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Preservice and K–12 Inservice Teachers' Perceptions of Appropriateness of Teacher Self- Disclosure and Its Teaching Effectiveness

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PRESERVICE AND K-12 INSERVICE TEACHERS' PERCEPTIONS
OF APPROPRIATENESS OF TEACHER SELF-DISCLOSURE
AND ITS TEACHING EFFECTIVENESS

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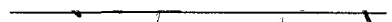
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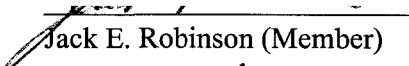
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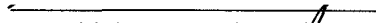
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ABSTRACT

PRESERVICE AND K-12 INSERVICE TEACHERS' PERCEPTIONS OF APPROPRIATENESS OF TEACHER SELF-DISCLOSURE AND ITS TEACHING EFFECTIVENESS

Shaoan Zhang
Old Dominion University, 2007
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Situating teacher self-disclosure within a curriculum and instruction context, this research explored preservice and K-12 inservice teachers' perceptions of appropriateness of teacher self-disclosure and its teaching effectiveness as a component of the informal curriculum as well as an instructional tool. The following research questions were explored:

- 1) Is there any difference among preservice teachers and K-12 inservice teachers in their perceptions of appropriateness of teacher self-disclosure?
- 2) Is there any difference between preservice teachers and K-12 inservice teachers in their perceptions of appropriateness of teacher self-disclosure?
- 3) Is there any difference among K-12 inservice teachers in their application of teacher self-disclosure?
- 4) Is there any difference among preservice teachers and K-12 inservice teachers in their perceptions of effects of teacher self-disclosure on teaching effectiveness?
- 5) Is there any difference between preservice teachers and K-12 inservice teachers in their perceptions of effects of teacher self-disclosure on teaching effectiveness?

Data from 180 preservice and 135 K-12 inservice teachers were analyzed.

Descriptive and inferential analyses were used to examine the dimensions and items in each survey. One-way MANOVAs were conducted to investigate the differences across different levels of K-12 inservice teachers' gender, ethnic group, grade level of teaching (elementary, junior, and high school), type of teaching (general and special education), years of teaching, and award status in the perceptions and application of teacher self-disclosure. Results of this study indicated: a) differences in K-12 inservice teachers' perceptions of appropriateness of teacher self-disclosure topics across grade levels of teaching; b) differences in K-12 inservice teachers' consideration of students while using teacher self-disclosure across gender and years of teaching, and differences in K-12 inservice teachers' using inappropriate topics and inappropriate purposes across grade levels of teaching; c) no difference in inservice teachers' perceptions of appropriateness of teacher self-disclosure across gender, ethnic group, type of education, years of teaching, and award status; d) no difference in inservice teachers' or preservice teachers' perceptions of teaching effectiveness across selected demographic variables.

Independent-samples t tests were conducted to examine the differences between preservice and K-12 inservice teachers in their perceptions of appropriateness of teacher self-disclosure and its teaching effectiveness. Significant differences were identified in perceptions of inappropriate topics, inappropriate purposes of teacher self-disclosure and consideration of students. No significant differences were identified in perceptions of appropriate topics and purposes of teacher self-disclosure. Significant differences were identified in two groups of perceptions of effects of teacher self-disclosure on students' learning effects and classroom participation and classroom behavior, and descriptive

analyses were provided to reveal the differences in each item. No significant difference was identified in the two groups' perceptions of effects of teacher self-disclosure on teacher-student relationships and classroom communication environment.

Explanations and implications of the results were discussed based on perspectives of practice and theories of teaching and learning and those of educational policies. Suggestions to improve teacher education programs as well as the limitations of the study also were provided. It is recommended that future studies of teacher self-disclosure reexamine and discuss teacher self-disclosure as a component of informal curriculum.

Co-Directors of Advisory Committee: Dr. Dwight W. Allen
Dr. Jack E. Robinson
Dr. Donald A. Myers

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To my wife, Dr. Qingmin Shi, and our daughter, Jiabao Zhang.

