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I am submitting herewith a thesis written by Ya-Ching Chang entitled “Students’ Perceptions of Teaching Styles and Use of Learning Strategies.” I have examined the final electronic copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Science, with a major in Educational Psychology.

Schuyler Huck, Major Professor

We have read this thesis
and recommend its acceptance:

Katherine H. Greenberg

Sherry Bain

Accepted for the Council:

Carolyn R. Hodges
Vice Provost and Dean of the Graduate School

(Original signatures are on file with official student records.)

Students' Perceptions of Teaching Styles and Use of Learning Strategies

A Thesis Presented for the
Master of Science
Degree
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Ya-Ching Chang
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DEDICATION

This thesis is dedicated to my father,

Ming-Chao Chang,

for giving me his love and support throughout graduate school.

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ABSTRACT

The study was conducted to investigate Taiwanese junior high school students' perceptions of their teachers' teaching styles and the students' own use of learning strategies and to determine if there was a significant relationship between perceived teaching style and learning strategy use. The data for this study were gathered from a sample of 95 junior high school students enrolled in four Chinese language classes at Yuanlin Junior high school. The students completed the Junior High School Teacher's Teaching Style Questionnaire and the Taiwanese version of the Motivated Strategies for Learning Questionnaire.

The findings from this study led to the following conclusions: (1) the students preferred to use learning strategies that enabled them to use time well and choose environments conducive to learning. Moreover, they preferred to seek assistance from their teachers or classmates when encountering learning difficulties; (2) gender differences in learning strategy use were not significant. Among nine learning strategies, male and female students both exhibited more use of strategies for Effort Management, Help-seeking, and Time and Study Management; (3) the dominant teaching style, as perceived by the students, was indifference; (4) the results revealed that there were no significant relationships between students' perceptions of teaching styles and learning strategy use.

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CHAPTER 1

INTRODUCTION

The Nine-Year Integrated Curriculum, a curriculum reform for elementary and junior high school students, aims to improve the quality of education in Taiwan. It has been designed to enhance students' ability to learn; moreover, every student is expected to learn. In the current era of high stakes testing, however, teachers often "teach to the test" and spend little time helping the student learn how to learn. In order to improve the academic performance of all students, teachers need to help students develop effective learning strategies. As research suggests, effective use of learning strategies can greatly improve student achievement (Protheroe & Clarke, 2008).

Students may choose inappropriate learning strategies or may approach learning with few strategies and use only these ineffective strategies while tackling a task, even when their methods repeatedly lead to failures. For this reason, Pressley & Harris (2006) suggested that educators can implement "strategies instruction," a useful approach to teaching learning strategies. Strategies instruction can be embedded in content-area classes; it can be a part of the teaching-learning process.

Personal behaviors and characteristics in the teaching-learning process indicate the way educators teach (Grasha, 1996) and show that various teaching styles exist. Teachers vary in how they manage their classes, how they interact with their students, and how they view their roles as educators. When classroom teachers show learners how to select and use appropriate strategies, they display their own preferred teaching styles. Thus, teaching styles

affect not only instructional strategies adopted by teachers but also students' learning abilities.

Instead of relying on their preferred teaching style, teachers should understand that one style of instruction may not meet the needs of all students. Students differ in the way they approach the learning process and deal with various learning activities (Callahan, Clark, & Kellough, 2002). One good way to have teachers consider individual learning differences and recognize the need to modify their own teaching style is to have them learn from the student's perspective.

Much research has been devoted to teaching styles and learning strategies in higher education. There is little research, however, concerning junior high school students' perceptions of their teacher's teaching styles and their use of learning strategies.

STATEMENT OF THE PROBLEM

Researchers have studied the ways in which learners perceive teaching styles and how these perceptions impact learning. However, most studies have focused on teaching styles in adult education. Moreover, these studies have not examined junior high school students' perceptions of educators' teaching styles. Even though researchers have also been interested in the use of learning strategies and have suggested that students can benefit from effective learning strategies, research has not reported on the literature suggesting that the majority of junior high school students are taught to use various learning strategies or that junior high school students' perceptions of teaching styles influence their own strategy use.

The purposes of this study are to investigate students' perceptions of Taiwanese junior high school teachers' teaching styles, to examine these students' use of learning strategies, to determine if there is a difference between gender and the use of learning strategies, and to see

if there is a relationship between students' perceptions of teaching styles and their use of learning strategies.

RESEARCH QUESTIONS

This study investigates four questions related to the teaching styles of junior high school teachers and the learning strategies of junior high school students:

1. What learning strategies do junior high school students use most to tackle academic tasks?
2. Is there a difference between male and female students in their preferred learning strategies?
3. What is the main teaching style of junior high school teachers, as perceived by students?
4. Is there a relationship between the teaching styles perceived by students and students' own use of learning strategies?

RATIONALE

To help students become strategic learners, educators should be aware of a student's learning strategy use and have flexible teaching styles. The results of this study can be used to provide junior high school teachers with the knowledge that students may approach learning in different ways. Moreover, knowing how students perceive teaching styles may help educators see their role from a different viewpoint and understand the importance of reflecting on as well as adjusting their teaching styles. By gaining an awareness of students' strategy use, teachers may realize that it is important to teach various learning strategies according to specific needs.

According to Callahan, Clark, and Kellough (2002), teachers must modify their

teaching styles and teach a wide repertoire of strategies. One teaching style cannot be used with all students. For learning to take place, teachers need to use various teaching styles and to help students, including those with learning difficulties, develop their own learning strategies and use these strategies effectively and efficiently.

DELIMITATION

The study was delimited to Taiwanese junior high school students who volunteered to participate. The results are generalized to the participants.

ASSUMPTION

It is assumed that junior high school students who participated in the study completed the Junior High School Teacher's Teaching Style Questionnaire and the Motivated Strategies for Learning Questionnaire and responded to them truthfully.

DEFINITION OF TERMS

1. Teaching Style – “The overall traits and qualities that a teacher displays in the classroom and that are consistent for various situations can be described as teaching style” (Conti, 1989, p. 3).
2. Learning Strategy – This can be defined as learners' behaviors that are intended to “control and regulate their own cognition” and can be used for “the processing of information and controlling other resources besides their cognition” (Pintrich, Smith, Garcia, & McKeachie, 1993, p. 802, 803).
3. Junior High School Student – A student enrolled in grades 1 through 3 in a junior high

school after graduating from an elementary school (equivalent to grades 7, 8, and 9 in the USA).

ORGANIZATION OF THE STUDY

Chapter 1 introduces the need for awareness of teaching styles and students' learning strategies. This chapter also describes the problem of the study, research questions, and the rationale of the study. The delimitation and assumption are mentioned as well.

Chapter 2 presents a review of literature concerning teaching styles and learning strategies, including definitions of various teaching styles and learning strategies. The review also includes research on teaching style and student learning, students' perceptions of teaching styles, learning strategies and student learning, and students' use of learning strategies.

Chapter 3 outlines the methods and procedures used to conduct the study. The sample and the instruments are presented. Chapter 3 also details the data collection procedures, usable data, and the method of data analysis.

Chapter 4 provides the quantitative analysis.

Chapter 5 includes a summary presenting the major findings, conclusions, and recommendations.

This study also includes a list of references as well as an appendix, which provides the questions from the Junior High School Teacher's Teaching Style Questionnaire and the Motivated Strategies for Learning Questionnaire. The permission to conduct the study and IRB material are also included in the appendix.

CHAPTER 2

LITERATURE REVIEW

The literature review is divided into three parts. Part one presents literature regarding teaching styles. It is subdivided into teaching style, teaching style and student learning, and students' perceptions of teaching styles. The second part reviews literature related to learning strategies. The components for this part include learning strategies, learning strategies and student learning, and understanding students' use of learning strategies. Part three provides a summary of this chapter.

TEACHING STYLE LITERATURE

Teaching Style

Various researchers have stressed different aspects of styles in teaching. Gregorc (1979) indicated that a teaching style “consists of a teacher’s personal behaviors and the media used to transmit data to or receive it from the learner” (p. 22). Teaching style refers to educators’ behaviors as they teach in the classroom (Genc & Ogan-Bekiroglu, 2004).

Educators’ personal qualities are considered persistent (Conti, 1989; Shieh, 2005). According to Conti, “the overall traits and qualities that a teacher displays in the classroom and that are consistent for various situations can be described as teaching style” (p. 3). Fischer and Fischer (1979) similarly defined teaching style. They stated that the teaching style of an instructor might persist even when he or she uses several different teaching

techniques and methods.

How teachers teach is related to how they learn. “Research supports the concept that most teachers teach the way they learn” (Stitt-Goheds, 2001, p. 137). Dunn and Dunn (1979) claimed that teachers’ teaching styles correspond to their learning styles. Based on their personal learning experiences, teachers tend to teach students how they themselves learn the best and introduce learning strategies that have benefited their own learning. The same learning strategies, however, may not work well for all of their students. Therefore, Dunn and Dunn indicated that teachers should adjust their preferred way of teaching to reach each student.

Grasha (1996) supported the idea of viewing teaching style in terms of its elements. He define teaching style as several elements that teachers demonstrate in every teaching-learning moment—behaviors, roles, instructional practices, characteristics, and beliefs. He was in agreement with Dunn and Dunn and claimed that educators should modify their teaching styles so as to meet the needs of all students.

