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ARTICLES

Full Length Research Paper

The evaluation of burnout levels of sports sciences faculty students

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The aim of this research is to evaluate the burnout levels of sports sciences faculty students in terms of some other variables. 46 Female (Age, M: 20.88±1.86) and 107 male (Age, M: 22.15±2.15) in total 153 students participated in this research. Maslach Burnout Inventory – Student Form (MBI–SF) was used for data collection. Descriptive statistics and Multivariate Analysis of Variance (MANOVA) analyses were used to analyze the data. After the data were analyzed in terms of gender, it was found that that there was a significant difference between the sub-scales of the burnout scale, depersonalization and exhaustion ($p<0.05$). As for the sub-scale of competence, no significant difference was identified ($p>0.05$). In terms of the grade of the students, there was a statistically significant difference only on the depersonalization sub-scale of the burnout scale ($p<0.05$). However, no difference on exhaustion and competence sub-scales ($p>0.05$) was identified. There was a statistically significant difference only on the sub-scale of depersonalization in terms of the department of the students ($p<0.05$), there was no difference on exhaustion and competence sub-scales in terms of the department of the students ($p>0.05$). Consequently, it appears that the burnout levels of sport sciences faculty students might change in terms of gender, class levels and within the department of education.

Key words: Sports sciences, burnout, students, athletes, gender.

INTRODUCTION

In recent years with the development of technology in various areas, factors such as business tempo, movement rareness and people's anxiety about getting a job have started to affect people psychologically, and led to increased level of stress. Besides the anxiety and stress, one of the topics that has come up lately is burnout.

The concept of burnout was first used by Freudenberger who stated that the burnout concept as the extreme tiredness was caused by the increased demand on energy, strength and resources or during the process of

burnout (Sezgin et al., 2012). It can also be defined as 'a psychological syndrome of emotional exhaustion, de-personalization, and reduced personal accomplishment, which can occur among individuals who work with other people in some capacity' (Maslach, 1993). As this study is conducted from the standpoint of burnout being a stress syndrome, it is important to understand that burnout problems stem from social environments (Akansel et al., 2012). Maslach et al., 2001; Boren, 2013 handle burnout as a 3-factor structure (Gündüz, 2005):

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emotional exhaustion, depersonalization and decrease of personal achievement.

Emotional exhaustion is the most clearly observable aspect of the complex burnout syndrome. People in this aspect mention it as the loss of energy, tiredness or exhaustion the other stress related symptoms. Another definition of natural exhaustion can be stated as the burnout of natural resources because of the demons which are caused by interpersonal communication with other people (Maslach and Jackson, 1981). In addition to the statements earlier mentioned, emotional exhaustion is regarded as the most notable dimension of burnout as it is the first symptom of the diagnosis and is conceived by many researchers as the "stress dimension of burnout" (Maslach et al,2001 Boren, 2013).

When it comes to depersonalization; to illustrate, workers who become distant from themselves and their jobs lose their idealism and an enthusiasm towards their jobs. Depersonalization is a negative, senseless and insensitive attitude towards individuals (Maslach and Jackson, 1981). It is a behavior that people are expressing negative and even hostile attitude towards their job as well as their colleagues. Researches present an important relationship between emotional exhaustion and depersonalization (Lee and Ashforth, 1990; Lee and Ashforth, 1993; Cordes and Doughtry, 1993).

The lack of personal accomplishment can be illustrated by the example of people who have been exhausted emotionally and in a negative attitude state have lost their competent emotions because they are unable to fulfill required demands of the job. In this sense, the lack of personal accomplishment can be seen in two other structures. In addition, personal failure is a person's tendency of negative self-evaluation in terms of self-service given to individuals by him or her (Gündüz, 2005).

Burnout has been observed on individuals who have close interaction with other people (health, education, social services) (Maslach and et al., 2001; Yang, 2004) but in recent years, the burnout syndrome has also been seen among the jobs that are less human focused. Even though Shirom (2009) noted that burnout and its related outcomes are the results of an accumulation of work-related stress, the burnout syndrome can be seen in different aspects of life including athletics, marriage or out of the working life (Schaufeli et al., 2002a).

Researches present a relationship between burnout syndrome and some demographic qualities such as gender and marital status. While researches state that women have higher emotional burnout levels than men, men's depersonalization levels on the other hand are higher than women's and it is also stated that men's personal achievement levels are lower than that of women (Brewer and Clippard, 2002). Besides these, married people have lower level of burnout than single people (Cordes and Doughtry, 1993; Brewer and Clippard, 2002). Moreover, it is stated that the burnout syndrome can be seen among the students as well (Balogun et al., 1997; Chang et al., 2000; Yang, 2004).

Finally, it has also been restated that students are an important group of people who suffer from burnout (Gold et al., 1989; Fimian et al., 1989; Hu and Schaufeli, 2009).

Turkey has a highly competitive exam system during formal school period and even before the pre-professional period. For this reason, students have become stressful and have hard times to plan their careers. Burnout which was originally stated as a phenomenon was reported to have been seen among Turkish students (Çapri et al., 2011). For this reason, it can be said that the majority students suffered from burnout symptom. However, the stress level coming from the anxiety of being unemployed has been increasing daily among students who had completed their Higher Education.

Burnout is regarded as a crucial cognitive variable which affects education and teaching experience. It's necessary to determine what factors affect this cognitive process and provide required support for the students and educators. Thus, purpose of this research is to evaluate the burnout levels of students at Anadolu University Faculty of Sport Sciences in terms of some variables.

METHODOLOGY

This study was designed as a descriptive research. Fowler (1993) noted that retrospective research can be used in order to deal with the facts that exist and survive, and to get individual feelings and thoughts right after the fact that takes place. Retrospective studies involve collecting data about past events (Jupp, 2006).

Participants

Participants of the study were 153 students; 46 of whom were female (aged: 20.88±1.86) and 107 male (aged: 22.15 ± 2.15).

Data collection tools

Maslach burnout inventory-student form (MBI-SF)

It was originally developed by Schaufeli et al. (2002a), and was adapted to Turkish by Çapri et al. (2011). As a result of structure validity scale, a structure that consists of 3 factor as and 13 items was acquired. It was observed that the correlations of sub-scales, the scale varied between 0.32 and 0.83. The total item test correlations were calculated and the values of the sub-scale correlation were found out between 0.32 and 0.69. In MBI-SF's scale related validity research, the short version of burnout scale was applied and it was found out that the correlations between the total points of this scale and MEI-SF sub-scales were in order of 0.51, 0.45 and 0.38. While Cronbach alpha interior consistency coefficient calculated to determine validity of the scale was found as 0.76, 0.82, 0.61; and validity results of test- retest were 0.76, 0.74 and 0.73.

The scales that were used in the research were transformed into questionnaire batteries. The subjects had been informed about the research topic and scales were set for the completion of the scales. The participants completed the scales in the classroom before

Table 1. The MANOVA table of the evaluation according to the gender of the student.

Variable	Femalen = 46		Malen = 107		sd	F	p
	$\overline{X}$ ss	$\overline{X}$		ss			
Burnout	11.43	3.31	13.50	4.50	1-152	7.80	0.006
Depersonalization	8.09	3.11	10.26	4.29	1-152	9.60	0.002
Competence	13.80	3.20	13.69	3.28	1-152	0.075	0.784

Table 2. The MANOVA table of the evaluation according to the department of class level of the student.

Variable	Classn = 36		Classn = 30		Classn = 49		Classn = 38		sd	F	p
	$\overline{X}$	ss	$\overline{X}$	Ss	$\overline{X}$	ss	$\overline{X}$	ss			
Burnout	11.94	4.09	12.00	3.85	13.18	4.30	14.08	4.59	1-152	2.11	0.101
Depersonalization	8.03	3.73	8.93	3.85	9.67	3.33	11.55	4.77	1-152	5.35	0.002
Competence	14.61	2.90	13.10	3.48	13.51	3.30	13.53	3.38	1-152	1.35	0.258

Table 3. The MANOVA table of the evaluation according to the department of education of the student.

Variable	Teacher education n = 94		Training n = 17		Management n = 12		Recreation n = 30		sd	F	p
	$\overline{X}$	ss	$\overline{X}$	ss	$\overline{X}$	ss	$\overline{X}$	ss			
Burnout	12.51	4.09	11.71	4.51	13.08	4.44	14.63	4.38	1-152	2.41	0.069
Depersonalization	8.97	3.57	9.47	3.20	10.50	5.03	11.33	5.16	1-152	2.84	0.040
Competence	13.33	3.55	14.41	3.02	13.25	2.98	14.60	3.21	1-152	1.50	0.215

the lecture.

Data analysis

Descriptive analysis was used to analyze the demographic data collected from subjects.

Due to the fact that dependent variable is normally distributed, sample size larger than 30 people, continuous, interval and ratio type variables used and existence of two or more variables that affect dependent variables, MANOVA analysis was used to evaluate the data of the research (Fowler, 1993).

FINDINGS

Examining Table 1, the results of the evaluation in terms of gender, it was found out that there was a significant difference on sub-scales of the burnout scale, depersonalization (F=7.80; p < 0.05) and emotional exhaustion (F=9.60; p < 0.05) however, no significant difference was found in terms of competence (F=.075; p > 0.05).

Examining the Table 2, in terms of grades of students, it was seen that while there was a statistically significant difference only in depersonalization sub-scale (F=5.35;

p < 0.05), there was no difference in emotional burnout (F=2.11; p > 0.05) and competence (F=1.35; p > 0.05) sub-scales.

As for the Table 3 that showed the results related to department, it was found out that there was a statistically significant difference only in terms of depersonalization (F=2.84; p < 0.05); there was no difference in emotional burnout (F=2.41; p > 0.05) and competence (F=1.50; p > 0.05) sub-scales.

RESULTS AND DISCUSSIONS

The aim of this study was to evaluate burnout levels of the Sports Sciences Faculty students at Anadolu University. As a result of the data that were gathered and the series of analysis that were made; through the assessment done regarding genders of students, it was found that while there was a statistical difference at the lower burnout and depersonalization level of burnout scale, there wasn't any statistical differences at the lower level of competence. Numerous studies were conducted on this issue. In one of those studies, it was found out that women experience more emotional exhaustion than men (Buick and Thomas, 2001; Maslach et al., 2001).

Another study done on primary school students related to whether burnout changed considering gender, it was found out that while female students had more perception of emotional exhaustion male students had more perception of competence than female students. As for the sub-dimension of depersonalization, male students had more depersonalization perception than females (Baş, 2012).

The study conducted with midwife and nursing school students by Kaya and Arıöz (2014), revealed significant differences in terms of sub dimension of depersonalization in both genders. Another study, done in the Education Faculty of Pamukkale University, conducted on whether burnout changed in terms of gender, the result showed that average scores of the male students were higher than the average score of female teacher candidate's only at the sub-dimension of depersonalization (Balkıs et al., 2011). As for another burnout research done on the medical students in Spain, no significant difference related to gender and the sub-dimensions of Maslach Burnout Inventory Students Form was identified (Galań and et al., 2011). In parallel with this research, the outcomes of academic burnout among Organizational Sciences Faculty students, it was stated that there was no difference between the genders (Nikodijevic et al., 2012).

According to another study conducted with Medical School students at Hacettepe University, no significant difference was identified between the gender and sub-dimension of MBI-SF (Sevencan et al., 2011). Other studies related to burnout were carried out as well. For instance, Adelkola (2010) studied on the levels of burnout among the university personnel in terms of gender and found out that there was no significant difference between the male and female personnel at the sub-dimension of emotional exhaustion and depersonalization.

As for another research carried out on high school students demonstrated that while there was no indication of a significant change at the lower level of burnout in terms of gender, male students experienced much more burnout at the bottom scale of depersonalization and competence (Çapri and Sönmez, 2013). As to the current study, the results have similarities with the other studies, but the extent is different. For instance, the scores of women were less than men at the burnout and depersonalization levels in this study and another difference can be seen only at the bottom level of competence where women had higher scores than men, which had a parallelism with literature. According to an assessment conducted considering the classrooms of students there was a difference in burnout scale at the depersonalization level but no other differences were found at two other extents.