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CHAPTER 1: INTRODUCTION

The No Child Left Behind Act of 2002 (NCLB) requires that all teachers in core academic subjects be highly qualified by the 2005-2006 school year and defines in federal statute what it means for a teacher to be highly qualified. Specifically, NCLB requires highly qualified teachers to hold at least a bachelor's degree, have full state certification as a teacher or have passed the state licensure, and demonstrate competence in each academic subject. Congruent with this legislation, Woolfolk (2001) asserted that quality teachers are experienced and have elaborate systems of knowledge of their subjects. However, other researchers considered teacher quality as mastery of both knowledge of subject matter and knowledge of teaching. Kaplan and Owings (2002) stated that the new law weakens teacher quality standards by immediately allowing individuals with subject knowledge only—rather than subject and teaching knowledge—to begin teaching in public schools. Similarly, Slavin (2003) stressed that quality teachers need to know their subject matter, how to motivate children, how to use class time effectively, and how to respond to students' individual differences. Sadker and Sadker (2003) argued that quality teachers not only know their subject, but possess the verbal ability to transfer their knowledge to their students.

To ensure teacher quality, teacher education programs need not only to work on preservice teachers' knowledge of subjects but also to enhance their awareness of aspects of classroom teaching activities. Teacher self-disclosure has been recognized as an effective instructional tool in classroom teaching and should be considered as a pedagogical tool.

Teacher self-disclosure has been studied since the end of the 1970s. Early studies on teacher self-disclosure were influenced by the studies of self-disclosure in clinical psychology and communication. Jourard (1971) made significant contributions to the establishment of a theoretical framework of study on self-disclosure. Altman and Taylor (1973) elaborated Jourard's studies by advancing their social penetration theory. According to the social penetration theory (Altman & Taylor, 1973), self-disclosure is essential for the establishment and development of a personal relationship. In the late 1970s, self-disclosure began to interest the educational community because social penetration theory provided the basis for the study of the teacher-student relationships that may result from teacher self-disclosure. Nussbaum and Scott (1979) pioneered the study of teacher self-disclosure based on interpersonal communication theory. Afterward, other researchers including Sorensen (1989), Goldstein and Benassi (1994), Walker (1999), and Minger (2004) studied teacher self-disclosure based on the same theoretical framework. Studies based on the communication theory contributed to the findings that teacher self-disclosure helps establish positive teacher-student relationships, creates a constructive environment, or helps students understand their teachers better and participate more enthusiastically in classroom activity.

Classroom teaching, however, is different from dyadic interpersonal communication. Minger (2004) states that "the incorporation of social penetration theory was not as appropriate in the instructional setting as it has been in interpersonal dyadic research" (p. 165), and she suggested that, "It is now time for future research to go beyond adapting and borrowing theories for instructional use to developing our own theories specific to the instructional context" (p. 165). Moreover, in teaching practice,

teachers often use teacher self-disclosure as an instructional tool (Cayanus, 2004) to clarify the teaching content, to supplement the teacher's teaching materials and to stimulate students' interests so that teacher self-disclosure is used both as an informal and living curriculum for learning and as an instructional tool for communication. However, previous studies within the framework of communication theory did not pay sufficient attention to the unique features of teacher self-disclosure.

Another problem in the study of teacher self-disclosure is the lack of consideration of teachers and students as contextual factors. Students' individual characteristics, such as age/grade, gender, cultural background, and emotional feelings, may affect their understanding and evaluation of their teachers' self-disclosure. Without giving adequate consideration to students, teachers may disclose themselves without any control over amount, topics, purposes, and the other dimensions of teacher self-disclosure. Students' individual characteristics may serve as one crucial contextual factor as teachers appropriately disclose themselves in classroom teaching.