Teaching Style and Student Learning

Few can deny that every student learns and responds to information uniquely. To better serve a student’s learning needs, researchers have discussed the role of teaching style in student learning. Many of those researchers support the view that matching teaching and learning styles improves student achievement (e.g., Stitt-Gohdes, 2001; Henson, 2004; Hou, 2007). Zeeb’s (2004) research indicated that aligning learning styles of students with teaching styles of instructors could lead to an improvement in academic performance. He examined how junior high students learned and how their teachers taught and found that

there was a disconnect between students' learning styles and their teachers' teaching styles. Zeeb used the information obtained from assessing learning and teaching styles to help teachers modify their teaching styles to accommodate varying learning preferences, which resulted in improving students' test scores.

Farkas (2003) investigated the effect of teaching styles on two groups of seventh-grade students. Students in the experimental group preferred similar learning styles and were taught according to their preferences, while the control group was taught with a conventional teaching style. In this study, the students in the experimental group, who received a teaching style that matched their preferred learning styles, outperformed the control group academically. The experimental group also showed more positive attitudes toward learning, more understanding of people's feelings, and an increased ability to transfer what they had learned from one area to another.

Researchers have classified teaching style in many ways and have considered certain teaching styles more effective in improving student learning. Curtin (2005) studied a group of English as a Second Language (ESL) students and their teachers and categorized teaching styles as didactic and interactive. Didactic teachers make most of the decisions in the classroom, emphasize teaching the content, and put students in a passive role. On the other hand, interactive teachers allow for the diverse learning styles of their students, place much emphasis on the teaching and learning process, and expect students to be active learners. The findings of Curtin's study suggest that teachers who adopt an interactive teaching style can better meet the unique needs of their ESL students. The interactive instructors utilized more cooperative learning strategies along with numerous activities that worked best with ESL students.

Research conducted by Chang (2002) indicated that a constructivist teaching style affects students' perceptions toward physics teaching and learning. Chang explored views of students who were instructed with a constructivist approach and a traditional approach. Students placed more value on having the opportunity to actively participate in group discussions and to examine concepts they learned when they were taught through the constructivist approach rather than the traditional approach. The study suggested that the constructivist teaching style fosters greater flexibility in teaching, and brings about students' use of deep learning strategies (thinking and discussing) and knowledge construction. In contrast to Chang's study, Kim's (2005) research in Korea indicated that even though students who received a constructivist teaching style for nine weeks had greater use of learning strategies than those who received a traditional teaching style, there was no significant difference between learning strategies used by these two groups. More experience with the new teaching style would help determine the effect of that new teaching style.

Results of research on problem-based learning (PBL) have revealed that this learner-centered teaching style promotes the self-regulated skills of students. Sungur and Tekkaya (2006) administered the Motivated Strategies for Learning Questionnaire to 61 high school students and divided them into two groups. The control group was taught using a traditional teaching style while the experimental group received a PBL approach. Teachers who utilized PBL placed emphasis on learner-centered instruction and on teaching students how to learn. The researchers found that the PBL approach positively affected learners' intrinsic goal orientation and their perceptions of learning biology. In addition, PBL students used more cognitive and metacognitive strategies than did the control-group students. The results revealed the influence of different teaching styles on students' use of learning strategies.

In looking at the aforementioned examination of teaching styles, one can see that several studies have shown that students have greater learning gains when their teacher takes account of the learners' needs to experience meaningful learning, encourages active engagement, empowers students to direct their own learning, and demonstrates flexibility in his or her teaching styles.

Students' Perceptions of Teaching Styles

Since student achievement is influenced by factors other than the teacher's actions, it is also important to understand students' perceptions of teaching styles, as these relate to their own learning. Accordingly, research studies have been conducted to examine students' perceptions of teaching styles. The studies enable educators to be aware of students' perspectives and to recognize the need to make adjustments in teaching.

In a study conducted by Norzila, Fauziah, and Parilah (2007), 175 college students took a questionnaire adapted from Grasha's Teaching Style Inventory (1996) to see if there were differences between students' perceptions and preferences of their English language lecturers' teaching styles. The researchers found that there were no gender differences in students' preferred and perceived teaching styles. However, students preferred learner-centered teaching styles, whereas the most frequently used teaching styles of lecturers were teacher-centered in nature.

Hughes (2009) researched the relationships between teaching styles perceived by students and teaching styles adopted by instructors. A total of 117 students participated in the study and were put into either a control group or an experimental group. The instructor taught control-group students pre-calculus with a conventional lecture-based approach. On

the other hand, two instructors in the experimental group adopted a teaching style that increased student involvement; they also provided real-life examples and sufficient time for students to learn a concept by asking questions. The results showed a significant difference in students' perceptions of teaching styles between the control group and experimental group. The results also revealed that students felt they learned better when instructors employed a teaching style that was more interactive than when instructors adopted a conventional lecture style.

Chen (2008) developed an instrument for investigating junior high school students' perceptions of their teachers' teaching styles as part of his thesis project. He produced the Junior High School Teacher's Teaching Style Questionnaire in an effort to classify teaching styles of educators (i.e., authoritarian, democratic, laissez-faire, or indifferent), based on Sun's (2007) teachers' discipline style inventory. In his research of 1,587 students, Chen found that the most prevalent teaching style perceived by students was the indifferent teaching style. The findings of the study showed that there were significant differences between students' perceived teaching styles and their academic achievement. Students who perceived that their teachers employed an authoritarian or a democratic teaching style scored higher on tests than students who perceived a laissez-faire or an indifferent teaching style. Chen concluded that students performed better academically if they felt that their teacher established rules to manage their learning, but at the same time listened to students' opinions toward learning and gave them feedback.

Several research studies have been conducted to determine if there are differences between teachers' and students' perceptions of teaching styles. McCollin (2000) used the Principles of Adult Learning Scale (PALS) to investigate instructors' teaching styles. The

PALS was also adapted to measure teaching styles as perceived by students. The sample consisted of 84 faculty members and 585 college students. The data analysis, utilizing an independent t-test, indicated a significant difference between instructors' self-perceived teaching styles and students' perceptions of teaching styles. In another study, Kulinna, Cothran, and Zhu (2000) also examined teachers' perceived teaching styles. The researchers compared the results of their study with those of Cothran, Kulinna, and Ward (2000), since the latter investigated college students' views of teaching styles. The study revealed, again, that teachers' and students' perceptions of teaching styles differed significantly. Teachers used slightly more styles than students observed. The study also showed that teachers and students valued different teaching styles; however, the two groups had different opinions about which teaching styles enhanced motivation and learning. Gifford (1992) also studied how instructors and students viewed teaching styles. Her research participants were 34 instructors and 519 adult students. Gifford discovered that there was a disparity between faculty's and students' perceptions of teaching styles.

Summary

Teaching style has been extensively studied, which has increased the understanding of the relationships among how teachers instruct, how students learn, and the types of teaching styles better suited to promote learning in classrooms. Researchers have examined students' perceptions of their teachers' teaching style and suggested that these perspectives are influential in learning.

LEARNING STRATEGY LITERATURE

Learning Strategies

Effective learning requires students to take control over of their learning process and know how, when, and where to use various learning strategies. Many researchers have studied what learning strategies are, but a universal definition of learning strategies is not available.

Schumaker and Deshler (2006) define learning strategies as the way a learner engages in a task, including how an individual plans and regulates his or her performance. According to Riding and Rayner (1998, p. 80), “A learning strategy is a set of one or more procedures that an individual acquires to facilitate the performance on a learning task.” Riding further stated that one may use different strategies to tackle different tasks.

According to Pressley, Forrest-Pressley, Elliot-Faust, and Miller (1985), learning strategies are

composed of cognitive operations over and above the processes that are natural consequences of carrying out the task, ranging from one such operation to a sequence of interdependent operations. Strategies achieve cognitive purposes (e.g., comprehending, memorizing) and are potentially conscious and controllable activities.
(p.4)

Mayer (1988) agreed that learning strategies refer to those student actions that are deliberate and have an effect on how students learn and understand information.

Learning strategies are cognitive processes, metacognitive processes, techniques, procedures, or behaviors used to facilitate learning (Ko, 2002). Nisbet and Shucksmith (1986)

indicated that individuals usually use learning strategies with a specific purpose in mind but are unlikely to always use them consciously. Students may spontaneously choose learning strategies to help them learn. In other words, students use learning strategies either consciously or unconsciously to assist in learning more effectively or “transfer of new knowledge and skills” (Weinstein, Husman, & Dierking, 2000, p. 727).

Learning Strategies and Student Learning

Learners “differ in their skill at using learning strategies” (Riggs & Gil-Garcia, 2001, p. 8). In short, students approach learning in different ways. Some students possess a wide range of learning strategies and can use them flexibly; however, some students have trouble learning because they lack effective learning strategies for completing a task. Riggs and Gil-Garcia stated that effective learners have a better awareness of strategies that are necessary to help them learn.

A study conducted by Wang (2002) showed that skilled learners used more learning strategies and used these strategies more frequently to facilitate their own learning than did less-skilled learners. Protheroe and Clarke (2008) concurred that effective learners implement a broad array of learning strategies.