When the relationship between burnout and the grades at school was evaluated, the groups appeared different at the bottom level of depersonalization and emotional exhaustion (Balkıs et al., 2011). Another study conducted with high school students showed that in terms of discovering the relationship between the sub-scales of MBI-SF and grades of the students, it was found out that while there was a significant difference in depersonalization, no difference was observed in competence (Çapri and Sözmez, 2013).

A study conducted by Kaya and Arıöz (2014) on midwives and nursing students, revealed that there was a significant difference at the sub- level of depersonalization in terms of the grades of the students. Findings of this study are parallel with the results of current study. As for the occurrence of the burnout on the young and the old who work, the level of occurrence revealed variety in previous studies. According to the research that was done on burnout of young workers who had great expectations during the first year of their careers felt more burnout due to their high level of expectations (Cordes and Dougherty, 1993; Maslach et al., 2001).

A higher level of education leads to a higher level of expectation for future career and the thoughts of individuals who regard these expectations as the reason of their burnout and make it possible to explain the reason why dedicated people have higher level of burnout (Çimen, 2000; Maslach et al., 2001). Deriving from the findings, it can be said that the students who joined this research have high levels of burnout and depersonalization, and they cause stress and anxiety.

Considering the analysis made in terms of departments, there was a difference at - depersonalization sub dimension whereas there wasn't any difference in two other sub dimensions. Another important finding of the research was that there wasn't any significant difference between genders, in terms of department, and grades classes in terms of competence. The fact that no difference can be seen in terms of departments or classes can be interpreted as an issue that is related to post graduation from the universities; the students have to pass KPSS exam and if they can't they can hardly have a decent job.

When it comes to the studies on burnout, various studies in different fields can be observed. For instance, according to a study conducted on kindergarten teachers, it was observed that young teachers experience more emotional exhaustion and depersonalization. In addition, it was also observed that married teachers had less burnout and depersonalization than single teachers (Cheng, 2008). Similar and different results have been gathered. The reasons for these varieties might be caused by variety of age groups, the discrepancy of medium of the study and the process of implementation of person who did the study.

Conclusion

As it can be seen from the explanations that have been

given so far, the theory of burnout has been studied in several researches, and several outcomes have been gathered. In the current study, it was observed that the students at the Sports Sciences Faculty have different levels of burnout and depersonalization except competence. These findings show a parallelism with previous studies in literature. The results were limited with the number of people who joined the study. Their high level of depersonalization was due to not studying their actual dream subjects and such problems increased the level of burnout. Including more participants for further studies of burnout; and using assessment tools for different variances that are regarded to affect the theory of burnout would make it possible to receive new insights and outcomes. It is believed that with the results of this study, a certain point of view will be created for people at sports sciences community in both academic and practical way, and regarding the psychological development of students, a much more qualified education life will be provided.

Conflict of Interests

The author has not declared any conflicts of interest.

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Full Length Research Paper

Teachers' and administrators' perceptions of knowledge management competence of high school administrators

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This study aims to determine the teachers' and administrators' perceptions of knowledge management competence in high school administration. The study was conducted using the screening model and the study group consisted of 162 teachers and 35 administrators working at eight high schools in Turkey. Administrators' knowledge management competence was investigated in terms of capturing, sharing, using and storing knowledge. A 5-point Likert scale was used in the study. In order to test the reliability of the scale, the Cronbach's Alpha coefficient was calculated. To analyze the data, Mann Whitney U test, t test, Kruskall Wallis H Test and One-Way analysis of variance were used. According to teachers' perceptions, high school administrators were "moderately" competent in the sub-scales of capturing, sharing, using and storing knowledge and knowledge management in general. On the other hand, high school administrators perceived themselves as 'highly' competent in the sub-scales of capturing, sharing, using and storing knowledge and knowledge management in general. A statistically significant difference was found between teachers' perceptions and those of administrators'. However, no statistically significant difference was found in teachers' perceptions according to variables such as gender, seniority and branch.

Key words: Knowledge management, high school administrator, high school teacher, competence, perception.

INTRODUCTION

In order to understand knowledge management, the term of knowledge should be addressed conceptually. In its broadest sense, knowledge refers to the ability to transform information and data into an effective activity. It is possible to come up with different definitions and conceptualizations of knowledge. In the current literature, knowledge can be regarded as anything that is known; tangible or intangible facts that are learned as a result of

the act of knowing; it is an interpreted form of data and the establishment of useful relationships between pieces of information.

Knowledge is based on data and information. It is revealed through intellectualization and interpretation of information (Özer, 2011). In this sense, knowledge is a need for people to shape, classify and interpret the world around them. It is also a basic need for humankind. As

the knowledge level of individuals in a society increases, the rate of self-control and autonomy in that society increases (Celep and Çetin, 2003).

The importance of knowledge has gradually increased in recent years. In the past, the ones who had physical power or land and business were considered strong and socially dominant. With respect to individuals, business or government, the exercise of power has, to some extent, shifted towards those having better knowledge and those who are able to manage it best. Individuals, businesses and nations using their knowledge strategically are able to go one step ahead of their competitors and opponents (Koza, 2010). The increase in globalization and the rapid spread of knowledge have decreased political, economic and geographical obstacles replacing with interconnected people, institutions and different societies via advanced computer networks (Zaim, 2005).

In this context, the importance of knowledge and knowledge management has gradually started to increase. Knowledge and knowledgeable individuals have become the essential agents forming the basic resources of the economies in knowledge societies (Öğüt, 2012). Additionally, the transition from industrial society to information society in the developed countries has caused the economic wealth to be measured not only in terms of capital inputs, but also in terms of knowledge, improved skills in developing human resources and investments in this area (Hesapçıoğlu, 2010).

LITERATURE REVIEW

Information society

The term 'information society' began to be used more or less concurrently with the term 'post-modern' or 'postmodernism', and together they reflect a change in critical thinking about society in industrialized Western nations following the Second World War. It was addressed in the mid 1950s, frequently used during 1970s and it became more widespread especially during 1980s (Özden, 1999).

Humanity has gone through a variety of social and economic phases each having specific conditions throughout the history. These phases are primitive, agricultural, industrial and information societies. The advancement of technology and different applications of knowledge in every field of life have paved the way for the apparent transition from the industrial to the information society. In industrial society, individuals used to supply their needs generally by producing and consuming material products. In addition to supplying their material needs, members of information society, on the other hand, focus on generating and using information itself (Koza, 2010).

An information society is the one in which information is the primary resource for creating real capital and wealth.

Computerization is the most common characteristics of the information society. However, there are also other goods and services that are set into motion in the information sector through this process (Özden, 1999). The basic feature of information society is that there is an information-based and technology-patent based structure of production and the technological and intellectual information in question can be used in every field of the economy (Koza, 2010). Thus, each member of the society is obliged to get used to living with information technology. Nevertheless, data itself is not knowledge. Knowledge is the form in which data can be put to practice in a convenient and relevant way. For example, in commercial terms, unless an organization decides what kind of knowledge is needed for conducting its business, it will get overwhelmed by raw data. Thus, the key is knowledge. Rather than force, materials and energy, knowledge is the most prominent factor in the world today (Drucker, 1995).

The dynamics effective in the development of an information society are directed by computer technology. One of the key factors in this development is the 'intellectual sector'. The political system of an information society is generally participatory democracy. This allows the information society to be one in which a high degree of mass knowledge is produced. In this sense, the basic values generated by and for those living in an information society originate from the satisfaction of using this knowledge to achieve goals (Zaim, 2005).

Knowledge management

Knowledge management is the act of managing all processes regarding the creation, distribution and efficient use of knowledge in accordance with the objectives of an organization (Zaim, 2005). Knowledge management can be defined simply as the new and radical methods used for creating, storing, sharing and developing knowledge (Barutçugil, 2002).

Today, knowledge has become one of the leading organizational inputs. All the organizational strategies focus on knowledge-based products and services. Depending on how this function works, new organizational procedures and values are formed for developing, using, sharing and spreading the knowledge. Knowledge-based activities are gradually becoming more critical in organizational processes (Tunç, 2010).

The general purpose of knowledge management is to make knowledge acquired useful for more than one individual, organization and society. Knowledge is an element which binds organizations and society together (Aktan and Vural, 2004). The primary purpose of knowledge management is to keep an organization informed about scientific and technological innovations and conceptual developments that occur around and within the organization over time and allow them to be

used by the organization. Being among the main organizations that generate and disseminate knowledge, educational organizations should be able to be well informed about innovations and changes over time (Celep and Çetin, 2003). Individuals, institutions and societies will be successful as long as they acquire new information and bring this information to bear within the cultures of their institutions. An information society requires knowledgeable people because they tend to believe in the necessity, importance and priority of knowledge, act on behalf of knowledge and feel a constant concern for development (Fındıkçı, 2003).

Capturing, sharing, using and storing knowledge are among the components of knowledge management and they form a cycle. Within this cycle, the performance of administrators signifies their competence (Çınar, 2002). Now let's explain these components respectively:

Capturing knowledge: Capturing knowledge should not be confused with capturing information. Capturing knowledge is the result of a process that comprises the generation and development of intuitions, skills and relations (Tıwana, 2003). Knowledge is captured through gathering the formal and informal information that develop outside of an organization and concern the organization, as well as the explicit and implicit information within the organization and by generating new knowledge and thoughts by analyzing and synthesizing these with already existing information (Çınar, 2002). Capturing knowledge does not merely mean mechanically adding to pre-existing information. The information needs to be captured, arranged and institutionalized (Yazıcıoğlu et al., 2014).

Sharing knowledge: Sharing knowledge requires time and effort. One of the objectives of sharing knowledge is to share and update knowledge and gain acceptance of it instantly (Back and Moreau, 2001 cited in Yeniçeri and İnce, 2005). Sharing knowledge is determined not only by the technological infrastructure of organizations, but also human factors like the organizational structure and the decisions made by the administration (Gökçen, 2007).

Using knowledge: When used, knowledge adds value to an organization and thus the ultimate goal of knowledge management – the better functioning of an organization - is achieved. The process of using and evaluating knowledge is important in terms of measuring the outcomes of knowledge management (Zaim, 2005). Even though all the processes such as creating, developing, classifying, storing and sharing the knowledge are important, knowledge will be useful only if it is properly and effectively used and this use is evaluated (Özer, 2011).

Storing knowledge: Storing knowledge is a process preventing the loss of the acquired knowledge. Individuals and organizations maintain information in their memory

systems at various levels (Özsarıkamış, 2009). Organizations should store what they learnt in order to retrieve the knowledge they created so that it contributes to further knowledge creation. Knowledge is generally stored in files on computers or archives (Çınar, 2002). In the light of the explanations that have been given so far concerning knowledge management, the objective of this study can be expressed as follows:

Study objective

The objective of this study is to reveal the perceptions of high school administrators' and teachers' perceptions about knowledge management. In this context, the study aims to answer the following questions:

1. What are the teachers' and administrators' perceptions about the knowledge management competence of high school administrators?
2. Is there a significant difference between the high school teachers' and administrators' perceptions?
3. Is there a significant difference between the high school teachers' perceptions according to gender, seniority, and branch/ faculty variables?

METHODOLOGY

This descriptive study was conducted using screening model. The study sample consisted of 162 high school teachers and 35 administrators at 8 high schools in Bolu Province, Turkey. To collect the data in the scope of the study "Knowledge Management Scale", which was developed by Çınar (2002), was implemented. The scale had 53 items and it measures knowledge management competence in four sub-dimensions. The first subscale is 'capturing knowledge' (10 items), the second one is 'sharing knowledge' (20 items), the third one is using knowledge (8 items) and the fourth one is storing knowledge (15 items). To test the reliability of the scale Cronbach's Alpha Coefficients were calculated. Table 1 presents the results of this analysis. As shown in Table 1, the results of the reliability analysis show that the value of Cronbach's Alpha in 'capturing knowledge' subscale is 0.863; in 'sharing knowledge' it is 0.929; in 'using knowledge' it is 0.789; in storing knowledge it is 0.931 and it is 0.965 for the overall of the scale. These results indicate that the subscales and the overall of the scale is reliable.

