication infrastructure for remote areas to access e-services like the internet (Ndlovu, 2009:2) as well as the pursuance of unrealistic targets that are usually set by information professionals or international institutions, e.g. those related to the United Nation's Millennium Development Goals (MDGs)and poverty reduction strategies also hamper learner access to ICT in Africa (Nzepa,2011). On the other hand over the past two decades, IT has broadened to become ICT, and has become better established within schools (Abbott, 2001). Many claims have been made about its contribution to pupils' learning (Pachler, 1999) and official rhetoric has presented it as set to transform education (Blair, 1997). Much current policy and practice reflect a technocratic determinism in which technology is seen unproblematic ally as providing relatively immediate tools for teachers and students, and its use as calling primarily for development of technical skills. However, others see successful educational applicatio0ns of the computer as involving a complex interplay of context, people, activities, machines and available software within settings (Noss and Pachler, 1999; Leach and Moon, 2000). While these findings appear to emphasize that quality and level of ICT resource continue to improve in many schools, they seem not to focus on the attitudes of ODL learners attitudes on the use ICT in their studies. They are also devoid of the andragogical strategies that enhance efficient and effective ODL students' learning capacities. In the light of such observations, the paper explores the ZOU's Bachelor of Education (Educational Management) students' attitudes on the use of ICT in their studies.

Statement of the Problem

While the potential of ICT to revolutionalise university teaching and learning has long been celebrated world over, it appears that ODL students at university level in developing nations have some attitudes to wards its utility in their studies. It was against this position that this paper sought to critique the following question: What are the attitudes of the ZOU's Bachelor of Education (Educational Management) students' attitudes on the ICT in their studies?

Research Questions

The study was based on the ensuring sub-questions:

- Why do the ZOU"s Bachelor of Education (Educational Management) students are positive attitudes towards the use of ICT in their studies?
- Why do some of the ZOU's Bachelor of Education (Educational Management) students have negative attitudes towards the use of ICT in their studies?
- How are ODL students' skills, experiences and attitudes related?
- What opportunities are offered by ICT to ODL students at the ZOU?

Significance of the study

The conduct of this study was important in three ways. First, the study could bring to the fore the new knowledge about ODL students' attitudes towards the use of ICT in their studies so that ODL policy makers could take the necessary courses of action to correct situations that let down the quality of education their universities offer. The paper intended to come up with the degree to which ODL students' skills, experiences and attitudes to wards are related in their undertaking of their studies. It sought to unravel opportunities that ICT offers to ODL students hoping top hop the academic ladder of progress.

Literature Review

In terms of theory, this study was guided by the critical theory. According to critical theorists, adapting a move critical perspective on higher education and technology takes us key and the immediate concerns and preoccupations of most educational technologists. As Monahan (2005:8) puts it, rather than asking do computers work? We are concerned with asking what social relations they produce. The critical theory draws upon three decades of studies of social construction of technology (SCOT)which have sought to document the complex network of competing interests, agendas, and power formations that underlie the seemingly straight forward production of hardware and software for domestic, scientific and `1business markets (e.g. Russell and Williams, 2002).While the SCOT approach of the Critical Theory puts forward the concerns of educational technologists in conventional learning setting, it silent on the attitudes of ODL students on the use of ICT in their studies. If was in the interests of this paper to ascertain the degree of such educational technologists' concerns and pre-occupations had a bearing on the ZOU's Bachelor of Education (Educational Management) students' attitudes on the use of ICT in their studies.

This view of technology and education sympathetic to the SCOT approach yet attempts to look beyond the often on owed micro descriptive SCOT accounts of technology and emphasizes the overarching political, economic, cultural, and society which come to bear on any application of technology .By combining these Critical Theory perspectives, we can therefore set out a wider ranging picture of the construction of higher education and ICT by a host of macro-, meso- and micro-level actors which are often unseen in their influence .Only by identifying the full range of these underlying relations and structures can we hope to identify a basic for meaning and sustained change in students' attitudes to wards ICT in their studies ().It was also in the light of such observations that the present researchers were prompted to investigate the ZOU's Bachelor of Education (Educational Management) students' attitudes on the use of ICT in their studies.

RESEARCH METHODOLOGY

The present study employed a qualitative research paradigm. Qualitative research permits the researcher to go out into the to study phenomena in its natural settings (Punch,2004).Also qualitative research was chosen because it enables researchers to gather first hand, rich and meaningful data (Cresswell,2003).A case study of five regional centers of the ZOU was made use of in carrying out this study. Qualitative case study called for a high level involvement with research participants whose experiences the researchers were tying to investigate.

Procedures

Qualitative techniques were employed to maintain objectivity. Through the use of this research paradigm, data were gathered using in-depth questionnaires. In-depth questionnaires came in handy in sourcing comprehensive data about phenomenon in question, that is, ZOU's Bachelor of Education (Educational Management) students' attitudes on the use of ICT in their studies (Punch, 2004).Five ZOU's Regional Centres and 60 final year Bachelor of Education (Educational Management) were purposively sampled Purposive sampling enables the researchers handpick participants who possess research characteristics desired by their study (Punch, 2004). Data were coded, sorted categorized and content analyzed before putting them into themes that emerged from the research findings (Miles and Huberman 1994)Eventually, data were interpreted using participants' direct quotes, analytical narratives and descriptive narratives which were want to give the research reader audience a site during the time of the conduct of the study (Thomas and Nelson,2001).

DISCUSSION OF FINDINGS

The present study's questionnaire return rate was 100%. This was because the study was carried out at a time when participants were writing their examinations. The discussion/interpretation of data is done in two ways.

- Brief demographic characteristics of the students.

- Actual; research findings drawn from the emerging themes .

Demographic Characteristics of participants

Seventy five percent of the participants were male; while 25% were female .The average age of the participants was 45, 5.Fifty-percent of the participants resided in remote rural areas .The average distance of the student's base to the city/town/service centre/growth point was 159 km .Forty percent of the participants indicate d that their rural areas had some access to electricity. All participants were married and had families to look after on top of their extended family dependents Eighty percent of the participants were civil servants, while the rest were self employed.

Research Findings

In their open responses, participants indicated the following issues as themes that portray positive attitudes of the ZOU's Bachelor of student on the use of ICT in their studies.

- ICT uses a variety a medical (Multi-media system) ICT can make distant learners to be taught as if they are together with their teachers.
- ICT would enable students and teachers to employ teleconferencing in their teaching and learning episodes.
- Video conferencing
- Internet which enriches both the learner and the tutor.
- Quality enhancement for learner products

What seems to emerge from the above positive attitudes of ZOU's ODL Learners is the fact if the quality of ODL is to improve, then students need to be aware of the benefits of ICT in their studies. Wenger and Por (2006) argue that ICT has become part of, and enjoy the benefits of a community of –practice due to their newly attained social learning activities.

Tasks Effected

- Possession of key board skills
- Production of neater and itchier work which was more appealing in its out look.
- Facilitation of written presentations..
- Boost in motivation.
- Reshaping learning.
- Displacement of Teaching.
- Facilitation of e-learning.
- Increased marketability of students in the labour market.
- Increased independent learning

With regards to possible reasons for the ZOU's Bachelor of Education (Educational Management) students' negative attitudes on the use of ICT, the following issues emerged from this study:

- Lack of computer literacy.
- Lack of proficiency in key board skills.
- Cost of compacters and equipment.
- Inadequate access to technologies (data and voice)
- Poor internet connectivity
- Lack of appropriate hardware and software Lack of expertise and equipment
- Poor service delivery
- Lack of electricity facilities
- Age of the students

- Reference to paper –and pencil examination (Leach and Moon, 2000).
- Anxiety and attitude
- Lack of e-teachers
- Lack of political will
- Lack of e-facilities Digital divides
- Energy challenges
 Slowness to adapt curricular for e-learning

The challenges to the use of ICT in the promotion of learning in ODL settings are diverse. They vary from one student to another depending on one's locality and economic status.

In connection with how ODL students' skills, experiences and attitudes are related the study came up with the following finding:
- Relationship between ICT and e-learning technologies
- Promotion of access to higher education information
- Facilitation of contact and information exchange
- On-line experiences can boost e-learning
- Promotion of e-leaders
- Access to technology in learning

What is apparent in the above findings is the fact that some ODL students have had more exposure to ICT than others in ODL begins to vary from learner to learner. In that regard, appreciation of ICT begins to vary from learner to learner.

In regard to opportunities that the use of ICT could offer ZOU's Bachelor of Education (Education Management) students in a bid to change their attitudes towards the use of ICT in their studies, the study proffered:
- Facilitating contact and information exchange.
- Promoting access to ODL higher education
- Changing learning processes and out comes
- Different advantages ICT can bring to learning and education as a result of positive perception of ICT.

Interestingly, the findings tend to exhibit an inter-weave of ODL students experiences skills and attitudes on one side and opportunities that ICT could offer ODL students in their learning on the other. Basically, they both appear to zero in on motivation of ODL students to learn. Pachler (1999) rightly notes that ICT orients the learners into the rich world of knowledge.

DISCUSSION

Positive Attitudes on the use of ICT
One of the greatest gateways to student's positive attitudes on the use of ICT in their studies that this study's participants indicated was that ICT use multimedia system to benefit ODL learners. In brief it uses a variety of media. This multi media could be used to present information using the ambition of text, sound, pictures, animation of text, sound, pictures, animation and video with the assistance of a computer (O' Brien, 2003). One participant indicated that through ICT, he/she is bound to be motivated to learn more and therefore assimilate better because of the visual appeal. Such a perception is indicative of the positive attitudes that some of the Bachelor of Education (Educational management) students hold regarding the use of ICT in their learning.

Participants also indicated that ICT would reduce the distance between the tutor and the learner. One participant had this to say: ODL world over is turning into e-education and technologically advance to the extent that even students living in the remotest parts of a country or region are now well taught as if they are in a conventional classroom comprising teachers and learners. These sentiments are consistent with Nzepas'

(2011) observations that ICT is capable to take education anywhere to satisfy the needs of the learner. However, the ICT could achieve that noble cause in the presence of the correct ICT infrastructure and equipment.

Positive attitudes of ICT in the learning by ZOU's Bachelor of Education (Educational Management) students were also shown through 12 students shared sentiments about teleconferencing. They pointed out that ICT would go a long way in promoting their Education through teleconferencing as lecturer of the statistics pr Research could tutor one's learners in the comfort of their homes or hostels. In this respect, O' Brien (2003) argues that teleconferencing assists tutors and learners to share common mistakes they usually make about complex concepts. Teleconferencing would enable students and their tutors to polish up their academic social learning skills through their inherent discussions. However, this is obtainable at a cost that could be passed on to the students in the form of fees.

Allied to teleconferencing is video conferencing which students in this study highly regarded. Fifteen participants' exhibited their positive attitude towards ICT by indicating that video conferencing is crucial in practical-oriented courses. As researchers, we feel that it is a very good way to teach learners because of its good visual and audio appeal. Thus, is can be very useful in teaching students to defend their research studies or undertake lessons during Teaching Practice.

The participants' linking of internet in their studies also revealed their positive attitudes towards ICT in their learning. It is common because that internet enriches both the learner and the tutor in terms of knowledge. Pachler (1999) points out that ICT would academically nourish the learner through the internet. In this regard, ODL students would be exposed to current sources of information so that they would not lag behind.

Related to the benefits of internet in ICT is the quality enhancement of the learner products. We feel that the students are being prepared for an ever-changing technological world which therefore demands ODL products that are malleable and durable in meeting labor requirements. In this regard, ICT would increase ODL students' marketability, employability, trainability and promotability.

Learning tasks that could be affected through ICT also reflected positive attitudes of the participants towards ICT in the pursuit of their learning tasks with ease, quickly and reliably, and to a high standard. Most of them pointed out that with the possession of key board skills they were able to produce neater and tidier work which was more appealing in its out look. Also their written presentations were made easier. To underscore this finding, one participant uttered that he/she was now able to present a research report with user-friendly handwriting. Furthermore, ICT was found to assist students save time in performing mathematical and statistical consumptions.

Negative Attitudes on the use of ICT

Lack of computer literacy among ODL students was perceived as one of the causes of participants' negative attitudes towards ICT in their learning. While the participants indicated their willingness to use ICT in their studies, they revealed that their lack of computer literacy would work against the effectiveness of ICT in their learning. These findings tend to go hand in hand with lack of e-tutors. It is the present researchers' belief that effective ODL teaching that draws positive attention from learners is only possible if ODL institutions employ teachers who are technically competent in the modern educational technologies of e-education. These findings tend to compare favorably with Blair (1997) who observed; some students tend to be devoid of functional literacy and knowledge in ICT such that their learning may be negatively impacted upon.

Lack of proficiency in key board skills was also perceived as one of the drivers of the participants' negative attitudes towards ICT in their studies. One participant voiced his/ her concern by indicating that if I were to present a research project I would have typed myself it would be a delight, but I am hampered by lack of

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proficiency in key board skills. Perhaps that could be one of the reasons why some participants have like warm attitudes towards ICT in their studies.

Lots of computers and equipment constitute some of the negative attitudes that participant have on ICT in their learning Gwisai (2006) argues that the costs of computers are deterrent to upcoming learners and academics. This is echoed by one participant who said: "I only manage to turn on my back and weep". The issue of cost of computers also works hand in hand with inadequate access to technology. Most participants happen to be civil servants who are well paid such that they struggle meet the costs of accessing technologies. Under such circumstances, they resort to the lukewarm attitudes towards ICT in their studies.

Poor internet connectivity coupled with lack of appropriate hardware and software, and lack of expertise and equipment appeared to be some of the possible causes of participant's negative attitudes towards ICT in their learning. These also constitute lack of e-facilities such as computers (soft and hardware, internet, Broadband, Satellite links, Cabling, Digital Phones and any other information Technology facilities). All these factors seem to be expensive on the part of ODL students.

Poor service delivery's lack of electricity facilities, age of students, preference paper and pencil examination and anxiety and attitude were also viewed as possible fuellers to the participants' negative attitudes towards ICT in their learning. One senior participant revealed that he/ she was born before technology. This finding is in tandem with another funding of this study centered on digital divides which revealed that e-learning is very clear because in the absents a conductive environment to reduce the cost of acquiring computer and other modern educational facilities, many would be students will be left out. They however, were unable to electrify their houses so that they would purchase lap tops. Lack of conscious drive towards adapting curricular for ICT-compliant ODL tends to discourage learners from considering ICT as one of their passports to success in their students. In the absence of a specially written e-learning curriculum, the normal curriculum will not yield the desired outcomes (Nzepa, 2011)

How ODL Student's Skills, Experience and Attitudes Are Relate
The results indicate that the students who possessed the higher ability to use ICT and had more experience with e-learning tend to be more positive about the advantages. ICT could bring to their studies. This may mean that in order to encourage students to accept working with ICT in their university curricular it is important to develop their ICT skills, and to provide them with the mans to gain experience with e-learning through the learning of a virtual environment or through academic support and advice from the teacher by e-mail (Deaney et al, 2003). This would assist in cultivating positive attitudes of ICT in the ODL students.

The study found out those students who had literacy and experience in ICT had great access to higher education information. Such students tended to do well in their assignments and research work because of the rich information within their reach. Under such a scenario, ODL students are bound to possess positive attitudes towards their ICT in their studies. This is because ICT promotes access to the homology in learning (Business Wire. 2001)

ICT is also applauded for its promotion of e-readiness. E-readiness, according to Bantick (2004) is all about independent learning. This is vividly demonstrated by one participant who pointed out that "When I learn on my own using ICT, I don't think it can be a problem as already I possess some knowledge."
This view largely rules out the belief that all ODL learners lack ICT skills. Some join ZOU with good or even polished ICT skills which only need to be put to very good use for the academic growth of the students. Abbot (2001) reports that increased computer use exacerbates independent learning practices. By the time the ZOU students complete their degree they would be able to type, read instructions from monitors, interact with e-mail messages and respond to academic information by way of assignments and research. Therefore, participants' prior experiences with ICT contribute to the nature of their attitudes towards ICT in their studies.

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Opportunities that ICT offers to ODL learners

Participants gave almost similar responses for opportunities that ICT offers to or learners to those that relate their ICT skills, experience and attitudes. They haled ICT for its ability to facilitate contact and information exchange. They indicated that this is possible through teleconferencing, videoconferencing, internet and instructional television. Instructional television would permit students to interact with two-way audio to with a live instructor or a fellow participating student site. Teleconferencing can be done through the internet. Video conferencing is a computer teaching technology which uses moving pictures to permit students to see and hear the tutor in other place, and the converse is true. Once these experimental tools are in place, there is no doubt that students' attitudes towards ICT would change in the right direct and so would better learn processes and outcomes.

CONCLUSIONS

Basing on the above findings the study makes the following conclusions:

- In regard the study shows that the participants realize that ICT is indispensable in their studies even though some of them have negative attitudes on the use of ICT in their studies for personal reasons.
- Use of ICT in ODL learner tends to offer more advantages than disadvantages to the student.
- Provision of ICT to ODL learners would result in producing more polished products in the areas of research in a knowledge-economy like Zimbabwe.
- Exposure of ODL students to varied forms of IC would make them complete with conventional students on the same footing in the world of work and academics. At times, the ODL product will be more saleable because of his/ her exposure to the marriage of theory with practice.
- The right experiences and skills in ICT are bound to conceive positive attitudes towards ICT in the participants' pursuance of studies.
- Provision of ICT in ODL is subject to socio-economic-political circumstances.
- Opportunities for ICT in ODL to flourish are dependent on the students' attitudes towards ICT in their learning.

RECOMMENDATIONS

In the light of the Proceeding findings and conclusions the study makes these recommendations:

- The Department of Education of ZOU needs to review and re-brand its course on Computers so that it becomes compliant with the ever dynamic and demanding changes of the both the labor and academic worlds.
- ZOU needs to upgrade ICT faculties and systems at the Departments into compatible mode.
- ZOU needs to implement the Mobile learning so that the students can reach them even when they are travelling. This would foster a culture of positive attitudes towards ICT in the participants.
- ZOU needs to reveal its curricular so that it is compatible with e-learning. This would give the ODL students the right learning experiences which will ultimately result in the positive students' attitudes towards ICT in their studies.
- ZOU needs to collaborate with the stakeholders such as the Government, business world, donors and alumni to set a first class ICT structure that will make students' self-persuade to exhibit positive attitudes towards ICT in their studies.
- This study could be extended to other Departments and Faculties using Virtual students or even other ODL regional experiences in the same area for compatibility's sake.

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IS E-LEARNING NECESSARY FOR UNIVERSITY STUDENTS?
(A CASE FROM IRAN)

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ABSTRACT

Today many claim that e-learning can result in considerable time and cost-savings , such as traveling , work time and etc . This study was conducted to investigate these questions : should e-learning be used to reduce travel related stress? should e-learning be offered fully online to reach students living in remote areas? should e-learning be adopted to allow working students to study from home? Pressure to use e-learning was developed as a factor to answer above questions . Data was collected through a survey of 400 post graduate students at Tehran University . The results showed that many Iranian post gratitude students agreed on above statements . In addition , linear regression analyses revealed a statistically – significant model for pressure to use e-learning as the best predictor of level of student's intention to adopt e-learning (F =37.737 , df=1 , R square = .187).

Key Words : E-learning, pressure to use e-learning, intention to adopt e-learning.

INTRODUCTION

Today many claim that e-learning can result in considerable time and cost-savings , such as traveling , work time and etc (Hackley , 1997 : Hall and Sbider , 2000 ; Connolly , Hiltz , 1988 ; Piccolo et al , Zaham , 2000 , coppola and Myre , 2002 ; Volery and Lord 2000; Urdan and Weggan ,2000 Hiltz , 1988 ; Piccolo et al , 2001 ; coppola and Myre , 2002 ; Kruse 2005 Connolly and Stansfield 2006) . Because we enter the telecommunication age, with its vastly expanded employment skill sets, the undergraduate student population has changed to include older , married, employed, and non-residential students. (Beller and Or 1998). Previous studies have indicated that the decision of mature students to enter or return to higher education is a decision that has to be waved against responsibilities stemming from various social roles and responsibilities (Pascall & Cox, 1993; Edwards, 1993). Managing time amidst conflicting responsibilities is paramount in this process as students struggle to balance themselves between new and on-going obligations generally resulting in anxieties and tensions .Appropriately, Davies et al (2002) report that the decision of mature students to enter higher education is a complex one and barriers to entry are linked to the realities of their lives which include: multiplicity of roles ,costs of study, the importance and value attached to caring responsibilities, and time management problems.

E –learning eliminate costs associated with instructor's salaries, meeting room rentals, and student travel, lodging, and meals . The concept e-learning are combination , implementation and relationship of the activities for learning and teaching via different electronic media such as in distance and open learning , etc . Nipper

(1989) identified three generations of distance education . The first generation " correspondence model " is provided mostly through paper- based instruction and characterized by the mass production of educational materials .The second generation referred to as the multimedia model is provided through integrated multimedia such as delivering courses via television or introducing material like audio , video , tapes and computer –based learning (CBL) in addition to printed material . The third generation is provided through two-way communications media such as audio / video - conferencing and broad - cast technology. Growing interest in e-learning, as a way to provide distance students with additional resources and support, prompted universities to investigate the adoption of Learning Management Systems to enable teaching staff to develop and manage online courses with little professional support. The term Learning Management System (LMS) refers to an integrated set of networked, computerized tools that support online learning (Virtual Learning Environment or Course Management System are other terms that are sometimes used). Learning Management System (LMS) such as WebCT, and Moodle, has many built-in features to help teachers managing their courses. A learning management system can deliver:

Course material,

On-line tests (multi-choice, list-matching, etc)

Discussion groups and live chat.

It has many tools to help teaching staff work with students' marks ,

conduct group work, and process the submitting and return assignments .

Students log in with their university username and password, and have access to courses in which they are enrolled. They can access the system from a campus computer lab or over the Internet from home. The benefits of using such tools (i.e.WebCT, and Moodle) is that instructors do not require advanced web development skills to develop interactive sites as the template already contain the various interactive features, such as chat rooms and discussion lists. Course designers can add course and lecture notes in a variety of file formats, including graphics (Abdel-Wahab , 2008).

However , despite the benefits of e-learning for reduction travelling related to stress universities have been slow to bring e-learning into the main stream and maximize the potential benefits for students who live in remote areas or married students (Link and Marz,2oo6 ; Hayashi , Chen , Ryan and Wu ; 2006).