Similarly, literature on teacher self-disclosure does not reveal the study of teachers' individual characteristics. Teachers, as senders of teacher self-disclosure, function as another important contextual factor in terms of appropriateness of teacher self-disclosure. Similar to students' individual characteristics, teachers' individual characteristics, such as their age, gender, and cultural background, also may lead to teachers' using self-disclosure differently. Moreover, their teaching experiences and award status, as well as the subjects and grade level(s) they teach, may also be influencing factors that govern teachers' exercise of teacher self-disclosure.

Another concern regarding recent studies on teacher self-disclosure is that, while a few studies on teacher self-disclosure have been conducted in colleges and universities, teacher self-disclosure in K-12 classroom settings has not been studied widely. Gregory (2005) investigated the differences between college students and K-12 teachers in their perceptions of teacher self-disclosure; however, there has been scarce study investigating teacher self-disclosure comparing preservice teachers and inservice teachers in K-12 schools. To date, no studies have been conducted on whether or how teachers in K-12 classrooms use teacher self-disclosure so investigating K-12 inservice teachers' utilization of teacher self-disclosure is imperative.

The purposes of this study are multidimensional. First, this study will examine how preservice and K-12 inservice teachers perceive the appropriateness of teacher self-disclosure. Second, this study will investigate K-12 inservice teachers' application of teacher self-disclosure. Third, this study will examine how preservice teachers and K-12 inservice teachers perceive the teaching effectiveness of teacher self-disclosure.

Considering teacher self-disclosure as a multidimensional behavior, perceptions of appropriateness of teacher self-disclosure and its teaching effectiveness will be examined from the perspective that teacher self-disclosure functions as both an informal and living curriculum and an instructional tool. This study may lead to teachers' greater attention to and interest in investigation of how an informal curriculum may be integrated with formal curricula. Finally, based upon the results of this study, additional researchers may direct their attention to studies on teacher self-disclosure in K-12 classroom teaching.

Due to the importance of teacher self-disclosure in classroom teaching, this research will direct teacher education programs to examine whether preservice teachers differ from K-12 inservice teachers in their perceptions of appropriateness of teacher self-disclosure and its teaching effectiveness. What K-12 inservice teachers believe to be appropriate and/or inappropriate teacher self-disclosure and its teaching effectiveness may be different from what preservice teachers believe. Therefore, there is a practical need for research that compares preservice and K-12 inservice teachers' perceptions of appropriateness of teacher self-disclosure and its teaching effectiveness. College students who are in preservice teacher education programs (preservice teachers) will be examined. From the perspective of teacher education, preservice teachers need to understand how differently they perceive teacher self-disclosure from inservice teachers, and such understanding may make preservice teachers more fully understand the reality of classroom teaching and help them utilize teacher self-disclosure properly when they begin to teach. Therefore, the current study aims to draw both researchers' and teachers' attention to teacher self-disclosure both as an instructional tool and an informal and living curriculum in teacher education.

CHAPTER 2: LITERATURE REVIEW

Chapter two consists of four sections. In the first section, definitions of teacher self-disclosure are presented. The second section discusses the advantages and disadvantages of social penetration theory, the theoretical framework that was used by the previous studies of teacher self-disclosure and the new theoretical framework presented in this study. The third section summarizes dimensions of appropriateness of teacher self-disclosure, and the fourth section summarizes the studies of teaching effectiveness of teacher self-disclosure.

Definition of Teacher Self-Disclosure

Just as the study of teacher self-disclosure was influenced by the research of self-disclosure in interpersonal communication, the definitions of teacher self-disclosure have been influenced as well. This review of self-disclosure traces back to the pioneer studies by Jourard and Lasakow (1958) and continues through the 1970s and 1980s. Definitions of teacher self-disclosure will be discussed and a new definition of teacher self-disclosure for this study will be presented.

Early in the 1950s, clinical psychologists studied how counselors used self-disclosure to communicate with clients in order to establish a trusting relationship. Jourard and Lasakow (1958) conducted a pioneering study on self-disclosure and defined self-disclosure as the process of making the self known to other persons. Similarly, Cozby (1973) defined self-disclosure as “any information about himself which Person A communicates verbally to Person B” (p. 73).