Data analysis

The data was analyzed using "statistical package for the social sciences (SPSS) for Windows". It is important to determine if the data shows a normal or non-normal distribution to choose between parametric or nonparametric tests. Parametric tests are used in case of a normal distribution and non-parametric tests are used in case of a non-normal distribution. Table 2 presents the normality test of the overall scale and subscales.

As shown in Table 2, the subscales of 'capturing knowledge' (p=.000, p<.05) and 'using knowledge' (p=.009, p<.05) doesn't have a normal distribution. So, nonparametric tests were used to compare the variables in these subscales.

On the other hand, the subscales of 'sharing knowledge' (p=.089, p>.05), 'storing knowledge' (p=.074, p>.05) and the overall scale

Table 1. The results of the reliability analysis.

Variable	Cronbach's alpha	No. of Items
Capturing knowledge	0.863	10
Sharing knowledge	0.929	20
Using knowledge	0.789	8
Storing knowledge	0.931	15
Total scale	0.965	53

Table 2. Normality test of the overall scale and subscales.

Variable	Kolmogorov-Smirnov[a]		
	Statistic	df	Sig.
Capturing knowledge	0.097	197	0.000
Sharing knowledge	0.059	197	0.089
Using knowledge	0.075	197	0.009
Storing knowledge	0.061	197	0.074
Entire scale	0.057	197	0.200

Table 3. Evaluation ranges of the nominal arithmetic means.

Range	Option	Range value	Evaluation
From 1.00 -1.80	Never	Very negative	Incompetent
From 1.81 - 2.60	Very rarely	Negative	Basically competent
From 2.61 - 3.40	Sometimes	Moderate	Moderately competent
From 3.41 - 4.20	Often	Positive	Highly competent
From 4.21 - 5.00	Always	Very positive	Maximally competent

(p=.200, p>.05) display a normal distribution. So, parametric tests were used to compare the variables in these subscales and overall scale. A 5-point Likert scale was used in the study. The options of the scale was as follows 'always', 'often', 'sometimes', 'very rarely' and 'never'. Table 3 presents the evaluation criteria of the arithmetic means.

In analysis of the data, arithmetic means and standard deviation values were calculated for each subscale. In analysis, parametric tests were used in case of a normal distribution and nonparametric tests in case of a non-normal distribution.

FINDINGS

In this section, demographic information about the participants and findings on the study questions will be presented respectively. As Table 4 shows, 82.23% (n=162) of the participants were teachers and 17.77% (n=35) of them were administrators. As Table 5 shows, 43.15% (n=85) of the participants were female and 56.85% (n=112) of them were male. As Table 6 shows, 36.04% (n=71) of the participants had a work experience of 16 years and above; 31.47% (n=62) of them had a work experience of 11 to15 years; 22.84% (n=45) of them

Table 4. Occupational status of the participants.

Variable		n	%
	Teacher	162	82.23
Occupational status	Administrator	35	17.77
	Total	197	100

Table 5. Gender of participants.

Variable		n	%
	Female	85	43.15
Gender	Male	112	56.85
	Total	197	100

had a work experience of 6 to 0 years; 8.63% of them had a work experience of 1 to 5 years and only 1.02% of them had a work experience less than a year.

As Table 7 shows, 52.79 % (n=104) of participants

Table 6. Seniority of participants.

Variable		n	%
Seniority	Less than a year	2	1.02
	1-5 years	17	8.63
	6-10 years	45	22.84
	11-15 years	71	36.04
	16 years and above	62	31.47
	Total	197	100

Table 7. Branch/Faculty of participants.

Variable		n	%
Branch	Social sciences	104	52.79
	Sciences	81	41.12
	Educational sciences	12	6.09
	Total	197	100

teaches in social sciences; 41.12 % (n=81) of them teaches in sciences; 6.09 % (n=12) of them teaches in educational sciences.

Findings on the study questions

In Table 8, participants' perceptions of knowledge management competence of administrators are presented. As Table 8 shows teachers perceive administrators as 'moderately competent' with a mean of $\bar{X}$ =3.09 considering the overall of the scale and 'maximally competent' with a mean of $\bar{X}$ =3.13 in the 'sharing knowledge' subscale. The mean is $\bar{X}$ =3.08 in the storing knowledge subscale; $\bar{X}$ =3.06 in the using knowledge subscale and $\bar{X}$ =3.03 in the capturing knowledge subscale. On the other hand, administrators' self perception of knowledge management competence differs from those of teachers. In the 'sharing knowledge' subscale they had the highest mean ($\bar{X}$ =3.71) and the lowest mean ($\bar{X}$ =3.45) in the using knowledge subscale. As it can be seen from the table, administrators perceive themselves as being 'maximally competent' in all the subscales and overall of the scale. To determine whether there was a significant difference between teachers' and administrators' perceptions, Mann Whitney U test was carried out. Table 9 shows the results of this analysis.

As Table 9 shows, there is a significant difference between teachers' and administrators' self perceptions of knowledge management competence in the subscales of capturing and using knowledge according to Mann Whitney U test results (p=.000, p<.05). The administrators perceive themselves as being competent in capturing and using knowledge more than teachers perceive them.

Table 8. Means and standard deviations of the scale and subascales.

Variable	Teacher		Administrator	
	$\bar{X}$	ss	$\bar{X}$	ss
Capturing knowledge	3.03	0.67	3.61	0.43
Sharing knowledge	3.13	0.60	3.71	0.45
Using knowledge	3.06	0.60	3.45	0.63
Storing knowledge	3.08	0.67	3.54	0.48
Overall scale	3.09	0.56	3.61	0.38

Table 10 shows t test results carried out to determine whether there is a significant difference between teachers' and administrators' perceptions of knowledge management competence of administrators in the overall scale and subscales of sharing knowledge and storing knowledge. As Table 10 shows, there is a statistically significant difference between teachers' perceptions of administrators' knowledge management competence and administrators' self perceptions of knowledge management competence in general and in the subscales of sharing and storing knowledge (p=.000, p<.05). The administrators perceive themselves as being competent in sharing, storing knowledge and generally in knowledge management more than teachers perceive them.

Table 11 shows Mann Whitney U results carried out to determine whether there is a statistically significant difference between teachers' perceptions of administrators' competence in the subscales of capturing and using knowledge and administrators' self perceptions according to gender. As Table 11 shows, there is not a statistically significant difference between males' and females' perceptions of knowledge management competence of administrators in the subscales of capturing (p=.324, p>.05) and using (p=.617, p>.05) knowledge. In other words, women and men have similar perceptions about administrators' knowledge management perceptions in the subscales of capturing and using knowledge.

Table 12 shows the results of t test carried out to determine whether there is a statistically significant difference according to gender variable in sharing and storing knowledge subscales and knowledge management in general. As Table 12 shows, there is not a statistically significant difference between males' and females' perceptions of administrators' knowledge management competence in the subscales of sharing knowledge (p=.560, p>.05), storing knowledge (p=.350, p>.05) and knowledge management in general (p=.433, p>.05). In other words, females and males perceive the administrators' knowledge management, sharing and storing knowledge competence similarly.

Table 13 shows the results Kruskall Wallis H Test results carried out to determine whether there is a statistically significant difference in the perceptions of

Table 9. Mann Whitney U test results of knowledge management competence according to task variable.

Task		n	Mean rank	Sum of ranks	z	p
Capturing knowledge	Teacher	162	90.10			
	Administrator	35	140.17	1394.000	-4.718	0.000
	Total	197	-			
Using knowledge	Teacher	162	93.14			
	Administrator	35	126.14	1885.000	-3.113	0.002
	Total	197	-			

Table 10. t test results between teachers' and administrators' perceptions in the subscales of sharing knowledge and storing knowledge.

Task		n	$\bar{X}$	Ss	t	P
Sharing knowledge	Teacher	162	3.12	0.60491	5.374	0.000
	Administrator	35	3.71	0.44936		
Storing knowledge	Teacher	162	3.08	0.67027	-3.844	0.000
	Administrator	35	3.54	0.47914		
Overall scale	Teacher	162	3.08	0.56182	6.644	0.000
	Administrator	35	3.60	0.37886		

Table 11. Mann Whitney U test results according to gender.

Gender		n	$\bar{X}$	U	z	p
Capturing knowledge	Female	74	77.54			
	Male	88	84.83	2963.000	-.987	0.324
	Total	162	-			
Using knowledge	Female	74	79.12			
	Male	88	83.50	3080.000	-.593	0.553
	Total	162	-			

Table 12. t test results according to gender variable.

Gender		n	$\bar{X}$	ss	t	p
Sharing knowledge	Female	74	3.0993	0.60593	-.584	0.560
	Male	88	3.1551	0.60634		
Storing knowledge	Female	74	3.0297	0.64439	-.937	0.350
	Male	88	3.1288	0.69170		
Overall scale	Female	74	3.0500	0.54287	-.785	0.433
	Male	88	3.1196	0.57844		

participants within the groups of seniority. Capturing and using knowledge subscales are analyzed. As Table 13 shows, there is not a statistically significant difference in participants' perceptions according to the variable of seniority in the subscales of capturing (p=.308, p>.05) and using (p=.347, p>.05) knowledge.

In other words, seniority doesn't make a statistically significant difference in participants' perceptions of

Table 13. Kruskall Wallis H test according to the variable of seniority.

Seniority		n	Meanranks	x^2	p
	1-5 years	11	87.77		
	6-10 years	39	89.26		
Capturing knowledge	11-15 years	63	75.94	2.160	0.308
	16 years and above	49	81.07		
	Total	162	-		
	1-5 years	11	63.18		
	6-10 years	39	87.91		
Using knowledge	11-15 years	63	84.73	0.540	0.347
	16 years and above	49	76.36		
	Total	162	-		

Table 14. ANOVA results of seniority groups in subscales of sharing and storing knowledge.

Variable	Group	N	$\overline{x}$	ss	Var. K.	KT	Sd	KO	F	p
	1-5 years	11	3.07	0.523	Between G	0.122	3	0.041		
	6-10 years	39	3.14	0.624	Within G	58.791	158	0.372		
Sharing knowledge	11-15 years	63	3.15	0.613	Total	58.913	161	-	0.109	0.955
	16 years and above	49	3.10	0.609	-	-	-	-		
	Total	162	3.12	0.604	-	-	-	-		
	1-5 years	11	3.06	0.736	Between G	.114	3	0.038		
	6-10 years	39	3.12	0.658	Within G	72.218	158	0.457		
Storing knowledge	11-15 years	63	3.05	0.716	Total	72.332	161	-	0.083	0.969
	16 years and above	49	3.08	0.620	-	-	-	-		
	Total	162	3.08	0.670	-	-	-	-		
	1-5 years	11	3.04	0.511	Between G	.128	3	0.043		
	6-10 years	39	3.13	0.590	Within G	50.690	158	0.321		
Overall scale	11-15 years	63	3.08	0.582	Total	50.818	161	-	0.133	0.940
	16 years and above	49	3.06	0.535	-	-	-	-		
	Total	162	3.08	0.561	-	-	-	-		

capturing and using knowledge competence of administrators. Table 14 shows the results of the One-Way Analysis of Variance carried out to compare the means of groups depending on seniority for a statistical significance in the subscales of sharing and storing knowledge and overall scale. As Table 14 shows, there is not a statistically significant difference between the groups analyzed in sharing (p=.955, p>.05) and storing (p=.965, p>.005) knowledge subscales. Additionally, there is not a statistically significant difference between the groups compared in the overall scale (p=.940, p>.05). In other words, seniority does not create a statistically significant difference in participants' perceptions of sharing, storing knowledge and knowledge management competence of the administrators in general.

Table 15 shows the results of the Kruskall Wallis H

Test carried out to compare the means of groups depending on branch for statistical difference in the subscales of capturing and using knowledge. As Table 15 shows, there is not a statistically significant difference between the groups analyzed in capturing (p=.701, p>.05) and using (p=.683, p>.05) knowledge subscales according to branch. In other words, branch does not create a statistically significant difference in participants' perceptions of administrators' capturing and using knowledge competencies.