Martinze (2004) suggests that the study of student's attitude towards the benefits of e-learning related to reduction student's traveling in many ways help managers better prepare in light of e-learning for the future . Perez Cereijo (2006) states that student's attitude may be more important than reality ,i.e ., decisions , many times are based on attitudes . The theory of technology acceptance model was really designed to test why students should use e-learning. Davis (1983) explains a variety of factors that affect student's attitude to use e-learning . This study focus on only two factors of davis' model , pressure to use e-learning and intention to use e-learning . In order to test student's pressure to use e-learning were designed as following :

- should e-learning be used to reduce travel related stress?
- should e-learning be offered fully online to reach students living in remote areas?
- should e-learning be adopted to allow working students to study from home ?
- should e-learning be adopted to allow married students to balance family and study demands ?

METHOD

Designing the instrument
The reliability of the measurement scale was derived as 0.82 by employing Cronbach's alpha for 50 Indian students.

Survey sample

Stratified sampling technique was employed in the present study . 400 post graduate students at the University of Tehran from different faculties were the sample of the present study (table2) .

Table 1: Sample details

Arts		Science	
Department	Number	Department	Number
Education	40	Computer science	40
Mass communication	40	Biotechnology	40
Geography	40	Statistic	40
Psychology	40	Physic	40
Political science	40	Chemistry	40

Personal characteristics of respondents
Approximately 94.8% of students who participated in the study here between 19 to 25 years and only 5% more than 26 years . 46.53 %of respondents were male and 53.5% were female .

RESULTS AND ANALYSIS

To answer the questions of the study all the items of the scale were positively worded . Items were scored as 4 . 3 , 2 1 and 0 for strongly agree , agree ,disagree , strongly disagree and undecided , respectively .
Research Question 1 : should e-learning be used to reduce travel related stress? All the items of the scale were positively worded . Items were scored as 4 . 3 , 2 1 and 0 for strongly agree , agree ,disagree , strongly disagree and undecided , respectively . As table 2 shows that 29.6 % Students strongly agreed , 46.3% agreed , 2.8 disagreed and only 2.8 strongly disagreed . On the other hand , about 14.3 % were undecided on this statement .

Table2: Frequency scores on question 1

Likert Scale	Frequency	Percent	Valid Percent	Cumulative Percent
undecided	114	14.3	14.3	14.3
Strongly Disagree	22	2.8	2.8	17.0
Disagree	57	7.1	7.1	24.1
agree	370	46.3	46.3	70.4
strongly agree	237	29.6	29.6	100.0
Total	800	100.0	100.0	

Research Question 2: should e-learning be offered fully online to reach students living in remote areas? As table 3 shows that 29.3 Students strongly agreed , 40.9 agreed , 10.6 disagreed and only 3.3 strongly disagreed . On the other hand , about 16.0 were undecided on this statement .

Table 3 : Frequency scores on question 2

Likert Scale	Frequency	Percent	Valid Percent	Cumulative Percent
undecided	128	16.0	16.0	16.0
Strongly Disagree	26	3.3	3.3	19.3
Disagree	85	10.6	10.6	29.9
agree	327	40.9	40.9	70.8
strongly agree	234	29.3	29.3	100.0
Total	800	100.0	100.0	

Research Question 3: should e-learning be adopted to allow working students to study from home ? As table 4 shows that 35.9 students strongly agreed , 46.5 agreed , 5.6 % disagreed and only2.0 % strongly disagreed . On the other hand , about10.0 % were undecided on this statement .

Table 4: Frequency scores on question 3

Likert Scale	Frequency	Percent	Valid Percent	Cumulative Percent
undecided	80	10.0	10.0	10.0
Strongly Disagree	16	2.0	2.0	12.0
Disagree	45	5.6	5.6	17.6
agree	372	46.5	46.5	64.1
strongly agree	287	35.9	35.9	100.0
Total	800	100.0	100.0	

Research Question 4: e-learning should be adopted to allow married students to balance family and study demands ? As table 5 shows that 33.1students strongly agreed , 45.8 agreed , 6.5 disagreed and only 2.1 % strongly disagreed . On the other hand , about10.0 % were undecided on this statement .

Table 5 : Frequency scores on question 4

Likert Scale	Frequency	Percent	Valid Percent	Cumulative Percent
undecided	100	12.5	12.5	12.5
Strongly Disagree	17	2.1	2.1	14.6
Disagree	52	6.5	6.5	21.1
agree	366	45.8	45.8	66.9
strongly agree	265	33.1	33.1	100.0
Total	800	100.0	100.0	

Research Question 4: can student's intention to adopt e-learning be predicted by student's pressure to use e-learning ? linear regression analyses revealed a statistically – significant model for pressure to use e-learning as the best predictor of level of student's intention to adopt e-learning (F =37.737 , df=1 , R square =.187) .

DISCUSSION

The results show that many Iranian post gratitude students agreed on these statements : "e-learning should be used to reduce travel related stress ." " e-learning should be offered fully online should " . " e-learning be adopted to allow working students to study from home to reach students living in remote areas " . Hence , Program managers can focus on these benefits of e-learning for postgraduate university students. Further, pressure to use e-learning explained 18.7 % of the variance in the dependent variable of student's intention to adopt e-learning.

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ASSESSING THE INFLUENCE OF UNIVERSAL BASIC EDUCATION (UBE) FACILITIES ON PUPIL ENROLMENT, TEACHER POPULATION AND TEACHER - PUPIL RATIO IN OGUN STATE PUBLIC PRIMARY SCHOOLS OF NIGERIA

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ABSTRACT

This current study is with the specific objective of assessing the influence of Universal Basic Education (UBE) Facilities on pupil enrolment, teacher population and their classroom ratio in the teaching and learning process in Ogun State public primary schools of Nigeria. This was achieved by comparing schools with the UBE facilities and those without these facilities.

To carry out this study, data on pupil and teacher population were gathered using a self-designed School Records Collection Sheets (SRCS) from thirty-two (32) public primary schools selected for study. Eight (8) schools (four (4) with UBE facilities and four (4) without the facilities) each were picked from the four (4) administrative areas of the state (these are Ijebu, Egba, Yewa and Remo) using purposive and simple random sampling techniques.

Findings of the study indicate that there were significant positive influence of UBE facilities on pupil enrolment but an insignificant levels of influence of UBE facilities on teacher population and teacher - pupil ratio.

Recommendations were therefore provided on the findings of this study.

Key Words: Public School, UBE Facilities, Pupil Enrolment, Teacher Population and Pupil – Teacher Ratio.

INTRODUCTION

Primary education as the first arm of basic education in Nigeria is the foundation of any educational system. If this foundation is not strong enough, the whole system may collapse. There is no gainsaying that over several decades there has been gradual deterioration in the facilities provided by governments both at the federal and state levels for the running of education at this stage. This situation has greatly affected pupil enrolment trend and teacher population in public primary schools.

According to Badejo (1996) and Adeyemi (2007) the deplorable situation in public primary schools based on the inadequacies of government against the provision of the National Policy on Education (FGN, 2004) is affecting public school population as children are now being enrolled in private institutions which seem to provide childhood education that embraces "play" as a significant method in the development of the mind of children. Equally, Akintola (1981) and Adeyemi (2007) posits that in public schools, pupils learning environment typically has few facilities, and classes consist more than 50 pupils (higher than 1 to 30/40 standard indicated in the

National Policy on Education (FGN, 2004). All these, in addition to overloaded curricular, inadequate learning materials as well as poor and harsh teaching techniques precipitate teachers loss of interest in the profession and poor academic performance in schools which again made the children become disillusioned, and so search for an escape route outside the school, hence drop outs.

A report of the African Regional Studies programme of the World Bank presents a sorry picture of the conditions in African Primary Schools- Nigeria Inclusive. It points out that most schools in sub-Sahara Africa suffer from very poor condition of learning in dilapidated or half-completed buildings, Insufficient desks, overcrowded classrooms, inadequate learning materials, poorly educated and poor motivated teachers and the use of recitation as the dominant vehicle for learning (World Bank, 1998). It was also observed that in Nigeria, the total enrolment as a percentage of total school age population had been declining since 1983 from 93% in that year till date (Chinsman, 1998 cited in Adeyemi, 2007). Ogun State which is the case study for this research work might not be entirely absolved from this apparent situation and decline in enrolment.

In Ogun State Education Handbook, it was indicated that the state strived to provide facilities and other instructional materials and equipment for the use of primary schools. Despite these efforts, Ajayi (2001) felt seriously concerned that as much as total of 278,854 classrooms (1999/2000 session) in our schools were dilapidated. He also notes that the obvious inadequacy of this number had resulted in severe overcrowding with pupils sitting on bare floor. This situation has been identified by researchers to be of great influence on the interest of teacher in the teaching – learning process hence, its impact on teacher populations in schools today.) Ejiogu (1980), NPEC/World Bank (1997), Abdul Kareem (2000) and Adeyemi (2007) in their various studies reports how Nigerian educational sector is constantly loosing much of its personnel to other sectors of the economy due to the state of the facilities in system.

Presently, the sorry state of education in Nigeria needs special dedicated attention (especially in the area of facilities provision) so as to get the desired positive changes being expected by the introduction of the UBE scheme. Where positive changes are expected are in the areas of pupils enrolment, teacher population and the subsequent teacher pupil ratio among other so a s to enable the school system function at optional level through the optimal use of facilities.

Statement of the Problem
The provisions of facilities under the basic education system over the years have suffered many setbacks and its attendant influences on school performance variables cannot be over emphasized. With the recent efforts in the provision of facilities under the new initiative Universal Basis Education (UBE) programme at the primary school level, and the various claims by both federal and state governments in Nigeria in this regard, this study intend to assess the influence of UBE facilities on pupil enrolment, teacher population and teacher-pupil ratio in public primary schools.

Research Hypotheses
The following research hypotheses were generated and tested for the purpose of this study.
1. There is no significant difference in the school population / enrolment of schools with UBE facilities and schools without these facilities.
2. There is no significant difference in teacher population of schools with UBE facilities and schools without these facilities.
3. There is no significant difference in teacher-pupil ratio in schools with UBE facilities and schools without these facilities.

RESEARCH METHOD

Design

The study adopts *ex-post facto* research design. The study basically aims at fact finding of existing situations in primary schools. The study surveys the amount of some school facilities of the UBE scheme and their influence on selected variables in school performance in Ogun State Primary Schools. The design thus, helps to offer feasible explanations about some school factors on the two sets of schools differentiated in terms of UBE facilities.

Sampled Schools

To select the sampled schools, the four (4) geographical zones (Ijebu, Egba, Yewa and Remo) that make-up Ogun State were used. Each zone was stratified into rural and urban areas. The purposive and simple random sampling method of random numbers in computer was used to select the thirty-two (32) schools, eight (8) each from the four (4) zones. These consisted of four (4) schools already provided with UBE facilities and four (4) without the facilities. This is to allow for equal representation and equal basis for impact assessment.

Instrument
School Records collection sheet

School Record Collection Sheets (SRCS) were designed for the collection of data for the purpose of this study The researcher collected some school records from 2000/2001 session to 2004/2005 session on (a) school population/enrolment and (b) number of teachers available; from the sampled schools. These records were used to address the research hypotheses on school population/enrolment, teacher population, and teacher-pupil ratio respectively. Records used in the study were sourced directly and reliably too from the sampled schools.

Data Collection

For the administration of the instruments designed for the purpose of this study, the researcher engaged the services of three trained research assistants. The research assistants were tutored on the objectives of the research work and how to go about the use of the School Record Collection Sheets (SRCS). This facilitated quick and effective administration.

Data Analysis

For analysis of scores generated, descriptive statistics were calculated for data gathered from school records on school population/enrolment, teacher population and teacher-pupil ratio under hypotheses 1, 2, and 3, while, chi-square was adopted to calculate the significant levels for these hypotheses.

RESULTS

Hypothesis One
Hypotheses one states that: There is no significant difference in the school population/ enrolment of schools with UBE facilities and schools without these facilities.

To address the hypothesis on facilities influence on school population/enrolment tables 1, 2, 3 & 4 below shows records of pupils' enrolment for the period 2000-2005 in schools with UBE facilities and those without UBE facilities and the percentage difference in pupils' enrolment in these two sampled school types. Also presented below are figures 1, 2, 3, and 4 indicating the enrolment trends. The calculated chi-square analysis to show the level of significance in pupil enrolment between the two school types is also presented in table 5 below.

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Table 1: Pupil Enrolment In Schools With UBE Facilities

Zone	2000/2001	2001/2002	2002/2003	2003/2004	2004/2005	2005/2006
Remo	1538	1804	1231	1691	1878	1852
Egba	1881	1913	1909	1995	2128	2230
Ijebu	2363	2290	2293	2236	2255	2285
Yewa	1872	1902	2002	2098	2191	2292
Total	**7654**	**7909**	**7435**	**8020**	**8452**	**8659**
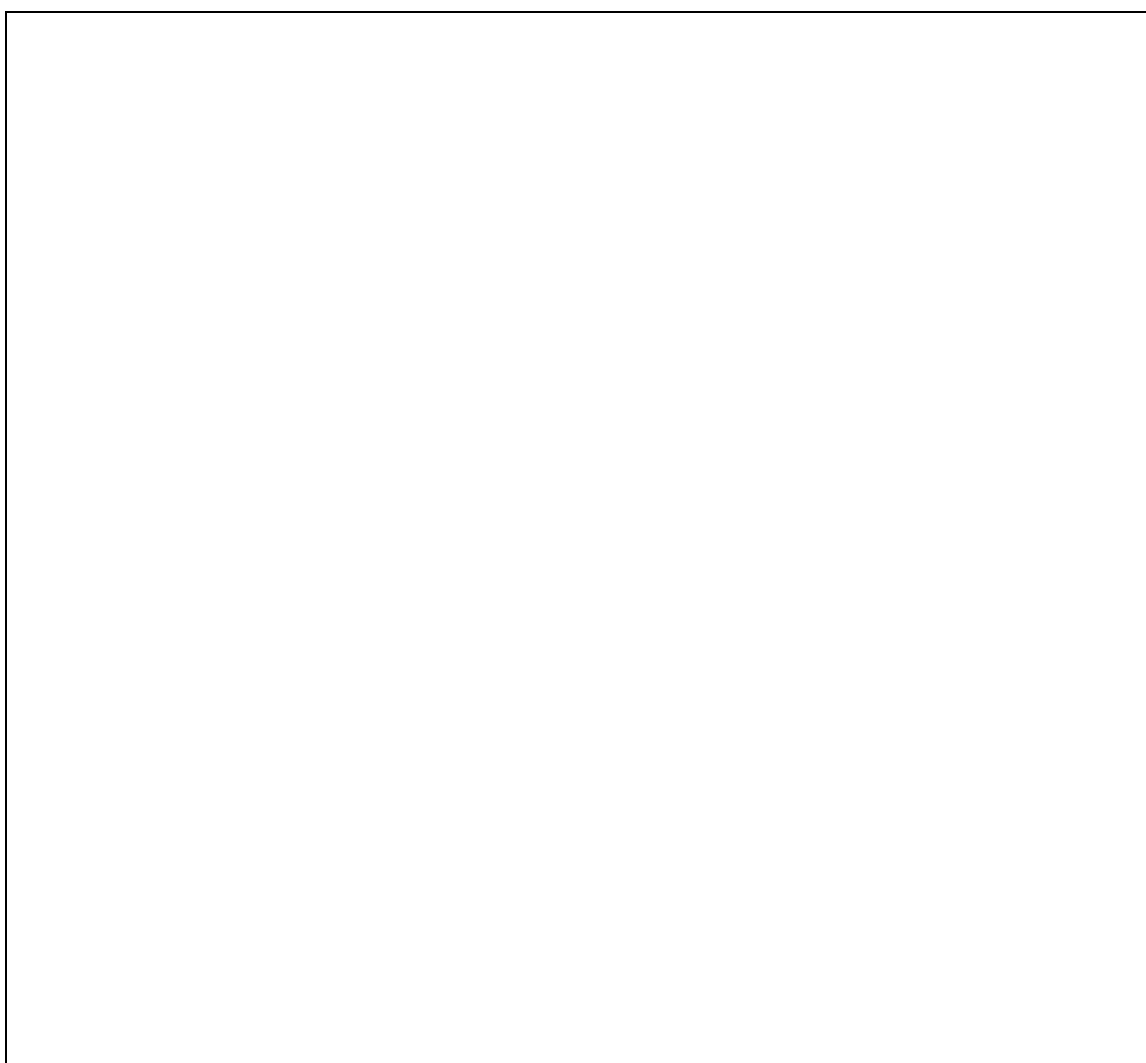
Figure 1: Pupil Enrolment in Schools with UBE Facilities

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Table 2: Pupil Enrolment in Schools Without UBE Facilities

Zone	2000/2001	2001/2002	2002/2003	2003/2004	2004/2005	2005/2006
Remo	1270	1077	1054	1085	1144	1107
Egba	1632	2154	2088	1885	2059	1988
Ijebu	1843	1862	1790	1388	1837	1884
Yewa	1518	2073	2010	1979	1971	1986
Total	**6263**	**7166**	**6942**	**6337**	**7011**	**6965**
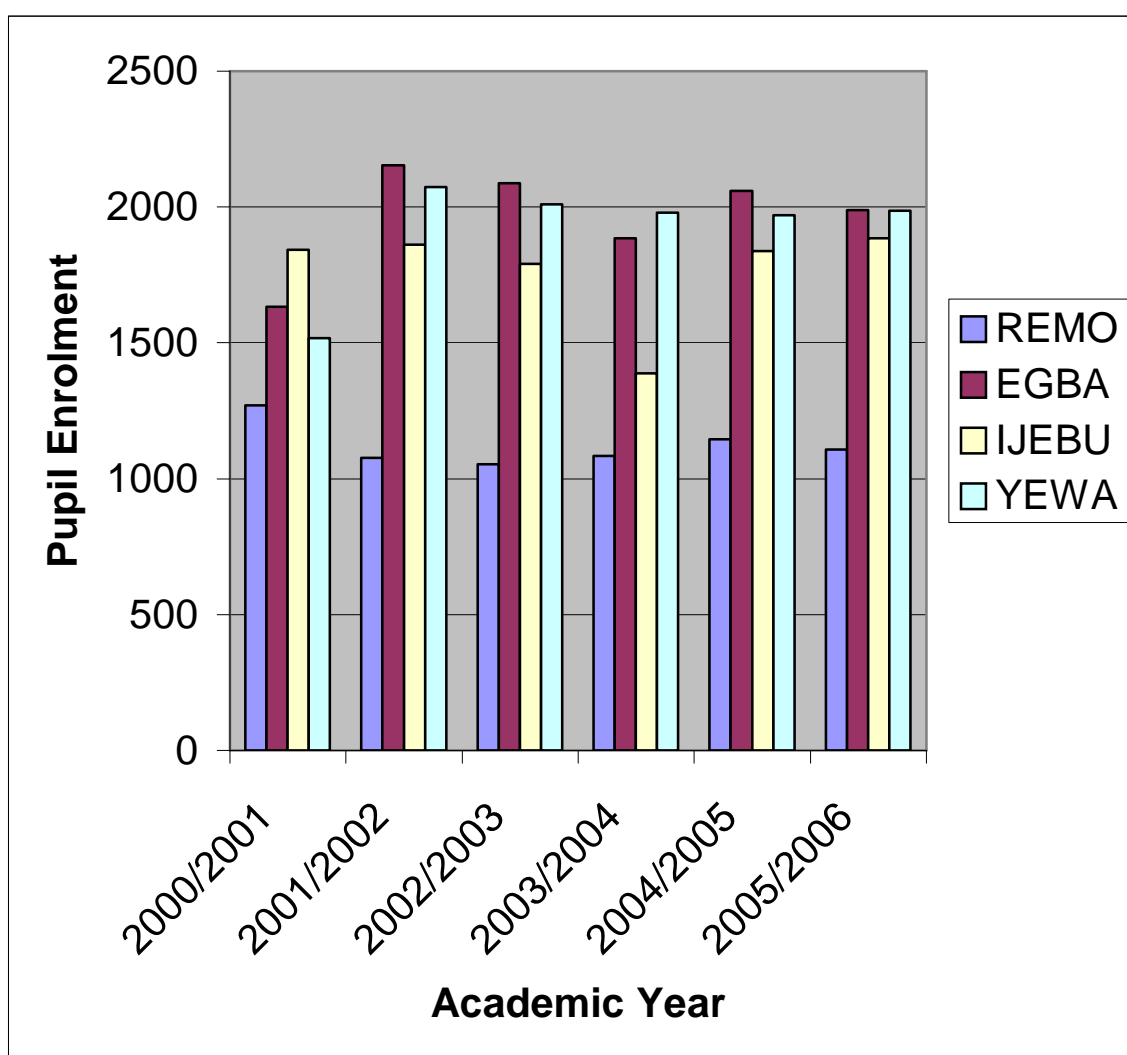
Figure 2: Pupil Enrolment in Schools without UBE Facilities