In Montague and Dietz’s (2009) review of cognitive strategy instruction as related to mathematical problem solving, the researchers indicated that strategic learners could use a variety of learning strategies efficiently and effectively. On the contrary, they found that students with learning disabilities did not have effective learning strategies or might not have been able to employ appropriate learning strategies to solve mathematical problems. These students often chose strategies that impeded their academic performance.

The use of learning strategies makes a difference in student learning. Wadsworth, Husman, Duggan, and Pennlington (2007), in their research on learning strategies used by students, found that learning strategy use was associated with academic achievement. Their learner population consisted of 89 college students who were asked to complete a learning strategies inventory. The researchers suggested that students' self-efficacy and use of strategies can affect achievement. The results revealed that students who frequently used learning strategies achieved higher grades than those who used strategies less often.

In a study conducted by Holschuh (2000), 518 college students answered a strategy checklist that measured their use of learning strategies in a biology class. The purpose of the study was to examine differences between high-achieving and under-achieving students' strategy use. Holschuh found that high-achieving learners used a greater number of deep strategies than under-achieving learners. They also used more content-specific learning strategies, which suggests that these students know better how to select strategies that meet their learning needs. In addition, these high-achieving students were able to describe the reason for using certain learning strategies to help them learn science.

Tsai and Tsai's (2003) research found that learning strategies play an important role in computer achievement. They studied a group of junior high school students enrolled in two computer classes and discovered that strategies used by students helped them to understand learning material, choose main ideas and other useful information, and monitor their learning. Specifically, students who were effective users of these learning strategies typically performed better academically. Tsai and Tsai also found that these students were less anxious and more positive about computer learning.

Understanding Students' Use of Learning Strategies

Teachers need to be aware of the strategies adopted by their students. This awareness allows teachers to design and implement learning strategy instruction and helps teachers raise their own awareness of strategies used by students.

The teacher is a crucial factor in helping individuals develop effective learning strategies and become strategic learners. By knowing students' use of learning strategies, the teacher can recognize learners' strengths and weaknesses and adjust instruction accordingly. Teachers will be able to teach individual students to use learning strategies appropriately and effectively if they identify and accommodate the strategy use of students in relation to their genders (Ray, Garavalia, & Gredler, 2003; Liu & Lin, 2010) and their learning abilities (Pressley, Goodchild, Fleet, Zajchowski, & Evans, 1989). Increasing teachers' awareness of students' strategy use can lead to successful learning and teaching. It is possible, though, that teachers are not sensitive to student learning or make incorrect assumptions concerning learning strategy use (Arabsolghar & Elkins, 2001; Griffiths & Parr, 2001). If teachers overestimate or underestimate students' ability to use learning strategies, they may have problems identifying learning difficulties experienced by their students, and thus fail to provide appropriate learning assistance. In turn, this would impede student learning.

Researchers have demonstrated the effectiveness of learning strategy instruction (e.g., Katims & Harmon, 2000; Monroe & Troia, 2006). To provide a strategy instruction that is beneficial to students from diverse backgrounds, teachers should know the use of learning strategies by learners (Protheroe, 2002). According to Lenz (2006), it is very important for educators to pay attention to strategy use. He suggested that educators needed to ensure that their students could select and apply the effective learning strategies that they were taught in

the class. Martin (2005) agreed that understanding what strategies students used in the classroom was important. As she pointed out, every teacher has had ineffective or less capable students in his or her classrooms. She indicated that teachers could use this information to address students' ineffective use of learning strategies. This information enables teachers to incorporate appropriate teaching of learning strategies into the content-area curriculum.

Summary

There has been considerable study of learning strategies. Researchers have explored ability differences in selecting and employing learning strategies, and they have sought to discover the relationships between strategy use and student learning. In order to provide instruction that tailors to individual needs, teachers should understand students' knowledge of strategies for learning.

SUMMARY OF THE CHAPTER

This literature review shows that teaching style and learning strategy have been defined in many ways. Research has shown that teaching students to use learning strategies is necessary to ensure a successful learning experience. It is similarly crucial for teachers to know their own teaching styles from students' standpoints because students are aware of and also influenced by their teachers' teaching styles. The clarification of the relationship between students' perceptions of teaching styles and usage of learning strategies will offer educators suggestions that will be helpful in modifying their teaching styles. It will also help educators consider how to provide instruction that intends to encourage junior high school

students to develop meaningful learning strategies. Nevertheless, none of the studies in the literature conducted in Taiwan explored this relationship.

CHAPTER 3

METHODS AND PROCEDURES

The purposes of the present study were to investigate Taiwanese junior high school students' perceptions of their teachers' teaching styles and students' own use of learning strategies and to determine if there was a significant relationship between perceived teaching style and learning strategy use. This chapter describes the sample and the instrumentation employed in the study, explains the approval procedures and the data collection procedures, and provides data analysis.

POPULATION

The sample chosen for the study came from one public junior high school located in the mid-western part of Taiwan. A total of 124 second-grade students (equivalent to 8th grade in American school systems) enrolled in four Chinese language classes were invited to take part in the study and were given parental consent forms and student assent forms. Ninety-nine students' parents responded and granted permission to let their children be volunteer participants. The students ranged in age from 14 to 15, though a majority of the students were 14 years old. The sample included 53 male and 46 female students. All of the participants are Taiwanese.

INSTRUMENTS

Overview of the Junior High School Teacher's Teaching Style Questionnaire

Clearly determining one's teaching style from students' perspectives is beneficial for a teacher to improve instruction and increase student learning. The Junior High School Teacher's Teaching Style Questionnaire developed by Chen in 2008 can effectively measure these perceptions (See Appendix A for English translation). Chen's questionnaire is based on Sun's (2007) classification of teachers' disciplinary styles and can be used specifically to measure junior high school students' perceptions of their teachers' teaching styles.

The Junior High School Teacher's Teaching Style Questionnaire categorizes teachers as authoritarian, democratic, laissez faire, or indifferent. The description of each of the categories is as follows:

Authoritarian Teaching Style

The authoritarian teachers are accustomed to having authority. They establish all class rules and specify consequences for rule violations.

Democratic Teaching Style

Even though the democratic teachers set firm expectations for student behavior and learning, they tend to be flexible and respond to various needs of students. Students are given more freedom to make decisions in the teaching and learning environment.

Laissez Faire Teaching Style

On one hand, teachers who exhibit this teaching style are described as caring and nurturing because they provide their students with emotional support. On the other hand, they place more emphasis on independent learning and rarely set expectations for students.

Indifferent Teaching Style

The indifferent teachers focus on their personal work. They rarely spend time with or pay attention to students beyond class time. They offer little or no emotional support. Furthermore, these teachers rarely establish rules to control students' learning experiences.

Junior High School Teacher's Teaching Style Questionnaire

The Junior High School Teacher's Teaching Style Questionnaire is a 29-item instrument that assesses students' perceptions of their teachers' teaching styles. (Questions from the Questionnaire can be found in Appendix B.) The instrument is divided into four categories: democratic (11 items), authoritarian (9 items), laissez faire (5 items), and indifferent teaching styles (4 items). Each category reflects one type of teacher behavior. Respondents answer items using a 5-point scale of never (1 point), seldom (2 points), sometimes (3 points), often (4 points), and always (5 points). For negative items, responses are scored as follows: never = 5, seldom = 4, sometime = 3, often = 2, always = 1. A category score is determined by calculating the average value of all responses for the items in the category. Each mean score is associated with a teaching style; a total of four mean scores obtained are compared. The highest score on a category indicates the most frequently perceived teaching style (Chen, 2008).

To test reliability, the internal consistency of the questionnaire was assessed by Cronbach's alpha. The reliability coefficient was found to be 0.93. The reported values of the four categories were .90 for democratic, .89 for authoritarian, .86 for laissez faire, and .81 for indifferent teaching styles (Chen, 2008).

The construct validity of the questionnaire was examined using factor analysis

(principal components analysis with Promax rotation). The Kaiser rule was used to decide which items would be deleted. Promax rotation was applied to obtain four clear factors with correlated constructs (democratic, authoritarian, laissez faire, and indifferent teaching styles), with a total variance of 53.148% (Chen, 2008).

Overview of the Motivated Strategies for Learning Questionnaire

Different versions of the Motivated Strategies for Learning Questionnaire have been widely used in many countries and with students from diverse backgrounds. The 85-item questionnaire (Pintrich, Smith, & McKeachie, 1989) originally designed to measure motivational beliefs and learning strategy use of college students was translated by Wu and Cherng (1992) for use with elementary and junior high school students in Taiwan. The questionnaire includes motivation scales and learning strategies scales, which can be used together or separately. In the present study, only the learning strategies section was utilized (See Appendix C).

The learning strategies section consists of cognitive strategies and resource management strategies.

The cognitive strategies include five scales:

Rehearsal

Reflects students' use of strategies to recall and repeat learning material.

Elaboration

Includes summarizing information and putting ideas into one's own words.

Organization

Concerns students' use of strategies to make connections across learning experiences

Critical thinking

Reflects how learners question or analyze statements and concepts learned in class.

Metacognition

Concerns how students set learning goals and monitor/regulate the learning process.

The resource management strategies include four scales:

Time and Study Management

Refers to strategies students use to manage their time and learning environments.

Effort Management

Reflects students' commitment to achieve their learning goals even when there are difficulties.