Table 16 shows the results of the One-Way Analysis of Variance carried out to compare the means of groups depending on branch in the subscales of sharing and storing knowledge competence and knowledge management competence in general. As Table 16 shows, there is not a statistically significant difference between

Table 15. Kruskall Wallis H test results.

Branch		n	Mean ranks	x^2	p
Capturing knowledge	Social sciences	88	79.54		
	Sciences	66	82.67		
	Educational sciences	8	93.38	0.710	0.701
	Total	162	-		
Using knowledge	Social sciences	88	80.44		
	Sciences	66	81.22		
	Educational sciences	8	95.50	0.763	0.683
	Total	162	-		

Table 16. Results of one-way analysis of variance.

Variable	Group	N	$\overline{x}$	ss	Var. K.	KT	Sd	KO	F	p
Sharing knowledge	Social sciences	88	3.14	0.626	Between G	0.272	2	0.136		
	Sciences	66	3.09	0.578	Within G	58.641	159	0.369		
	Educational	8	3.26	0.630	Total	58.913	161	-	0.369	0.692
	Sciences	162	3.12	0.604	-	-	-	-		
	Total	-	-	-	-	-	-	-		
Storing knowledge	Social sciences	88	3.09	0.649	Between G	0.348	2	0.174		
	Science fields	66	3.04	0.689	Within G	71.984	159	0.453		
	Educational	8	3.25	0.790	Total	72.332	161	-	0.384	0.682
	Sciences	162	3.08	0.670	-	-	-	-		
	Total	-	-	-	-	-	-	-		
Overall scale	Social sciences	88	3.08	0.0561	Between G	0.219	2	0.110		
	Science fields	66	3.06	0.561	Within G	50.599	159	0.318		
	Educational	8	3.24	0.620	Total	50.818	161	-	0.0344	0.709
	Sciences	162	3.08	0.561	-	-	-	-		
	Total	-	-	-	-	-	-	-		

the groups analyzed in sharing (p=.692, p>.05) and storing (p=.682, p>.05) knowledge subscales according to branch. Additionally, there is not a statistically significant difference between the groups compared in knowledge management competence in general (p=.709, p>.05). In other words, branch does not create a statistically significant difference in participants' perceptions of administrators' sharing and storing knowledge competencies and knowledge management competencies in general.

DISCUSSION AND CONCLUSION

This study investigates teachers' and administrators' perceptions of administrators' knowledge management competency. While teachers perceive high school administrators as being 'moderately competent' in the subscales of capturing, sharing, using, and storing knowledge and in knowledge management in general, administrators perceive themselves as being 'maximally competent'. This difference in teachers' and administrators' perceptions could stem from teachers' higher expectations about knowledge management competency.

In this respect, the results of this study overlap with those of Çınar (2002) who had similar results. In his study, Çınar also found that school principals and primary school inspectors perceived senior administrators as being moderately competent. Another study supporting the results here was carried out by Özsarıkamış (2009). In his study he found that the primary school teachers perceived primary school administrators' capturing knowledge competence as being 'moderate'; sharing,

using and storing knowledge competence as being 'maximum'. When it comes to variables, no statistically significant difference was found between groups of gender, seniority and branch. In other words, teachers have similar perceptions of knowledge management competence of administrators regardless of their demographics.

Administrators must think over what information and data they need in order to evaluate how well work is carried out (Drucker, 1999). The main activity of a knowledge-generating organization is to enable other people to use knowledge that would otherwise remain personal and individual. This activity should be realized in every stage of organizational processes and at all times (Nonaka, 1999).

Organizations should be able to perform a number of roles and deploy various skills in capturing, distributing and using knowledge in order to be successful at knowledge management. Data and information are transformed into knowledge in cooperation by a number of individuals having particular values. This process should be handled by trained staffs who work on tasks that are specifically designed for the management of knowledge within the scope of definite and specific responsibilities and duties (Davenport and Prusak, 2001).

This study has demonstrated some differences between the perceptions of teachers and administrators regarding their competence at managing knowledge for certain aspects of this process. Further studies could be carried out, building on this research to assess how professional development of administrators can be improved with the aim of equipping educational organizations to better meet the knowledge demands of the information society.

Conflict of Interests

The author has not declared any conflicts of interest.

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Full Length Research Paper

Coaching and mentoring model based on teachers' professional development for enhancing their teaching competency in schools (Thailand) using video tape

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The study aims to develop coaching and mentoring model, study the usage findings in the model and to evaluate the activity management in the model by surveying 100 participant teachers' opinion, under jurisdiction of the office of Mah Sarakham Primary Educational Service Area 1, Thailand. The model consisted of 3 steps and 4 phases including planning, process for development consisted of 4 phases including: training for coaching and mentoring (C&M), sharing and learning together, coaching and mentoring. In Phase 1, half of the teachers obtained comprehensive content, while in Phase 2, the teachers still lacked confidence in constructing the C&M system as well as professional learning community (PLC). They had anxiety in constructing the video and wanted to develop this skill. In phase 3 after follow up, the teachers had higher confidence. They had good attitude towards the construction for PLC, and were able to make plan in applying the C&M system in the classroom. In addition, they were train on how to use the program. The teachers shared their teaching experience as well as showed group leadership skills and shared value and vision in developing their teaching competency. Phase 4 found that there was propriety in teachers' teaching competency in all of 4 dimensions including the classroom management, the knowledge, the teaching method, and the diagnosis.

Key words: Teacher development, coaching and mentoring, video tape, teaching competency, professional learning community.

INTRODUCTION

In this study, one can picture a large classroom where a teacher is standing in front of the class, asking the students to take their notes or memorize what is been said by the teacher. As the class is in section, the teacher looks around to see what the students are doing by asking them questions. These competencies of teachers could reflect their beliefs in educational management based on positivism paradigm by viewing the world as dualism, reduction and mechanistic. As a result, the students' knowledge depends on their competency in perceiving and competing for knowledge received from their teacher. Therefore, the teacher focused on

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transferring knowledge in form teacher-centered, with the aim of developing mind-body and analytical thinking, in order to accomplish the goal of learning achievement or students' academic performance which was not congruent with their livelihood, as well as the outside world (Wang, 2012). Whereas in present the students had to be faced with academic changes and growth of instrument for information communication and technology. Consequently, there was an increase of discovered and constructed information as twice as much as the exponential (Soottipon, 2010). The study saw the image of classroom with students who express their negotiated opinion or asking questions. This was due to the facts that students could get information from the internet.

The paradigm of the 21st century should be changed from the process in knowledge transferring from the top to the bottom (top-down), into the instructional process for intensive learning as well as true association or mastery learning, being able to learn the unclear and complex things with many dimensions, which could be seen in various dimensions, and obtaining the shared conclusions or co-construction of knowledge, being able to apply the knowledge and practice one's lifestyle and work. The teachers' teaching competency included the capability of incorporating the students with instructional management. This was supported by the individual student's aptitude, motivation, former experience as well as thought and social environmental which was a powerful learning process as the bottom-up (National Brain Bank, 2013).

Therefore, the teacher need to search for innovation for developing relevant paradigm in enhancing the collaborative paradigm (Heron and Reason, 1997; Deakin-Crick, 2010) It was the powerful shared learning among the advancement and growth in information communication and technology. As a result, the information could be accessed quickly. According to the studies of Anghel and Voicu (2013) Wang (2012) and Vogt and Rogalla (2009) found that the teacher development based on coaching and mentoring could cause the teachers and students' changing and learning, creativity, critical thinking, critical curiosity, meaningful work for children, obtaining the strategic awareness, creating one's learning relationship and resilience and obtaining the adaptive teaching competency. Consequently, the teacher development for constructing the professional teachers based on the approach of coaching and mentoring was a technique used by the teacher.

In 2013 budget year, the office of basic education commission, ministry of education, Thailand specified the development policy for teachers and educational staffs based on their capability to be good teachers with quality and virtue. So, the teachers' development projects focus on the construction for strength of instructional management competency in various contexts by using the coaching and mentoring. Moreover, there was a design for promotion system by the coaching and mentoring with emphasis on development for enhancing

the teachers' spirit, mind, and ideal. It also focused on the students ability to obtain knowledge in reading literacy, numeracy literacy, and reasoning ability which was based on collaboration among higher education institutes, the educational service area, and schools to cooperate in constructing the learning community for sustainable development through the collaboration between the faculty of education, Mahasarakham university, and the office of Mahasarakham educational service area 1.

Purposes of study

1. To develop the model of teachers' teaching competency based on coaching and mentoring by using the video tape for enhancing the teachers' teaching competency in schools.
2. To study the usage findings in the model of teachers' teaching competency based on coaching and mentoring by using the video tape for enhancing the teachers' teaching competency in schools
3. To evaluate the activity management in developing the model of teachers' teaching competency based on coaching and mentoring by using the video tape for enhancing the teachers' teaching competency in schools

METHODOLOGY

Research design

There were 3 steps of development and 4 phases of implementation. In each step and phase, the activities for development were specified as follows:

1. Planning step: This is the step of preparation for development.
2. Process for development consisted of 4 phases including:

Phase 1 training for coaching and mentoring: This phase aimed to develop the teachers' knowledge and comprehension in necessary content for developing the teachers' teaching competency by using the video-viewing through four learning units of content: coaching and mentoring, and construction of professional learning communities; teaching technique/method focusing on student-centered; iteracy, numeracy and reasoning ability; development of video-coaching.

Phase 2 sharing and learning together: This phase aimed to construct the professional learning community (PLC) in schools for sharing the problem situation as well as developing the teachers' teaching competency in schools, searching for and presenting the video tape of teaching as video-modeling of school teachers by the university professors and educational supervisors of the educational service area joining in PLC for sharing.

Phase 3 coaching and mentoring: This phase aimed to follow up the coaching and mentoring process for developing the teachers' teaching competency in schools through the design and production of or video-coaching from supervision as well as following up by the university professors and supervisors from the office of educational service area.

Phase 4 showcase: This phase aimed to prepare the stage for

Table 1. Data processing and analysis.

Activities	Objectives	Instrument/statistical values	Indicators
Phase 1: Training for coaching and mentoring	Evaluation of teacher's training achievement	-After training evaluation -Analysis of mean and standard deviation	Achievement of teacher's training
Phase 2: Sharing and learning together	Study of teacher's opinion in knowledge application	-Structured interview -Interview and descriptive presentation	Teachers obtained knowledge, comprehension, and competency in applying their training knowledge
Phase 3: Coaching and mentoring	Supervision and following up the teacher's teaching competency development	-Evaluation form of PLC construction analysis of the mean and standard deviation	The practice was in "High" level.
Phase 4: Showcase	Evaluation of teacher's teaching competency -Program evaluation	-Teacher's teaching competency evaluation -Performance evaluation -Program evaluation -Recording and deciphering the lesson by Content Analysis and presented in Descriptive Analysis, Mean, and Standard Deviation.	-Teachers had improved teaching competency -The findings of presentation and deciphering the lesson reflected the development of teaching competency and students' quality -The activity management was appropriate

presenting the finding of development for students' quality in literacy, numeracy, and reasoning abilities as well as the teachers' presentation by video-coaching.

Conclusions and refection was the last step of conference for concluding findings and reflecting the development findings of teamwork between university professors, and supervisors from the educational service area.

Data collection and analysis

In data collection and analysis of teachers' teaching competency, instrument according to the phase of activity management, and the conducted by data system, coding, and analysis of qualitative data by content analysis as well as quantitative data by computer program in social science for calculating the statistic were implemented. The details were shown in Table 1.

Data obtained from the evaluation form and the 5 level rating scale were analyzed by using the following criteria: The mean values between 4.50 to 5.00 referred to the appropriateness/ practice was in "the highest" level, between 3.50 to 4.49 referred to "high" level, between 2.50 to 3.49 referred to "moderate" level, between 1.50 to 2.49 referred to "low" level, and between 1.00 to 1.49 referred to "the lowest" level.

RESULTS AND DISCUSSIONS

The model consisted of 3 steps and 4 phases including planning, process for development consisted of 4 phases including: training for coaching and mentoring (C&M), sharing and learning together, coaching and mentoring,

and showcase, and conclusion and refection (Figure 1). The usage findings in the model found that:

Phase 1 training for coaching and mentoring: According to the testing for achievement evaluation by after training test from 15 points full score of 100 participants, found that the mean value was = 8.14 or 54.26%.