Table 3: Total Pupil Enrolment In Schools with and without UBE Facilities

School Type	2000/2001	2001/2002	2002/2003	2003/2004	2004/2005	2005/2006
Schools with UBE facilities	7654	7909	7435	8020	8452	8659
Schools without UBE facilities	6263	7166	6942	6337	7011	6965
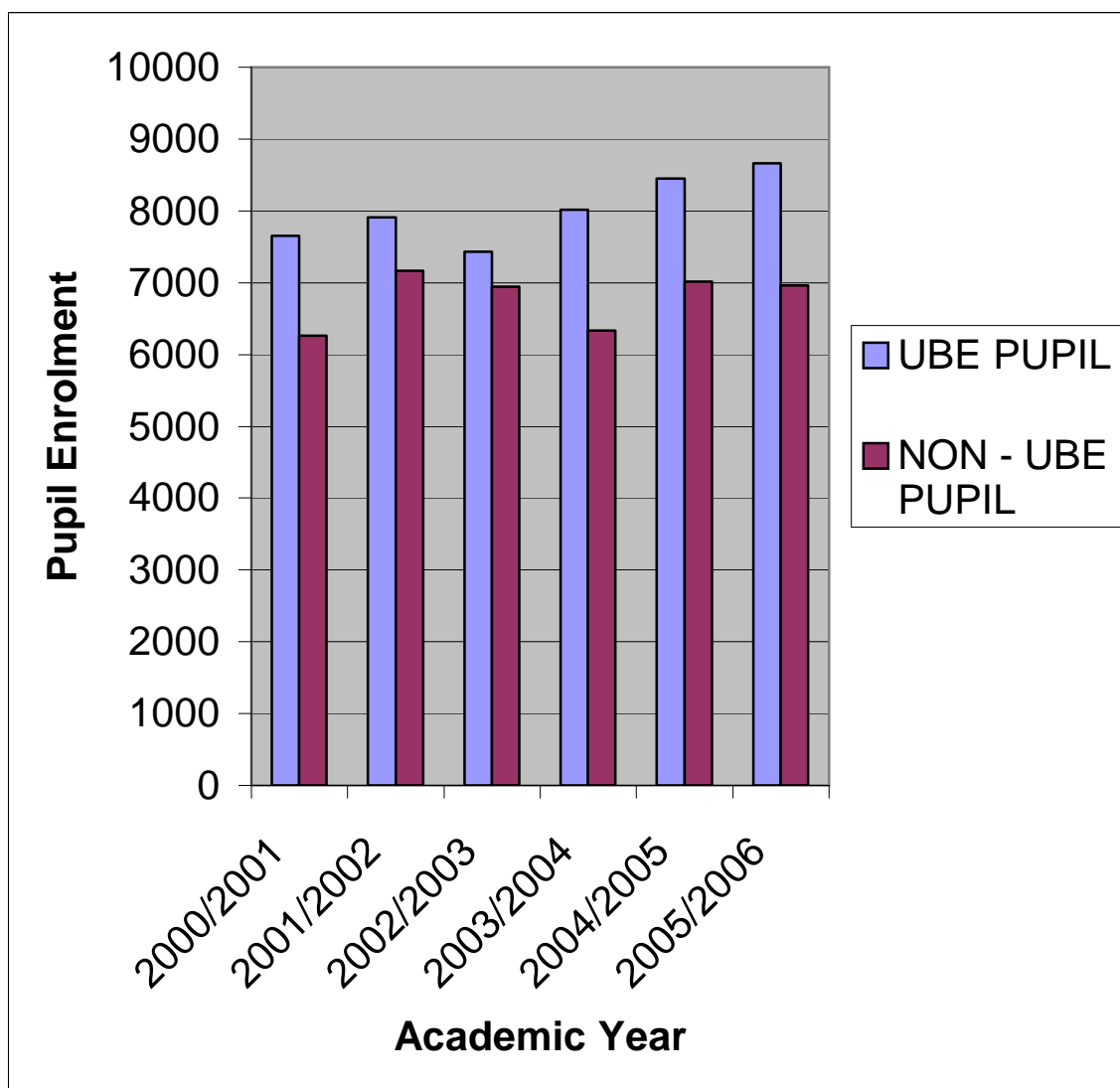
Figure 3: Total Pupil Enrolment in Schools with and without UBE Facilities

Table 4: Percentage Difference In Pupil Population/Enrolment in Schools with and without UBE Facilities

School type	2000/2001	2001/2002	2002/2003	2003/2004	2004/2005	2005/2006
Schools with UBE facilities		3.33	-5.99	7.87	5.39	2.45
Schools without UBE facilities		14.42	-7.31	-8.72	1.06	-0.66

Source: *Fieldwork (2005)*
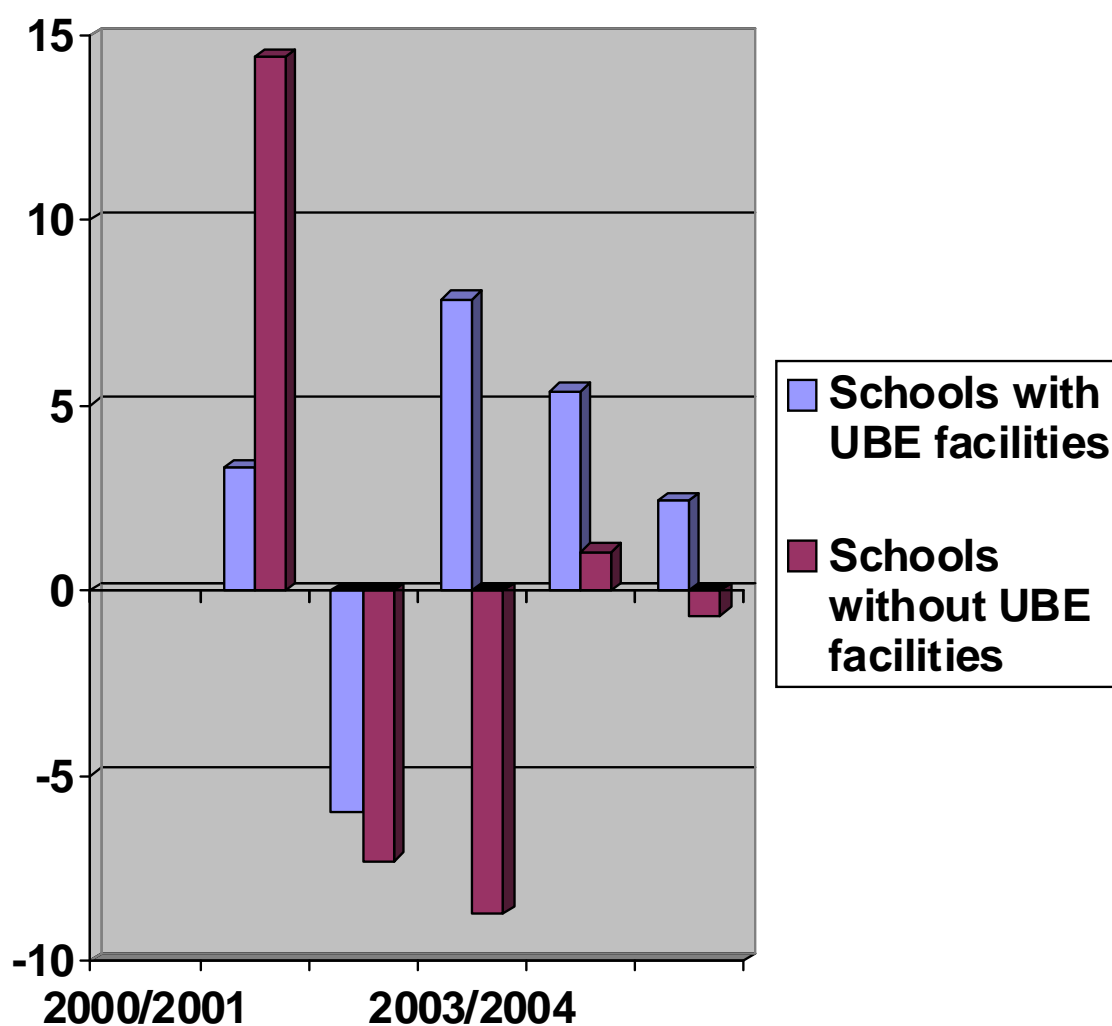
Figure 4: Percentage Difference in pupil Enrolment in Schools with and without UBE Facilities

The percentage difference on pupil enrolment shows that in 2001/2002, 2003/2004, 2004/2005 and 2005/2006 academic sessions, schools provided with UBE facilities recorded percentage (%) increase of 3.33, 7.87, 5.39 and 2.45 in school enrolment. In 2002/2003 academic session, the schools witnessed percentage (%) decrease of -5.99 in school population. On the other hand, schools without UBE facilities recorded in 2001/2002, 2004/2005 academic sessions percentage (%) increase of 14.42 and 1.06 in enrolment, while in 2002/2003, 2003/2004 and 2005/2006 academic session, the school had percentage (%) decrease of –7.31, -8.72 and –0.66. The above statistics point to the dwindling enrolment trend in public primary schools with and without UBE facilities in the years under consideration.

Table 5 below presents the chi-square analysis for the significant difference in school population of these two school types.

Table 5: Calculated chi-square on pupil enrolment in schools with and without UBE Facilities.

| School Type	1	2	3	4	5	6	Total
	2000/2001	2001/2002	2002/2003	2003/2004	2004/2005	2005/2006	
Schools with UBE facilities	7654 (7541.82)	7909 (8169.35)	7435 (7791.10)	8020 (9780.26)	8452 (8379.61)	8659 (8466.86)	**48129**
Schools without UBE facilities	6263 (6375.18)	7166 (6905.65)	6942 (6585.90)	6337 (6576.74)	7011 (7083.39)	6965 (7157.14)	**40684**
Total	**13917**	**15075**	**14377**	**14357**	**15463**	**15624**	**888.13**

Expected frequencies are indicated in brackets
$X^2 = 84.30 > CV = 11.07$, df = 5, $P < 0.05$

Table 5 shows that the calculated x^2 of 84.30 is greater than the critical value of 11.07 at 0.05 significant level. From the results presented in the calculated chi-square in table 5 it is indicated that there is a significant difference in school population/enrolment of schools with UBE facilities and schools without UBE facilities. To this extent hypothesis one which states that there is no significant difference in school population/enrolment of schools with UBE and those without UBE facilities is therefore not retained.

Hypothesis Two
Hypothesis two states that: There is no significant difference in teacher population of schools with UBE facilities and schools without these facilities.
To further address the hypothesis on impact of facilities on teacher population, tables 6, 7, 8 & 9 below shows records of teacher population from 2000-2005 in schools with UBE facilities and those without UBE facilities and the percentage difference in teacher population in these two sampled school types. Also, presented below are figures 5, 6, 7 and 8 indicating the teacher population trends. The calculated chi-square to show the level of significance in teacher population between the two school types is presented in table 10 below.

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Table 6: Teacher Population In Schools With UBE Facilities

Zone	2000/2001	2001/2002	2002/2003	2003/2004	2004/2005	2005/2006
Remo	75	76	58	88	96	110
Egba	81	82	86	92	97	101
Ijebu	97	94	95	101	101	100
Yewa	83	86	91	101	109	117
Total	**336**	**338**	**330**	**382**	**403**	**428**
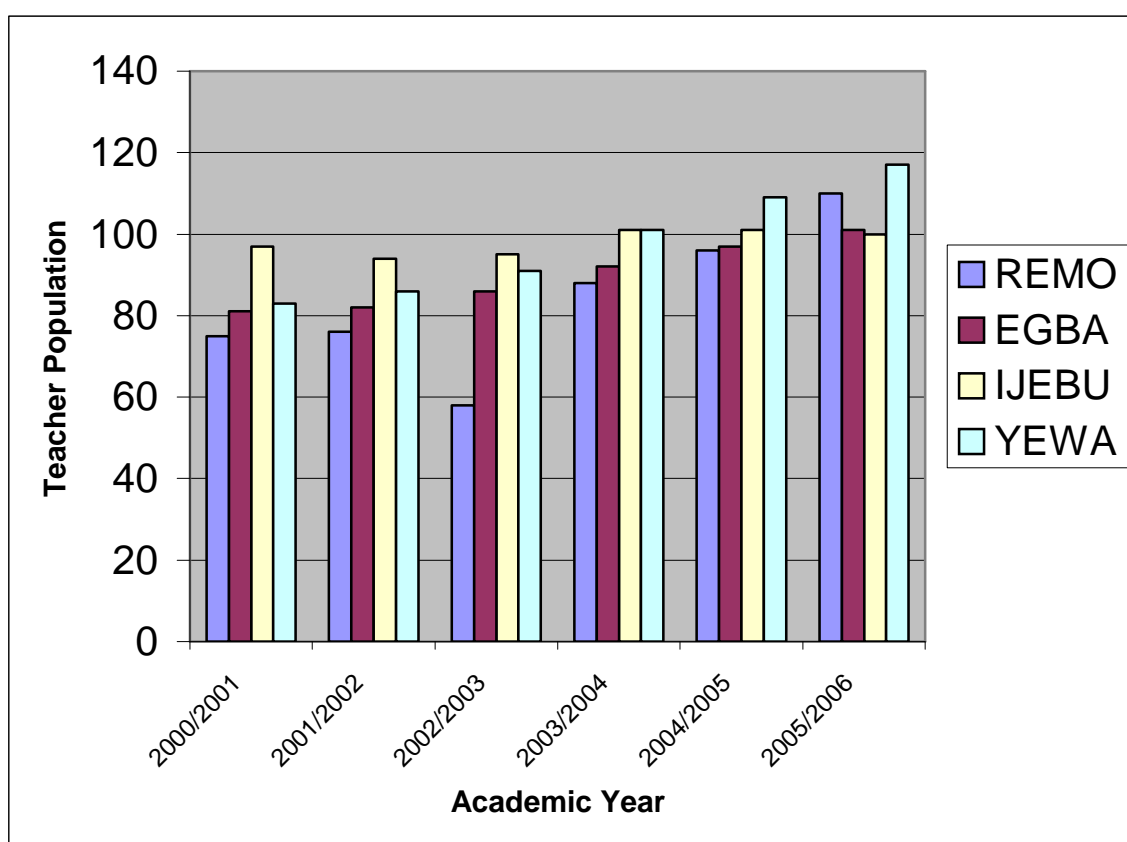
Figure 5: Teacher Population in Schools with UBE Facilities
Source: *Fieldwork (2005)*

Table 7: Teacher Population In Schools Without UBE Facilities

Zone	2000/2001	2001/2002	2002/2003	2003/2004	2004/2005	2005/2006
Remo	56	54	55	64	66	70
Egba	76	93	89	92	95	92
Ijebu	82	83	83	66	90	90
Yewa	73	99	98	97	102	100
Total	**287**	**329**	**325**	**319**	**353**	**352**
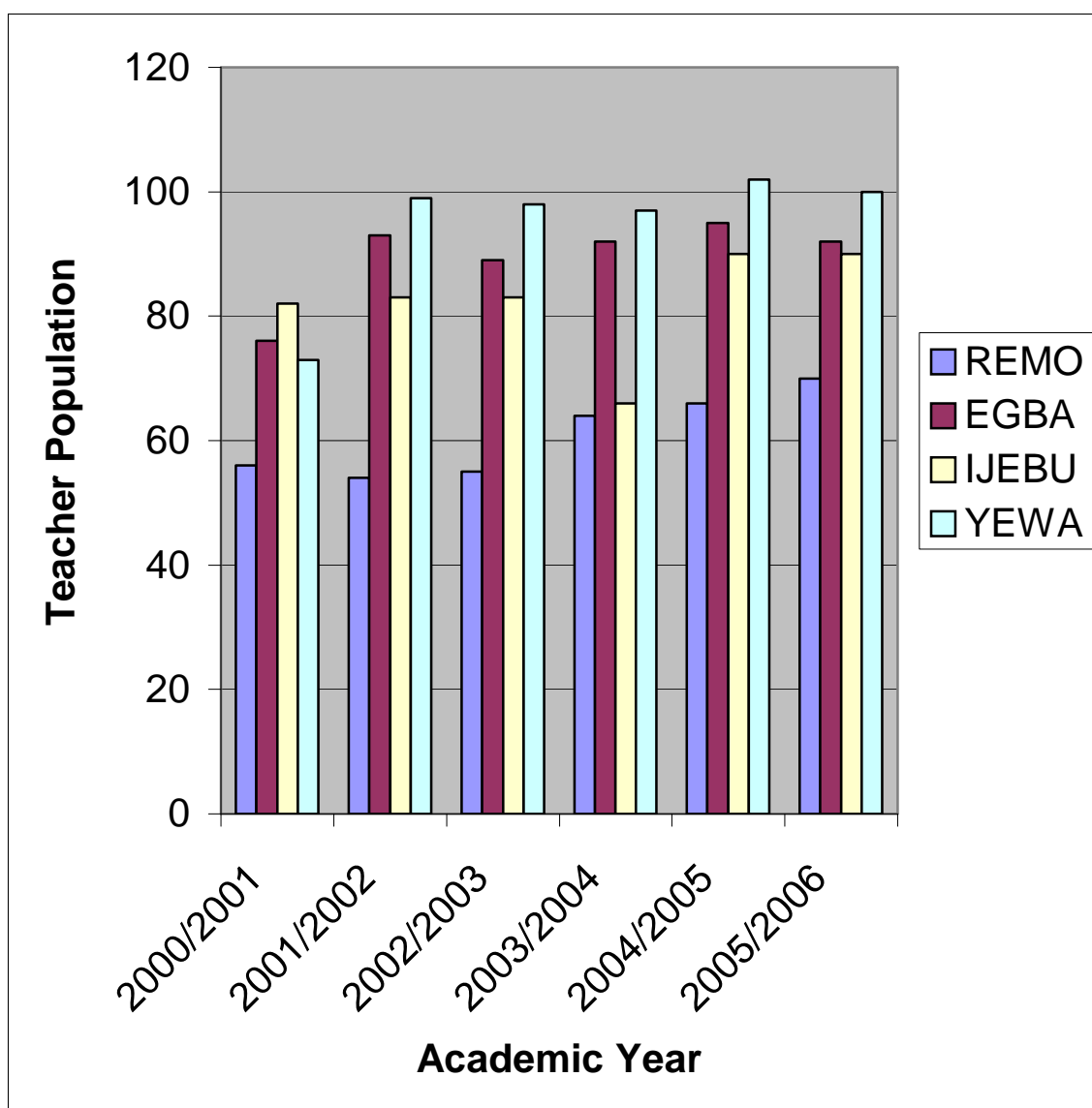
Figure 6: Teacher Population in Schools without UBE Facilities

Table 8: Total Teacher Population In Schools With and Without UBE Facilities

School Type	2000/2001	2001/2002	2002/2003	2003/2004	2004/2005	2005/2006
Schools with UBE facilities	336	338	330	382	403	428
Schools without UBE facilities	287	329	325	319	353	352
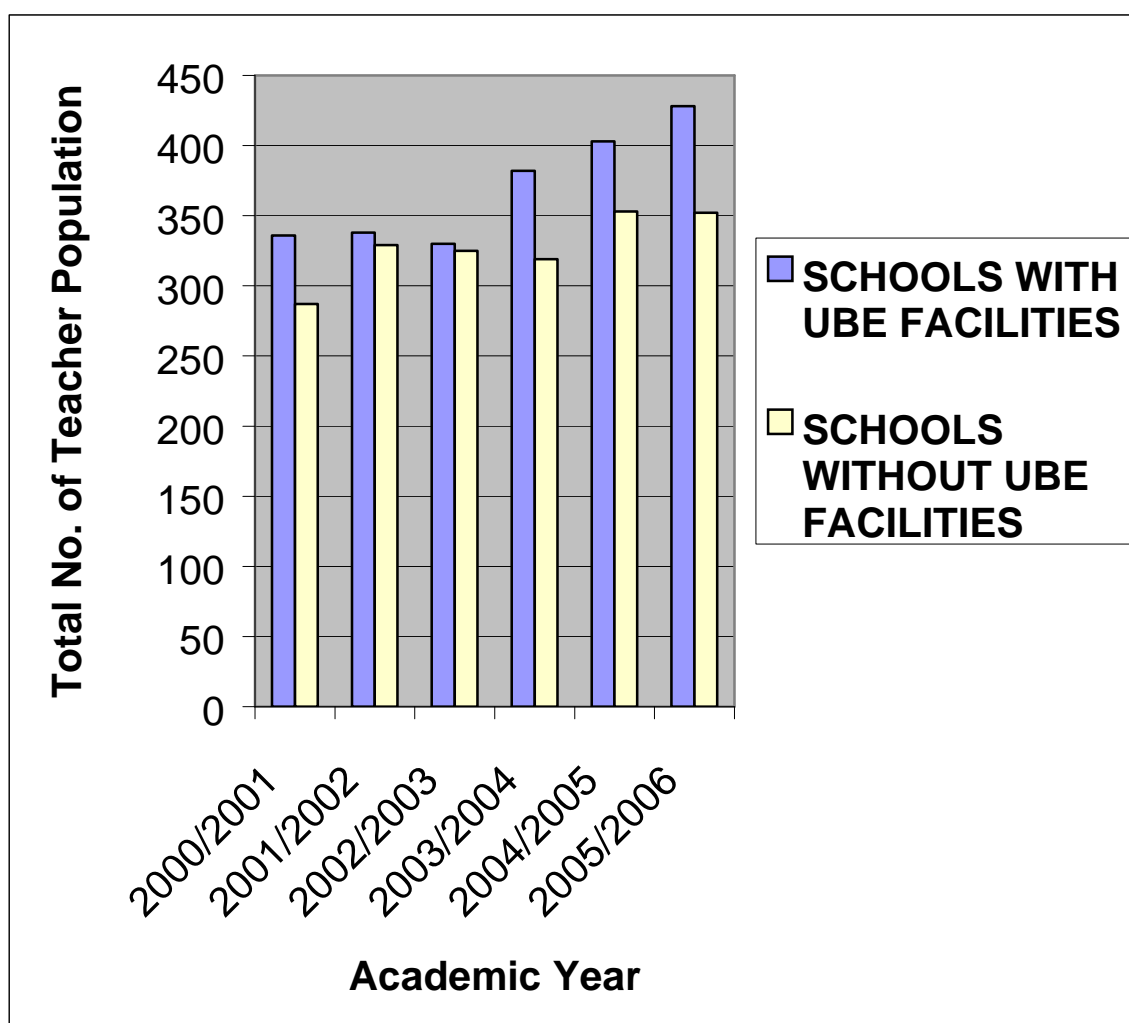
Figure 7: Total Teacher Population In Schools with And without UBE Facilities

Table 9: Percentage Difference In Teacher Population in Schools with and without UBE Facilities.