Peer Learning

Includes strategies students use to work with their friends and classmates.

Help-seeking

Involves how students seek assistance from their teachers and classmates in the learning process.

Motivated Strategies for Learning Questionnaire (MSLQ)

The Taiwanese version of the Motivated Strategies for Learning Questionnaire (Wu & Cherng, 1992) was used in the present study to identify learning strategy use of junior high school students (items from the Questionnaire can be found in Appendix D). It is a self-scored instrument adapted from the MSLQ developed by Pintrich, et al. (1989).

The learning strategies section of the MSLQ contains two categories with 43 items. Cognitive Strategies include five scales: Rehearsal (4 items), Elaboration (6 items),

Organization (4 items), Critical Thinking (5 items), and Metacognition (10 items). The category of resource management strategies includes four scales: Time and Study Management (5 items), Effort Management (3 items), Peer Learning (3 items), and Help-seeking (3 items). Each item represents a statement concerning the use of learning strategy. Students respond to the items using a 7-point Likert-type scale, ranging from 1 (not at all true of me) to 7 (very true of me). Some negative items are reverse-scored. For these items, a score of 7 is transformed to a score of 1; a score of 6 is transformed to a score of 2, and so on. Any scale score is calculated by taking the mean of the responses to all items in the particular scale (Wu & Cherng, 1992).

The original MSLQ is believed to have sufficient reliability and validity (Pintrich & Johnson, 1990). A reliability analysis was also carried out by Pintrich, et al. (1989) to evaluate internal consistency of the scales of the MSLQ. The values ranged from .65 for Rehearsal to .91 for Task Value. In order to develop a Taiwanese version of the MSLQ, Wu and Cherng (1992) conducted a study to establish the internal consistency and test-retest reliability of the translated instrument. They administered the adapted version to 921 elementary and junior high school students in Taiwan. As to the test for internal consistency, the subscale reliability coefficients ranged from .55 for Extrinsic Goal Orientation to .87 for Metacognition. Test-retest reliability was obtained with a sample of 75 students. The value ranged from .57 for Rehearsal to .87 for Elaboration.

Validity of the MSLQ has been examined by measuring the intercorrelations among the scales of cognitive strategies and among the scales of resource management strategies. The intercorrelations among the scales were significant ($p < .001$) and ranged from .43 to .74. With respect to the predictive validity of the scales, they were successful in predicting

academic achievement. Positive correlation of test scores was found with Rehearsal ($r = .18, p < .01$), Elaboration ($r = .20, p < .01$), Organization ($r = .16, p < .01$), Critical Thinking ($r = .21, p < .01$), Metacognition ($r = .20, p < .01$), Time and Study Management ($r = .32, p < .01$), Effort Management ($r = .17, p < .01$), Peer Learning ($r = .17, p < .01$), and Help-seeking ($r = .16, p < .01$).

The Use of Motivated Strategies for Learning Questionnaire

Lynch (2008) administered the Motivated Strategies for Learning Questionnaire (Pintrich & Garcia, 1991) to 320 college students to investigate their learning strategy use in each student's most difficult class and discovered gender differences. The results revealed that female students reported using fewer Critical Thinking strategies than did male students. Nevertheless, females used Rehearsal, Elaboration, Organization, and Metacognitive strategies more frequently than males.

Jacobson and Harris (2008) employed the Motivated Strategies for Learning Questionnaire developed by Pintrich, Smith, Garcia, and McKeachie (1991) to determine if differences existed between traditional and non-traditional college students' use of strategies. The researchers found that non-traditional students exhibited greater use of overall learning strategies, whereas traditional students used Help-seeking strategies most frequently.

In another study, Hamman, Berthelot, Saia, and Crowley (2000) used the questionnaire to determine if strategy instruction influenced strategic learning of students. Among nine learning strategies scales, they selected only five scales for use in their study. The sample consisted of 11 middle school teachers and 235 middle school students. Based on their observations, the researchers discovered that teachers encouraged students to use learning

strategies by saying things like, “You should probably consider planning some homework time each night to work on your research project” or, “You could think about other words that begin with P, and that might help you remember the characteristics of P-waves” (p. 345). Teachers also offered reasons for using learning strategies, such as “I’d recommend you write out the whole sentence rather than only the numbers—Writing it out will help you remember it better and it will be better when you are studying” (p. 345). The results of the study showed that these students’ use of learning strategies was found to be positively associated with their teachers’ instruction.

In studying the impact of learning strategy use on mathematical learning, Shores and Shannon (2007) administered the adapted version of the Motivated Strategies for Learning Questionnaire (Pintrich & De Groot, 1990) to fifth and sixth graders. However, these students’ use of cognitive and self-regulated learning strategies did not contribute to higher test scores. The study failed to support the hypothesis that self-regulated learning will help students improve academic performance in mathematics.

The Motivated Strategies for Learning Questionnaire has been employed in many countries. Eshel and Kohavi (2003) used three scales of the questionnaire modified by Pintrich and De Groot in 1990 to assess self-regulated strategies of 302 sixth graders in Israel. In Taiwan, Shih (2005) studied the relationship between learning strategy use and achievement goals. This study’s 242 sixth-grade students were asked to take the Taiwanese version of Pintrich, Smith, Garcia, and McKeachie’s (1989) questionnaire. In a study conducted by Kosnin (2007), the Motivated Strategies for Learning Questionnaire was translated into the Malaysian language to measure learning strategies used by engineering undergraduates. Kosnin found that self-regulated learning significantly predicted students’

academic achievement. Tang and Neber (2008) researched gifted students' use of strategies to learn chemistry. There were 315 10th- and 12th- graders from China, Germany, and the United States. In order to measure the strategy use of each student, the questionnaire (Pintrich & De Groot, 1990) was translated into Chinese and German. The findings revealed that the American students showed more frequent use of self-regulated strategies than Chinese or German learners.

PROCEDURES

Approval Procedures

For the present study, the researcher contacted Mr. Ching-Min Hu, a teacher and Chief of Curriculum and Instruction Section at Yuanlin Junior High School in Taiwan, on May 5, 2010, and asked for approval to collect data during the 2009-2010 school year. The researcher later sent a letter to Mr. Hu formally asking permission to collect data in June, 2010. Permission was received from Mr. Hu on May 7, 2010, to proceed with the study (see permission letter in Appendix E).

Prior to any survey activity, the researcher discussed the nature of the study with Mr. Hu over the phone. At that time, the researcher and Mr. Hu also addressed confidentiality issues, discussed the class schedule of students, confirmed classroom availability and when students would be available for the survey, and detailed the process for administering and collecting the consent forms and questionnaires. Convenience sampling was used since Mr. Hu decided which of four classes in grades 1 to 3 would participate in the study. He also agreed to help the researcher distribute to all potential participants an Informed Consent

Form for parents as well as a Student Assent Form for students and to collect the forms (see IRB material in Appendix F).

Data Collection Procedures

Students were given a parental/guardian consent form and a student assent form on May 31, 2010, and asked to return them within a week. Mr. Hu helped collect the forms and forwarded them to the researcher. The signed consent and assent forms were required for each student to participate in the study. If parents declined to let their children take part in the study, they simply did not return both forms and their children were excluded from the research project.

On the day of the study, a colleague of the researcher went to the school and administered questionnaires to students during a non-academic time at school. The participants were brought to pre-selected classrooms. Teachers were instructed to leave during questionnaire administration. Once the students were seated, each was given a packet containing the Motivated Strategies for Learning Questionnaire, the Junior High School Teacher's Teaching Style Questionnaire, and a brief demographic information form. The data obtained from the demographic information included gender, grade level, and age. The researcher's colleague reminded the students that (a) they were volunteer participants and had the right to decline participation at any time without punishment, (b) their data would be kept anonymous and confidential, and (c) they could feel free to ask questions if they did not understand any part of the questionnaires. The purpose of the study was explained and then students were instructed to complete the packet of materials.

No students asked to withdraw from the study at any point. It took approximately 20

minutes for the students to answer the questionnaires. They were asked to put the packet of materials in a box in the front of the classroom once they completed the questionnaires. The survey process was repeated until all volunteer participants had completed the questionnaires. After the colleague collected all packets of questionnaires from the students, he mailed them to the researcher.

Usable Data

Of the 124 students who were invited to participate in the study, 99 (80 percent) completed the two questionnaires. All packets of questionnaires were mailed to the researcher. Four of the packets were not usable because one participant provided incomplete information, two circled more than one answer for an item in one of the questionnaires, and one gave almost the same response for an entire questionnaire. As a result, 95 of the 99 packets of questionnaires were used in the data analysis.

Data Analysis

A quantitative approach was used in the study. In order to answer the research questions, the data from the questionnaires and demographic information were analyzed with the aid of statistical analysis software (SPSS).

The learning strategy use of junior high school students was investigated by examining the frequency with which each strategy was used. A Chi-Square test was employed to see if any strategies were used significantly more than others.

The relationship between students' use of learning strategies and gender was examined by using Crosstabs with a Chi-Square test to assess the frequency of strategies students used

the most and to determine whether there was a significant difference in the most frequently used strategies between male and female students.

The teachers' dominant teaching style, as perceived by students, was examined by using a Chi-Square test on the perceived teaching styles data. The test was used to see if students perceive their teacher's teaching style similarly or differently and to reveal the most frequently perceived teaching style.