Phase 2 sharing and learning together: According to the study of participant teachers' opinion, the study found that there was a lack of confidence for developing the coaching and mentoring system and the development of professional learning community (PLC), since they understood that it was a project which focused on video tape construction because they lacked the skill of ICT use, and wanted to participate in the training in order to develop this skill. In the teaching competency development, the study found that they obtained knowledge in instructional management emphasizing on student-centered. After following up by the university professors and supervisors, the study found that the teachers had higher confidence as well as positive attitude towards practice. They had good attitude towards the development of teachers' learning community as well as being able to use the coaching and mentoring in schools.

Phase 3 coaching and mentoring: According to the following and evaluation of development in PLC in

Figure 1. The model of coaching and mentoring based on teaching professional development by using the video for enhancing teacher's teaching competency in schools

schools, the study found that the participant teachers' overall practice was in "high" level. Considering each aspect, the study found that the practice was in "high" level in every aspect especially in teaching experience sharing. The second order included the group leadership, and the shared value and vision in schools. The details are shown in Table 2.

Phase 4 showcase: The findings of teachers' teaching competency evaluation according to the teachers' teaching competency evaluation, found that in average, the propriety was in "the highest" level in all of 4 dimensions including the classroom management, the knowledge, the teaching method, and the diagnosis respectively. The details are shown in Table 3. From the finding analysis from the presentation in phase 4, the researcher presented the finding analysis in teaching methods from 63 work pieces of video tape, the teacher's teaching competency could be classified into the cooperative teaching for 49.21%. The second order included the integration of learning substance for 41.27%, and the work project based teaching for 34.92% respectively. The details are shown in Table 4. The analytic findings of students' quality development from video tape from 36 work pieces, found that the video tape could be classified into the competency development in scientific literary for 45 work pieces or 71.42%. The second order was the reading literary for 40 work pieces or 33.33%. The details are shown in Table 5.

In overall, the propriety of activity management was in "high" level. Considering each item, the study found that the propriety of activity management was in "high" level in every aspect. Furthermore, it was viewed that the activity management was practical since one could obtained better knowledge in new instructional management techniques. The propriety of place for activity management,

the overall activity of project management from phase 1 to phase 4 was appropriate in "high" level as shown in Table 6.

Conclusion

The model consisted of 3 steps and 4 phases including: planning, process for development consisted of 4 phases including: training for coaching and mentoring (C&M), sharing and learning together, coaching and mentoring, and showcase, and conclusion and refection. The model aims to enhance the school teachers' teaching competency. The details of implementation were as follows:

In Phase 1, from the testing in achieving evaluation through posttest after the training, out of 15 points full score from 100 training participants, the study found that their mean value was 8.14 out of 15 points full score or54.26%. It indicated that the 2 days training session for developing one's knowledge and comprehension as well as skill development in ICT usage especially the skill in developing the video tape for coaching, wasn't sufficient. The University instructors and supervisors had to follow up for developing ones' knowledge, comprehension, and confidence. Moreover, the training for skill in video tape usage and production should be provided.

In Phase 2 to 3, according to the study of teachers' opinion in schools that participated in the project, the study found that the schools lacked confidence in building the coaching and mentoring, with the construction of PLC since they understood that it was the project emphasizing on the video tape construction. Consequently, they were anxious in video tape construction because they lacked ICT skill. They also needed to attend the training in developing this skill. For the training competency

Table 2. The evaluative findings of construction for teacher's learning community (PLC).

Evaluation List	Mean	Meaning
Supportive and shared leadership		
The administrators used the democracy and participation	3.9	High
Decentralization and empowerment	3.91	High
Allowance for one's right in decision making and promotion for team leading	3.77	High
Mean	3.86	High
Shared values and vision		
Collaborative opinion expression for instructional development	3.77	High
Collaborative determination of practice guidelines for instructional development	3.61	High
Mean	3.69	High
Collaborative learning and application of learning		
Collaborative experience sharing in instructional management	3.61	High
Collaborative planning for problem solving and instructional development	3.55	High
Collaborative searching for knowledge, skill, and strategy in problem solving and practice	3.71	High
Mean	3.62	High
Shared personal practice		
Participation in sharing by classroom visiting and teaching observation	3.91	High
Expressing one's opinion and recommendation for improving one's teaching and working.	3.98	High
Mean	3.94	High
Supportive environmental conditions		
The collegial relationship maintenance through the recognition, respect and sincerity	3.53	High
Using positive psychology, paying attention to relationship among the students, teachers, and administrators	3.34	Moderate
Physical environmental condition for enhancing one's learning by working	3.40	Moderate
Mean	3.42	Moderate
Overall mean	3.65	High

development, the study found that they had knowledge and competency in instructional development of student-centered in "moderate" level. After the follow up by the University professors and supervisors, the study found that the teachers obtained higher confidence as well as positive attitude in practice. They had good attitude towards the construction of teachers' learning community as well as competency in planning for applying the coaching system and counseling in classroom. Besides, the training schedule for program use in video tape arrangement was specified for teachers who needed it.

Furthermore, according to the following up and evaluation of teachers' PLC in schools, Phase 3, found that the participant teachers had overall practice in "high" level especially in the sharing for teaching experience, and the shared value and vision in developing one's teaching competency. As a result, there was development in both student and teacher. Vescio et al. (2008) conclude that PLC application caused powerful development as

well as major strategy for developing the teachers' teaching competency and students' quality in schools.

In phase 4 according to the evaluation of teachers' teaching competency in schools, it found that in average it consisted of propriety in "the highest" level in all of 4 dimensions including the classroom management, the knowledge, the teaching method, and the diagnosis respectively. In addition, according to the presentation performance analysis from 63 work pieces of video tape presentation, the study found that the video tape reflected the teachers' teaching competency in teaching the cooperative group most. The second order included the integrative teaching in learning substance, and project based teaching, and the reflection of students' quality in scientific literacy for 71.42%. The second order included the reading literacy for 63.49%, and the mathematical literacy for 33.33% which indicated that the teachers attempted to create performance with students in satisfactory level. It could be seen from the presented

Table 3. The evaluative findings of four dimensions in teacher's teaching competency evaluation.

Evaluation list	Mean	Meaning
Subject knowledge: Be competent in teaching content material and following up the learning process		
Thai language	4.50	Highest
Mathematics	4.40	High
Science	4.90	Highest
Social Studies, Religion, and Culture.	4.60	Highest
Foreign languages	5.00	Highest
Mean	4.68	Highest
Diagnosis: Be competent in knowledge management, adjustment for instructional process to be appropriate with curriculum and context		
Establish the systematic lesson plan	4.64	Highest
The learning activity management was congruent with context of program, objective, content, and students	4.64	Highest
The various learning management s were appropriate with the program, objective, content, and students	4.62	Highest
Mean	4.63	Highest
Teaching methods: Competency in learning process management as student-centered		
Learning activity management focusing on real and lively practice for students to be able to think and solve the problem	4.66	Highest
Learning activity management to be selected by the students according to their ability and interest	4.60	Highest
Using various learning media, educational innovation and technology, and learning sources	4.77	Highest
Mean value	4.67	Highest
Classroom management: Be competent in learning climate management and creation		
Learning management or encouragement for students to express their opinion, discuss, and responding related to learning	4.72	Highest
Learning management for students to work together	4.79	Highest
Establish the corner for experience, learning source, and media facilitating the students' learning	4.75	Highest
Activity management for students to learn happily	4.75	Highest
Mean	4.75	Highest
Overall mean	4.86	-

Table 4. Classification of video tape based on the instructional method/technique of student-centered.

Method/Technique	Number	Percentage (%)
Work project based	22	34.92
Problem based	14	22.22
Research based	2	3.18
Integration	18	28.57
Cooperative group	31	49.21
Brainstorming	21	33.33
Discovery	6	9.52
Inquiry	3	4.76
Integration of learning substance	26	41.27
Others	2	3.18

work pieces that activity management that could be able to develop one's teaching competency Avalos (2011).

Table 5. Classification of video tape for students' quality development based on competency.

Competency	Number	Percentage (%)
Reading	40	63.49
Calculation	21	33.33
Reasoning	45	71.42

Table 6. The evaluative findings in four phases of activity management.

List	Mean	Meaning
Learning management was practical	4.31	high
Obtaining knowledge in new instructional management techniques	4.25	High
Opportunity in expressing one's opinion, discussion and asking	3.95	High
Supplementary document for activity management	3.84	High
Snack and drink	4.19	High
Propriety of activity management place	4.24	High
Propriety of instructional management session	4.07	High
Overall activity of program management from Phase 1 to Phase 4	4.19	High
Mean	4.13	High

RECOMMENDATIONS

According to the usage model for developing the teacher's teaching competency, the following recommendation were made:

1. The training for providing knowledge wasn't sufficient. The process of following up and recommendations similar to the implementation in this activity, were necessary.
2. The teachers lacked skills in using the ICT especially the technique for video arrangement. They believed that their students lacked competency in ICT usage as well. The teachers' attitude toward ICT usage should be developed. The teachers and students' confidence in shared learning should be developed. In addition, the teachers and students' training for developing their competency in ICT usage should be provided.
3. The collaborative research studies by university professors and supervisors for developing the learning network should be conducted. Furthermore, the construction of teachers' work coaching and mentoring system, should be followed up for developing the sustainability continuously.

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Conflict of Interests

The authors have not declared any conflicts of interest.

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Full Length Research Paper

The correlation of multiple intelligences for the achievements of secondary students

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The present study attempts to investigate the relationship between the multiple intelligences and the academic performance achievement levels of high school students based on Gardner's multiple intelligences theory. This was a descriptive correlation study. To accomplish this purpose, 270 students of high school of Bandar Abbas selected by clustering random sampling, and all of them filled the Gardner's multiple intelligences questionnaire. For analysis of collected data, descriptive statistics including Mean, Standard Deviation, Pearson coefficient correlation and regression were used. Findings of this study revealed that moderate inter-correlation exists between verbal-linguistic and visual-spatial intelligences and academic performance achievement (p<05). Multiple intelligences such as logical-mathematical, visual-spatial, verbal-linguistic, intrapersonal, bodily-kinesthetic, interpersonal and naturalistic have a significant positive relationship with academic performance achievement of students (p<05). It became clear that multiple intelligences like visual-spatial, verbal-linguistic and interpersonal statistically significant and were able to predict academic performance achievement (p<05), whereas musical intelligence was a tunable negative predicator for academic performance achievement of students.

Key words: Gardner's multiple intelligences, academic performance achievement, students.

INTRODUCTION

In today's world, rapid and wide developments in science, technology, communication and emergence of new views about social, political, economic, and cultural issues bring about fundamental changes in educational systems and teaching methods (Otaghsara, 2014).

Allah has given man intelligence, which is the cause of superiority among all other creatures. Intelligence is of paramount importance in a person's life. Therefore the topic of intelligence is of substantial curiosity and interest to researchers and lay people (Mackintosh, 1998). General, interpersonal, fluid, and crystalized as well as many other types of intelligence have been discovered.

For many years, educators have implemented traditional teaching methods in the classroom that have tended to classify learners as a homogeneous group where teachers use the executive approach to transmit knowledge to all the students with a similar set of teaching methods (Sulaiman et al., 2011). With the

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traditional teaching approach, teachers struggle to find ways to reach the diversity of individual learning styles and needs. Learning styles is connected to individual characteristics and preferences, which reflect how a person perceives and interacts with the environment (Sulaiman et al., 2011).

According to Gardner, there are biological and cultural bases for multiple intelligences. Accepting Gardner's Theory of Multiple Intelligences has several implications for teachers in terms of classroom instruction. The theory states that all seven intelligences are needed to productively function in society. Since all children do not learn in the same way, they cannot be assessed in the same way. Therefore, it is important that an educator creates an "intelligence profiles" for each student. Knowing how each student learns will allow the teacher to properly assess the child's progress (Lazear, 1992).

