

# A Study on Teacher's Knowledge Management, Classroom Climate and Learning Attitude

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*Abstract:* This study aims to explore the relations among senior high school teacher's KM style, classroom climate, and student's learning attitude. The purpose of this study attempts to understand the actual situation of senior high school teacher's KM style, classroom climate, learning attitude, and on the other hand, explore their differences of student's background variables. Secondly, the researcher explores the relations among KM style, classroom climate, and learning attitude. The conclusion can be: teacher's KM style from the senior high school students' perception is that the knowledge application is mostly used, then knowledge sharing, and the last, knowledge creation. The classroom climate from the senior high school students' perception is generally positive. The students' learning attitude is active, but should be improved. The senior high school teacher's KM style and learning attitude are closely related. The students' positive classroom climate will benefit the learning attitude, and the learning attitude will convey positive impact on the teacher's knowledge management. Teacher's KM style and classroom climate will have good predict ability to learning attitude.

*Keywords:* senior high school student, teacher's knowledge management, classroom climate, learning attitude. product-moment correlation, one-way ANOVA

## I. Introduction

The mainstream of the 21<sup>st</sup> century is knowledge economy, and it plays an important role in the process of learning. The purpose of knowledge management is to improve one's knowledge content, increase technology, competitiveness, group and individual knowledge communication, sharing, and elevate organizational efficiency.

As a transmitter of cultural knowledge, the teacher has the duty to do knowledge management well while enriching his/her own knowledge.

As for development process, the senior high school students are at the critical point of physical and mental development.

A teacher's way of teaching will deeply influence the students, and then engenders the change of learning attitude and the difference of learning effects (Chang, 1996) [1]. A good relationship between teacher and students will help inspire a student's learning, reduce the problems of classroom management, and sustain the positive classroom climate.

Attitude is an individual's potential psychological response and disposition to the

people, events, and so on (Chang, 1991) [2]. It is also an accumulation of experience and result of learning that guide one's extra behavior. Attitude is a subjective mental status of the action of readiness as well as behavior tendency (Li, 1984)[3]. It affects one's inner readiness towards a specific object (Wang, 2001) [4]. The experts (Huang, 2002[5]; Chen, 2004 [6]; Yang, 2004 [7]; Chuang, 2004 [8]; Tseng, 2004 [9]) discover that learning attitude will significantly influence the result of learning. By proper consultation, the school education can develop a student to establish a positive learning attitude.

## II. Purpose of Study

Four purposes of this study are:

2.1. Understand the actual situation of the senior high school teacher's knowledge management, classroom climate, and learning attitude.

2.2. Explore the difference of the senior high school teacher's knowledge management, classroom climate, and learning attitude from students' background variables.

2.3. Explore the relations among the senior high school teacher's knowledge

management, classroom climate, and learning attitude.

2.4. Explore the important factors of the senior high school students' learning attitude as to offer a reference for classroom management.

### III. Design and Practice of the Study

#### 3.1. The research structure

The structure of this study can be: motivation, purpose, question, and literature review, which attempt to understand the essence and relation of each variable. T test and one-way ANOVA are used to explore the teacher's KM styles of different background variables. Pearson product-moment correlation is used to examine the situation among teacher's knowledge management, classroom climate, and learning attitude. Regression analysis is used to explore the study among teacher's KM styles, classroom climate, and learning attitude.

#### 3.2. Population of research

##### 3.2.1. Sampling

The population of this research is the students of the second grade of the senior high schools in Kaohsiung County and City. Cluster sampling is adopted and divides the students selected into two types: (1) Kaohsiung City and (2) Kaohsiung County. Six schools are selected in the Kaohsiung County and City, which are 12 schools. The students of the two classes of the second grade of the schools selected. Boy students are 382; girl students are 369; total number is 751.

##### 3.2.2. The feature analysis of valid sample.

The questionnaires are 770 units, and 760 unites are received. The percentage is 98.70%. The invalid questionnaires are nine. Thus, the total number of valid questionnaires is 751, which is 98.82%.