The research question of this study also asked whether a relationship exists between junior high school students' use of learning strategies and perceived teaching styles. For the purpose of the study, the researcher obtained one mean score from the category of cognitive strategies and the other from the category of resource management strategies. If the former was 0.5 points higher than the latter, participants were considered to be using more cognitive strategies. Conversely, students tended to use more resource management strategies if the former was 0.5 points lower than the latter. The difference, which was smaller than 0.5 points, suggested that these learning strategies were equally used. Furthermore, Crosstabs with a Chi-Square test was used to determine whether there was a significant relationship between students' most frequently used learning strategies and the main teaching style perceived by them.

CHAPTER 4

RESULTS

This study investigated Taiwanese junior high school students' perceptions of their teachers' teaching styles and use of learning strategies in order to determine if there was a significant relationship between students' perceived teaching style and learning strategy use. This chapter describes an overview of data preparation. It presents the four research questions asked in the study and data analyses.

DATA PREPARATION

Prior to answering the research questions of the study, the researcher will describe how raw data were prepared and organized for analysis.

Based on a student participant's responses to all items, the researcher computed a mean score for each category on the Junior High School Teacher's Teaching Style Questionnaire. Four mean scores were obtained from each student; students were then put into a category according to where they scored the highest.

An individual student's scores on each of the nine scales of the Motivated Strategies for Learning Questionnaire were obtained by calculating the mean of item scores in each scale. The scale with the highest mean score indicated a student's most frequently used learning strategy.

RESEARCH QUESTIONS

Research Question One:

What learning strategies do junior high school students use most to tackle academic tasks? To answer this question, means were calculated for each scale of the MSLQ among the 95 students. In addition, the most frequently used strategies of each student were counted.

The researcher conducted a Chi-Square test on the data collected. Twenty-two students out of the 95 students in the study used Effort Management most frequently. Twenty-one students preferred Help-seeking and 20 students preferred Time and Study Management. The descriptive frequency counts are shown in Table 1.

Hypothesis - The researcher examined the null hypothesis that the nine learning strategies scales are equally preferred and compared the null hypothesis with the alternative hypothesis that not all scales are equally preferred.

Level of Significance - The test was run at a level of significance of 0.05.

Conclusion - Since $\alpha > p\text{-value}$ ($p = 0.000$), the null hypothesis was rejected. Among the nine learning strategies, Effort Management was used the most by students.

Research Question Two:

Is there a difference between male and female students' use of learning strategies?

To answer question two, Crosstabs with a Chi-Square test were used. Male and female students both listed the same three most frequently used strategies, though they ranked these strategies differently. Table 2 shows the frequency counts.

Hypothesis - The researcher examined the null hypothesis that there is no gender difference in junior high school students' use of the nine learning strategies. The researcher compared the null hypothesis with the alternative hypothesis that there is a gender difference.

Level of Significance - The test was run at a level of significance of 0.05.

Small Expected Frequencies - In order to meet the Chi-Square test's assumption that no less than 80 percent of the expected cell frequencies must be 5 or larger, the researcher collapsed six scales (Rehearsal, Elaboration, Organization, Critical Thinking, Metacognition, and Peer Learning) containing small frequency counts together into a new group.

Conclusion - Since $\alpha < p\text{-value}$ ($p = 0.247$), the null hypothesis was not rejected. In addition, $\alpha < p\text{-value}$ ($p = 0.189$) after collapsing the scales. Thus, the answer to question two is no. Gender was not significantly associated with learning strategy use.

Research Question Three:

What is the main teaching style of junior high school teachers, as perceived by students? To answer this question, frequency counts were calculated for each category of the JHSTTSQ among the 95 students. Thus, the teaching styles perceived by each student were counted.

The researcher conducted a Chi-Square test on the data that had been collected. Seventy-six students out of the 95 students in the study perceived their teachers as indifferent to them. The descriptive frequency counts are shown in Table 3.

Hypothesis - The researcher examined the null hypothesis that there is no difference in students' perceptions of their teachers' teaching styles and compared the null hypothesis with the alternative hypothesis that there is a difference.

Level of Significance - The test was run at a level of significance of 0.05.

Conclusion - Since $\alpha > p$ -value ($p = 0.000$), we reject the null hypothesis. From students' points of view, the dominant teaching style is indifference.

Table 1

Frequency Count of the Most Frequently Used Learning Strategies

	Observed N	Expected N	Residual
Rehearsal	9	10.6	-1.6
Elaboration	7	10.6	-3.6
Organization	4	10.6	-6.6
Critical Thinking	6	10.6	-4.6
Metacognitive	2	10.6	-8.6
Time and Study Management	20	10.6	9.4
Effort Management	22	10.6	11.4
Peer Learning	4	10.6	-6.6
Help-seeking	21	10.6	10.4
Total	95		

Table 2**Frequency Count of the Most Frequently Used Learning Strategies by Gender**

		Gender		Total
		Male	Female	
Most Frequently Used Learning Strategies	Rehearsal	7	2	9
	Elaboration	3	4	7
	Organization	2	2	4
	Critical Thinking	2	4	6
	Metacognition	2	0	2
	Time and Study Management	8	12	20
	Effort Management	15	7	22
	Peer Learning	3	1	4
	Help-seeking	9	12	21
Total		51	44	95

Table 3**Frequency Count of the Perceived Teaching Styles**

	Observed N	Expected N	Residual
Democratic Teaching Style	16	23.8	-7.8
Authoritarian Teaching Style	1	23.8	-22.8
Laissez Faire Teaching Style	2	23.8	-21.8
Indifferent Teaching Style	76	23.8	52.3
Total	95		

Research Question Four:

Is there a relationship between teaching styles perceived by students and students' use of learning strategies? To answer this question, Crosstabs with a Chi-Square test were used. Altogether, 57.9% of the students valued both cognitive strategies and resource management strategies. In other words, the students were more prone to use these strategies equally, even though their perceptions of their teachers' teaching style differed. Among them, 43 students experienced the indifferent teaching style. Table 4 shows the summary statistic information.

Hypothesis - The researcher examined the null hypothesis that there is no difference regarding use of learning strategies among junior high school students who perceive democratic, authoritarian, laissez faire, and indifferent teaching styles. The researcher compared this null hypothesis against the alternative hypothesis that there is a difference regarding use of learning strategies among junior high school students who perceive democratic, authoritarian, laissez faire, and indifferent teaching styles.

Level of Significance - The test was run at a level of significance of 0.05.

Small Expected Frequencies - In order to meet the assumption of the Chi-Square test, the researcher collapsed three categories (democratic, authoritarian, and laissez faire) containing small frequency counts together into a new group.

Conclusion - Since $\alpha < p\text{-value}$ ($p = 0.847$), the null hypothesis was not rejected. In addition, $\alpha < p\text{-value}$ ($p = 0.726$) after collapsing the categories. Thus, the answer to question four appears to be negative. Students' perceptions of teaching styles do not significantly impact learning strategy use.

Table 4

**Dominant Teaching Styles * Most Frequently Used Learning Strategies
Crosstabulation**

		Learning Strategies			Total
		Cognitive	Resource	Mixed	
Dominant Teaching Style (DTS)	1	3	4	9	16
	2	0	0	1	1
	3	0	0	2	2
	4	10	23	43	76
Total		13	27	55	95

NOTE: Democratic (DTS = 1); Authoritarian (DTS = 2); Laissez Faire (DTS = 3); Indifferent (DTS = 4). Cell numbers are frequencies.

CHAPTER 5

SUMMARY, FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

This chapter presents a summary of the study and a summary of the major findings resulting from the data analysis. Conclusions based on the findings are discussed. Recommendations for future research are also presented.

SUMMARY

The purposes of the study were to investigate Taiwanese junior high school students' perceptions of their teachers' teaching styles and use of learning strategies and to determine if there was a significant relationship between their perceived teaching style and learning strategy use. A review of current literature indicated that independent and successful learning requires effective use of learning strategies. Therefore, it is crucial to understand how students approach learning and to teach students how to learn. Not only teaching styles of educators but also students' perceptions of their teachers' teaching styles influence academic performance. Being aware of students' perspectives can help teachers adjust their teaching to fit the individual needs.

Four research questions were posed and data analyses were conducted to test four null hypotheses. The first question was to identify the most frequently used learning strategies of the participants. Question two sought to explore gender difference in the participants' use of strategies. Question three was established to discover teachers' dominant teaching styles in

the eyes of the participants. The purpose of the fourth question was to investigate the relationship between the learning strategy use of the participants and their perceptions of their teachers' teaching styles.

Two instruments were utilized in the study. The Junior High School Teacher's Teaching Style Questionnaire consists of 29 questions. The learners respond to the questions on a 5-point scale. The teacher can be classified into one of four teaching styles based on their students' observations. The Motivated Strategies for Learning Questionnaire is composed of 9 scales to measure learning strategy use of students. There are 43 items that are scored 1 through 7 using a Likert-type scale.