In the context of education and students' achievement, multiple intelligences are especially powerful because they help parents and teachers understand education holistically. Gardner (1994) says multiple intelligences persuade parents and teachers to examine their own ideas and assumptions about achievement and consider various teaching approaches. This suggestion provides a powerful lens to analyze multiple intelligences in the context of secondary student performance.

Gardner stretches the word intelligence beyond its customary application in psychology (Gardner and Hatch, 1989), and defines it as a bio-psychological ability of processing information, that can be activated to handle a problem properly, and creating such a product that is valued in a cultural setting. He developed a theory of multiple intelligences and asserted that each individual has not only one general intelligence, but multiple intelligences. Multiple intelligences theory promotes the idea that every individual is capable of learning through the range of different intelligences. He initially proposed six intelligences, but then added two additional intelligences (Gardner, 1999). These intelligences are: logical-mathematical, verbal-linguistic, visual-spatial, intrapersonal, bodily-kinesthetic, interpersonal, naturalistic and music intelligences.

Gardner asserted that individual differences reflect multiple intelligences of human beings; and through these intelligences an individual tries to understand the world, these are personal strengths through which a person comprehends the world (Arnold and Fonseca, 2004). What the Multiple intelligences theory offers is not only significant from a theoretical perspective, but also has important practical implications for teaching practice. Teachers should consider various multiple intelligences of the students during their teaching; and should persuade the students to use their different intelligences in their learning (Gen, 2000), as Larsen-Freeman (2000) suggested improving quality of teaching and learning, both teacher and learner should take into account different multiple

intelligences. Regarding their career, learners' multi-dimensionality should be celebrated and all intellectual abilities may be enhanced (Cohen, 2003).

Gardner (2006) argued that due to the multiple intelligences individuals are truly human being. Each has a unique profile of intelligences of varying strengths. Although no one intelligence was considered to be superior to other types, according to Gardner (2003) all intelligence are required for an individual, in order to participate, act purposefully and creatively in the society.

In order to be successful in educating all students, teachers should be aware of the students' individual differences; individual learning styles and multiple intelligence profiles. In schools logical and linguistic intelligences are emphasized in teaching. Students who are more developed in other intelligence dimensions are often ignored. Identifying and knowing students' intelligence profile is important and has implications for instruction (Shalk, 2002). For example, if a student has limited success with verbal and mathematical intelligences, more success may be achieved by using some of the other intelligences (Oddleifson, 1994). A Multiple intelligences approach offers suggestions for providing a more reasonable and practical approach to schooling (Eisner, 1994). Furthermore, since intelligence strengths and weaknesses are not static, they may be improved with different educational experiences. For this reason, multiple intelligences theory approach supports continuous assessment of intelligences starting at an early age (Shalk, 2002).

Some researchers have found in their studies, intelligence as a cause of academic performance (Habibollah et al., 2008). A close connection by some of the psychologists between intelligence and academic achievement was discovered. Some say that there is cause and effect relationship between the two variables. According to Laidra et al. (2007) academic achievement of the students is reliant on their cognitive abilities through all grade levels.

Multiple intelligence theory is assuming an important place in the recognition of the diversity of ways that learners approach the curriculum; it helps teachers and learners to successfully programme for individualized instruction. Consequently, many researchers stress the importance of identifying the profiles of the learners and empowering them with recognition of their intelligences, in order to enhance and develop learning (Gurbuz and Gurbuz, 2010; Natasa 2010; Netoa et al., 2008; Wu and Alrabah, 2009). Thus, it seems necessary to recognize students' intelligences in order to consider them, when designing for the teaching and learning process to enhance their learning performance.

Several studies suggest multiple intelligence-based instruction increases students' achievement. The following research indicates a number of positive outcomes including increased students' confidence, intrinsic

Table 1. Self-estimated multiple intelligences of high school students (N = 270).

Gardner's multiple intelligences		Standard deviation
Multiple intelligences	**Mean**	
Interpersonal	3/52	./68
Logical- mathematical	3/42	./76
Visual-spatial	3/52	./75
intrapersonal	3/51	./61
naturalistic	3/41	./80
Verbal-linguistic	3/32	./98
Bodily-kinesthetic	3/05	./70
Musical	2/o2	./80

motivation, engagement, and performance on standardized tests (Campbell and Campbell, 1999; Kornhaber et al., 2004).

Numerous research studies have explored the effects of different variables on students' academic performance achievement. Little attention was paid in Iran especially under-developing city like Bandar Abbas to the interrelationship of multiple intelligences and with academic performance achievement. This current study explored this relationship using public high school students as participants from Bandar Abbas, the Southern City of Iran.

METHODS

This was a descriptive correlation study. Participants of this study were 270 students randomly selected from among public and private high schools students in Bandar Abbas. Douglas and Harm's questionnaire of multiple intelligences consisting of 80 statements was used as data collection instrument. This inventory is a standardized inventory, describing Gardner's eight multiple intelligences. Each intelligence was measured through ten statements. The composite inventory was translated into Persian with the help of research language expert in order to make it understandable for students. In order to find out the reliability, the inventory was distributed among 182 public high school students of Tehran, as a pilot test. The Cronbach's Alpha Value found out for different intelligences, verbal-linguistic . /76, logical-mathematical ./71, visual-spatial ./74, bodily-kinesthetic ./63, musical ./76, intrapersonal ./60, interpersonal ./70, naturalistic ./84 respectively, the Cronbach's Alfa Value for the whole inventory was ./81 .

RESULTS

The research hypotheses of this study are:

1-There is a statistically significant relationship between the multiple intelligences and the academic performance achievement levels of high school students of Bandar Abbas.

2- The multiple intelligences act as the predicator of the academic performance achievement levels of high school students of Bandar Abbas.

Analysis and interpretation of data were done in this section. The statistical values were calculated carefully. Mean, Standard Deviation, Pearson Coefficient Correlation and Regression were used as statistical tests. The data are arranged in Tables 1-3.

Different levels of correlation between multiple intelligences were found. The Coefficient Correlation between self-estimated verbal-linguistic and visual-spatial intelligence is .466, indicated moderate correlations between the multiple intelligences. The Coefficient Correlation between self-estimated bodily-kinesthetic and logical-mathematical intelligence is .39, naturalistic and intrapersonal is .38, mathematical-logical and visual-spatial intelligence is .377, revealed low moderate correlations. Musical and logical-mathematical intelligence is .08 showed weak but negligible correlations (Table 1).

Moderate correlation (r= .38, r= .36) exists between self- estimated verbal-linguistic, visual-spatial intelligence and academic performance achievement. Significant but weak correlation (r=.23, r=.19, r= .17, r= .15, r= .13) exists between logical-mathematical, interpersonal, intra-personal, naturalistic, and bodily-kinesthetic intelligences and academic performance achievement, and no correlation exists between musical intelligence and academic achievement at.05 level of significance (Table 2).

The standardized beta coefficient gives a measure of the contribution of each variable to the model. A large value indicates that a unit change in this predictor (independent) variable has a large effect on the criterion (dependent) variable. The T –Value and P _Value give a rough indication of the impact of each predictor variable; a big absolute T_ Value and a small P_Value suggest that a predictor variable is having a large impact on the criterion variable.

Based on the data presented in Table 3, it can be concluded that verbal-linguistic and visual-spatial intelligences were the predicators of multiple intelligences and academic performance achievement (p<01) among Bandar Abbas high school students which yielded multiple regression coefficient (beta) of ./29 and ./27 , respectively. Other intelligences did not predicate multiple intelligences and academic performance achievement among the students of Bandar Abbas (p>/05), especially musical intelligence was a tunable negative predictor for academic performance achievement of students which yielded multiple regression coefficient (beta) of -./25 .

DISCUSSION

The findings of the study confirmed Gardner assertion,

Table 2. Coefficient correlation between multiple intelligences and academic performance achievement.

Gardner's Multiple Intelligences		
Multiple intelligences	**Coefficient correlation**	**significance**
Visual-spatial	./36	./01
Verbal-linguistic./38	,/38	./01
Logical-mathematical	../23	./01
Intrapersonal	./19	./01
Interpersonal	./17	./05
Bodily-kinesthetic	./13	./01
naturalistic	./15	./05
musical	./3	./01

Correlation is significant $p<.05$.

Table 3. Multiple regression predicting the relationship between multiple intelligences and academic performance achievement of students.

Model	t	βStandardized	Unstandardized coefficient		Significance
			STD Error	**B**	
Constant	4/97		1/09	4/44	./001
Logical-mathematical	1/03	./09	./04	./04	./30
Visual-spatial	2/3o	./27	./06	./14	./01
Verbal-linguistic	3/62	./29	./03	./12	./001
naturalistic	-./75	-./05	./08	./09	./44
intrapersonal	./19	./04	./07	./06	./84
interpersonal	2/00	./25	./05	./11	./005
Bodily-kinesthetic	1/40	./14	./02	./03	./19
musical	-2/1	-./25	./06	-./12	./01

that every person possesses multiple intelligences. Results of the study also align with the previous research indicated that every individual has different types of intelligence with different levels of each.

The study provided evidence that the verbal-linguistic intelligence is the student's most frequent intelligence and the musical intelligence is the students' least frequent intelligence. This could be due to the opportunities, environment available for the nourishment of an intelligence; it is quite possible that verbal-linguistic intelligence might have developed due to the environment available to it, and musical and other intelligences might have remained underdeveloped or moderately developed because and encouraging environment was not available to them. The southern cities of Iran are underdeveloped and the students have limited opportunity to enhance their multiple intelligences. This may be due to the practice and non-application of the theory of multiple intelligences in teaching learning process. Neither

pedagogical strategies are planned nor students are encouraged to use various intelligences in their learning; therefore an unbalanced development of multiple intelligences might have occurred. Basic facilities like computer, net, multimedia are hardly available in schools teachers and students have fewer opportunities to develop their multiple intelligences. Another reason could be that different cultures value different intelligences, especially in Iran where verbal-linguistic intelligence is highly valued and musical intelligence is discouraged. This may explain the relatively high level of verbal-linguistic learning and the lower levels of musical and moderate level of other dimensions.

The researcher also found that the multiple intelligences are interconnected. Here too results of the study confirmed the claim of Gardner. He says that although multiple intelligences are separate units but they support each other whenever a job is performed.

The researcher also found a moderate association

between verbal-linguistic, visual-spatial intelligence and academic achievement. Result of the study is in consonance with Haji et al. (2004): he found in his study a significant positive correlation between perceived verbal-linguistic, visual-spatial intelligences and academic achievement of the students. Overall, there is a significant positive correlation between perceived verbal-linguistic, bodily-kinesthetic, logical-mathematical, musical intelligence and academic achievement of the students and it shows moderate correlation.

This result is also aligned with the results of Deary et al. (2007), who discovered a positive relationship between verbal-linguistic intelligence and academic achievement. Furnham et al. (2002) found in their research, that the respondents considered that verbal, spatial and logical intelligences exemplify true intelligence. The hypothesis no 2 developed by the above researchers in their study, which states that verbal, spatial and logical intelligences are the best predictors of academic performance achievement also supported by the results of this study. It can be also said that results of the study is reflection of our traditional teaching, in the schools of southern city of Iran, Bandar Abbas which focus on verbal-linguistic and visual-spatial dimensions only.

Conclusion

The verbal-linguistic intelligence is the students' most dominant and the musical intelligence is the students' least dominant intelligences. The evidence proved that the multiple intelligences are interconnected and support each other during performance. The verbal-linguistic and visual-spatial intelligences are moderately, interpersonal, intrapersonal, naturalistic, and bodily-kinesthetic intelligences are weakly correlated and musical intelligence is not correlated to academic achievement. Identifying the multiple intelligences of high school students, the differences according to the academic performance achievement will contribute an awareness to the self-knowledge and abilities of the students as well as to develop suggestions for programs to enhance their academic performance achievement and to be a reference for further studies.

Application

Multiple intelligences need to be incorporated in teaching, learning process, formally in Iran, especially in schools of southern city like Bandar Abbas; so the students may have the opportunities to develop all intelligences not just verbal-linguistic intelligence. Teachers should create such an environment, which is favorable for the development of all the intelligences, keeping in view individual differences of the students.