School type	2000/2001	2001/2002	2002/2003	2003/2004	2004/2005	2005/2006
Schools with UBE facilities		0.59	-2.37	15.76	5.50	6.20
Schools without UBE facilities		14.63	-1.2	-1.85	10.66	-0.28
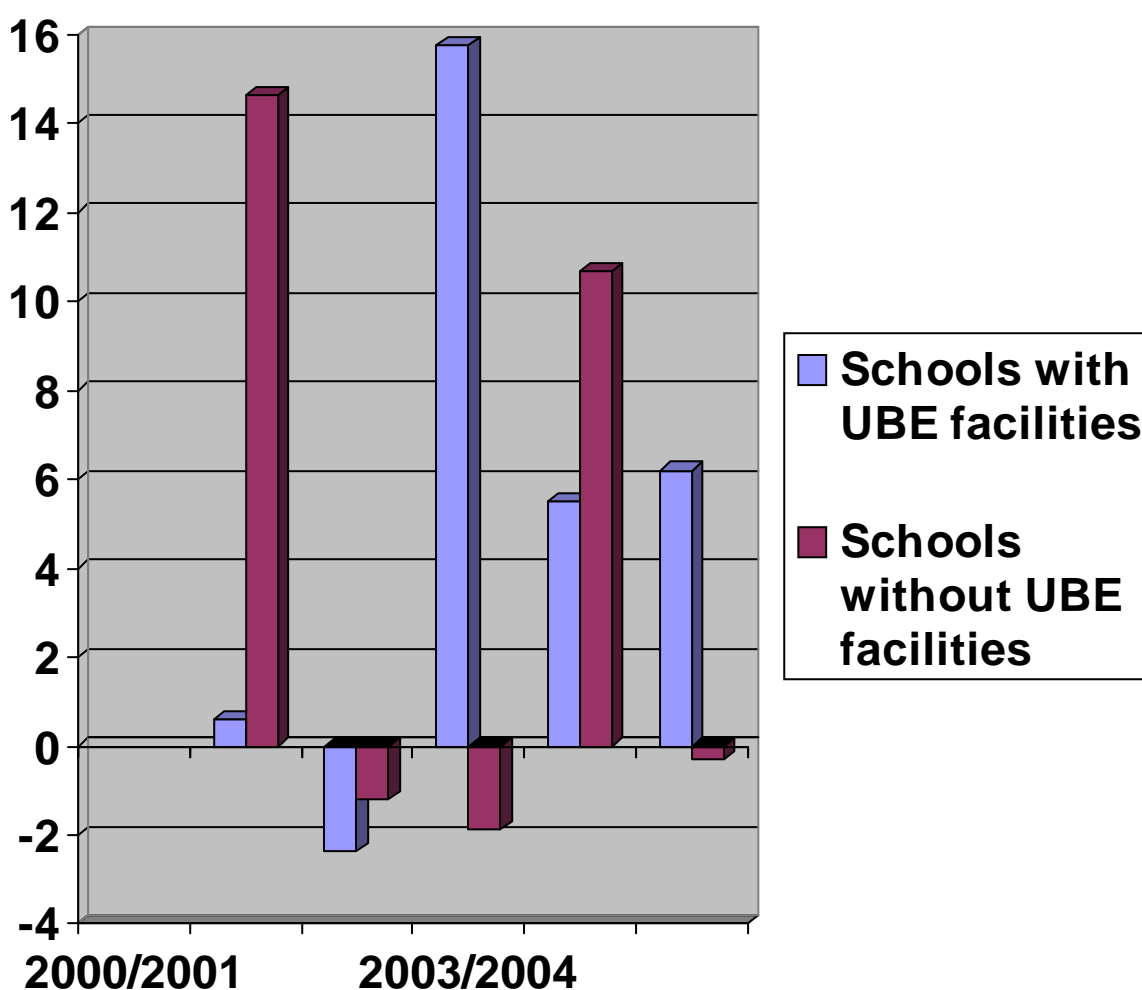
Figure 8: Percentage Difference in Teacher Population in Schools with and without UBE Facilities

The percentage difference in teacher population indicates that in 2001/2002, 2003/2004, 2004/2005 and 2005/2006 academic sessions, schools with UBE facilities recorded percentage (%) increase of 0.59, 15.76, 5.50 and 6.20, while in 2002/2003 academic session, there was percentage (%) decrease of –2.37. On the other hand, schools without UBE facilities recorded in 2001/2002, 2004/2005 academic sessions percentage (%)

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increase in teacher population of 14.63 and 10.66 while in 2002/2003, 2003/2004 and 2005/2006 academic sessions percentage (%) decrease of –1.2, -1.85 and –0.28 were recorded.

Table 38 below presents the chi-square calculated for the level of significance in teacher population in these two school types.

Table 10: Calculated chi-square on Teacher Population in schools with and without UBE Facilities

School Type	1	2	3	4	5	6	Total
	2000/2001	2001/2002	2002/2003	2003/2004	2004/2005	2005/2006	
Schools with UBE facilities	336 (330.3)	338 (353.6)	330 (347.23)	382 (371.62)	403 (400.78)	428 (413.50)	**2217**
Schools without UBE facilities	287 (292.73)	329 (313.40)	325 (307.77)	319 (329.28)	353 (355.22)	352 (366.50)	**1965**
Total	**623**	**667**	**655**	**701**	**756**	**780**	**4182**

Expected frequencies are indicated in brackets
X^2 = 5.21 < CV = 11.07, df = 5, P < 0.05

The table shows that the calculated x^2 of 5.21 is less than the critical value of 11.07 at 0.05 significant level. This mean, that there was no significant impact of UBE facilities on teacher population in schools where they were provided as against the result from teachers rating above. To this extent, hypothesis two which states that there is no significant difference in teacher population in schools with UBE facilities and schools without these facilities is therefore retained.

Hypothesis Three
Hypothesis three states that: There is no significant difference in teacher-pupil ratio in schools with UBE facilities and schools without these facilities.

To also address the hypothesis on facilities-impact on teacher-pupil ratio, tables 11, 12, 13 & 14 below shows records of teacher-pupil ratio from 2000-2005 in schools with UBE facilities and those without UBE facilities and the percentage difference in teacher-pupil ratio in these two sampled school types. Also, presented below are figures 10, 11, 12 and 13 indicating teacher-pupil ratio trends. The calculated chi-square to show the level of significance in teacher–pupil ratio between the two school types is also presented in table 15 below.

Table 11: Teacher – Pupil Ratio For Schools With UBE Facilities By Zones

Zone	2000/2001	2001/2002	2002/2003	2003/2004	2004/2005	2005/2006
Remo	20.51	23.74	21.22	19.22	19.56	16.84
Egba	23.22	23.33	22.2	21.68	21.94	22.08
Ijebu	24.36	24.31	24.14	22.14	22.33	22.85
Yewa	22.55	22.17	22	20.77	20.1	19.59

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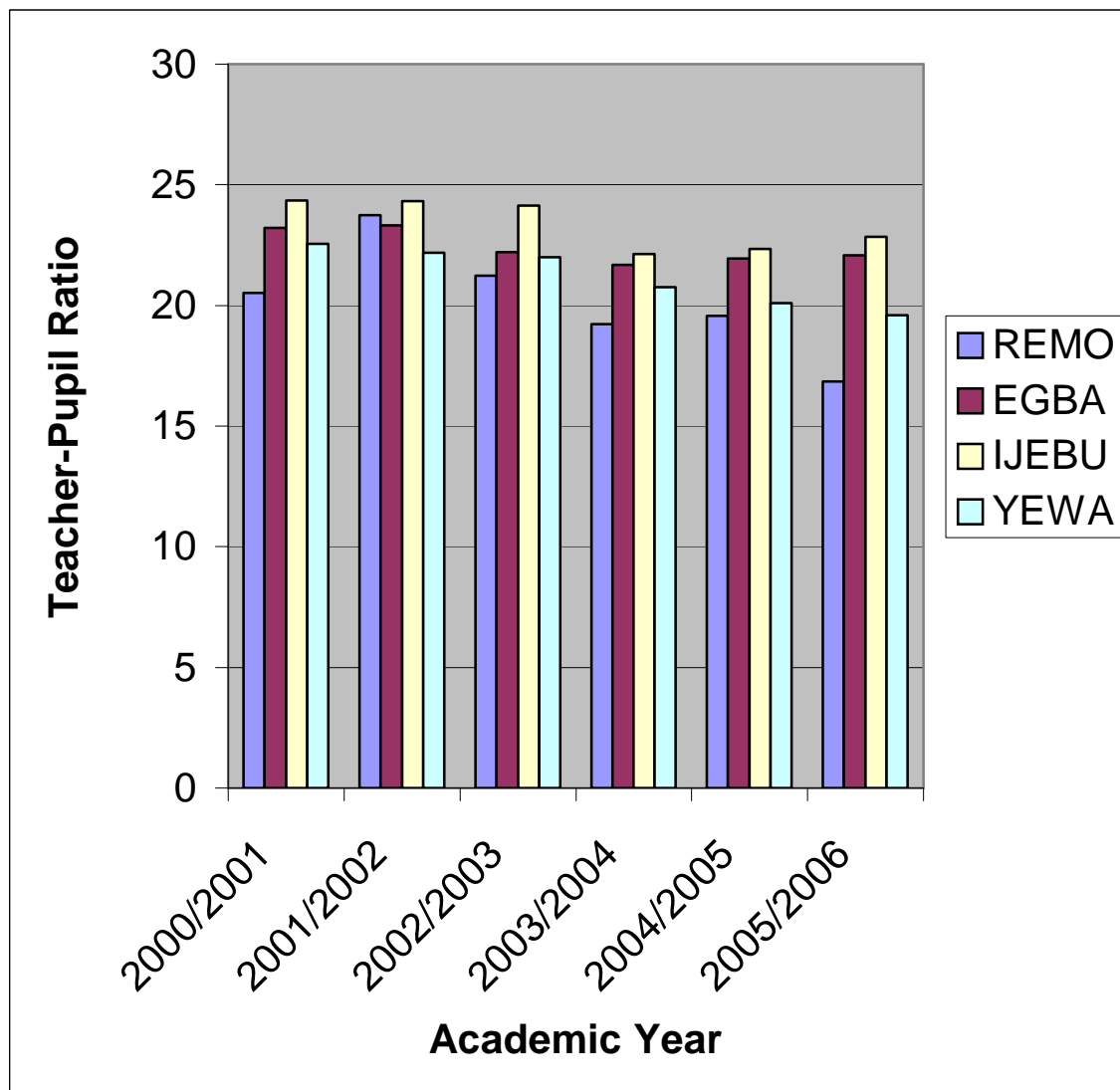
Figure 10: Teacher – Pupil Ratio for Schools with UBE Facilities by Zones

Table 12: Teacher – Pupil Ratio For Schools Without UBE Facilities By Zones

Zone	2000/2001	2001/2002	2002/2003	2003/2004	2004/2005	2005/2006
Remo	22.68	19.94	19.16	16.95	17.33	15.81
Egba	21.47	22.16	23.46	20.49	21.67	21.61
Ijebu	22.48	22.43	21.57	21.03	20.41	20.93
Yewa	20.79	20.94	20.51	20.4	19.32	19.86
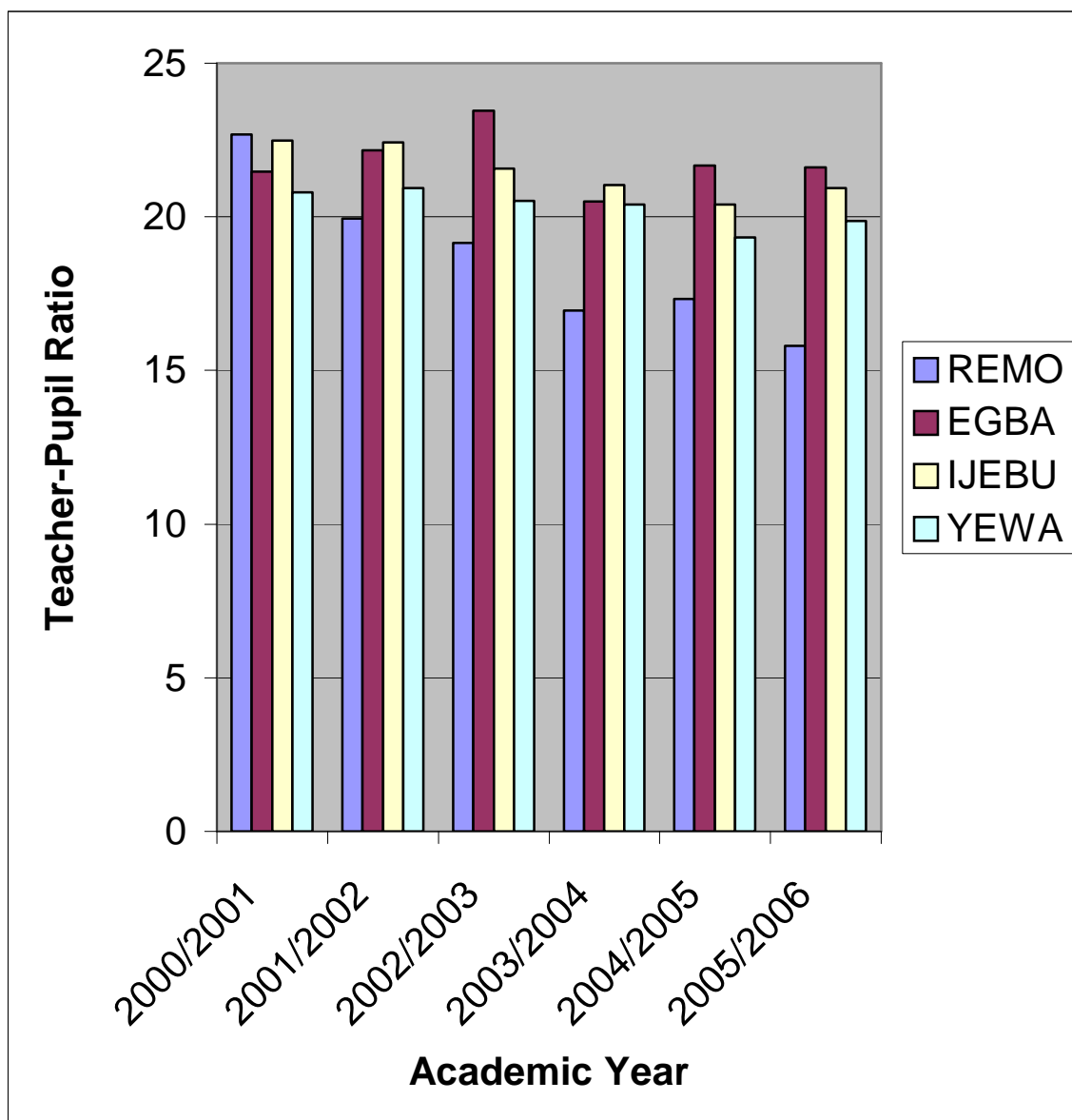
Figure 11: Teacher – Pupil Ratio for Schools without UBE Facilities by Zones

Table 13: Teacher – Pupil Ratio In Schools With And Without UBE Facilities

School Type	2000/2001	2001/2002	2002/2003	2003/2004	2004/2005	2005/2006
Schools with UBE facilities	22.77	23.39	22.53	20.99	20.97	20.23
Schools without UBE facilities	21.82	21.78	21.36	19.86	19.86	19.78

Figure 12: Teacher – Pupil Ratio in Schools with and without UBE Facilities

Table 14: Percentage Difference In Teacher-Pupil Ratio in Schools with and without UBE Facilities

School type	2000/2001	2001/2002	2002/2003	2003/2004	2004/2005	2005/2006
Schools with UBE facilities		2.72	-3.68	-6.84	-0.1	-3.53
Schools without UBE facilities		-0.19	-1.93	-7.02	0	-0.4
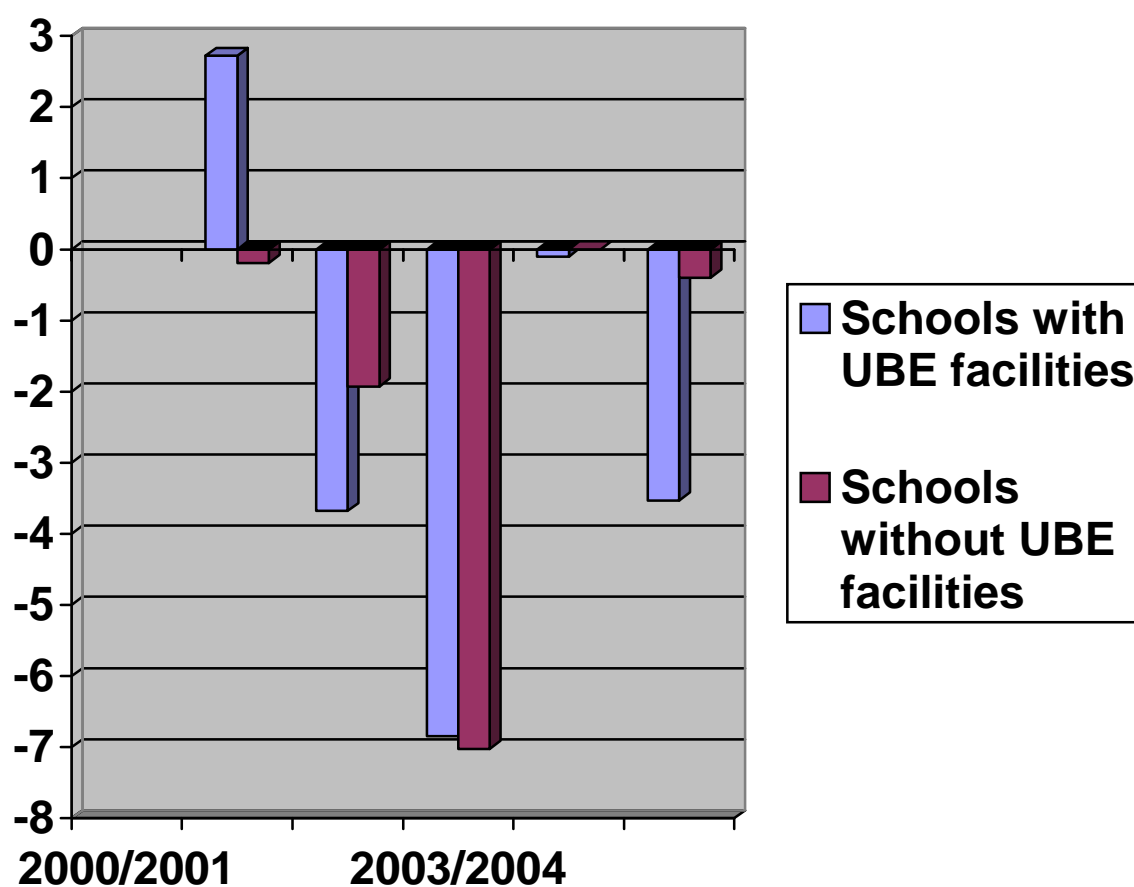
Figure 13: Percentage Difference in Teacher – Pupil ratio in Schools with and without UBE Facilities

The percentage (%) difference in teacher-pupil ratio indicates that in 2001/2002 academic session, schools with UBE facilities had percentage (%) increase of 2.72 in teacher-pupil ratio, while in 2002/2003, 2003/2004, 2004/2005 and 2005/2006 academic sessions percentage (%) decrease of –3.68, -6.84, -0.1 and –3.53 were recorded. On the other hand, schools without UBE facilities in 2004/2005 academic session recorded 0%. While in 2001/2002, 2002/2003, 2003/2004 and 2005/2006 academic sessions percentage (%) decrease of –0.19, -1.93, -7.02 and –0.4 in teacher-pupil ratio were recorded.

Presented in table 15 below is the calculated chi-square to show the level of significance in teacher-pupil ratio for these two school types.

Table 15: Calculated chi-square on Teacher-Pupil Ratio in schools with and without UBE Facilities

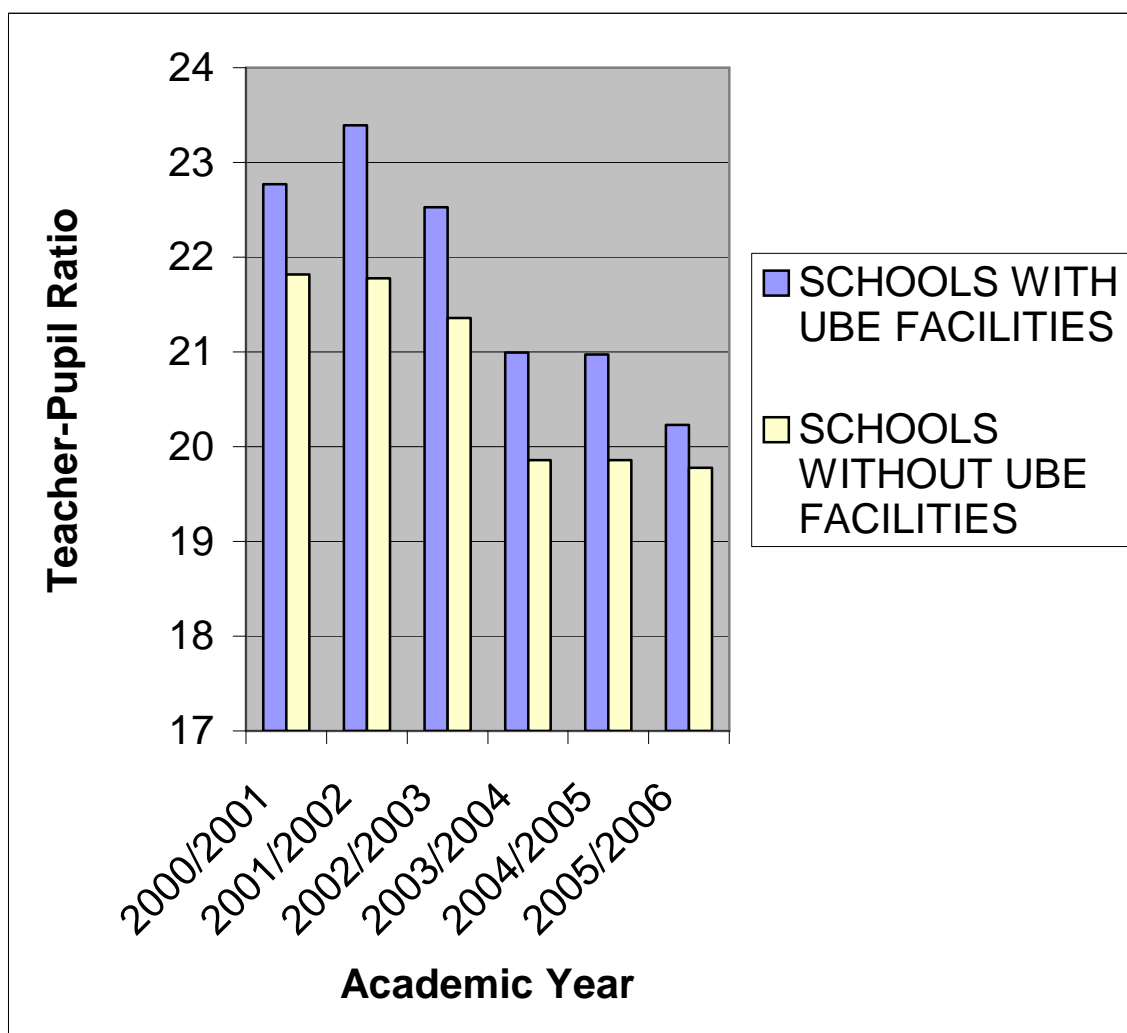| School Type	1	2	3	4	5	6	Total
	2000/2001	2001/2002	2002/2003	2003/2004	2004/2005	2005/2006	
Schools with UBE facilities	22.77 (22.86)	23.39 (23.15)	22.53 (22.50)	20.99 (20.10)	20.97 (20.93)	20.23 (20.50)	**130.88**
Schools without UBE facilities	21.82 (21.73)	21.78 (20.02)	21.36 (21.39)	19.86 (19.91)	19.86 (19.90)	19.78 (19.50)	**124.46**
Total	**44.59**	**45.17**	**43.89**	**40.85**	**40.83**	**40.01**	**255.34**

Expected frequencies are indicated in brackets

$X^2 = 0.23 > CV = 11.07$, df = 5, P < 0.05

The table shows that the calculated $\bar{x}^2$ of 0.23 is less than the critical value of 11.07 at 0.05 significance level. This means that there was no significant impact of UBE facilities on teacher-pupil ratio in schools provided with UBE facilities and those without these facilities. To this extent hypothesis six which states that there is no significant difference in the classroom teacher-pupil ratio of school with UBE facilities and those without these facilities is therefore retained.