Wheeless and Grotz (1976) defined self-disclosure as “any message about the self that a person communicates to another” (p. 338). Altman and Taylor (1973) argued that self-disclosure is the central vehicle used to reduce interpersonal distance. With the influence of social penetration theory, researchers defined self-disclosure with the emphasis on communication. Rosenfeld and Kendrick (1984) defined self-disclosure as a communication act that “has the self as content” and “is intentionally directed at another person, and contains information generally unavailable from other sources” (p. 326).

Study of teacher self-disclosure began in the late 1970s. Several researchers defined teacher self-disclosure with the consideration of its instructional characteristics. According to Nussbaum and Scott (1979), teacher self-disclosure is “any message about the self revealed to another, not only occurs in the classroom both voluntarily and involuntarily but also occurs and varies on the dimensions of intent, amount, direction, honesty-accuracy, and depth” (p. 569). Goldstein and Benassi (1994) adopted the definition of teacher self-disclosure as a teacher’s sharing of personal and professional information about himself or herself in a believable way. Wambach and Brothen (1997) defined teacher self-disclosure as “divulging personal information about oneself, such as statements about affect and personal anecdotes” (p. 262).

These researchers, however, did not clearly explain whether teacher self-disclosure should be relevant or irrelevant to subject content in classroom teaching. Thus, such definitions may result in the neglect of the differences between self-disclosure in clinical or interpersonal settings and self-disclosure in classroom teaching settings. Sorensen (1989) addressed the teaching setting and added relevance to teaching content to the definition of teacher self-disclosure. She defined teacher self-disclosure as “teacher

statements in the classroom about self that may or may not be related to subject content, but reveal information about the teacher that students are unlikely to learn from other sources” (Sorensen, 1989, p. 260).

To explore the relationship between self-disclosive teacher communication and classroom outcomes, Gregory (2005) defined teacher self-disclosure as “the intentional, verbal revelation of self to target others given the understanding that the degree of disclosure is relative to the perceptions of the message by those involved” (p. 16). Compared with the other definitions, and in addition to message and the contextual and perceptual nature of communication itself, this definition contains senders and receivers as variables. Thus, students as receivers of teacher self-disclosure and teachers as senders of teacher self-disclosure are considered in this definition, which deepened and widened the study of teacher self-disclosure.

With regard to the previous definitions of teacher self-disclosure and its multifunctional and multi-dimensional characteristics (Wheless & Grotz, 1976), this study defines teacher self-disclosure as the information disclosed by teachers about themselves while teaching. Teacher self-disclosure used as an informal and living curriculum and/or as instructional tool may be relevant or irrelevant to teaching materials for different purposes. This definition aims to differentiate self-disclosure in clinical or interpersonal settings and teacher self-disclosure in classroom teaching settings, and, therefore, it allows for the investigations of teacher self-disclosure from the perspectives of curriculum and instruction as well as communication theory.

Theoretical Framework

This section will discuss the studies that have been conducted on the basis of communication theories, and compare teacher self-disclosure with self-disclosure in interpersonal communication. Because of the multi-dimensional features of teacher self-disclosure, this section also discusses teacher self-disclosure from the perspective of curriculum.

Jourard (1970) revealed the dyadic effect of self-disclosure and postulated that the mutual exchange of disclosure followed a norm of reciprocity that was intrinsic to self-disclosure. According to Altman and Taylor (1973), there are three layers in the dimension of depth including the peripheral layers, the intermediate layers, and the central layers. The peripheral layers include biographical information; the intermediate layers include personal attitudes, beliefs, opinions, and the like; the central layers include fears, self-concepts, and moral values. Altman and Taylor (1973) also expounded the role of self-disclosure within interpersonal communication through the examination of four stages of relational development (orientation, exploratory affective exchange, affective exchange, and stable exchange). At the stage of orientation, individuals share only superficial information about themselves; at the stage of exploratory affective exchange, individuals begin to reveal information that may not be disclosed at the first stage; at the stage of affective exchange, personal barriers are dropped so that individuals disclose more to and learn more from each other; at the stage of stable exchange, continuous openness occurs.