#### 3.2.3. Methodology

##### 3.2.3.1. The design of questionnaire content

The methodology adopted is self-made, and covers four parts:

A. Eight questions for two parts in the basic information of the testee.

B. A teacher's KM style is divided into three types: knowledge sharing, knowledge application, and knowledge creation, which are 21 questions.

C. the classroom climate is divided into five types: attitude tension, teacher's support, enjoyment, intrinsic motivation, cooperation, and limited expression, which are 38 questions.

D. the learning attitude is divided into four types: learning motivation, learning environment, learning methods, and curriculum learning, which are 30 questions.

#### 3.2.4. Data analysis

The questionnaires received are numbered in sequence and are registered in the computer. Some questions are missed is taken as missing value, and then processed by SPSS 12. The analysis can be as follows:

##### 3.2.4.1. the descriptive statistical analysis to illustrate the feature

a. The frequency distribution analysis and percentage are used to understand the statistic dispersion of the background of the valid questionnaires.

b. The mean and standard deviation are used to analyze the actual situation of the teacher's KM styles, classroom climate, and learning attitude of the students' perception.

#### B. Hypothesis.

**Hypothesis 1:** The differences of the teacher's KM styles of the students' perception in different background variables.

**Hypothesis 2:** The differences of the classroom climate of the students' perception in different background variables.

**Hypothesis 3:** The differences of the learning attitude of the students' perception in different background variables.

**Hypothesis 4:** The teacher's KM styles and classroom climate of the students' perception are closely related.

**Hypothesis 5:** Classroom climate of the students' perception and learning attitude are closed related.

**Hypothesis 6:** The teacher's KM styles of the students' perception and learning attitude are closed related.

**Hypothesis 7:** The teacher's KM styles of the students' perception and classroom climate are closed related.

### IV. Result and Conclusion

#### 4.1. Conclusion

This study can be concluded as below:

##### 4.1.1. Knowledge application is mostly used, then knowledge sharing, and then knowledge creation in terms of the students' perception of teacher's KM styles.

The KM style is the teacher's KM styles taken to achieve the educational goals and effects. The difference of each teacher's process of socialization and personal belief will change one's knowledge management. The KM styles

will be influenced by one's work experience and then intensified and changed. This study discovers that the high school teacher generally have positive educational believe and the byproduct of this educational work. And the knowledge application is mostly used, then knowledge sharing, and then knowledge creation. This indicates that the teachers' hardworking in teaching in order to pursue a direct effect. It is also worth noting that some teachers adopt knowledge creation for students to adapt the multicultural world.

#### **4.1.2. The positive classroom climate of the students' perception**

This study discovers that the classroom climate is moderate; both tension and learning satisfactory are most strongly perceived. In terms of learning satisfactory, most students feel satisfied about the teacher's instruction, peer's interaction, acquiring the knowledge, and teaching content. The tension can also deeply influence a student. It asks the teacher to rethink: to offer the students a more positive, lovely and warm learning environment may avoid any tensions.

#### **4.1.3. The senior high school students' learning attitude needs to be more active, and more reinforced.**

The learning attitude is one's attitude towards the learning environment, which concerns a learner's positive or negative behavior disposition and mental readiness to each event by his/her competency and experience. Those with better learning attitude have higher evaluation to their work and they devoted themselves more actively. This study discovers that in terms of the learning attitude, the students' learning motivation is better, but there is much space for learning methods.

The researcher discovers that the girl students' attitude is more active than the boys. Those in the class with less student number will be more active than those in the class with more student number. Their learning attitude will be more active if instructed by the younger teachers. This is an interesting phenomenon which reminds the teacher to be more attentive to the individual difference. The arrangement of teacher and student number may significantly influence students' learning attitude, which worth the administrative division's particular attention.

#### **4.1.4. Those senior high school teachers who are young and junior with less student number have better KM styles.**

The researcher discovers that the group whose

class student number ranges around 21-30 has higher scores than the one that ranges around 31-40 in different background variables. The junior teachers' knowledge management performs better, and they tend to adopt knowledge creation teaching. The students will feel new and fresh for the teacher and will learn by analogy.