DISCUSSION OF FINDINGS

School Population/Enrolment Assessment
The result of this assessment reveals that the UBE facilities provided in the sampled schools where the facilities are provided have significant impact on school population. A look at the block of classrooms, furniture and the immediate surroundings of the building point to their conduciveness for effective teaching and learning, and these are capable of attracting pupils to attend school. The provision of instructional materials may attract pupils, to some extent, to be academically ready to attend school. It was observed from the fieldwork that a few of the schools use their block of classrooms for their nursery children. When interviewed, they posited that those buildings were beautiful and attractive. These they believe have been encouraging parents to send their children to school with the hope that they will graduate to the primary level, thus, gradually reversing the dwindling enrolment in public primary schools.

Increase in enrolment may also be made possible with the promulgation of laws at Federal and State levels that make basic education free, universal and compulsory. Nwagwu (2002) provides insight into this finding when he anticipated increase in school enrolment in primary and secondary schools as a result of the UBE programme. He therefore notes that, more facilities will definitely be required especially in urban areas.

This opinion is in line with the findings of Majasan (1995) when he also posits that the classroom is an environment where pupils are motivated to grow physically, intellectually and emotionally. He argues that the organisation and management of the environment and learning situation attracts parents and pupils to school and finally lead to the achievement of educational goals. Fadipe (1997) in his study reveals that attractive school buildings and environment contribute to increase in school population/enrolment. He submits that the school building is one of the most important infrastructural facilities needed for the promotion of teaching-learning activities in schools. Moreover, good organisation of the classroom, which brings about the application of effective routines in carrying out classroom activities and also the existence of a democratic method of discipline, attract pupils to school to learn effectively.

Teacher Population Assessment

As earlier discussed, the provision of facilities was noted to have impacted on school enrolment, this may equally have bearing on the need for teachers. As pointed out by Fadipe (1997), the number of classes coupled with school population may dictate the number of teachers. As revealed by Brolin (1964), in a study, the number of classes is closely related to the problem of providing sufficient supplies of both teachers and the classrooms.

The chi-square calculated on teacher population using school records indicated that there was no significant impact of UBE facilities on the availability of teachers. What the result may be saying is that there is no remarkable change in the number of teachers as a result of UBE scheme in schools with UBE facilities in Ogun State. Possible reasons for this may include the following: state and local government recruitment pattern irrespective of UBE facilities, maintenance of budget on teachers which may affect the provision of teachers to schools, the non creation of new schools, and that previous shortage of teachers that are just being corrected in primary schools today. This could be explained further from the fact that in Nigeria today, our public primary schools are witnessing shortages of teachers. Tracing this phenomenon for instance, the World Confederation for the Organisation of the Teaching Profession (1961) stated that most teachers in Nigerian schools as at this period were ill-equipped, it pointed out that over 75 percent of Nigerian teachers have no training in teaching, and are therefore not qualified professionally to teach. Despite all bold attempts over the years to improve the professional training of teachers, the situation is marginally different from what it was twenty-six years ago. In another survey conducted by the National Teachers Institute, Kaduna (1981), it was found out that out of a total of 256,979 primary school teachers in 1976/77 academic session, only 110,476 representing 42.9 percent were qualified as Grade Two teachers. This shows that in that year 57.1 percent primary school teachers were unqualified. Although in recent years, this position has improved in many states, however, some states are still seriously, having this problem.

More recently, Ogbeifun and Olisa (2001) reported in their study that the over 400,000 teachers currently employed in the Nations Primary Schools constitute a far cry from the number required to run the schools efficiently especially in relation to the projected pupils enrolment for the UBE scheme. This can be explained as a major factor affecting the impact level of UBE facilities on the availability of teachers in Nigeria primary schools, Ogun State inclusive. To add to this report, Dike (2002) reveals in his own study that the falling standard of education in the country is caused by acute shortage of qualified teachers at the primary school level. He pointed out that only 429,048 qualified teachers were available to teach 20,698, 546 pupils. These figures indicate an average ratio of one teacher to 48 pupils as against the universally acceptable standard of one teacher to 40 pupils (FGN, 2004). This observation, is supported by Nwagwu (2002), Onanuga (2003) and Aderinoye (2004) in their various studies in the area of demand and supply of teachers in primary schools. Fadipe (2002) however, declared that planners of the UBE programme have no choice but to recruit, train, remunerate and motivate teachers needed for the successful implementation of the Universal Basic Education programme in the country.

Teacher-pupil Ratio Assessment

The findings on the influence of UBE facilities on teacher-pupil ratio assessment can be explained from the viewpoint that dwindling enrolment exists in public primary schools over the years and before the UBE, as the public was beginning to lose confidence in them. Hence, in most of the schools it is common to find teacher-pupil ratio of 1 – 24 as revealed in this study. This viewpoint is supported by Ajayi (2005) and Adeniji (2005) in their studies, "towards reversing dwindling enrolment trend in public primary schools in Ijebu-North Local Government Area of Ogun State". They discovered, as earlier identified, that in schools in this part of the State, the ratio of teacher to pupil was between 1:24 and 1:30. Hence, provision of block of classrooms, furniture and instructional materials may have significant impact although this may be low as shown in the finding. This will enable some of these schools to decongest classrooms and manage the existing ones at their disposal.

However, it should be pointed out that such decongestion will be predicated on a number of factors which include school population, availability of teachers and drop-out rate among other determinants. With the UBE programme, educational facilities especially block of classrooms, furniture and instructional materials are being provided to school. To this extent and at the start of the programme increase in enrolment was envisaged. This is corroborated with the findings of this study. Also, to increase enrolment and address the dwindling trend in school population, many public primary schools now run nursery sections. From the nursery sections, the children graduate to the primary level. The UBE facilities have been found to be useful in this direction, as it makes the classroom environment inviting to the children.

With increase in school population, which equally serves as determinant of number of classes, teachers and other educational resources in schools, and considering the enormous demand for educational facilities, consequent upon the serious decay witnessed over the years, the UBE facilities as pointed out in the chi-square calculated using school records, may not have significant impact on teacher-pupil ratio.

It was discovered from field report that with the highly deteriorated classrooms and furniture, schools merge between two-three arms in a classroom, thereby increasing the classroom population beyond the required standard of forty by the Federal Government of Nigeria in the National Policy on Education (FRN, 2004).

Lending credence to the determinants of teacher-pupil ratio, Fadipe (2000) points out that teacher-pupil ratio is dictated by school population, which also determines number of classes, teachers and other educational resources needed for schools to function. Also supporting the issue of classroom condition as one of the determinants of classroom population, Ogbuka (2000), in a survey reveals that over 47% of the classrooms in the country's primary schools needs renovation and an additional 285,920 blocks were needed to accommodate about 511,939 more classes. The World Bank (1998) lend credence to it that most schools in sub-Sahara Africa suffer from very poor conditions of learning in dilapidated or half-completed buildings, insufficient desks, overcrowded classrooms, inadequate learning materials, poorly educated and motivated teachers.

CONCLUSIONS AND RECOMMENDATIONS

Ogun State Government in providing facilities could through the State Universal Basic Education Board (SUBEB) identify the areas of needs of primary schools in all the 20 local government areas that make-up the geographical zones of the state. Such identification of needs may focus on pupil enrolment trend, classrooms and furniture situations, teacher population and teacher-pupil ratio among other factors. It is expected that this will enable the state government plan and project adequately and realistically too, rather than relying on guesswork and political considerations. This will also help to balance the uneven distribution of facilities found out in this current study.In trying to achieve this and considering the capital-intensive nature of the UBEN scheme, Ogun State Government can map-out an execution plan programme for specific period of time (this

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may be in short and long terms). This will enable the government implement in phases, based on school needs and priorities, the provision of UBE facilities to primary schools in the State

The state government has to be more aggressive and double efforts in the areas of renovation of school buildings and the provision of new ones. These efforts may equally be maintained when the implementation of the scheme, at the Junior Secondary School (JSS) level starts. With the level of facilities provision that is far from being adequate, the rehabilitation of school structures to standard is expected to save cost. Thus, the programme will reach more schools.

It should be noted that only through commitment and sincerity of purpose that Ogun State government could achieve and actualize Education for all. However, this may not be in the target year of 2015, taking into account, the extent of needs of primary schools for these facilities and the level at which they have been provided so far.

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COMPARATIVE INVESTIGATION OF ORGANIZATIONAL FACTORS CREATING OCCUPATIONAL STRESS AMONG HIGH SCHOOL PRINCIPALS IN ZAHEDAN

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ABSTRACT

Present research aims to determine the amount of occupational stress and to identify organizational factors creating occupational stress among high school Principals in Zahedan. Research used was a descriptive-surveying method. Statistical population of research involved all high school principals of Zahedan city. The sample contained 150 principals (78 female, 72 male) who had been selected by stratified-random sampling. Data-collecting tool consisted of :Wiliam Dyer's" questionnaire of occupational stress and researcher made questionnaire of effective organizational factors in creating stress with 29 questions on "Lickert's" five-optional scale. For testing the questions and hypotheses of the research; single-sample T-test, independent t-test and F-test were used. Attained results showed that the high school principals were under occupational stress, and that all four organizational factors, namely occupational necessities[1], physical necessities, role necessities and interactive necessities were effective in creation of occupational stress in high school principals of Zahedan city. The results also showed that excepting the sort of institution, there were identical insights among principals, based on gender, years of service and their course of study, into the effect of studied factors.

Key Words: Occupational stress, Organizational factors, Occupational necessities, physical necessities, role necessities, interactive necessities.

INTRODUCTION

People and organizations built by them face different factors both inside and outside the organization at present time. Individual's personality and mentality are, continually, under influence of various factors and gradually become worn out. worn out bodies and the tensions that target peoples' bodies are recognizable and easily curable, however the tensions, affecting the soul and mentality of organizational people, are not observable, so they can n't be examined and treated easily, so that, these tensions have undesirable effects on trained human force. Although this mental strain, also known as stress, has a long background in medicine, it has prevailed in the science of management and organizational behavior, and due to it's prevalence in social life of workers, a part of organizational discussions has been devoted to stress (Ghafoorian, 1998:37). Obviously, occupational stresses have harmful effects on employees and managers, too.

Individuals, affected by occupational stress, certainly face problems in decision-making, planning and intrusting with others that lead to poor effectiveness and productivity. On other hand, a stressed employee puts stress on other stuff, as a result, stress in organizations, like a disaster, exhausts the forces and makes the efforts in fertile (Alavi, 1993:7-8).

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[1] - Requirements, requisites demands-obligations-needs

therefore, for providing a proper and desirable mental bed in order to study the stress an its' originating factors, from an organizational view pint, it sounds reasonable that at first according to "Morehed and Griefine's" method, I have to give a definition for stress: "individual's adaptive response or reaction to a stimulus which causes a wide range of mental and physical necessities for him. According to organizational approach and the provided definition, they are potential resources such as environmental organizational and individual factors that induce stress.

some cases such as 60 percent of absences from work place in England, and 150 billion dollars annual costs for treatment in American organizations (Hindelniem,1383:p.p5) that imply decline of organizations' functions and job-dissatisfaction among (public) workers, are considerable examining effective factors on management and organization failure. There after, some questions arises in the mind, like whether a poor management can be a consequence of occupational stress and which organizational factors cause occupational stress in managers. Of course, stress exits in all people lives; however some stress- creating factors associate with individuals in different organizations such as schools. If stress exceeds beyond the reasonable bounds, it will affect individual's performance in the organization, and its undesirable state of stress. Now, with respect to abovementioned issues, the questions, set by researcher can be expressed as follows: Do organizational factors that were proved by "Morhed" and "Griefine", namely occupational necessities, physical necessities, interactive necessities and role necessities, cause occupational stress in principals? If so, which factor is the most effective?

Regarding the importance of the percent research, it should be said that improving mental health in work place is considered as on of the most important factors of development and optimization of human resources in organizations. for growth and advancement of country in all fields: productive, wise and healthy human force should be utilized firstly, because the use of mentally and physically healthy forces in various economic, service- providing, educational and industrial institution, has a considerable effect on raising the level of productivity and exploitation (Gafoorian, 1999:37). Identifying and avoiding occupational stress- creating organizational factors can prevent the loss of human resources, and economic negative consequences such as decrease in production and deficiency of production. The managers are under influence of social and organizational environment and have become responsible for acquiring and meeting the aims of organization. Then, if they get stressed, negative effects will rapidly interfere with organizational performances (Toosi, 1989:74).

The necessity and importance of this research can be summarized as that the result of the research help the decision- markers and policy- makers to be aware of stress among high schools principals, and to determine organizational factors that create stress, so that they may prevent occupational stress from occurring by planning and cooperating with other stuff of organization and eventually, provide a proper ground for creating a stress- free and safe environment for manager and other stuff to improve their performances.

This research aims to determine the degree of occupational stress and also, to examine occupational stress- creating organizational factors.

Questions of the research
1- How is the rate of high school principals' occupational stress in city of Zahedan?
2- Dose principals' occupational stress varies with respect to their demographic characteristics?
3- Are occupational necessities effects in creating occupational stress among high school principals?
4- Are physical necessities effects in creating occupational stress among high school principals?
5- Are role necessities effects in creating occupational stress among high school principals?
6- Are interactive necessities effects in creating occupational stress among high school principals?

Background of research

In a research on "management and mental pressures", Abtahi (1991) carried out a research, examining the reasons, consequence and coping with exiting pressures in the society, based on, not only library data but scientific and field data. The study involved 30 interviews and 40 completed questionnaires out of 70 distributed questionnaires. The result show that 100 present of those who completed the questionnaires (had) experienced these kinds of pressure to some extent. In a research under the title of "investigation and compares on of principals' supportive behavior, job maintaining factors and occupational stress full factors in sport and physical training department of pubic universities", Ramzani Zegud (2001) concludes that female coaches are more subjected to occupational stress full factors than male coaches.

Hajibabai (2004) carried out a research under the title of "identifying and preferring the most important factors of increase in high school principals' stress in city of Qom" the results of which show that cultural, social and personal factors in men and occupational factors in women are the most important stress full factors. There is no relation among such variables as age, gender, field of study and the type of school, while there is a relation among principals' degree of education, years of occupation and the number of students and teachers.

Ahmad (1995) in a research, examining principals' sources of stress and comparing them between men and women, concludes that due to multiple roles, lack of appropriate social relations in work place, conditions and nature of work, male principals have more stress and mental pressure than female. And multiple role is the most stress full factor in female principals.

Moshtaghifar (1998) in a research, investigating the cause of occupational stress and approaches to reducing it from principals' points of view in high schools of the province of "KohKilooye – va – Boer Ahmad", states that there is no difference between male and female principals, regarding the origins of occupational stress. Also, no significant difference exits between principals' occupational stress full factors and variables of years of management, size of organization and age of principals.

In a research, "Yegane" and "Alizadeh" (2003), identifying the occupational stresses in teachers of the province of "Lurestan", conclude that there is no difference among the teachers with different occupational backgrounds. Teachers' average stress among three stages of study (primary- high school, and middle guidance school) is different and highest level of stress belongs to the teachers of guidance schools.

Jamshidnajad (1996), in a research of n "investigation of occupational stress and comparison of job- satisfaction between teachers of primary and high school suggests that a significant difference wasn't observed between high and low- experienced occupational stress.

Kashawarz (2001) performed a research, examining the relation of organizational skill of time management with occupational stress among the principals of "Firoozabad" schools. The results show that mean scores of female principals are higher significantly from that of male principals in occupational stress. but regarding the variables including spatiality and non- spatiality, being high or low experienced; triple- stages of study (primary, guidance and high schools) are not effective in the level of stress.

In a research, under the title of "the relation between the styles of leadership and principals' stress in schools of the city of Khorramabad, Walizade (200) concludes that male principals are more stressed than female principles.

METHOD OF RESEARCH

With respect to the nature of subject and aims of the research, it has a surveying- descriptive method. Statistical population of the research involves all high school principals, from which 15o principals (78 female and 72 male) were selected by stratified – random sampling method.

To collect the needed information, two questionnaires were used: first, for investigating the level of occupational stress, William dayer's standard questionnaire was used (In this questionnaire score, 100 or above is the sign of occupational stress).

Second, for determining the organizational factors effecting occupational stress, based on likert's range, five-optional researcher- made questionnaire (close ended response) was used. these two kinds of questionnaire were distributed among the subjects to determine the expressiveness of tools, content- expressive method was used and to estimate the reliability of the questionnaires, kroonbakh's alpha method was used, which was attained as: a=0.89 that implies the high accuracy of test. technical statistics, used in the present research include descriptive statistics which were used to describe the data and involved tables arrangement, mean and standard deviations, and inferential statistics which were used to test the hypotheses of research, and involved single- sample (t) test, independent t and F-test.

Analysis of data

Question 1: How is the level of "Zahedan's" high school principals' occupational stress?

Table 1: the results of single- group t-test, regarding the level of principals' occupational stress

group	N	M	SD	test value	t	d.f	sig
principals	150	107.27	27.73	100	3.33	149	0.001

The results of table (1) show that principals' mean and standard deviation in questionnaire of occupational stress are 107.50 and 33.48 respectively. Estimated values are as follows: , $p \langle 0.01$, $df = 149$ and $t = 3.33$, so, the difference of mean occupational stress with norm of the questionnaire (100) is significant, therefore, it can be concluded that "Zahedan" high school principals have a high level of occupational stress.

Question 2 : Does occupational stress vary among principals, regarding their demographic characteristics?
Table 2 : The results of t-test, relating to the status of principals occupational stress , distinguishing the gender.

Teachers characteristics		N	Mean	SD	t	df	Sig.
gender	woman	78	110.81	37.62	1.26	148	.209
	men	72	103.92	28.14			

The results shoo that the mean and standard deviation of female principal's occupational Stress are 110.81 and 37.62, respectively.

While these values for male principals are 103.91 and 28.14, respectively. Estimated statistics are as follows: $p\langle 0.209$, $df = 148$ and $t = 1.26$. These values imply that female principals suffer more stress than male. However, the difference between two groups is not statistically significant.

Table 3: The results of t-test, regarding the status of principal's occupational stress. Distinguishing the kind of institution.

Teachers characteristics		N	Mean	SD	t	df	Sig.
Kind of institution	Well-equipped	87	116.21	31.82	3.92	148	.001
	Poorly enquired	63	95.48	32.18			

The results show that mean and standard deviation of principal's occupational stress in well-equipped schools are 116.21 and 31.82, respectively.

While these values in poorly- equipped schools are 95.48 and 32.18. Estimated statistics are as follow; $p\langle 0.01$, $df = 148$ and $t = 3.92$ so, observed difference between two groups of study is significant. Principals of well-equipped schools experience more stress than those of poorly – equipped schools.

Table 4: Results of F-test, regarding principal's occupational stress, distinguishing the years of service.

Teachers characteristics		N	M	SD	ṠS	df	MS	F	Sig.
Years of service	1- 10	69	101.61	36.40	5371.82 161621.7	2 147	2686.91 1099.47	2.44	.090
	11 - 20	64	110.67	32.87					
	21 - 30	17	119.12	14.65					

The results of above table, indicate that mean and standard deviation of principals occupational stress, with i-io years of experience are 101.61 and 36.40, and for those who have 11-20 years experience the values are 110.67 and 32.87 and for the most experienced principals these are 119.12 and 14.65 , respectively. Estimated statistics are as follows: $p\langle 0.09$, $df = 2 and 147$ and $F = 2.44$ the results show that the difference among occupational stress of three studied Groups is not significant statistically so the principals with different years of experience suffer from stress identically.

Question 3: Are occupational necessities effective in creation of principal's occupational stress?

Table 5: The results of single group t-test regarding occupational necessities in creation of occupational stress.

Variable	N	M	SD	T.value	t	d.f	Sig.	Eta^2
Kind of job security	150	20.13	5.05	20	2.006	149	.047	.05
Work	150	9.36	3.03	7.5	7.53	149	.000	.27
Volume	150	2.59	1.24	2.5	.86	149	.393	.005
Total Occupational Necessities	150	32.77	7.23	30	4.695	149	.000	.129

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The results show that subjects mean and standard deviation, regarding the effect of organizational factor of job necessities on principal's occupational stress is 32.77 and 7.23, respectively. It is more than the mean of test (T.3), and this difference is significant with 99% probability and $p\langle 0.01$, $df = 149$ and $t = 4.695$

The results also show that sub – component of job security with $p\langle 0.05$, $df = 149$ and $t = 2.006$ at 95% probability, and kind of work with $p\langle 0.01$, $df = 149$ and $t = 7.53$, at 99% level of probability are significant. While, volume of work with $p\rangle 0.05$, $df = 149$ and $t = .86$ at 95% probability is not significant. So, it can be concluded that the factor of occupational necessities and factor of work kind has relatively strong effect (Eta^2 =0.129, Eta^2 = 0.27 respectively), and factor of sub – component of security has medium effect (Eta^2 =0.05) on high schools principals occupational stress. How ever, factor of work volume has not considerable effect on occupational stress in zahedan, high school principals (Eta^2 =0.005).