The study was conducted in June of 2010. Ninety-nine packets of questionnaires were administered to 2nd graders from a public junior high school in Taiwan (equivalent to 8th grade in American school systems). A total of 95 packets of questionnaires were collected and analyzed. Mean scores for each scale of the MSLQ were calculated to reveal the frequency of use for each strategy. A Chi-Square test was employed to identify the most frequently used strategies of the learners as well as the dominant teaching styles perceived by them. Crosstabs with a Chi-Square test was used to test for gender differences in learning strategy use. This statistical test was also used to examine the relationship between students' use of strategies and perceived teaching styles.

MAJOR FINDINGS

Overall, the majority of the junior high school students in grade 2 (57.9%) used both cognitive strategies and resource management strategies to help themselves perform learning tasks in Chinese language courses. The frequency count of each of the nine learning

strategies showed that the students exhibited greater use of three learning strategies: Effort Management, Help-seeking, and Time and Study Management. Sixty-six percent of the students (66.32%) who participated in the study preferred these strategies. Among the nine learning strategies scales, Effort Management was used most frequently.

Significant gender differences were not found in relation to utilizing learning strategies. There was agreement between male and female students concerning their dominant learning strategy use. These students reported more use of Effort Management, Help-seeking, and Time and Study Management strategies. However, both Time and Study Management and Help-seeking were used the most by females while Effort Management was used most by males.

From the junior high school students' viewpoints, their classroom teachers were classified as the indifferent type. Eighty percent of the students surveyed perceived this type of teaching style. These findings are supported by another study conducted in Taiwan which found that most junior high school students indicated they had indifferent teachers. Furthermore, when the students' perceived teaching styles were investigated in relation to learning strategy use, it was found that how they viewed their teachers did not significantly influence their choice of learning strategies. Fifty-five students out of 95 students preferred a mixed use of cognitive strategies and resource management strategies regardless of perceived teaching styles.

CONCLUSIONS

Based on the findings of the study, the following conclusions may be made:

1. The results of the Motivated Strategies for Learning Questionnaire indicated that the

junior high school students tended to use learning strategies that enabled them to use study hours well and choose environments that could facilitate learning and helped them persist in fulfilling their learning goals even when they encountered learning difficulties. In addition, they preferred to seek assistance from their instructors or classmates when difficulties occurred. This indicated that the participants would need to see how other people used different strategies to solve their Chinese learning problems. Asking for help, however, could be a good strategy since it allows a student to learn from others when he or she cannot deal with problems alone.

2. 2. The junior high school students of both genders had similar use of learning strategies. Male and female students both exhibited more use of Effort Management, Help-seeking, and Time and Study Management strategies instead of applying each of the nine strategies to appropriate learning activities. They might not possess a wide array of learning strategies and use only few strategies, even though these cannot address all kinds of learning problems. Furthermore, the content of Chinese language courses might be mainly involved with memorization so the results are likely influenced by the learning area of the students. In a different course, these learning strategies might not be used and gender differences might be obvious.
3. According to students' perceptions of their teachers, the dominant teaching style was indifference. The majority of the students felt that their teachers paid too much attention to their own work and did not have close relationships with learners. The indifferent teachers rarely cared about the needs of their students and believed students had to be more responsible for their own learning and learning outcomes. At junior high schools with primarily lecture-based classes, these teachers are unlikely to provide instruction

that caters to individual differences. This finding indicated that students may not receive adequate learning strategy instruction that fosters effective use of strategies and enables them to develop personal learning strategies.

4. The results of Crosstabs with a Chi-Square test revealed that there were no significant relationships between students' perceptions of teaching styles and learning strategy use. The students who observed democratic, authoritarian, laissez faire, or indifferent teaching styles had a tendency to use both cognitive strategies and resource management strategies. The possible explanation could be that current junior high school teachers rarely provide students with opportunities to learn and use learning strategies in spite of their teaching styles. Therefore, students' perceptions of teaching styles may not have a strong effect on their own strategy use but on other learning outcomes.

RECOMMENDATIONS

Based on the results and conclusions of the study, the following recommendations were made:

1. The present study should be replicated with junior high school students in Chinese language courses. It would be beneficial to have other data that could be compared with the results of this study.
2. The research only looked at gender differences at one grade level. A study should be conducted using a larger population of Taiwanese junior high school students. This would help identify students' learning strategy use and determine if there are grade-related or gender differences. Furthermore, the larger the sample size, the better the chance to have different perspectives of teachers' teaching styles, which would help

investigate if any relationship exists between students' perceptions and their use of strategies.

3. Although this research is limited to junior high school students enrolled in Chinese language courses, further studies may compare and contrast the influence of one subject—such as history, math, or music—with another subject. The results would reveal if there is a difference in students' perceptions and use of learning strategies between content areas. A study like this would allow classroom teachers to better understand the learning differences and needs of individual students, especially as these needs relate to specific subject matter.
4. The researcher used the Chi-Square test and Crosstabs to measure significant differences between genders and the relationship between students' perceived teaching styles and use of learning strategies. Another researcher might want to look at the data using different analytical approaches.
5. Future research should investigate actual teaching styles used by teachers or teaching styles perceived by teachers' supervisors, not just students' perceptions. This would help determine if learning strategy use of students is influenced by their perceptions of teaching styles. Moreover, it is possible that teachers' goal orientation is rather influential. Performance goals of teachers may affect students differently than if the teachers were more focused on learning goals for the students.
6. Even though generalizations cannot be made to all junior high school students, classroom teachers should use the study to learn more about their students' learning strategy use and perceptions. By being aware of how students employ strategies, teachers will better understand how to offer effective learning strategy instruction. It would enable teachers

to build on strategies students already use. Instructors will also benefit from knowing their students' perceptions of teaching styles. The results of the research would offer an opportunity for them to reflect on their teaching styles and see if they need to make adjustments.

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APPENDICES

APPENDIX A
JUNIOR HIGH SCHOOL TEACHER'S TEACHING STYLE QUESTIONNAIRE
(ENGLISH TRANSLATION)

JUNIOR HIGH SCHOOL TEACHER'S TEACHING STYLE QUESTIONNAIRE

The following questions ask your opinions about your Chinese teacher's teaching style. Please remember that there are no right or wrong answers, just answer the questions as correctly as possible. To answer every question, you have to select from five options (never, seldom, sometimes, often, and always).

1. My teacher compliments me on my good manners.

never	seldom	sometimes	Often	always
☐	☐	☐	☐	☐

2. My teacher always asks my opinions before making any decisions or rules.

never	seldom	sometimes	Often	always
☐	☐	☐	☐	☐

3. My teacher shares his/her experience with me.

never	seldom	sometimes	Often	always
☐	☐	☐	☐	☐

4. My teacher respects my personal privacy.

never	seldom	sometimes	Often	always
☐	☐	☐	☐	☐

5. My teacher encourages me to finish my work independently.

never	seldom	sometimes	Often	always
☐	☐	☐	☐	☐

6. My teacher accepts my opinions.

never	seldom	sometimes	Often	always
☐	☐	☐	☐	☐

7. When I accidently make mistakes, my teacher forgives me and gives me a chance to fix them.

never	seldom	sometimes	Often	always
☐	☐	☐	☐	☐

8. My teacher uses a caring voice to ask me to maintain good behaviors.

never	seldom	sometimes	Often	always
☐	☐	☐	☐	☐

9. My interest in learning stems from the encouragement of my teacher.

never	seldom	sometimes	Often	always
☐	☐	☐	☐	☐

10. My teacher creates a comfortable atmosphere in the classroom.

never	seldom	sometimes	Often	always
☐	☐	☐	☐	☐

11. My teacher comforts me when I do not perform well academically.

never	seldom	sometimes	Often	always
☐	☐	☐	☐	☐

12. My teacher treats students unfairly.

never	seldom	sometimes	Often	always
☐	☐	☐	☐	☐

13. I am not allowed to express my personal views freely.

never	seldom	sometimes	Often	always
☐	☐	☐	☐	☐

14. I choose not to express my thoughts when my teacher carries a strict facial expression.

never	seldom	sometimes	Often	always
☐	☐	☐	☐	☐

15. My teacher commands me to follow his/her rules.

never	seldom	sometimes	Often	always
☐	☐	☐	☐	☐

16. My teacher highly values his/her authority.

never	seldom	sometimes	Often	always
☐	☐	☐	☐	☐

17. My teacher embarrasses me in the class.

never	seldom	sometimes	Often	always
☐	☐	☐	☐	☐

18. My teacher never discusses his/her demands with me.

never	seldom	sometimes	Often	always
☐	☐	☐	☐	☐

19. My teacher rarely supports my point of view.

never	seldom	sometimes	Often	always
☐	☐	☐	☐	☐

20. My teacher uses the school rules and regulations to confine and restrict my behavior.

never	seldom	sometimes	Often	always
☐	☐	☐	☐	☐

21. My teacher does not discipline students.

never	seldom	sometimes	Often	always
☐	☐	☐	☐	☐

22. I do not know what I should do because my teacher often changes his/her mind after making a decision.

never	seldom	sometimes	Often	always
☐	☐	☐	☐	☐

23. My teacher goes through my backpack without informing me.

never	seldom	sometimes	Often	always
☐	☐	☐	☐	☐

24. My teacher explains to me and helps me fully understand the homework if I have a problem.

never	seldom	sometimes	Often	always
☐	☐	☐	☐	☐

25. My teacher listens to me patiently when I go to ask him/her questions.

never	seldom	sometimes	Often	always
☐	☐	☐	☐	☐

26. My teacher talks to me about my daily life beyond class time.

never	seldom	sometimes	Often	always
☐	☐	☐	☐	☐

27. My teacher joins me to participate in extracurricular activities, such as playing basketball ball.

never	seldom	sometimes	Often	always
☐	☐	☐	☐	☐

28. My teacher is the first person I come to when I feel wronged.

never	seldom	sometimes	Often	always
☐	☐	☐	☐	☐

29. My teacher truly cares about me.

never	seldom	sometimes	Often	always
☐	☐	☐	☐	☐

APPENDIX B

JUNIOR HIGH SCHOOL TEACHER’S TEACHING STYLE QUESTIONNAIRE

JUNIOR HIGH SCHOOL TEACHER'S TEACHING STYLE QUESTIONNAIRE

這份問卷是想了解你對國文老師教學方式的看法。請記得，答案沒有對錯之分，請據實回答。你需要從「總是」、「常常」、「有時」、「很少」和「從不」，這 5 個選擇中圈選出每題的答案。