#### **4.1.5. The female teacher who teaches less than five years and graduates from university tends to have higher classroom climate.**

The researcher discovers that the young and junior female teachers who graduated from university have higher classroom climate than the old and senior male teachers who graduated from the normal university and has more student number. Generally speaking, the female teachers are meticulous and devoted. The junior teachers tend to spend more time on teaching and classroom management. The young teachers are energetic, and have less distance with students. Less student will help the peers' interaction and increase their team cohesion. The teachers who graduated from university are more diverse and tend to proffer different teaching content and life experience. This will help the classroom climate, which is worth the administrative division's particular attention.

#### **4.1.6. The female students who studies in downtown in the class with less student number have active learning attitude.**

Learning attitude is one's inner responsive readiness towards the people and events. This response tends to guide an individual's extrinsic behavior performance. Hence, in terms of learning, the students' learning activity that concerns the people and events (such as the students' attitude to the teachers, teaching materials, and equipment) will have significant impact their learning performance. The researcher discovers that the students who study downtown tend to have more cultural stimulus and their parents are socially and economically superior. Thus, the students in downtown tend to have learning attitude. The girl senior high school students have better learning attitude than the boys.

#### **4.1.7. The more active the teacher's knowledge management is, the more positive the student's learning attitude will be.**

The teachers who has better KM style tend to have better work attitude and tend to identify with their work more. They are more devoted

to their teaching. The researcher discovers that the students' perception to teacher's KM style will be related to their learning attitude. In other words, the more positive the teacher's KM style is, the more he/she will devote him/herself. The school administrative division should reinforce to guide teachers to have accurate knowledge management and educational belief, which will benefit their devotion to work.

#### **4.1.8. The positive classroom climate will have positive impact on one's learning attitude.**

Once the positive relationship between teacher and students is established, it will help inspire their learning, reduce any problems of classroom management and benefit the classroom climate. The teacher should support and participate in students' correct activity and try to pay them moderate expectation. The peers among the teachers should praise, support, and respect one another to develop the students' potential, initiate their learning, guide them to adapt life, and produce their positive learning attitude. The researcher discovers that the classroom climate and learning attitude are closely related.

#### **4.1.9. The students with positive learning attitude tend to convey positive impact on the teacher's KM style.**

Attitude is one's inner responsive readiness towards the people and events, which tend to guide an individual's extrinsic behavior performance. In terms of learning, the students' learning activity that concerns the people and events (such as the students' attitude to the teachers, teaching materials, and equipment) will have significant impact on their learning performance. The researcher discovers that the learning attitude and teacher's knowledge management are closely related. This suggests that the positive learning attitude tends to benefit the teacher knowledge and classroom managements, as well as student's morality and learning performance, which is worth the administrative division's particular attention.

#### **4.1.10. The harmonious classroom climate significantly influences the students' learning attitude.**

The regression predict-ability of this study retains wide support. The research discovers that the teacher's KM style and classroom climate (particularly in Kaohsiung County and City) are predictable for the learning attitude. The variables of each predict ability can be put

into thus sequence from strong to weak: harmony among the students, satisfactory, tension, limited expression, support, teacher's support, and control. The researcher discovers that the positive learning attitude of students in Kaohsiung City have to have positive KM styles from the teachers, who guide the students to have positive learning. Then, the students should have more positive interaction with their peers and teachers, , help each other, love their own learning environment, exclude negative behavior, establish positive interpersonal relationship, and make the teachers willing to teach. The positive classroom climate will help learning attitude and academic pursuits.

## **V. Suggestion**

Some suggestions are made for reference from the research discovery and conclusion.