Question 4: Are physical necessities effects in creating occupational stress among high school principals?

Table 6: The results of single group t-test regarding role necessities in creation of occupational stress among principals.

Variable	N	M	SD	T.value	t	d.f	Sig.	Eta^2
Temperature	150	3.22	1.39	2.5	6.32	149	.000	.211
Office Arrangement	150	5.81	2.23	5	4.44	149	.000	.117
Total Physical Necessities	150	9.03	3.36	7.5	5.57	149	.000	.172

The results indicate that mean and standard deviation of subjects relating to the effect of organizational factor of physical necessities in creation of stress among high school principals are 9.03 and 3.36, respectively, which is more than mean of test (7.5). This difference is significant at 99% of probability and with $df = 149$,

$t = 5.57$ and $p\langle 0.01$

The results also show that sub-component of temperature and office arrangement with $df = 149$, $t = 5.57$ and $p\langle 0.01$ and with $df = 149$, $t = 5.57$ and $p\langle 0.01$ at 99% of probability respectively, are significant. So it can be said that the effects of organizational factor of physical necessities, sub-components of temperature and office arrangement have been strong in creation of principals occupational stress (Eta^2 = 0.172, Eta^2 = 0.211 and Eta^2 = 0.117 respectively)

Question 5: Are role necessities effects in creating occupational stress among high school principals?

Table 7: The results of single group t-test, regarding role necessities in creation of occupational stress among the principals of zahedan high schools.

Variable	N	M	SD	T.value	t	d.f	Sig.	Eta^2
Role ambiguity	150	15.43	4.52	12.5	7.93	149	.000	.297
Role contradiction	150	5.46	2.37	5	2.37	149	.019	.036
Role necessities (total)	150	20.89	6.38	17.5	6/503	149	.000	.221

The results of above table suggest that mean and standard deviation of subjects, regarding the effect of organizational factor of role necessities in creation of occupational stress among high school principals are 20.89 and 6.38 which is more than mean of test (17.5).

This difference is significant with $df = 149$, $t = 6.503$ and $p\langle 0.01$ at 99% of probability. The results also show that sub-component of role ambiguity and role contradiction with $df = 149$, $t = 7.93$ and $p\langle 0.01$ at 99% probability and $t = 2.37, df = 149$ and $p\langle 0.01$ at level of 95% probability are significant respectively. So, it can be concluded that the effects of organizational factor of role necessities and sub-component of role ambiguity have been highly effective (Eta^2 =0.221 and Eta^2 =0.297), while the effect of role contradiction has been lower (Eta^2 = 0.036).

Question 6: Are interactive necessities effects in creating occupational stress among high school principals?

Table 8: The results of single group t-test, regarding the interactive necessities effect on creation of occupational stress.

Variable	N	M	SD	T.value	t	d.f	Sig.	Eta^2
Group pressure	150	7.93	2.89	7.5	1.84	149	.068	.022
Style of leadership	150	6.73	2.39	5	8.85	149	.000	.344
personality	150	5.49	2.40	5	2.48	149	.014	.039
Interactive Necessities	150	20.15	6.53	17.5	4.96	149	.000	.143

The results of above table suggest that mean and standard deviation of subjects toward the effect of organizational factor of interactive necessities in the creation of occupational stress among the high school principals are 20.15 and 6.53 , which is more than the mean of test (17.5) this difference is significant with $t = 4.96, df = 149$ and $p\langle 0.01$ at probability level of 99%. The results also show that sub – component of leadership style and personality with $t = 8.85, df = 149$ and $p\langle 0.01$, at 99% of probability and $t = 2.48, df = 149$ and $p\langle 0.05$ with 95% level of probability , respectively are significant, while group pressure with $t = 1.84, df = 149$ and $p\rangle 0.05$ at 95% level of probability is not significant so , it can be concluded that organizational factor of interactive necessities and sub- components of leadership style and personality have been effective in creation of occupational stress in principals , while the group pressure has had no considerable effect on aeration of stress.

Also, it can be concluded that the effects of interactive necessities, sub-component of leadership style and component of personality have been, respectively, relatively strong (Eta^2 =0.143, Eta^2 =0.344) and weak (Eta^2 =0.039), however, group pressure has had no special role in creation of occupational stress among Zahedan high schools principals (Eta^2 = 0.022).

CONCLUSION

in the recent decade, the issue of mental pressure or stress and its effects in organization have been received a lot of attention. Several of generational factors can create occupational stress and influence the performance and activities of organization. Main goal of the present research is to investigate stress-creating organizational factors among high school principals.

These factors are put in four sets which are the hypotheses of research , based on "morhead and grlefin" theory , namely occupational necessities , physical necessities, role necessities and interactive necessities-first, we deal with the results of research questions , and then , we will provide some suggestions based on the results of data analysis are as follows with respect to first question, that is how is the level of zahedan high schools principals occupational stress , the results of table (1) suggest that mean occupational stress of

principals is 107.27, which is significantly more than the norm of wiliam dyer's questionnaire (the scores equal or more than 100 imply stress) [107.27 ➤ 100].So, the principals suffer from occupational stress.

The results of independent t-test (table 2) showing whether principal's occupational stress is different with respect to their demographic features, suggest that despite highly stress among female principals, the difference is not significant statistically. It means that the difference between mean stress of male and female principals is a matter of chance and accident. However, regarding the kind of situations, the results show that the mean occupational stress in principals of well-equipped schools is more than those of poorly equipped schools (table 3). The difference
Regarding the first question, table (1) suggests that mean occupational stress of high school principals is 107.27 , which is more than "William dayer's" questionnaire [(107.27>100), equal or more than 100 implies the stress], hence, principals are under stress.

results of independent t-test (table 2), regarding quetion2 saying whether occupational stress among principals is different with respect to demographic characteristics, show that despite the fact that occupational stress among female principals is more than male ones, it is not, however, significant statistically. That is, observed difference between the means, stress is male and a female principal is caused by the factor of chance and accidence. while, regarding the kind of institution, results suggest that mean stress among will- equipped schools principals is more than that of poorly- equipped ones (table 3). Observed difference is significant statistically. That is, well- equipped school principals are under more stress. Also, the results of f-test show that between the principal of different level years of experience the difference is not significant (table 4) although the principals of more years of experience are more stressed, the reason is that factor of chance or accidence.
Regarding question 3 saying the effect of job necessities on creation of stress among principals, the results of table (5) indicate that this factor is effective in creating stress. Investigation of the effects of three sub-components (kind of job, job security and volume of job) shows that sub-factors of job kind and security of the most effective in creating occupational stress, where as volume of job has no effect.

according the findings of research by "Alawan" (1999) on identifying the sources of mental pressure in principals of "Khoozestan" province, as well as by "Nozhat" (1996) on examining occupational stress in principals of "Fars" province, velum of work or "magnitude of functions" is a stress- creating factor among primary school principal, which is not consistent with the results of present study. According to finding of a research carried out by "Ahmadi" 1995 on sources of stress in principals and comparing it between men and women, the factor of work nature and conditions was considered as an important stress creating factor. These findings are in full adaptation present research considering the factor of "kind of work" as one of stress- creating factors.

The results of a research by "Mohammadi" (2002) on examining occupational stress full factors in physical training teachers of "Rasht city" show that job responsibility is one of stress- creating factors among teachers. It is compatible with or results.

Regarding question 4, about the effect of physical necessities in creating stress, the results (table 6) indicate that physical necessities are effective significantly in creating occupational stress. By examining two sub-factors of temperature and office arrangement, it was found out that they were effective significantly. According to the findings of a research by "Dabbagh Yarimshali" (1994) on determining stress full factors among the managers on ministry of Jahad Sazandegi (=reconstruction of war), environmental or place of work was considered as stress full factor. It is consistent with the results of second hypothesis of research. "Alwani" (2009), in a research on "Physical conditions of school" considered them as stress full factors.

This finding is suited with the results of present research based on findings or a research by "Majtahedi" (2004) on investigating occupational stress full factor and their relation with general health of researchers of primary

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and guidance schools of "Hamedan", the factor of "Physical conditions of school" was known as stress full. This finding is compatible with our result. Regarding question 5 about the effect of role necessities in creating stress among principals, the results (table 7) show that the role necessities have been highly effective in creating stress. Examining two sub-factor of role ambiguity and role contradiction showed that the effects of than were significant statistically and role ambiguity had the most influence on creation of occupational stress.

Based on findings of a research by "Alwani' (1999), such factors as ambiguity of functions and different expectation of staff were considered as sress ful. The results of question 5 have proved this fact and the factor of role ambiguity was known as occupational stress- creating. According to a research by "Ahmadi" (1995), the factor "Multiple- roles of principals" was considered as a stress full factor. Similarly, the results of the present research verified this fact, and factor of "role contradiction" was known as stress full.

The results of question 6, with respect to the information of table 8, imply the effected of interaction necessities in stress creation among the principals. examination of the effects of three sub- factors (group pressure, leadership style, and personality) shows that they are significant statistically, in which leadership style and group pressure are ranked as more effective than personality in occupational stress creation among principals.

According to findings of a research carried out by "Haji babae" (2004) on identification and preference of main factors in raising the stress among "Qom" city high schools principals, the factor of "lack of support by authorities in removing the problems of principals "was known as stress full. The results of the present research verify this fact. The factor of "leadership style" was considered as one of stress- creating factors. Based on the results of a research by "Organi" (1999), "Improper relations between manager and workers" has been known as one of the stress full factors. The results of question 6 of present research verify this fact. And the factor of personality was considered as stress full. based on Ahmad's research (1995) "Lack of desirable social relatios" has been know as stress full factor, which is consistent with our results.
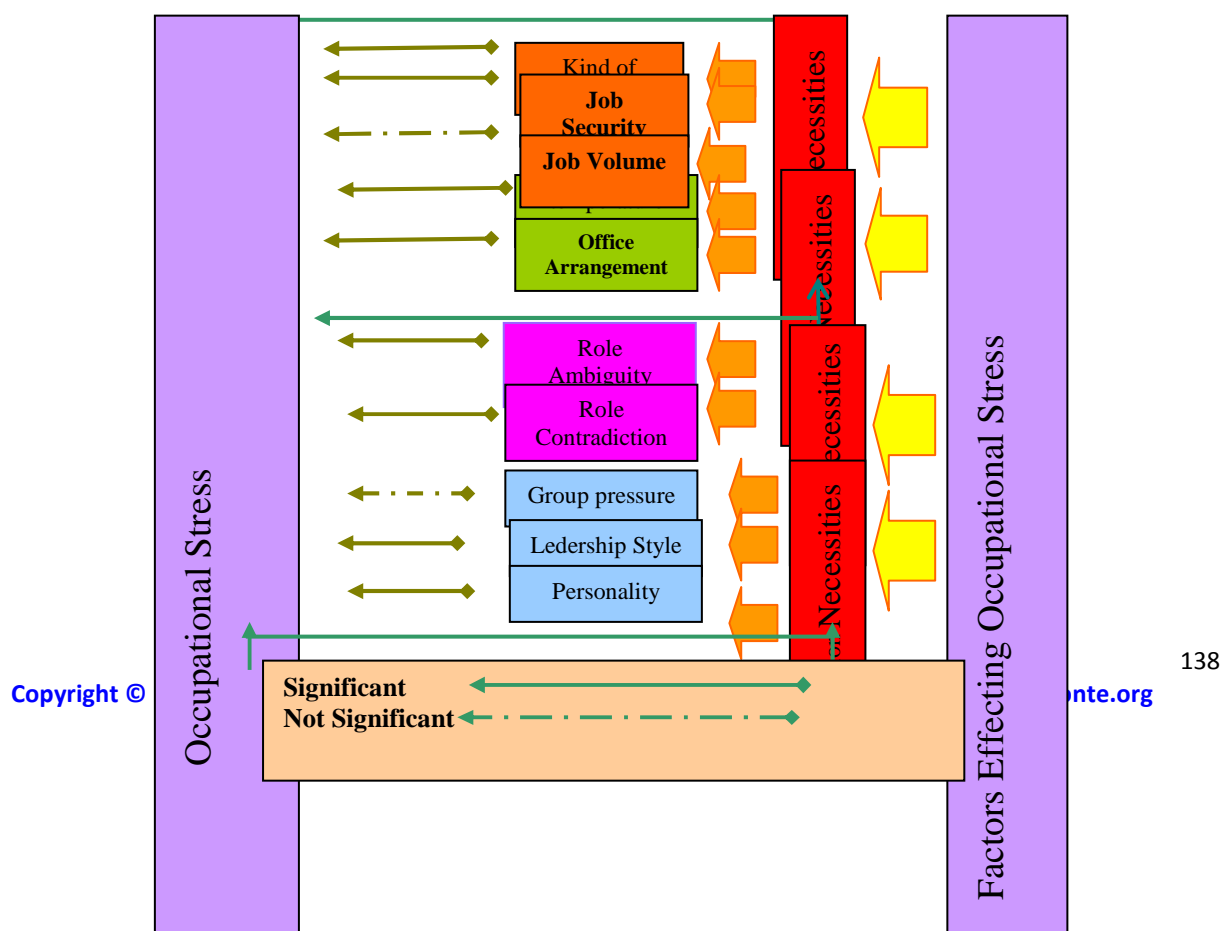
The results of research is displyed, briefly as fallow

Figure 1: Brief illustration of research results

DISCUSSION

This research shows that "Zahedan" high school principals are on the sever stress. This problem is more obvious in female principals, will- equipped school principals and low- experienced male principals than poorly- equipped school principals and principals with more years of experience. Organizational factors, known as stress full by "Morhad & Grifine" have been effective is "Zaheden" high school principals. presence of occupational stress among principals, exposes them to many problems in their performance., e.g.planning, decision- making, coordination, supervision, having skills in establishing humen relations, group relations, leadership, and … when principals is under stress, hence all stuff of school including teachers, students and servants will suffer stress, as a result, the organization of school can n't full fill its aims and objectives and the role of aducation department fades away. Then, the authorities should pay a certain attention to this issue.

Suggestions

By taking account these results of research, the following points are proposed in order to increase the performance and to raise the level of efficiency and effectivity of schools:

1- Some plans showed be designed and implemented in different and proper ways to increase the level of knowledge of principals about stress full organizational factors.

2- Since lack of compatibility among equipments of physical space of school such as classes, laboratory, and workshop and physical space of work of principals (office of principals) is itself a cause of stress, so more and dynamic interaction between school and organization of school is necessary and inevitable for coordination and planning.

3- In the domain of implementation, the functions of stuff including principals and assistants, office keeper and servant should be apparent and distinct.

4- Since, safe- keeping and immunity of students is a serious and considerable responsibility of principals and a problem in this issue makes the principals stressed, then, cooperation of principals with stuff of school to save the lives of students is critical and considerable.

5- Independent of principals work place (office) should be maintained and effective properted such as light and ventilation should be regarded.

6- Since, raising the quality level of educational activities and evaluating the results of learning and teaching activities of teachers in given intervals, result is reduction of students' educational drop in success of them in final exams, it seams that principals' effort in this field is not ineffective.

7- Establishment of work groups and councils to achieve a Joint insight and a certain destination by principals and teachers may cause a decrease in stress, because it is helpful in apparency and remove of uncertainly in current activities of schools.

8- Regarding the fact that communication in organization is as nerve system of organization, mental and physical health and professional and ethical health of organization, as well as respectful interactions between individuals in educational environment can result in stress declination.

9- Extence of different thoughts, view points and interest in human societies, although in small level and small population such as school, is investable. Therefore, ability of principal in accepting agreed and disagreed thoughts and viewpoints and principal's skill in managing disagreements and contradictions, certainly are

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effective in advancing school activities as well as in decreasing occupational stress among all stuff including the principal.

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DEMOCRATIC PRACTICES IN SCHOOL MANAGEMENT AND CEOCRACY

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ABSTRACT

CEO, who is in the top-level administrator position of an organization, has the greatest responsibility in the organization's success or failure. Likewise, it is a common belief that the school's success or failure depends on the effectiveness of the school principal. Ceocracy was a kind of democratic administration form in the ancient Greek city states. In this type of administration all the citizens of the ancient Greek city states could participate directly and actively in governance. This administration form was applied successfully in the city states and application of democratic principles in life satisfied the citizens. The success of the school administrators in a sense depends on the implementation of democratic principles in management. The purpose of this study is to give a general framework about ceocracy as a management approach that is based on people's actively participation in the decision making process, and to discuss on how to use ceocracy in educational organizations. In the light of the reviewed literature, it is clear that ceocracy can be used in the management of educational organizations.

Key Words: Ceocracy, School management, Democracy, Democratic leader.

INTRODUCTION

It is an undeniable fact that the world has turned into a small village. Speed of change has increased and in today's information age ways of access to information, human needs, expectations, demands have begun to change. This changing affects management science, as well. As a result new concepts and terms have emerged in the field of management. One of these concepts is the *Ceocracy*. In fact, the term Ceocracy is a combination of the word Ceo, which means the most competent manager of an organization and democracy, which is a form of administration. Ceocracy was first used by Manville and Ober (2003) to express the human-centered management in an organization.

The democracy concept, which is formed from Greek "demos" people and "Kratos" power words, is considered not only as rule of the people by people, i.e. a type of governance, but also regarded as a life philosophy and life style (Biesta, 2006: 106; Uygun, 1996: 1; Perry, 2004: 85). From this perspective, in societies where individual differences, human rights, fundamental rights and freedoms are respected, it is natural that the concept of democracy is felt in all areas of life.

Democracy as a respected system, deeply affects the structure of societies, since it presents the opportunity to put human into the subject position of life, and restructures many areas from economy to law, and from government reorganization to daily life of individuals. This feature has made democracy a goal for many societies (Ozpolat, 2010: 365, 366). Equality, political and social participation, the decisions taken by the free discussion and voting, the tradition of compromise, the exact denial of violence method in the realization of political and social goals, the fundamental value of human as a human being, freedom atmosphere for the

assurance of this value, the belief of free thought and discussions leads to the reality, tolerance to differences, participation and freedom forms the democratic values (Yilman, 2006: 5).

The democracy which has to be perceived as a way of life and principles of it can only be introduced individuals via education effectively. Adopting the basic values of democracy will be possible in schools with a democratic education process and with a democratic educational leadership managing that. In this context, whether the educational administrators' management style in the management of their organizations, obeys democratic principles or not has great importance.

CEOS IN SCHOOLS: SCHOOL PRINCIPALS

CEO (the chief executive officer) is the person at the top of management echelon in an organization. To be a CEO requires to have a vast knowledge and experience; and to take very special decisions accordingly (Gottschalk, 2007: 1). CEO, as the person at the top of the management hierarchy, is the person carrying the full responsibility in success of an institution. Although he/she has more authority than other employees in the organization, this is not enough to control everything in this organization and this may lead to some unintended consequences. Therefore, Porter et al (2004) have pointed out that being a CEO is a very challenging task requiring bravery. Hence the similarities between school principals and CEOs immediately stand out. The school principals are the most competent person in school administration, in the school management structure. Therefore, the success or failure of a school is associated with principal's qualifications and effectiveness.

Both the educational organizations and commercial organizations review their position in a changing world. Organization administrations feel more need to show compliance to democratic principles for motivating employees, for gathering around common goals and for combining differences in a certain harmony. According to Woods (2005: 21) the pushing factors for the organizations to that are the increased global competition, technology, information production and spread and innovations related to communication. Although these rapid developments change roles and responsibilities of CEO they do also change the roles and responsibilities of principal.

According to Bottoms and O'Neill (2001) in the past principals were responsible to take the basic administrative decisions for school building, staff and students. Providing a teacher for each classroom, providing required materials to students' access, progress of students within the system was sufficient to be a good principal. However, the principal's role has changed to a leadership of a democratic education from the administrative responsibility. The responsibilities related to student learning and school development are undertaken by school principals. For this reason, the concept of democratic leadership, heard in many areas, are also used for school administrators now.

Demonstrating an effective management and creating a vision shared by all individuals in the school is only possible when the school administrators take decisions on democratic principles. Otherwise, the implementation of the decisions taken in solving the problems become difficult and the school administrator's leadership will be questionable.

IMPLEMENTATION OF CEOCRACY ON EDUCATIONAL ADMINISTRATION

Ceocracy is acceptance of human-centered management approach in a company management. Individuals have begun to ask the same freedoms, rights and responsibilities they have outside of the work environment for also their business environment. This has revealed the fact that employees of an organization should be regarded as citizens. People come to their works not just with their knowledge and skills but also with their emotions and social needs. Therefore, modern managers are obliged to manage the organization in a

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framework of values of democracy. Thus, an efficient work space can be created where employees feel themselves as part of the organization in a free and equal environment with a reduced hierarchy (Manville and Ober, 2003: 24- 25). This status mentioned by Manville and Ober is also true in the school environment. A more democratic attitude is expected from teachers, students, school staff, parents and educational administrators.

Leaders have to make many decisions and choices in daily tasks. These choices may not always such choices between good and evil. Sometimes they have to choose one of the two bad options. Since these difficult situations faced by the leaders are not stated clearly in laws, policies or guidelines to make a choice is difficult. Even if the educational leader does his/her best, he or she can still be criticized for the decisions made (Duignan, 2006: 78). At this point, the democratization of educational administration becomes more important. If the school administrator takes others' views in a democratic manner in the decision making process, this would be a rather robust management style.

Implementation of the Ceocracy in school management will be possible when the school principal takes the principles of democracy in the management processes. a democratic leader makes all of the decisions based on people, makes everyone feel as a part of the school itself, gives responsibility to parents, teachers and students to form the education in the school, offers equal opportunities to everyone.

It's very hard for antidemocratic organizations to be effective in today's competitive environment. Some kind of measures should be taken since the management have failed to influence human resources, achieve organizational objectives. These measures include making the organizational structure appropriate for team work, effective use of information technologies, shared leadership and participation of staff into decision-making process. This new organizational structure is more plain and open for innovations (Lawler, 2001: 16–17). According to Lawler (2001) for organizations to be more effective, their managers should exhibit democratic leadership behaviors.

Woods (2005: 58-59) summarizes the necessary behaviors for a democratic school leader as follows:
1) Creating an environment where employees can express their thoughts in a comfortable way,
2) Considering the ideas of employees,
3) Encouraging staff for innovation startups, responsibility and risk-taking issues,
4) Rejecting the wrong approach which accuses employees, students and parents,
5) Creating a cooperative culture, where the responsibility is shared, supporting in difficult times when the things go wrong.