RECOMMENDATION

Additional research is needed. For example, experimental studies may be conducted on students of different ages in different localities in order to compare the results and find out the actual correlation between multiple intelligences and academic performance achievement.

Conflict of Interests

The authors have not declared any conflicts of interest.

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Full Length Research Paper

The usage of domination strategies in conflicts between the teachers and students: A case study

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The aim of this study is to investigate the sources of conflict between students and teachers, how they are managed, and their effect on students and thus gain insight about student-teacher conflicts. The study is a qualitative one and has been carried out with the method of case study. The method of criterion sampling which is one of the methods of purposeful sampling is used in the qualitative study tradition. Participatory observation technique and semi-structured interviews were used to collect data. The study has shown that the main reasons for the conflict between teachers and their students were the existence of poor and insufficient communication between the parties involved, and teacher dominance in such interactions. It has also shown that inappropriate conflict solving strategies negatively affect the students` psychology, social behaviour as well as their academic success. It is absolutely necessary to manage the teacher student conflict correctly in order to create a positive school climate and to conduct the education process effectively.

Key words: Conflict, conflict management, teacher, student, reason for conflict.

INTRODUCTION

Conflict is a concept that can affect the relations and experiences of people as a social entity during their interaction with the public positively or negatively (Gray and Stark, 1986). Conflict naturally and normally occurs in schools. Conflicts can range from ordinary personal differences and anger, to violence that may end in terror and in wars. Sometimes unresolved conflicts may lead to violence. Conflicts are events which occur because of the problems in teams in which the individuals or groups have difficulty in working together, thus leading things to a standstill, or simply leading to chaos (Eren, 1984).

Although there are always conflicts in schools, most of the students, teachers, heads as well as parents are failing to act efficiently to solve the conflicts. For the student, it is important to know that conflicts can be resolved appropriately, and that will in turn help the student to achieve academic success, and it should lead to qualitative relationships between their peers and themselves and their teachers, as well as to their happiness. Firstly, it is important to uncover the causes, types and nature of these disputes, what communication problems the students have among themselves, with their teachers or with other important members of the school administration. An understanding of the reasons for and the nature of the conflicts is necessary for appropriate conflict management and to fight effectively against these

conflicts (Türnüklü, 2004).

There are many cases such as personality traits of students and teachers in the educational organizations, differences between their values, beliefs and attitudes, crowded classes, lack of quality educational teach-in processes, misunderstanding of the communication process, inadequate tools and equipments and sharing of limited resources which cause conflict to be experienced in class or school level (Argon, 2009). There are likely to be many factors that can potentially affect the quality of teacher–student relationships. Some of these factors may include individual student characteristics and behaviors, teacher characteristics and behaviors, prior relationship experiences, and broader social and contextual influences (Murray and Murray, 2004).

The defects of a teacher-student relationship and a failure to cooperate may cause teacher student conflicts. The important thing is for teachers to solve these matters correctly and effectively without damaging the relationship, losing the cooperation with students or disrupting educational process. The primary task of teaching is to gain and maintain the cooperation of students. Without that cooperation, the school or individual classroom cannot function (Cothran and Ennis, 1997).

There is some research on managing conflicts in schools through the use of authority. a survey of high school, undergraduate, and graduate students about methods of resolving conflict revealed that students viewed the actions of instructors as coercive, highly powerful and authoritarian (Dunn et al., 2002). Research results revealed that distributive conflict resolution strategies such as violence, complaint, anger, and swearwords were used frequently instead of constructive solutions such as negotiation, problem solving discussion and mediation (Türnüklü and Şahin, 2003). The use of coercive power is shown to be negatively related to student satisfaction, learning, and the extent to which teacher influence transcends the classroom (Jamieson and Thomas, 1974).

It should be bear in mind that issues linked to human and their behaviors are to be known by the teacher in order to manage student's behaviors successfully (Gulec and Alkış, 2004). It has been known that in schools and classes where conflicts are frequent, absenteeism and indifference are prevalent together with widespread blocking and disrupting behaviors against the teaching and learning process which create a negative class atmosphere. Resolving conflict in a constrcutive way before it transforms into violence and turning classroom into a safe atmosphere are of utmost importance for the quality of education and instruction in the classroom. To do this, first of all, the reasons lying behind the conflict need to be revealed. A number of characteristics such as teachers' personality, attitudes and actions may make negative or positive impacts on students, which requires

teachers to pay attention to their behaviors.

Teacher preference for managing conflicts in an authoritarian way effects the education process negatively. Students having conflicts are truant; they may cause disturbances in class and thus slow down the teacher as well as slow down their own learning. Conflicts in schools terrify students and lead to truancy (Tobias and Myrick, 1999). Based on the results of students' negative feelings and teachers' negative responses for students not asking for teachers' help, it can be suggested that teachers could be more positive towards students' conflicts and create an atmosphere in which students feel comfortable to discuss their problems with their teachers (Atıcı, 2007). Conflicts do not only influence the students but also the teachers. Teachers experiencing conflicts are also stressed and exhausted. Therefore, teachers spend a significant part of their time and energy in handling problematic students.

Aim of the study

The aim of the research is to display the reasons why teachers use the strategy of domination in the conflicts between teachers and students and its impact on students with a case study.

Research questions

What are the reasons for teachers' using the strategy of domination in the conflicts between teachers and students and their impacts on students?

METHODOLOGY

Research design

The study is a qualitative one and has been carried out with the method of case study. "The case study research method as an empirical inquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used" (Yin, 1984). "A case study is one of several ways of doing research whether it is social science related or even socially related. It is an in-depth investigation/study of a single individual, group, incident, or community" (Olanike, 2012, p.236).

Data collection and the analysis

The study contains annotations and ratings on a case study and therefore the real names of people on whom this study is based are replaced by pseudonyms. The researcher gave a talk on this subject and then interviewed 35 primary school students aged 13 to 14 who attend the 8th class and asked them to report their experiences of conflicts with their teachers in order to gather useful data for the study. Analyzing student narratives, the most

appropriate case (that is, the one in which a "domination" strategy was used by a teacher in conflicts with his students) was selected.

For the research, a case study method was used to investigate the process of conflict between teacher and students. In order to analyse the situation, individuals were taken into consideration. Observation and interview techniques were applied in order to gather the necessary information for the case study. The model "participant observer", which is a part of the observation technique was used. The participant observers in this case study are Kemal`s classmates Can and Levent. The participant observers Can and Levent were asked to report without any prejudice and neutrally about the incident between Kemal and his teacher Mr. Nuri. The stories reported by the participant observers were taped and written down by the researcher in order to be used as a case study.

Semi-structured interviews were carried out with the participants involved in a conflict and participant observers in order to increase the reliability of the study. The interviews were intended to reveal all perspectives on the conflict, and the feelings of all involved. Thus, it became possible to gather appropriate data. The interviews with the parties involved in the conflict and the participant observers were taped and written down by the researcher for the purposes of analysis.

As part of the "Analysis of the case study", by applying the rules of conflict management and with the data gathered through interviews with the parties involved in a conflict and the participant observers, this case was commented on in order to clarify the dimensions of such conflicts as well as the reasons for them. Descriptive data analysis, which is a part of qualitative data analysis, was used for the analysis of the data gathered through interviews with participant observers and all parties involved in the conflict.

Data on the characteristics of the teacher and students involved in a conflict

It is very useful to know something of the character of both parties involved in a conflict, in this case that of Kemal and Mr. Nuri. Mr. Nuri is 42 years old and he has been working as a mathematics teacher for 19 years. Kemal is 14 years old and is attending the 8th class. Kemal is an introverted character and has difficulty in finding friends. Generally, he is calm and adapts himself to others. As he has a calm and adaptable personality Kemal has hardly any problems with his classmates. Mr. Nuri is a severe and very strict teacher who constantly asserts his authority. Unfortunately, it cannot be said that he is a popular teacher. His students describe him as an angry and authoritarian person.

The observation process for determining the personal and behavioural characteristics of the people in the case study

In order to increase the trustworthiness of the analysis of the case study in the research, Kemal and the teacher Mr. Nuri were observed at school two days per week over the course of one month at the school. Meanwhile, the relationship of Kemal with his friends and his teachers both during the lessons and in the breaks was observed. The relationship of the teacher Mr. Nuri with his students and his behaviours during the lessons were also observed. As a result of the observations made, it was observed that Kemal strengthened his relationship with his friends and enjoyed time with his friends both in lessons and in the breaks. In the lessons, Kemal was very respectful to his teachers. Over the period of observation, he did nothing to disrupt the process of his lessons. However, Kemal was not interested in his lessons. The observation period revealed that though Kemal got on well with his friends and that he was respectful and followed the rules and order

of the classroom, unfortunately he was observed to be unsuccessful as a student. By contrast, the teacher, Mr. Nuri displayed very strict and authoritarian behaviours both in the lessons and outside of them. In lessons, he stuck rigidly to the subject of the lesson and appeared to have no personal relationship with his students. He warned students against improper behaviour in class and he was strict and sometimes angry with his students. The findings at the end of observations reveal that the Mr. Nuri has a strict and even authoritarian personality.

Case narrative

Kemal is sometimes late for class. It cannot be said that he has good marks and the teachers would not say that he is a popular student. Mr. Nuri is Kemal`s mathematics teacher. Kemal was late in class again when this conflict occurred. Mr. Nuri was standing at the blackboard and giving his lesson when Kemal has knocked on the door and entered the class. Kemal apologized for being late and wanted to go to his desk when Mr. Nuri angrily shouted at him: "I am bored with your being late. The others cannot concentrate on the subject matter because of you. You are not a competent student. The next time you are late I will not let you enter the class".

Kemal wanted to explain something; however, Mr. Nuri did not let him talk and ordered him to sit down. For the rest of the lesson, Mr. Nuri concentrated on Kemal. He was annoyed by everything; he was upset when Kemal was talking to his classmates or when he made no contributions to the lesson. Most of the lesson passed, not in teaching, but in the teasing of Kemal. Kemal could not concentrate on the lesson.

After the lesson Kemal went with his classmate Levent to the staff room and wanted to talk to Mr. Nuri. However, though Mr. Nuri was not pleased, he accepted the request to talk with Kemal. Kemal told Mr. Nuri that he was living far away from school and that his family's financial situation was worsening. He added that he had to walk to school every morning and is therefore late for the lessons sometimes. Mr. Nuri listened to him without saying a word and then said: "It makes no difference, the reasons you have listed, this is not an apology. I do not want you to be late again. You will have to bear the consequences, if you are late again". He ended the conversation, not allowing Kemal to say anything further.

RESULTS

Analysis of the case narrative

The conflict reported in this case study occurred between the mathematics teacher Mr. Nuri and his student Kemal. It may be understood that there were many reasons why the connflict between Mr. Nuri and Kemal took place, especially if we take the relationships and data into consideration.

Reasons for conflicts concerning the relationship

Misunderstanding, prejudice, fixed judgments

Kemal has poor marks and is sometimes late for the lesson. Nuri knows these characteristics of Kemal and has his fixed prejudice. Mr. Nuri possibly would not have treated one of his students who has good marks and is

rarely late, in the way he has treated Kemal for the rest of the lesson.

Lack of communication

Mr. Nuri only knows that Kemal is not doing well in school and is late for the lessons. He does not know Kemal's financial situation, his family or his personal problems. This conflict could have probably have been avoided, if Mr. Nuri had known Kemal better. The school has a predominant climate which could also have contributed to the lack of communication between Kemal and Mr. Nuri.

Ongoing Negative Behaviour

There is no doubt that Kemal's negative behaviour, such as his bad marks and his late arrival, prepared the ground for the conflict.

Reasons for conflict concerning data

Lack of Information and Wrong Information

Mr. Nuri does not know the reasons for Kemal`s late arrival at school and believes that Kemal has no particular reason. The lack of information and wrong information Mr. Nuri had had about Kemal led to that kind of behaviour causing such a conflict. The fact is that there is insufficient communication between teachers and students at schools, this means Mr. Nuri and his colleagues either have insufficient information on their students, or indeed no information at all. Such a poor working communication system between teachers and students causes a lot of visible and invisible conflicts between teachers and their students.