### **5.1. For the educational administrative division**

#### **5.1.1. Establish the teacher's KM system to elevate his/her professions.**

The researcher discovers that the teachers' KM styles significantly influence classroom climate and learning attitude. Their positive knowledge management will help elevate their teaching. However, it is worth noting that only very small number of teachers will adopt knowledge creation in their teaching. This is worth the education authority's attention. In this changeable society, the teachers have heavy and tough workload, which can be discerned from the retired tendency. However, they have great duty for the offspring and their teaching attitude should be more cautious and careful. The educational authority should esteem the teachers' independence in teaching, mentally affirms and praise them in order to lift their morale. More in-service training programs should be held to reinforce a teacher's professional belief, and on the other hand, activate his/her teaching attitude. The teacher can achieve self-learning and organizational learning mechanism from Internet and informative technology to achieve the students' educational goals.

### **5.2. For the administrative division**

#### **5.2.1. Reinforce the teacher's knowledge management**

The researcher discovers and concludes that the teachers fail to make best use of Internet. In this era of knowledge economy, it is

difficult to acquire sufficient knowledge and skills. Teachers should reinforce their informative ability and broaden and deepen their knowledge for better teaching if they feel helpless in teaching.

### **5.2.2. Encourage the teacher's further education to elevate his/her own KM ability**

As the proverb goes, "diligence is more important since the knowledge is too vast." A school should encourage the teacher's further education to elevate knowledge ability, and arrange in-service training programs for them, encourage them to offer innovative teaching through further education and in-service training. Then, the acquisition of knowledge, sharing of knowledge, group learning, organizational learning, and creative learning will thus be achieved. A school should constantly hold presentation of each teacher's result to encourage the teachers to create the knowledge. Moreover, the teachers should constantly reflect how to improve the efficiency of teaching, create teaching content, and form organizational culture.

### **5.3. For high school teachers**

#### **5.3.1. Emphasize the informative ability, team learning, and creative learning**

This research discovers that most high school teachers do not have sufficient informative ability. In this era of knowledge economy, a teacher should constantly keep acquiring new concepts, new thoughts, and new knowledge to fit this trend. Teachers should improve their own computer skills and acquire new knowledge through Internet and upload their feedback and creative knowledge to the resource center of teaching. Teachers can discuss with one another to renew the knowledge.

#### **5.3.2. Encourage the teachers to constantly acquire, share and apply new knowledge.**

In this era of knowledge economy, one is supposed to acquire broad knowledge. Except better informative skills, one should organize learning to create and increase the values added. The organizational members' successful experience is the important asset of an organization, and it allows connecting humans and informative technology. The organizational learning plays an important function for the knowledge workers; we should pay the sharers of knowledge with higher support and affirmation. Once one loves to share, the

knowledge power and efficiency will be maximized.

#### **5.3.3. Emphasize on classroom management and cultivate better classroom climate to elevate students learning ability.**

This research discovers that the high school students' classroom climate significantly influences their learning. And the teacher's personality will create and influence the classroom climate, which is what a student will get involved at school. For the high school students, the school offers them the essential psychological support—which will cultivate their life thought—and one's life experience and opportunity for his/her growth and development. Hence, it's important for the school to offer a good learning environment. For this, the educational authority should prudently select the teachers because it is the mediator and shaper of classroom climate. Moreover, it should offer the teachers with more administrative service and elude any irrational disturbance on teaching, which will make them more concentrated to create positive classroom climate and good learning environment.

#### **5.3.3. Teachers' new concepts, multiple teaching, and positive interaction create the merry parent-teacher cooperation.**

As this research indicates, the teacher's knowledge management, classroom climate, and learning attitude are closely related and influence. Teachers should have new concept of knowledge management, and proper teaching attitude. They have professional and independent space to face any new challenges. They begin with the classroom and make it feel like home, a place of warm and freedom and flexible teaching. The multiple teaching will make the teachers absorb new knowledge, constantly keep us learning and pursuing further education, reinforce the interaction between teacher and students, and learn from each other. Teachers should reinforce their own teaching profession, informative profession, English teaching profession, elevating their own cognitive and keeping the same pace with this changeable world. They must be the creator as well as the practitioner. The teachers play the main role in the classroom management, earnestly communicate with the parents, offer effective teaching strategies, create merry climate of parent-teacher

cooperation and shape a good image of an educator.

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