Creation of a collaborative culture within the organization, where the responsibility is shared, will enhance the solidarity between the organizations' employees. Acceptance of success or failure as a responsibility of everyone will create a certain harmony within the organization. And this will provide a positive impact on employee motivation.

As understood, certain conditions must be fulfilled in order to implement a democratic management approach educational organizations as implemented in the ancient Greek city-states where all of the citizens participate administration actively. The most important of them is the simplification of organizational structure, as bureaucracy-free as possible. The second important requirement is to state a democratic leadership behavior in administration. Educational organizations, where the democratic principles are adopted by all members within the organization and have become a way of life, will be more successful.

DEMOCRATIC SCHOOL AND ITS MANAGEMENT

Schools are a part of their society. It's not possible to consider an isolated school from society. According to public opinion of many scientists studied in education field, the social mission of the school is to sustain culture

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by transferring it to new generations, and to form the manpower required by the society. The school differentiates the individuals from other people by developing their individual abilities and talents, while making them more social.

Democratic education can be presented through the schools, adopting democratic education method. At the end of a democratic education process, it is expected for individuals:

- To be tolerant,
- Know their responsibilities,
- To respect different opinions,
- To be compatible,
- Ability to work in teams,
- To participate in decision-making processes,
- Obey to the decisions made by the majority (Dewey 1944: 8).

According to Birzea (2000) school is a small representation of the society. Birzae summarizes the duties of a democratic school in Figure 1. According to this, school should perform integration and social cohesion, evoke desire in individuals for change and development, provide opportunities for learning and personal development, create a safe and supportive learning environment. It should remain faithful to basic democratic principles such as equality, respect for human rights and freedom, while carrying out its duties.
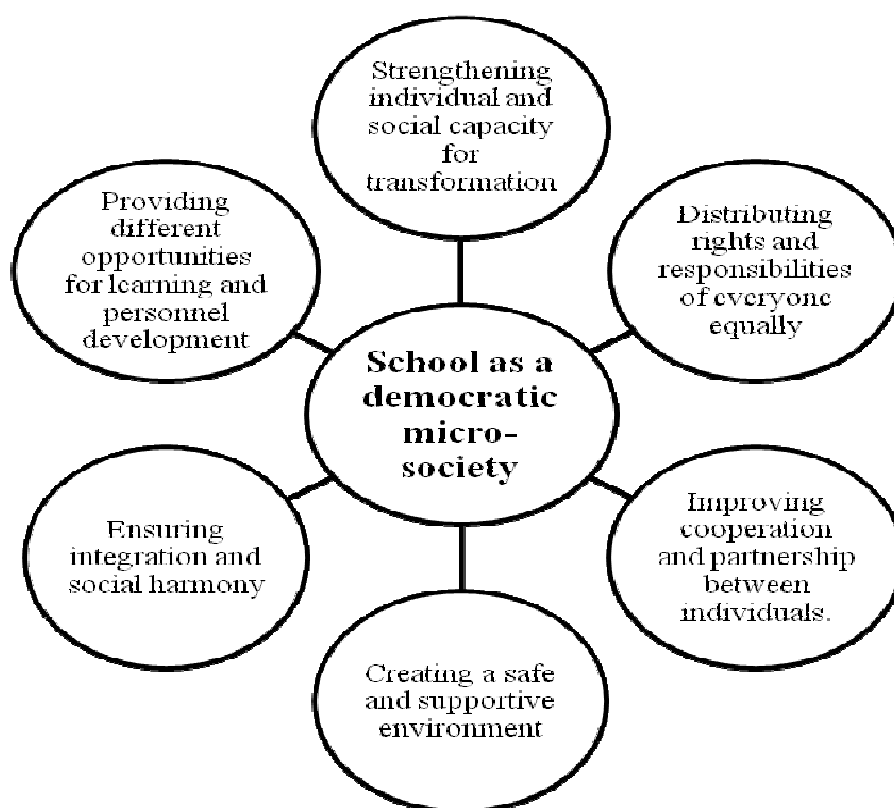

Figure 1: Duties of a Democratic School

Source: Birzea, C. (2000) *Education for Democratic Citizenship: A Lifelong Learning Perspective*. Strasbourg: Council for Cultural Co-operation (CDCC)

A school having a democratic education system trains students as decent individuals who (Elias, 2009: 834):

- Listens and communicates correctly and carefully,
- Recognizes his/her strengths,
- Is tolerant to different groups, believes
- Considers other people's opinions and feelings,
- Respects people,
- Selects appropriate targets for himself/herself,
- Makes smart decisions and solves problems effectively,
- Cooperates,
- Can lead people effectively,
- Has ability to solve disputes in a peaceful manner,
- Is constructive and establishes ethical relations,
- Asks for help when it is necessary

In terms of management, a democratic school should pay attention to participation of all associates to the important decisions. According to Bellingham (2003: 6), to create a democratic climate in the organization, the school leaders should; be consistent, create trust, think in a long-term manner, be fair, respect for different thoughts, ensure the solidarity, share the power, be honest, give value to people and consider the issues in a broader perspective. It is clear that school administrators have a greater responsibility in creation of a democratic climate in schools. Democratic attitudes of school administrators will create a sense of confidence in school staff and students. This will increase the power of school administrator on influencing and binding people around a specific purpose.

According to Harber and Trafford (1999), to make students reflect their opinions on issues which are related to them should be seen as the basic starting point. The research results, regarding that the effective schools are formed due to a more democratic management approach and seeing the globalized democratization as a political tool, have the effect on this development.

Manville and Ober (2003:35) state that effective business leaders get their success from the skills they have presented on motivating and organizing the employees. Because motivating and organizing people is a very difficult task. People are not a commercial commodity; they depend vitally on the organizational and social structures they have lived in. In the today's competitive environment, to understand the feelings and human values is required to motivate people.

HUMAN-CENTERED MANAGEMENT IN EDUCATIONAL ORGANIZATIONS

Educational leaders have to manage materials and human resources effectively and efficiently to accomplish organizational goals. Management of human resources has a greater importance than the management of material resources. Logic and objectivity stands out in management of material resources, and it's easier to decide. But since the human behavior can be based on beliefs, personality traits, perceptions, attitudes, values, expectations, fears, love or hate, they are difficult to predict. What educational leaders need to do is to try to figure out the real reason behind the behavior and to recognize their staff (Combs, Miser, and Whitaker, 1999: 17). A school principal would have taken an important step to become a successful leader when he/she tries to recognize and understand personnel. Because when the school leaders recognize his/her friends on the course, recognizing their behavior becomes easier and decisions on task distribution become more accurate.

Krames (2003: 102- 103) indicates that managers can make use of the questions below for evaluating the effectiveness within the organization. These questions are as follows:

1) How much bureaucracy do you have in your organization? Is this slows down decision-making process?
2) How much the managers know employees?
3) Does learning and training have a higher priority in the institution?
4) Do the institution's values have been clearly stated? Does everyone in the organization is aware of these values and apply them in their lives?
5) Do the employees of the institution investigate best practices in other institutions?
6) Does anybody in the institution have right to use initiative?

Enabling employees by the leaders to use initiative, is required by the democratic governance concept, it allows employees to participate in the functioning of the organization more effectively. It alleviates the burden of the leader by providing participation in decision-making processes in management.

Participation of others in the management process of educational organizations presents itself in different applications. For example, Office for Standards in Education (OFSTED) in UK, which is responsible for the supervision of schools, prepares the audit report taking the opinion of students and parents into account seriously (Döbert et al. 2003: 112). Implementation of performance evaluation is planned in Turkey in near future. Accordingly, it's planned to give right to students and parents to speak in measuring of the quality of education and teacher competence at the school. With the performance evaluation it's aimed for assessment process to be based on multiple data sources (inspector, administrator, teacher, colleague, student, parent), and multiple methods, and to improve the capacity of personnel and institute, and to open the evaluation process to stakeholders. Thus, more participatory and democratic control by making school community members to take place in this process and removing the centralized structure of the evaluation process (EURYDICE, 2008).

Another positive step taken in this field in Turkey is the "Ministry of Education's Democracy Education and School Councils Directive" implemented in 2004. According to the directive, democracy culture is planned to be taught via application by creating student councils in schools. All private and state schools in Turkey, except from high education institutes, must have an elected Representative Council of students which must itself elect the a representative president who will represent the council in the province .The students elect the representative from the students nominated in their own schools. School's student council representative participates in works of the provincial school council. Elected chairman of the provincial school councils participates in Turkey's school council works in the capital city Ankara. The creation of student councils in schools will provide the development of tolerance and pluralism awareness, training of generations which adopt the universal values; give students the culture of voting, being elected; the skills to be participative, be communicative, to adopt democratic leadership and to create the public opinion (MEB, 2004). It can be said that the efforts of the Turkish Ministry of Education will ensure new generations grow up in a more democratic culture, however in training citizens as democratic individuals school administrators and other shareholders have responsibilities, as well.

CONCLUSION

Today the globalization, social, cultural and technological developments are changing the management approach and expectations and demands of the employees. Depending on this, organization's objectives and management approach also varies. This transformation has not changed the idea that the managers are responsible for the success or failure in realizing the goals of organizations. This further increases the importance of being an administrator in an organization.

Administrators have begun to feel the need to adopt the concept of a democratic management with the acceptance of democracy, which is in all areas of human life as welcomed by individuals as a way of life. Employees wants to have the democratic rights, which they have in their life such as being valued, participating to decisions, being entitled to vote, also in their workplaces, and demand this from the administration. Consequently, organization managers, as a democratic leader, ought to meet these expectations. Implementation of democratic principles in organization management and putting the human factor forefront revealed the human-based organization management approach.

In the human-based organization management, the managers are the democratic leaders. They behave equally and fairly to all, include employees in the decision-making processes, and make them work in coordination around the common goals. In educational organizations this task belongs to school principals. The principal is actually the CEO of the school. Creation of a democratic climate in school will largely be possible with the efforts of the principal. Individuals grown in a democratic culture will ensure the improvement of the society and provide that the democratic values are a way of life.

A democratic school management will help the formation of a more effective school environment, by setting the common values against the difficulties brought by the transformation process. Therefore, the debates on democratization of school management should be in the forefront of the agenda. However, it is seen that the democratization of school management is not discussed enough (Harber & Trafford, 1999).

As a result, it can be said that the implementation of Ceocracy in educational organizations depends mostly to democratic attitudes of school leaders and adoption and implementation of democracy as a life philosophy. Others will also support the school administrator who demonstrates a democratic leadership. Participation of stakeholders in school decision-making process is the most important element of human-based management approach. In the formation and full realization of this consciousness, governments' implementation of necessary legal arrangements has great importance.

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HEDGING DEVICES BY NATIVE ANF NON-NATIVE PSYCHOLOGY RESEARCHERS

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ABSTRACT

The purpose of the present study was to examine the frequency and different types of hedging devices in Discussion sections of Research Articles (RAs) in the area of Psychology. To this end, 20 RAs in English were selected form the leading journal; 10 by native English speaker researchers and 10 by Iranian researchers. After categorizing hedging devices based on Salager-Meyer's (1994) taxonomy, chi-square procedure utilized and it was found that there was no significant difference between native and non-native writers in terms of utilizing hedging devices in their Discussion sections.

Key words: Hedging devices, RAs, Discussion, Native and Non-native.

INTRODUCTION

Academic writing like the other written forms involves interpersonal relationship between author and readers (Nasiri, 2011). One of the genres of academic writing is Research Articles (RAs) (Swales, 1990). In writing RAs in a particular discipline authors should consider the conventions of the discipline (Widdowson, 1984; Hyland, 1999). One of the conventions is how to use hedging devices in presenting information. Hedging is a basic feature in academic discourse that enables academic writers to show their certainty and doubt towards their statements, to show the amount of confidence they put on their claim, and to start a dialog with their readers (Rounds 1982).

Review of the Related Literature

Iida (2007) conducted a research in medical discipline based on English written articles; eight by Japanese researchers and eight articles written by American researchers. The findings of her research indicated that despite slight variation in types of hedges used by two groups, there was no significant difference in the frequency of hedges in English written medical RAs in all sections of the articles. Winardi (2009) in his study analyzed the use of hedging devices by American and Chinese linguists in ten research articles of applied linguistics, five written by American authors and the other five by Chinese researchers. His research's finding showed that both groups seem to be equally proficient in using various hedging devices, although they may vary in types of hedges. He finally concluded, it would appear that American and Chinese writers are more influenced by their discipline than their nationality. Because of the novelty of the exploring the role of hedging devices in academic area, this study tries to look at the frequency and types of hedging devices in Psychology articles.

Research Question

Is there any significant difference between native and non-native Psychology articles in terms of the frequency and types of hedging devices in their discussion section?

Research Hypothesis

There is no significant difference between native and non-native Psychology articles in terms of the frequency and types of hedging devices in their discussion section.

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METHOD

Corpus

The corpus of the study was 20 English written Psychology articles from the leading journals written by different authors; 10 articles written by Native English Speakers (NESs) and the other 10 by Non-Native Iranian Authors (NNIA).

Procedure

After selecting the articles from the leading journals, the author selected the Discussion sections of the articles because of the importance of the section and its heavily hedged nature (Swales, 1990). Then the researcher read the selected section carefully to determine the hedges based on the Salager-Meyer's (1994) taxonomy. The taxonomy included 5 main types which are as follow:

Type 1) **Shields**, such as *can, could, may, might, would, to appear, to seem, probably, to suggest*.
Type 2) **Approximators** of degree, quantity, frequency and time: e.g., *approximately, about, often, occasionally.*
Type 3) **Authors' personal doubt and direct involvement**, such as *I believe, to our knowledge, it is our view that.*
Type 4) **Emotionally-charged intensifiers**, such as *extremely difficult/interesting, of particular importance, unexpectedly, surprisingly,* etc.
Type 5) **Compound hedges**, the examples are: *could be suggested, would seem likely, would seem somewhat.*

After determining the hedges, Chi-square procedure was used to show whether or not there was any significant difference between the 2 groups of writer in utilizing the hedging devices.

Data Analysis

Table 1: Frequencies of hedges in Discussion section of English written Psychology RAs by NESs & NNIAs

Hedges types	Type 1	Type 2	Type 3	Type 4	Type 5	Total
Writers	F.	F.	F.	F.	F.	F.
NESs	98	48	9	10	6	171
NNIAs	72	51	6	8	8	145

As Table 1 reveals, the two groups of writers used type 1 (Shields) hedges as the most frequently ones. Native English writers employed 98 hedges while their Iranian counterparts in their English writings employed 72 hedges out of the total number of 171, 145, respectively. What Table 1 reveals about type 2 (Approximators) hedges is that NESs employed 48 out of total and IRWs utilized 51 in articles. The result of type 3 (Authors' personal doubt and direct involvement) hedges shows that 9 and 6 hedges of this type used by NESs and NNIAs, respectively. The frequency of type 4 (Emotionally-charged intensifiers) hedges for NESs was 10 and for NNIAs was 8. Type 5 (compound hedges) hedges' frequency in English texts was 6 for the first group and 8 for the second group. The findings are supported by the chi-square procedure in Table 2 to answer the research question.

Table 2: Chi-square for the frequency of hedges sections written by NESs and NNIAs

Chi-square= 3.06	Degree of freedom= 4		Critical chi-square= 9.49		
Hedging type	1	2	3	4	5
NESs	F. 98	F. 48	F. 9	F. 10	F. 6
NNIAs	F. 72	F. 51	F. 6	F. 8	F. 8

Since the chi-square observed value (3.06) at 4 degrees of freedom in Discussion section of English written Psychology RAs written by NESs and NNIAs is lower than the critical chi-square (9.49), it can be concluded that there is no significant difference between the frequencies of hedges in this two compared groups. It means that the writings of Iranians are influenced by their discipline rather than their own language and culture.

DISCUSSION AND CONCLUSION

The data analysis revealed that all research writers used type 1 (Shields) hedges as the most frequent ones. This finding is supported by the findings of Salager-Meyer (1994) and Trimble (1985) who stated that the most frequently used hedging device in articles was shield category. The results showed that both groups of writers had the same attitude towards using hedging in this discipline while writing in English. This finding is concurrent with the findings of the previous studies, such as Winardi's (2009) and Mohammadi Khahan (2006) which showed that the equality in using hedges between native and non-native researchers seems to be related the fact that writers are more influenced by their discipline than their nationality. Therefore, as Sina Nasiri (2011) claims in his asset research in this filed of study, it can be concluded that the disciplinary backgrounds overcome the nationality and cultural backgrounds. This helps Iranian authors to be easily accepted by their community-mates in the globe.

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A FACTOR ANALYSIS STUDY ON TEAM COOPERATION QUALITY
OF UNIVERSITY FACULTIES IN TAIWAN
– DARK SIDE EFFECTS OF RELATIONSHIPS ON TEAM COHESION –

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ABSTRACT

This study was conducted to identify the factors inspiring team cooperation among universities in pursuit of teaching quality improvement. Data were collected from 146 faculty members belonging to 18 universities in Taiwan, who participated in inter-instituted cooperative projects for teaching quality improvement. The research findings revealed that both trust and commitment among the faculties created significant effects on the team cohesion in faculty collaboration communities. The trust factor was also a very significant moderating factor to faculty team cohesion; whereas, the commitment factor was approved not to act the role as moderating factor. Critically, this study concluded that the dark side of relationships created different effect on the team cohesion of faculty members' collaboration from other sample communities because that university faculty members, as social elites, usually possess well-educated backgrounds and socio-economic status. This study suggested future studies to further address the inner structural mechanism of cooperation factor mechanism through qualitative research methodologies and various research scenarios.

Key Words: Dark side of relationship, Inter-institutional collaboration, Higher education.

INTRODUCTION

In this knowledge-oriented era, social interactions rapidly develop for competent sources of knowledge and educational quality (Hsiao, Chen, & Yang, 2008). Institutions at higher education level are increasingly relied on to provide professional knowledge in all fields for social development and economic prosperity. Technical institutions, at the higher educational level in Taiwan, have been upgraded over the last decade so that Taiwan can compete and succeed in the global economy by providing citizens with expert educational quality. However, the expansion of institutions and student population has created internal competition because of

limited educational resources (Tien, 2007; Wu, 2011). This competition may result in potential threats to the educational quality unless innovative strategies are developed to expand the educational resources with the limited resources now available.

Inter-institutional collaboration is a constructive strategy for the sharing of information; such models can be used to improve the quality of education (Birx, Lasala, and Edd, 2011; Howell, Saba, Lindsay, and Williams (2004). Effective collaboration relies on team cohesion, which develops as a result of the participant's trust and commitment (Bullough, Draper, Smit, and Birrell, 2004; Wang, Chou, and Jiang, 2005). However, several studies revealed that there are dark side of relationships that are mostly concealed, but indeed existent among team members; these factors negatively influence team cohesion and the quality of teamwork (Anderson and Jap, 2005; Villena, Revillaa, and Choi, 2011). The impact of this dark side on collaborative relationships and their affect on team cohesion has not been determined. However, this dark side of relationships is likely to have a significant influence on the quality of inter-institutional collaborations and team cohesion.

Therefore, this study was conducted to identify the dark side of relationships existing in inter-institutional collaborations. The specific research questions were: First, how did the dark side of relationships affect team cohesion? Second, what were the relationships among the dark side of relationships, organizational commitment, organization trust, and team cohesion?

THEORETICAL BACKGROUND AND HYPOTHESES

In the current educational setting, faculty members need more than the traditional resources to fulfill their academic duties such as teaching, researching, and public services; to achieve this, collaboration with colleagues within and/or cross institutions are encouraged (Sagam and Oral, 2010; Tien, 2007). Collaborative relationships are difficult to build but easy to destroy (Bullough Jr et al. (2004). Papers, discussing collaboration, usually address the positive aspects of these relationships needed to achieve success, and ignore the dark side of such relationships, which can cause failed attempts at cooperation. Understanding the dark side of cooperative relationships is critical to improve relationships (inter and intra institution) for better quality of education (Black, Crest, and Volland, 2001).

Dark side of relationships

Universities, in this competitive era, intensively enhance their relationships with educational resource sponsors and/or other institutions for educational quality improvement while experiencing limited resources (Bush and Coleman, 2000; Creemers, 2002). Faculty collaborations are therefore built and fostered as team members for long-term cooperative relationships to reach reciprocal benefits and communal goals cross institutions (Das, 2006). This type of inter-organizational relationships (IORs) includes a variety of interactions between organizations such as information exchange, resource sharing, and integrated academic activities.

Through inter-institutional collaborations, participant faculty obtain their reciprocal contribution to, and benefits from, complementary educational resources and learning environments that facilitate dynamic improvements of competency while sharing resources (Das, 2006). Prior studies also revealed that close relationships and positive benefits came out of team works with members from different groups (Sirdeshmukh, Singh, and Sabol, 2002; Walter, Muller, Helfert, and Ritter, 2003). Whereas, the development of close relationships within team members seemed to rely on mutual and extensive involvement, institutional policies, and reciprocal goals (Das and Teng, 2000). Any unjustifiable behavior, variation in conscience, and/or violation of cooperative policies, among team members, might cause severe negative effects on the collaboration and even relationships (Adler and Kwon, 2002; Grayson and Ambler, 1999; Kim and Anand, 2006). In addition, the well-maintained relationship might unconscientiously foster factors that do not benefit the collaboration; these hidden factors might not cause immediate disruption of the team relationship, but rather slowly lead to the disintegration of team cohesion (Gregoire and Fisher, 2008). Such negative effects may occur when the team

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relationship is a close one. This dark side of relationships that gradually disrupt the collaboration are the major negative influences and they are the focus of this study.

Psychologists indicated that faulty members usually judge values with right or wrong side; which would lead to reciprocal controversy and/or arguments (Anderson and Jap, 2005). Management strategy experts reported that team members usually start with highly dependent relationships; this, however, is followed by inertia with regard to frequent, close, dedicated and understanding interactions (Villena, et al., 2011). This dark side of relationship influences can lead to limited strategic flexibility. Moreover, the concealed crisis emerges, but not be recognized, can lead to cognitive rigidity, among long-standing relationships that restricts team members' range of thinking and creativity. Such interactions limited within close but rigid relationships, studied by social psychologists, are believed to result from biased judgment with regard to right and wrong behavior and negative feedback with regard to social events (Miller and Nelson, 2002). This cognitive rigidity in team relationships could foster dark side effects that can spread.