This conflict situation between Kemal and his teacher Mr. Nuri can be described as a "potential conflict". This conflict belongs to the group of "potential conflicts" as there were inequalities in Kemal`s and Mr. Nuri`s power and roles. The behavioural characteristics of Kemal and his teacher Nuri were thought to affect the course of Case Study. Therefore, the data obtained in the observation made before the research were also used in the analysis and commendation of the sample case.

There is no doubt that Kemal`s negative personal character laid the foundations for such a conflict. Mr. Nuri was especially annoyed by Kemal because his lesson was interrupted and the students' concentration was disturbed when Kemal was late for the lesson. The following statement from Mr. Nuri`s clearly shows his underlying reaction towards Kemal when he was late again. "Kemal is student who is sometimes late for the lesson. Every time when he is late both my concentration

as well as my students` concentration on the lesson is disturbed. If I did not warn him, then Kemal would be more often late for the lesson. I ignored his behaviour a few times. However, I could not keep ignoring it".

In this conflict situation which took place in the classroom, Mr. Nuri chose the "domination strategy". Kemal was unfortunately not given the chance to declare why he was late and he was subject to insinuating remarks throughout the lesson. Mr. Nuri clearly showed his power over the students. Mr. Nuri`s behaviour made Kemal defend himself. As Kemal could not answer back verbally, he defended himself by acting in a way that would not be acceptable to his teacher. Can, one of the participating observers, was asked to explain his views on the conflict between Kemal and Mr. Nuri for the rest of the lesson. Can`s answers show that Mr. Nuri teased Kemal in various ways and wielded his power over Kemal in an inept way. Can explained:

"Kemal and Levent were sitting next to each other. Our teacher, Mr. Nuri, was annoyed when Kemal entered the classroom. Mr. Nuri teased Kemal throughout the lesson. I do not really think that Kemal did anything to annoy Mr. Nuri. From time to time he was talking to Levent, but very quietly. We all talk to our bench neighbour, don't we? But Mr. Nuri took against Kemal, and was therefore against every single thing he did".

The fact that Mr. Nuri did not know anything about Kemal was possibly one of the most important factors for this conflict situation. Mr. Nuri said that:

"There are too many students in the school. It is impossible to know everyone's problems. I have to treat them all equally. Therefore, I refuse to know about the personal problems of my students".

This lack of communication between Mr. Nuri and Kemal led to an expansion of the conflict situation. However, had Mr. Nuri not refused to know his students personally, this conflict situation between him and Kemal would probably have not occurred. Levent, one of the participating observers, declared:

"Mr. Nuri does not talk to us so often. We only talk with him during the lessons and our conversation is solely based on the subjects. I believe that his behaviour leaves no room for other conversation. He is very strict with us and, as a result, we do not talk to him unless it is about the lesson."

Levent`s words confirmed Mr. Nuri`s own statement. Mr. Nuri`s statement as well as Levent`s opinion show that there is a weak tie between himself and his students. Kemal made a considerable effort to try to solve the conflict situation between himself and his teacher when

he visited his teacher after the lesson in order to explain the reason for being late. However, it is quite clear that Mr. Nuri refused to respond to Kemal's well-intentioned step. In such a case, it would have been better had the teacher shown that he was apologetic about the conflict and let Kemal know that he understood the problem. The golden rule for solving any conflict situation is to make sure that both parties involved in a conflict understand each other and that each party gets the message that they have been fully understood. Kemal does not really believe that his teacher Mr. Nuri understands him. Kemal`s statement on the conflict between him and his teacher Mr. Nuri shows that a certain period of understanding each other is necessary in conflicts:

"I apologised to my teacher about being late and he teased me for the rest of the lesson. I went to the staff room and told him the reason for this incident. He refused to understand me and he became angry".

Kemal believes that the fact that his teacher does not know him personally and the lack of communication between him and the teacher were the reasons why the conflict occured. Mr. Nuri had to show Kemal that he was sorry about the conflict and had to try to find ways to avoid any similar possible conflicts in the future. Mr. Nuri had to solve the conflict by applying a strategy of cooperation and compromise. "Did you talk to Kemal about this conflict afterwards? Did you take any attempts to solve the problem?" were the questions Mr. Nuri was asked and he gave the following answers:

"Kemal explained the situation to me after the lesson. It does not matter what the reasons were, as I do not allow my students to interrupt my lesson. I am sure that after such a conversation Kemal will not repeat this behaviour".

Mr. Nuri is convinced that the way he treated Kemal badly during the lesson, and their conversation after the lesson, has resolved the conflict between him and Kemal. However, Kemal`s statement clearly shows that he was not really happy about the solution: "I really do my best to be on time. I have never missed my lessons intentionally. My teacher does not want to see this fact. Although I explained the situation to him, he was not appreciative of this".

Kemal thinks that he does his best to be on time and believes that there should be another solution for the conflict. After the lesson Kemal and his classmate Levent went together to their teacher. Levent says:

Kemal was really sad about what had happened. Kemal does not want to be late for the lessons. He was really sad to be treated this way for a thing he does not do intentionally. He asked me to accompany him when he wanted to talk to Mr. Nuri and to explain the situation to him. So I accompanied him. However, Mr. Nuri did not understand him. He did not offer any solution and he did not appreciate the problem. This really made Kemal feel sad.

It is clearly revealed that Mr. Nuri applied a domination strategy throughout the whole of the lesson. He also continued to apply this strategy when Kemal tried to talk to him after the lesson. Mr. Nuri ignored Kemal`s views and wishes, thus showing the usage of the domination strategy. There is no doubt that Mr. Nuri`s domination strategy also had a psychological impact on Kemal. Kemal explains his overall experience of the conflict thus: "I feel so sorry because I am late for the lessons from time to time and it made me feel worse to see that my teacher did not understand me. I know that nobody understands my situation in relation to this".

Kemal already regrets the conflict between himself and his teacher as he knows that it is not right to be late for the lessons. However, it made him feel bad to be treated in this way for something which was not intentional. Levent gave the following answer when he was asked about Kemal`s feelings after the conflict situation and how he have behaved for the rest of the day in other lessons: "He was in a bad mood after his conversation with Mr. Nuri. Generally we joke around during the breaks; however, Kemal was in a bad mood on that day. He could not concentrate on the lessons".

Levent`s statement clearly shows that the conflict had been very upsetting for Kemal. For the rest of the day, Kemal was thinking about the situation he had experienced as well as what his teacher had said. Kemal was introverted and vacant as he believed that nobody understood him. His psychology also was also reflected in his response to his other lessons. He could not concentrate on the lessons as he was thinking about the conflict situation all the time. The plot revealed by the Case Study conducted on Kemal and the teacher Mr. Nuri and the behaviours of Kemal and Nuri teacher are in accord with the results of the observation made before the case study. This is also confirmed by the explanations of the participant observers.

Discussion and Conclusions

There are conflict situations in schools as there are in every single institution and organisation. It is of great importance that attempts are made to successfully resolve conflicts, not only for personal reasons, but also for the sake of the institutions, this has to be done as conflicts cannot be ignored or avoided. Conflict situations can negatively affect the teachers´ performance as well as the performance of the institutions. A teacher is successful if he knows his students personally, is proficient in his subject, knows the strategies of learning

and educating and knows how to cope with conflicts successfully. However, if teachers are not proficient in solving conflicts, the effects can be wide-ranging. If it is thought that teachers educate individuals who are part of society, then every single example of negative behaviour on the part of teachers can cause great damage to that society. Therefore, it is of great importance that teachers know the strategies of conflict management.

The dimension of conflict sources

The basis for the conflict between Kemal and his teacher Mr. Nuri is marked by factors such as a lack of communication, misunderstanding, prejudice and fixed opinions, continuing negative behaviour, insufficient and wrong information and misunderstanding of the data. The most frequently seen reasons for the basic conflicts school teachers face are: pressure, proving ones position, lack of information and knowledge and differences in education and culture (Özgan, 2006). This case study shows that it is important for teachers to know their students personally.

The dimension of preferred success strategy and its conclusions

Mr. Nuri made it difficult to solve the conflict by his applying a domination strategy. However, better results for both parts involved in the conflict could have been reached, had Mr. Nuri chosen cooperation and compromise strategies. Empathy was necessary for the right type of conflict management. Knowing Kemal`s problem was the key point for the conflict solving. The organizational model argues that empathic tendencies of the individual may influence specific relationship behaviours such as conflict management (Wied et al., 2007).

Wrong choices made by teachers negatively affect the psychology of students and teachers as well as the relation between teachers and students, and it does not contribute to a solution. The students might think that all communication methods are blocked with the teacher as soon as the teacher applies the domination strategy in conflict situations. In the dominating strategy, one of the parties attempts to impose his/her own resolution to the other party by using his/her power in various ways. In fact, this includes enforcement rather than a resolution (Karip, 2003).

It is clear that by applying this type of strategy the teacher gives the message to his students that all forms of communication are blocked, and all the wishes and opinions of the students are to be ignored. This choice endangers the teacher-student relationship not only for the period of conflict but also longer term. By applying the domination strategy the teacher indirectly tells the student that his/her feelings are not important enough. This makes the student feel that he/she is of little value. Such a psychology will not only reflect on the students' relationship to the teacher but also on all relationships. Those negative feelings might also contribute to a decrease in student achievement in school.

However, the domination strategy seems to affect not only the students but also the teacher may be negatively affected by his/her own choice. Özgan (2006) stated the moods of basic school teachers are also negatively affected by conflicts with their students. Although the rate of negative strategies seemed low, students reported that teachers at times punished students, using corporal punishment, getting angry, complaining about students to the principal, being sarcastic, sending students to the discipline committee, reprimanding and threatening (Atıcı, 2007). The climate in the classroom will probably be changed in a negative way as the choice made by the teachers will lead to a corrupt relationship with their students. This might affect the overall period of education negatively. Teaching in a negative climate and a decline in achievement can put the teachers psychologically under pressure.

The basis for a positive classroom climate is provided by conflict management. Managing conflicts successfully and a positive classroom climate affect the relationship between teacher and students. Research shows that a positive classroom climate is characterized by active and cooperative interaction between a teacher and students who are motivated. The school climate has been widely perceived as a critical factor in successful schools and as a litmus test for student academic achievement (Shin and Koh, 2007).

This case study shows that Kemal was introverted and was not able to concentrate on the lessons as he felt bad. This shows that the domination strategy applied by Mr. Nuri also affected Kemal`s academic achievement. Heydenberk and Heydenberk (2007) explained that the relationship between teachers and students also effects students academically. Roesner et al. (1996) studied the mediating role of attachment or belonging on academic achievement. Students' perceptions of the school environment and students' relationships with teachers shape their school-related beliefs, sense of school belonging, and academic achievement. Özgan (1999) in his master's thesis concerning the effects of an empathic classroom climate and students` achievements found that the achievements of students who believe that there is an empathic classroom climate is at a high level.

The results show that teachers generally chose the domination strategy in conflicts with their students. The fact that teachers do not have enough information about their students and the insufficient communication between teachers and students are contributing to conflicts between students and teachers. The teachers negatively

affect their students' psychology as well as their academic achievement and social relationships by applying the domination strategy. In research on the effects of conflict resolution training on elementary school students, about half of the students involved brought their conflicts to the teacher or applied what the authors assessed as destructive and ineffective strategies in handling conflicts (Atıcı, 2007).

It is absolutely necessary to manage the teacher student conflict correctly in order to create a positive school climate and to conduct the education process effectively. A healthy learning environment can only be realised with the existence of healthy relationships. Because of that, taking these conflicts seriously, to lessen and to manage the conflicts correctly, the formulation of programs in which dramatisations and group therapy are used is advised. The development of the ability to manage conflicts can be through the use of case study analysis (the case studies might be imagined or actual). The participation of both students and teachers together must be provided for. When these programs are organised regularly in schools, the students and teachers will have the chance to get to know each other better and to be closer. This will enable them to prevent conflicts which occur through their not knowing each other.

Conflict of Interests

The author has not declared any conflicts of interest.

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