	從 不	很 少	有 時	常 常	總 是
1. 老師會讚美我的禮貌表現。	☐	☐	☐	☐	☐
2. 任何規定老師一定會先問問我的意見之後，才會做決定。	☐	☐	☐	☐	☐
3. 老師會和我分享他的經驗。	☐	☐	☐	☐	☐
4. 老師會尊重我個人的隱私。	☐	☐	☐	☐	☐
5. 老師會鼓勵我獨自完成自己的工作。	☐	☐	☐	☐	☐
6. 老師會接納我的意見。	☐	☐	☐	☐	☐
7. 當我不小心犯錯時，老師會原諒我，給我有改過的機會。	☐	☐	☐	☐	☐
8. 老師會以感性的語氣要求我的行為表現。	☐	☐	☐	☐	☐
9. 老師會用鼓勵的方式，讓我對讀書產生興趣。	☐	☐	☐	☐	☐
10. 老師上課會營造輕鬆的學習氣氛。	☐	☐	☐	☐	☐
11. 表現不好時，老師會安慰我。	☐	☐	☐	☐	☐
12. 老師對待我和其他同學不公平。	☐	☐	☐	☐	☐
13. 老師會限制我表達個人的看法。	☐	☐	☐	☐	☐
14. 因為老師嚴肅表情，我會壓抑不說出自己的想法。	☐	☐	☐	☐	☐
15. 老師會以命令的方式，要我服從他（她）的規定。	☐	☐	☐	☐	☐
16. 老師十分重視維持自己的權威。	☐	☐	☐	☐	☐

17. 老師不會給我面子。	☐	☐	☐	☐	☐
18. 老師對我的要求，從未與我討論。	☐	☐	☐	☐	☐
19. 老師很少支持我的看法。	☐	☐	☐	☐	☐
20. 老師會用校規來約束我。	☐	☐	☐	☐	☐
21. 老師不會管我。	☐	☐	☐	☐	☐
22. 老師說話常常反覆不定，讓我不知道該怎麼辦。	☐	☐	☐	☐	☐
23. 老師會在沒事先通知的情況下，翻我的書包。	☐	☐	☐	☐	☐
24. 功課如果有不懂的地方，老師會講解給我聽，直到懂了為止。	☐	☐	☐	☐	☐
25. 當我請教老師問題時，老師會耐心的聽我敘述。	☐	☐	☐	☐	☐
26. 老師在上課以外的時間，也會找我聊聊生活的點滴。	☐	☐	☐	☐	☐
27. 老師會陪我做一些課外活動，例如：打球。	☐	☐	☐	☐	☐
28. 當我在學校受了委屈，第一個傾訴對象是老師。	☐	☐	☐	☐	☐
29. 老師是真心關心我的。	☐	☐	☐	☐	☐

APPENDIX C

MOTIVATED STRATEGIES FOR LEARNING QUESTIONNAIRE

MOTIVATED STRATEGIES FOR LEARNING QUESTIONNAIRE

Dear Students:

You will be asked to answer questions related to your use of learning strategies in Chinese class. This is not a quiz or test so there are no right or wrong answers. Use the scale below each statement to answer the questions. If you think the statement is very true of you, circle 7; if a statement is not at all true of you, circle 1. If the statement is more or less true of you, choose the number between 1 and 7 that best describes you. Only I will see your individual responses so please answer the questions as correctly as possible.

	Not at all True of me				Very true of me		
1. When I study the readings for this course, I outline the material to help me organize my thoughts.	1	2	3	4	5	6	7
2. When studying for this course, I often try to explain the material to a classmate or friend.	1	2	3	4	5	6	7
3. I usually study in a place where I can concentrate on my course work.	1	2	3	4	5	6	7
4. When reading for this course, I make up questions to help focus my reading.	1	2	3	4	5	6	7
5. I often feel so lazy or bored when I study for this class that I quit before I finish what I planned to do.	1	2	3	4	5	6	7
6. I often find myself questioning things I hear or read in this course to decide if I find them convincing.	1	2	3	4	5	6	7
7. When I study for this class, I practice saying the material to myself over and over.	1	2	3	4	5	6	7
8. When I become confused about something I'm reading for this class, I go back and try to figure it out.	1	2	3	4	5	6	7
9. When I study for this course, I go through the readings and my class notes and try to find the most important ideas.	1	2	3	4	5	6	7
10. I make good use of my study time for this course.	1	2	3	4	5	6	7
11. If course readings are difficult to understand, I change the way I read the material.	1	2	3	4	5	6	7

12. I try to work with other students from this class to complete the course assignments.	1	2	3	4	5	6	7
13. When studying for this course, I read my class notes and the course readings over and over again.	1	2	3	4	5	6	7
14. When a theory, interpretation, or conclusion is presented in class or in the readings, I try to decide if there is good supporting evidence.	1	2	3	4	5	6	7
15. I work hard to do well in this class even if I don't like what we are doing.	1	2	3	4	5	6	7
16. I make simple charts, diagrams, or tables to help me organize course material.	1	2	3	4	5	6	7
17. When studying for this course, I often set aside time to discuss course material with a group of students from the class.	1	2	3	4	5	6	7
18. I treat the course material as a starting point and try to develop my own ideas about it.	1	2	3	4	5	6	7
19. When I study for this class, I pull together information from different sources, such as lectures, readings, and discussions.	1	2	3	4	5	6	7
20. Before I study new course material thoroughly, I often skim it to see how it is organized.	1	2	3	4	5	6	7
21. I ask myself questions to make sure I understand the material I have been studying in this class.	1	2	3	4	5	6	7
22. I try to change the way I study in order to fit the course requirements and the instructor's teaching style.	1	2	3	4	5	6	7
23. I ask the instructor to clarify concepts I don't understand well.	1	2	3	4	5	6	7
24. I memorize key words to remind me of important concepts in this class.	1	2	3	4	5	6	7
25. I try to think through a topic and decide what I am supposed to learn from it rather than just reading it over when studying for this course.	1	2	3	4	5	6	7
26. I try to relate ideas in this subject to those in other courses whenever possible.	1	2	3	4	5	6	7
27. When I study for this course, I go over my class notes and make an outline of important concepts.	1	2	3	4	5	6	7
28. When reading for this class, I try to relate the material to what I already know.	1	2	3	4	5	6	7
29. I have a regular place set aside for studying.	1	2	3	4	5	6	7

30. I try to play around with ideas of my own related to what I am learning in this course.	1	2	3	4	5	6	7
31. When I study for this course, I write brief summaries of the main ideas from the readings and my class notes.	1	2	3	4	5	6	7
32. When I can't understand the material in this course, I ask another student in this class for help.	1	2	3	4	5	6	7
33. I try to understand the material in this class by making connections between the readings and the concepts from the lectures.	1	2	3	4	5	6	7
34. I make sure that I keep up with the weekly readings and assignments for this course.	1	2	3	4	5	6	7
35. Whenever I read or hear an assertion or conclusion in this class, I think about possible alternatives.	1	2	3	4	5	6	7
36. I make lists of important items for this course and memorize the lists.	1	2	3	4	5	6	7
37. I attend this class regularly.	1	2	3	4	5	6	7
38. Even when course materials are dull and uninteresting, I manage to keep working until I finish.	1	2	3	4	5	6	7
39. I try to identify students in this class whom I can ask for help if necessary.	1	2	3	4	5	6	7
40. When studying for this course I try to determine which concepts I don't understand well.	1	2	3	4	5	6	7
41. When I study for this class, I set goals for myself in order to direct my activities in each study period.	1	2	3	4	5	6	7
42. If I get confused taking notes in class, I make sure I sort it out afterwards.	1	2	3	4	5	6	7
43. I try to apply ideas from course readings in other class activities such as lecture and discussion.	1	2	3	4	5	6	7

APPENDIX D

TAIWANESE VERSION OF MOTIVATED STRATEGIES FOR LEARNING

QUESTIONNAIRE

TAIWANESE VERSION OF MOTIVATED STRATEGIES FOR LEARNING

QUESTIONNAIRE

親愛的同學:

這份問卷是想了解你的國文學習策略。這不是考試，所以答案沒有對錯之分。讀完每項敘述，從 1 至 7 選出最能符合你真實情況的答案。圈選 7 表示題目的敘述非常符合你的學習狀況；圈選 1 表示題目的敘述非常不符合你的學習狀況。只有我會看到你每題的答案，所以請據實回答。