Anderson and Jap (2005) indicated that dark side of relationships could easily exist in the close relationships of members of a team, cognitive inertia, and disinterest in relationships. The dark side of relationships presents in collaborative relationships is usually not observed but indeed exist to restrain interactions, and even obstruct the development of beneficial relationships. In this study, the structure and mechanisms regarding the dark side of relationships existing among the collaborating institutions were investigated. Of particular interest was to identify the characteristics of these relationships among the team members, including trust and commitment. Another important focus of this study was to understand the possible moderating effects of trust and commitment on team cohesion.

Trust

Successful relationships heavily rely on trust which may be defined as the belief or confidence in a partner's ability and opportunity to share expertise in a reliable way (Moorman, Deshpande, and Zaltman, 1993; Su et al., 2008). A lack of trust among institutional members sacrifices collaborating situations severe costs of work to inspect and verify every interaction behaviors. These costs often increase harsh reliance on complex contracts, detailed confidentiality agreements, and specific continuous improvement clauses, and even mediate cooperation (Mcknight, Choudhury, Kacmar, 2002). Trust in working relationships facilitates teamwork and reliance on one another, and reduce risk and uncertainty in relationships and behavior (McAllister, 1995; Hoy and Tschannen-Moran, 2003), the costs of doing business (Mishra, 1996), and economic disputes (Ring and Van De Ven, 1994).

As a moderating element, trust is included in most models of relationships (Chu and Fang, 2006). In this study, institutions located in central Taiwan and their faculty involved in inter-institutional projects was the focus of the study. In this study, trust was defined by behaviors that reflected team member's willingness to risk vulnerability with regard to other team members while they participated inter-institutional projects.

Commitment

Commitment is an important factor in associated with the strength of team members' relationships; it is a critical measure of team loyalty. Lachman and Aranya (1986) discussed commitment as: (1) the belief in, and acceptance of, professional goals and values; (2) willingness to exert considerable effort on behalf of the profession; and (3) a strong desire to maintain professional membership. Moorman et al. (1992) described commitment as an enduring intention to maintain a valued relationship for mutually benefits. Team building and the maintenance of long-term relationships can be achieved with mutually beneficial outcomes as a result of such commitment. In the context of this study, the faculty commitment was defined by the faculties' psychological attachment to the professional associations and colleagues; such commitment is a key to the college culture and is reflected by a sense of loyalty which the faculty members possess to the inter-institutional team (Lee, Zhang, and Yin, 2011). In fact, the concept of relationship commitment is similar to the

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concept of long-term orientation, which indicates faculty members' desire to have an enduring long-term relationship with another faculty member. Therefore, a collaborative relationship should be preceded by commitment, which is preceded by trust; once achieved, these behaviors can facilitate teamwork, which is shaped in turn by good team cohesion.

Team cohesion

Cohesion is regarded as a strong predictor of team behavior (Goodman, Ravlin, and Schminke, 1987) and denotes the degree to which team members are engaged with each other during social interactions. Cohesion is a complex, possibly multidimensional construct that was defined in a variety of ways; it refers to the strength of interpersonal relationships among the team members. Team cohesion may cause the team members to feel greater control and self-efficacy when performing team tasks and lead to internal attributions with regard to task outcomes. Team cohesion can be defined as a bond or sense of connection that team members have toward each other and toward the team as a whole (Van, Erdman, Karsdorp, Appels, Trijsburg, 2003). As team cohesion increases, members' motivation to succeed is enhanced because the team performance reflects the individuals' efforts. Therefore, the existence of team cohesion is likely to improve the chance that the faculty will conceive new ideas and perform spontaneously.

RESEARCH METHODS

Research design and hypotheses

This study was conducted to explore the characteristics of the dark side of collaborative relationships among faculty members while participating inter-institutional collaborations. The research goal was to determine how the dark side of relationships affected team cohesion through trust and commitment. In addition, this study also investigated the moderating effects of both trust and commitment on team cohesion. The following hypotheses were proposed:

H1. Dark side of relationships would significantly reduce team trust for faculty members participating inter-institutional collaborative projects.

H2. Dark side of relationships would significantly reduce team commitment for faculty members participating inter-institutional collaborative projects.

H3. Dark side of relationships would significantly reduce team cohesion for faculty members participating inter-institutional collaborative projects.

H4. Team trust is positively related to team cohesion for faculty members participating inter-institutional collaborative projects.

H5. Team commitment is positively related to team cohesion for faculty members participating inter-institutional collaborative projects.

H6. Trust plays a moderating role between the dark side of relationships and team cohesion

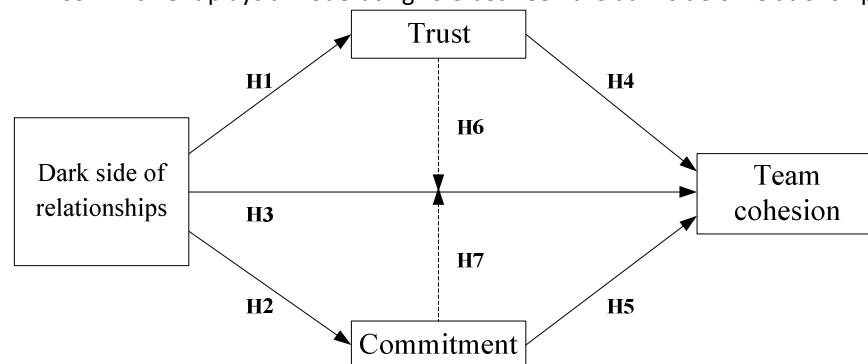**H7.** Commitment plays a moderating role between the dark side of relationships and team cohesion

Fig. 1: Research design and Hypothesis model

Instrument development

The questionnaire used for this study consisted of three main domains: dark side of relationships, trust, and commitment with regard to relationships. The dark side of relationships was evaluated using three items adopted from Anderson and Jap's research (2005); these items addressed the participants' individual relevance, interest, and value with regard to the inter-institutional collaborative projects. The items used for commitment were also adapted from relevant studies (Bishop and Scott, 2000). Finally, six items were developed on the basis of studies reported by Hoegl and Gemuenden (2001) to measure team cohesion. This questionnaire with 19 items consisted of four constructive domains using the 5-point Likert's Scale (1 = highly disagree to 5 = highly agree).

Data collection and analysis

The target sample in this study was institutional faculty that participated in inter-institutional collaboration projects, in central Taiwan. Questionnaires were mailed to the target faculty of 18 institutions between January and March in 2011. A total of 250 questionnaires were delivered and 150 were returned, with a gross response rate of 60.0%; only 146 responses were valid after consideration of missing data. The structural equation modeling (SEM) method was used as well as LISREL 8.72 and SPSS 16.0 to analyze the data.

RESULTS

Sample's demographic data

A total of 146 responses were collected; the demographic profile of the respondents indicated that 100 participants (68.5%) were project managers and 46 (31.5%) were project co-managers (Table 1).

Table 1: Demographic analyses of samples (*n*=146)

Items	Category	Frequency	Ratio (%)
Age	25-30	48	32.8
	30-40	24	16.4
	40-50	35	23.9
	Over 50	39	26.7
Gender	Male	77	52.7
	Female	69	47.3
Academic level	Professor	36	24.7
	Associate professor	50	34.1
	Assistant professor	60	41.2
Experience participating collaboration	years	67	45.9
	2-3 years	51	34.9
	over 3 years	28	19.2

Measurement model

As presented in Table 2, the all reliabilities exceeded the acceptable value of 0.7 (dark side of relationships: 0.862, trust: 0.874, commitment: 0.945, and team cohesion: 0.913) using Cronbach's α. Thus, the reliability for each scale was within the commonly accepted range (Hair, Black, Babin, and Anderson, 2009). A total of 23 items were developed to assess the four factors under investigation and four items were eliminated because of factor loading. Finally, the measurement model consisted of 19 items for the four factors: dark side of relationships (DSR), trust (TRU), commitment (COM), and team cohesion (TCN). Fornell and Larcker (1981) confirmed that a more appropriate indicator was composite reliability, having taken into consideration the actual factor loading instead of assuming that every item was fairly weighted in the determination of

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composite loading. In this study, the composite reliability of all the latent constructs was over 0.7; thus, the measurement model was appropriate. All factor loading of the items in the measurement model exceeded 0.60 and all average variances extracted (AVE) were within the acceptable range of 0.50. The convergent validity was evaluated by factor loading and AVE (Fornell and Larcker, 1981). Therefore, all items indicated that the convergent validity of the construct was acceptable.

Table 2: Results of testing convergent validity

Constructs	Items	Factor loading	AVE	Composite reliability	Cronbach's α
Dark side of relationships (DSR)	DSR 1	0.76	0.692	0.870	0.862
	DSR 2	0.96			
	DSR 3	0.76			
Trust (TRU)	TRU1	0.73	0.641	0.876	0.874
	TRU2	0.91			
	TRU3	0.68			
	TRU4	0.86			
Commitment (COM)	COM1	0.77	0.745	0.946	0.945
	COM2	0.88			
	COM3	0.93			
	COM4	0.86			
	COM5	0.91			
	COM6	0.82			
Team cohesion (TCN)	TCN1	0.82	0.650	0.917	0.913
	TCN2	0.82			
	TCN3	0.82			
	TCN4	0.91			
	TCN5	0.81			
	TCN6	0.63			

The structural model

In this study, the path analysis was conducted to determine the proposed structural model. Each hypothesis was also examined by means of the significance of the t-value for its corresponding path (Fig. 2). The analysis results indicated in Figure 2 supported hypotheses: H1, H2, H4, and H5, but denied the H3. The structural equation modeling (SEM) was employed to test the causal structure of the proposed model. As shown in Table 4, the chi-square/df met the standard criteria; a chi-square/df that was lower than 3.0 supported a good fit according to the informal rule-of-thumb criteria (Bagozzi and Yi, 1988). The goodness-of-fit of the confirmatory factor analysis (CFA) model was also examined using a variety of fit metrics (Table 3). Although the norm fit index (NFI) and the adjusted goodness-of-fit index (AGFI) were both slightly lower than the recommended value of 0.9, the root mean square residual (RMR) was lower than 0.05, and the root mean square error of approximation (RMSEA) was lower than 0.08, while the comparative fit index (CFI), the non-normed fit index (NNFI) were both slightly lower than the recommended value of 0.9. All of the model indices exceeded their respective common acceptable levels. These results testified that the structural model fit the data (Bagozzi and Yi, 1988; Hair et al., 2009).
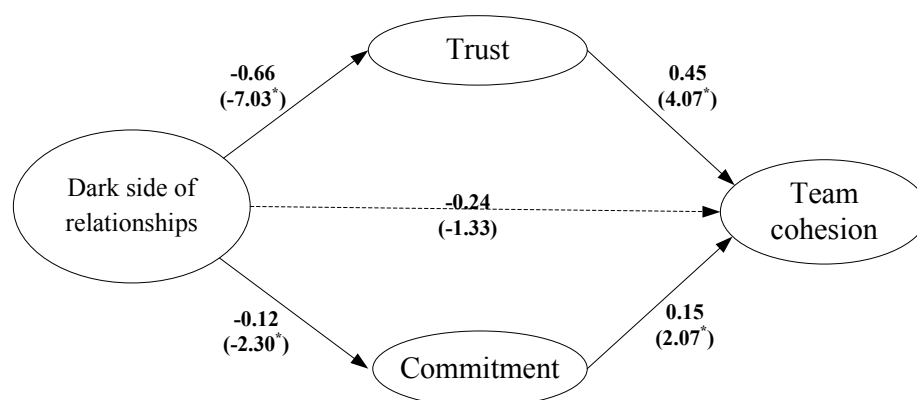
Fig. 2: Analysis results of the structural model

Table 3: Measures of model fit and reported values for the structural model

Fitness index	Recommended Values	Model values	Model fitness
Chi-square	P 0.05	347.84(P=0.000)	poor fit
Chi-square/ degree of freedom	3	2.37	Good fit
GFI (goodness of fit index)	0.8	0.82	Good fit
A GFI(adjusted goodness of fit index)	0.8	0.76	Moderate fit
RMSEA (root mean square error of approximation)	0.08~0.1	0.08	Good fit
NFI (normed fit index)	0.9	0.93	Good fit
NNFI(Non-normed fit index)	0.9	0.95	Good fit
CFI(Comparative fit index)	0.9	0.96	Good fit

Moderating effects

A series of structural models for each of the low-trust subgroups, and the high-trust subgroups, as well as the low-commitment and high-commitment subgroups were constructed to test the moderating affects. The t-test was also conducted to evaluate the differences in path coefficients across models in order to rigorously compare the effects across subgroups. The assumptions were met for the comparisons of gammas, as suggested by Carte and Russell (2003); the equations were also described as follows:

$$S_{pooled} = \sqrt{\frac{N_1 - 1}{N_1 + N_2 - 2} \times SE_1^2 + \frac{N_2 - 1}{N_1 + N_2 - 2} \times SE_2^2}$$

$$t = \frac{PC_1 - PC_2}{S_{pooled} \times \sqrt{\frac{1}{N_1} + \frac{1}{N_2}}}$$

where; p_i was the path coefficient in the structural model of trust i or commitment i; n_j was the sample size of the dataset for trust i or commitment i; SE_i was the standard error of the path in the structural model for trust i or commitment i; t_{ij} was the t-statistic with $(n_1+n_2)^{-2}$ degrees of freedom.

The comparison analyses regarding the impact of dark side of relationships on team cohesion indicated that its impact under high trust conditions (b=-0.38, p<0.01) was greater than that under low trust conditions (b=-0.33, p<0.01) (Table 4). Therefore, H6 was supported. The comparison on impacts of dark side between low commitment and high commitment revealed that there was no significant moderating effect of commitment for the dark side of relationships on team cohesion. H7 was not supported. On the basis of the comparison analysis results with regard to the moderating effects of trust, the impact of the dark side of relationships on team cohesion, the low-trust subgroup possessed the greater impact of the dark side of relationships on team cohesion than that the high-trust subgroup did, as anticipated. On the other hand, with regard to the moderating effects of team commitment, the impact of dark side of relationships on team cohesion did not support the proposed hypothesis.

As presented in Figure 4, an approach to increase team trust and decrease dark side of relationships to develop team commitment could be recommended. The results revealed that team trust directly influenced team cohesion. On the basis of this finding, factors that enhance commitment, such involvement in the budget and work assignments, might improve group dynamics. On the other hand, with regard to the moderating effects of team commitment, the dark side of relationships did not affect team cohesion when moderation by team commitment was considered.

Table 4: Statistical comparison of the paths

|	Low trust (n=85)			High trust (n=61)			Statistical comparison of paths
	Path	Std error	t-Value	Path	Std error	t-Value	
DSR→COM	0.22	0.114	1.84	0.15	0.150	1.08	3.204[*]
DSR→TCN	-0.33	0.120	-2.67	-0.38	0.138	-2.78	2.331[*]
COM→TCN	0.03	0.125	0.26	0.48	0.137	3.18	-20.607[*]
	Low commitment (n=105)			High commitment (n=41)			
DSR→TRU	-0.58	0.121	-4.80	-0.76	0.153	-4.97	7.480[*]
DSR→TCN	-0.12	0.125	-0.93	-0.10	0.150	-0.69	-0.820
TRU→TCN	0.43	0.136	3.13	0.79	0.191	4.12	-12.754[*]

[*]p<0.05
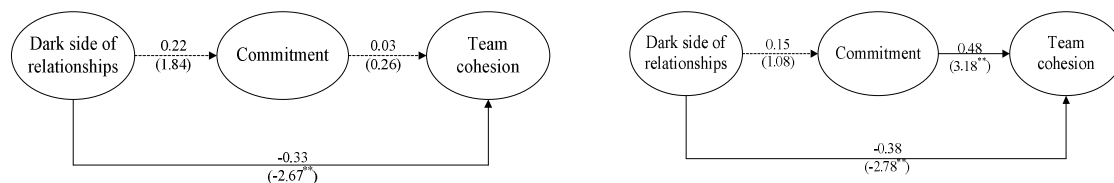
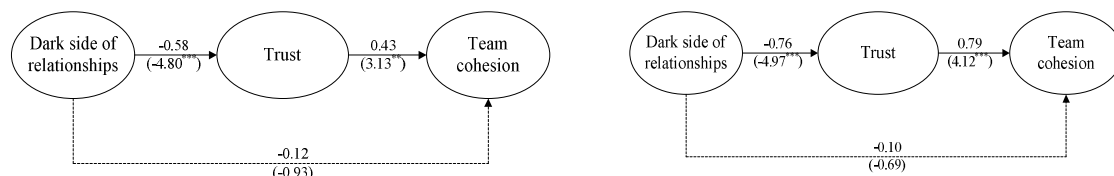Fig. 3: Low trust (left) and high trust (right).

Fig. 4: Low commitment (left) and high commitment (right)

DISCUSSION AND CONCLUSION

Discussion

Positive aspects of relationships have been broadly discussed in previous studies for team collaboration in organizational management (Terpend, Tyler, Krause, Handfield, 2008; Villena et al., 2011; Walter et al., 2003). On the contrary, limited amount of studies concerned and focused on the dark side of relationships, particularly for collaboration teams of professionals, even recognized its critical impacts (Anderson and Jap, 2005; Giller and Matear, 2001; Haline and Tahtinen, 2002; Villena et al., 2011). That implies it needs more studies to further understand the full range of faculty relationships (Black et al., 2001; Mohammadi, Yeganeh, Rad, 2010). In addition, the importance of the moderating effects of trust and commitment with regard to team behaviors caught high attention in previous studies (Clercq, Dimov, Thongpapanl, 2010; Mcknight et al., 2002; Ybarra and Turk, 2009). Vocational institutions at higher education level in Taiwan actively engage in inter-institutional projects to expand the institutional programs across schools by means of sharing educational resources. Given this emphasis on resource sharing and program integration, both intra- and inter-institutional faculty relationships become of interest and, therefore, the focus of study.

The dark side of relationships in this study was investigated on the bases of the relationships among faculty involved in inter-institutional collaboration projects in order to further explore how it affects team cohesion. The results of this study exposed that: (1) dark side of relationships possessed significantly negative effects on team trust; that supported hypothesis 1; and (2) dark side of relationships also possessed significantly negative effects on team commitment; that supported hypothesis 2. These findings are consistent with the research reported by Clercq et al. (2010) and confirmed the detrimental functions created by dark side of relationships in collaboration teams, even highly professional teams.

Both team trust and commitment were found to have positive relationships on team cohesion; that supported the hypothesis 4 and 5, and were consistent with those of Carver, Candela, and Gutierrez (2011) and Lee et al. (2011). Both trust and commitment were confirmed to be favorable to team cohesion in various of organizations, including university settings. Based on the social capital theory (Nahapiet and Ghoshal, 1998), the positive relationship factors are essential for team cohesion because a good relationship fosters self-recognition and self-efficacy for team members while working on group projects. This study obtained the similar results to that of Hausman and Goldring (2001) and declaimed that faculty in a well-developed professional team tended to have a stronger trust and commitment to their institutions while conducting inter-institutional projects.

However, the hypothesis 3 was rejected; that means dark side of relationships was not negatively associated with team cohesion directly. This finding seemed to be diverse to some previous studies which were conducted in business organizations (Grayson and Ambler, 1999; Gregoire and Fisher, 2008), and implied the educational context of this study might possess different characteristics creating various impacts of dark side of relationships on team cohesion (Bullough, Draper, Smith, and Birrell, 2004). It was also assumed that university faculty, as social elites highly educated faculty with high-ranked self-efficacy and academic destiny (Mohammadi et al., 2010), might moderate the direct effects of dark side of relationships on team cohesion due to their self-control, high team approval, and/or personal achievement motivation while encountering the collaboration projects (Bishop and Scott, 2000; Paulson, 2002).

In addition, trust was found to be a moderator between dark side or relationships and faculty team cohesion, but commitment not. The moderating effects of trust on close relationships were confirmed in this study as that reported by Fleming and Thompson's (2004); the collaboration among team members relied on high trust and the intention to share resources among faculty members. The faculty members' trust within inter-institutional projects significantly facilitates interactions by allowing members to be open or vulnerable to others (Louis, 2006). This crucial component, trust, is so needed to feel safe so that they can discuss even make mistakes, and try innovative ways to solve problems, and to create pioneering achievement through team brain-storming (Lee et al., 2011; Wahlstrom and Louis, 2008).

Conclusion

Nowadays, the educational quality relies on resource sharing and faculty collaboration; inter-institutional collaboration policies become a high priority in the current educational setting to reach better academic achievement with limited resources (Curran, 2000). Consequently, it becomes increasingly important to further understanding faculty community cultures and factors influencing their interaction relationships in order to build and improve the educational quality. The collaborations among faculty members are believed to be more productive than individual efforts to reach reciprocal and far-fetched achievement (Birx et al., 2011; Bullough Jr et al., 2004).

This study concluded that trust, identified as a core factor that facilitates personal engagement and team cohesion, plays an extremely important role in the educational setting. The faculty should be trusted to carry out their responsibilities within team collaboration processes. In conclusion, both trust and commitment are crucial and significant factors constructive to team cohesion. Trust is also a moderating factor between dark side of relationships and team cohesion, whereas commitment is not. That is, different levels of trust team members possess significantly influence the dark side of relationships on team cohesion with moderating effects. Trust within team members plays a more dominant role in collaboration team. More attention could be focused on that both trust and commitment were identified as significant factors of team cohesion; however, these two factors produce various moderating effects on team cohesion. Therefore, the mechanism involved the moderating factors of relationships, requires further systematical exploration on the inside powers of trust and commitment within faculty community.

This study additionally concluded that the dark side of relationships might create significant effects, only indirectly through trust and commitment but not directly, on team cohesion of faculty members. This phenomenon concluded in higher educational settings seems different from that in business world, and suggests that faculty community possesses some exclusive traits of social elites diverse to general employees. Furthermore, educational institutions, different from the business world, are not characterized with special forms of centralized power or authorities, but rather flexibility, individuality, and autonomy with regard to team performance. Team cohesion in this faculty community could also encourage their self-efficacy and lead faculty members to be more responsible for individual performance outcomes as well as group achievement. This conclusion also encourages future studies should be conducted to further understand the dark side of relationships through investigations on additional variables and types of collaboration research.

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