	非常 不符合						非常 符合
1. 在研讀這門課的課文時，我做大綱來幫助我組織自己的想法。	1	2	3	4	5	6	7
2. 在研讀這門課時，我常試著解釋內容給同學或朋友聽。	1	2	3	4	5	6	7
3. 我通常是在我能夠專心課業的地方讀書。	1	2	3	4	5	6	7
4. 在閱讀這門課的內容時，我題出幾個問題來幫助自己專心閱讀。	1	2	3	4	5	6	7
5. 在研讀這門課時，我經常覺得很懶或無聊，以致在完成計劃要做的事之前便放棄了。	1	2	3	4	5	6	7
6. 在這門課裡，我對所聽到的或讀到的經常提出疑問，以判定它們是否讓我信服。	1	2	3	4	5	6	7
7. 在研讀這門課時，我一遍又一遍的練習把內容說給自己聽。	1	2	3	4	5	6	7
8. 在閱讀這門課的材料時，只要有不瞭解的地方，我就會回頭再讀，試著瞭解。	1	2	3	4	5	6	7
9. 在研讀這門課時，我把課文和課堂筆記全部看過，然後把最重要的觀念找出來。	1	2	3	4	5	6	7
10. 我充分利用時間來研讀這門課。	1	2	3	4	5	6	7

11. 如果閱讀材料難以瞭解，我就改變閱讀方式。	1	2	3	4	5	6	7
12. 我試著和同學一起工作，以完成這門課的作業。	1	2	3	4	5	6	7
13. 在研讀這門課時，我一而再、再而三的閱讀課堂筆記和課文。	1	2	3	4	5	6	7
14. 在課堂上或課文中出現理論、解釋、或結論時，我試著判定它是否有良好的支持證據。	1	2	3	4	5	6	7
15. 在這門課裡，即使我不喜歡我們所做的一切，我也會努力把牠做好。	1	2	3	4	5	6	7
16. 在這門課裡，我做簡單的圖表來幫助自己組織課程內容。	1	2	3	4	5	6	7
17. 在研讀這門課時，我常安排時間與一些同學討論課程內容。	1	2	3	4	5	6	7
18. 我以這門課的內容為出發點，試著發展我自己對這些內容的看法。	1	2	3	4	5	6	7
19. 在研讀這門課時，我把老師講課、書本、討論等不同來源的資料貫通起來。	1	2	3	4	5	6	7
20. 在深入研讀新的課程資料前，我通常都會先略讀一下，看看這些內容是如何組織的。	1	2	3	4	5	6	7
21. 為了確定我真的瞭解了在這門課程所讀到的材料，我提出問題來考自己。	1	2	3	4	5	6	7
22. 為了配合課程的要求和老師的教學方式，我試著改變研讀的方法。	1	2	3	4	5	6	7
23. 為了把我不太瞭解的觀念弄清楚，我去請教老師。	1	2	3	4	5	6	7
24. 我記住最重要或主要的幾個字詞，來提醒我這門課的重要觀念。	1	2	3	4	5	6	7
25. 在研讀這門課時，我試著再三考慮一個主題並決定我必須從它那裡學到什麼，而不只是讀完它就算了。	1	2	3	4	5	6	7
26. 只要有可能，我試著把這門課的觀念和其它課程連結起來。	1	2	3	4	5	6	7
27. 在研讀這門課時，我復習課堂筆記，同時把重要的觀念做個大綱。	1	2	3	4	5	6	7
28. 在閱讀這門課的內容當時，我試著和我過去已經知道的連結起來。	1	2	3	4	5	6	7

29. 我安排一個特定的地方讀書。	1	2	3	4	5	6	7
30. 在這門課裡，我用自己的觀念不斷地思考正在學習的東西。	1	2	3	4	5	6	7
31. 在研讀這門課時，我會把課文及課堂筆記的重點做個簡明的摘要。	1	2	3	4	5	6	7
32. 當我在這門課中有不瞭解的地方時，我請教同學。	1	2	3	4	5	6	7
33. 我把課文和老師所講的觀念連結起來，以便瞭解這門課的內容。	1	2	3	4	5	6	7
34. 我確定每週都把這門課該讀的書讀完，該做的作業做完。	1	2	3	4	5	6	7
35. 每當我在這門課中讀到或聽到一種主張或結論時，我會考慮其他可能的主張或結論。	1	2	3	4	5	6	7
36. 我列出這門課中重要的語詞，並且記住這些語詞。	1	2	3	4	5	6	7
37. 這門課我每次都出席並準時上課。	1	2	3	4	5	6	7
38. 即使課程內容枯燥無趣，我也會努力做下去，直到完成為止。	1	2	3	4	5	6	7
39. 在這門課裡，我試著找出幾個同學，好讓我在需要時可以向他們請教。	1	2	3	4	5	6	7
40. 在研讀這門課時，我試著找出哪些觀念是我瞭解得還不夠好的。	1	2	3	4	5	6	7
41. 在研讀這門課時，我為自己訂定目標來引導我每個研讀階段的活動。	1	2	3	4	5	6	7
42. 如果課堂上做筆記時產生困惑，我確定在事後會把困惑的部分整理清楚。	1	2	3	4	5	6	7
43. 我試著把這門課書本資料中的觀念，引用到老師的講解和課堂上的討論等活動中。	1	2	3	4	5	6	7

APPENDIX E

**PERMISSION TO CONDUCT STUDY GRANTED BY CHIEF OF CURRICULUM
AND INSTRUCTION SECTION**

彰化縣立員林國民中學

彰化縣員林鎮南興三南港路二號

Dear Mr. Ching-Min Hu :

My name is Ya-Ching Chang, a Master student at the University of Tennessee. I am writing to request your permission to utilize the students enrolled at Yuanlin Junior School in my master thesis and ask you to help me distribute and collect the Informed Consent Forms from parents and Student Assent Forms from students before the study takes place.

My study will focus on "Students' Perceptions of Teaching Styles and Use of Learning Strategies." Each student will be asked to complete a brief demographic information form that will include the student's gender, grade, and age and two questionnaires. The students will be instructed to fill out the Motivated Strategies for Learning Questionnaire and asked to choose their response which is based on a scale of 1 to 7. They will also be asked to complete the Junior High School Teacher's Teaching Style Questionnaire and given choices on a 5-point scale of never, seldom, sometimes, often, and always. The students will spend approximately 20-25 minutes to participate in this study.

Student names will not be used on the survey or the Demographic Information Form. I will keep all data on my laptop computer that is password protected.

All results will be shared with you. Thank you very much for your assistance.

Ya-Ching Chang

I grant Ya-Ching Chang permission to conduct a study entitled "Students' Perceptions of Teaching Styles and Use of Learning Strategies" utilizing students enrolled at Yuanlin Junior high school and am willing to provide assistance with Ya-Ching Chang's study.

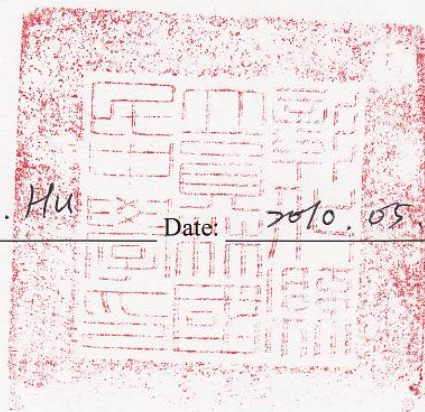
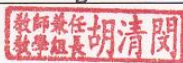
彰化縣立員林國民中學

Teacher Signature: _____

Ching-Min Hu

Date: _____

2010.05.07.



APPENDIX F
IRB MATERIAL

May 25, 2010

IRB#: 8253 B

TITLE: Students' Perceptions of Teaching Styles and Use of Learning Strategies

Chang, Ya-Ching
Educational Psychology & Counseling
860 20th Street, Apt. 608
Knoxville, TN 37916-2919

Huck, Schuyler
Educational Psychology & Counseling
446 Claxton Complex
Campus

Your project listed above has been reviewed and granted IRB approval under expedited review.

This approval is for a period ending one year from the date of this letter. Please make timely submission of renewal or prompt notification of project termination (see item #3 below).

Responsibilities of the investigator during the conduct of this project include the following:

1. To obtain prior approval from the Committee before instituting any changes in the project.
2. If signed consent forms are being obtained from subjects, they must be stored for at least three years following completion of the project
3. To submit a Form D to report changes in the project or to report termination at 12-month or less intervals.

The Committee wishes you every success in your research endeavor. This office will send you a renewal notice (Form R) on the anniversary of your approval date.

Sincerely,



Brenda Lawson
Compliances

Enclosure

VITA

Ya-Ching Chang, daughter of Ming-Chao Chang and Hsiu-Chien Lai, was born and raised in Changhua, Taiwan. She graduated from Chungchou Institute of Technology in 2002 and earned a Bachelor of Arts degree in Applied English at Ming Chuan University in June, 2004. After graduating, she was employed as a teacher at different cram schools, where she taught English to elementary and junior high school students in Shetou and Changhua. Ya-Ching is currently pursuing her M.S. in Educational Psychology at the University of Tennessee, Knoxville. She will complete her Master's studies in 2010.