Social penetration theory advanced by Altman and Taylor (1973) views self-disclosure as an interactional variable by which interpersonal relationships are formed

and developed. Social penetration theory describes the development of interpersonal relationships on a multidimensional level. Relationship formation is regarded to proceed gradually from nonintimate to intimate areas of the self, and self-disclosure is viewed as one important factor in the development of relationships. Social penetration theory provides one of the theoretical bases for the study of teacher-student relationships that may result from teacher self-disclosure.

Nussbaum and Scott (1979) stated that in operating classroom learning, the application of communication theory and practice to classroom learning should be considered. These authors argued that the instructional environment is a microcosm of the larger, interpersonal communication environment, although it is different in many ways from other environments, so that variables that affect interactants in the interpersonal communication environment should be expected to influence interactants in the instructional environment as well. Accordingly, Nussbaum and Scott (1979) assumed that some communication behaviors, such as communicator style, self-disclosiveness, and interpersonal solidarity, should affect classroom learning.

While social penetration theory has contributed to the investigation of teacher self-disclosure, there are additional issues of concern. The neglect of the differences between classroom teaching settings and the interpersonal communication settings may result in untenable research findings. Examination of the differences may be of help to both current research and future studies. The following section will discuss the differences related to two aspects: different relationship and different purposes.

Altman and Taylor (1973) built their social penetration theory upon the dyadic and reciprocal relationship in interpersonal communication. However, teacher self-

disclosure takes place in an instructional setting where the relationships between teachers and students are not completely reciprocal and dyadic. Teachers may sometimes self-disclose to expect that students consequently self-disclose or participate in classroom learning activities. In this case, students may have reciprocal and dyadic relationship with their teachers. However, if teachers self-disclose to clarify or exemplify the teaching materials, teachers may not expect students to respond. Moreover, the relationship between teachers and students in the classroom may never be intimate, although it ideally develops over the time (Altman & Taylor, 1973). Argyle and Henderson (1985) stated that teacher-student relationships should never fall in the high intimacy cluster of relationships that typically is reserved for husband-wife, parent-child, sibling, and close friend relationships.

Another obvious difference between teacher self-disclosure and self-disclosure in interpersonal communication is purposes for self-disclosure. In interpersonal communication, individuals may self-disclose to enhance their interpersonal relationship. Teachers may do so for the same purposes; therefore, it is possible and valuable to find out whether teacher self-disclosure may enhance teacher-student relationships. Nevertheless, teachers do not always use their self-disclosure to establish their relationship with their students; moreover, they may use teacher self-disclosure for other educational purposes. Teacher self-disclosure may be used as an informal and living curriculum and as an instructional tool as well as a communication tool, while self-disclosure in interpersonal communication only functions as an agent for the development of interpersonal relationships.

Considering the differences discussed above in the previous paragraphs, it is safe to state that studies on teacher self-disclosure should not be based solely on communication theory. Failing to support the assumption that self-disclosure, consistent with social penetration theory, would facilitate the development and maintenance of the instructional relationship, Minger (2004) concluded that, “The broader framework provided by social penetration theory is not suitable for the instructional context”(p. 155), and she suggested that a new theory specific to the instructional context should be explored and that the new theory should study teacher self-disclosure in relation to other instructional constructs, especially learning. Minger (2004) asserted that, “It is now time for future research to go beyond adapting and borrowing theories for instructional use to developing our own theories specific to the instructional context,” and, that “The development of future instructional theories should have the ultimate goal of explaining, predicting, and controlling for cognitive learning outcomes” (p. 165). Built upon the considerations of different functions of teacher self-disclosure, the following two sections will propose that teacher self-disclosure works as an informal and living curriculum and/or an instructional tool.

Curriculum has been defined differently from person to person and from time to time. Ryan and Cooper (2007) defined the curriculum as “all the organized and intended experiences of the student for which the school accepts responsibility” (p. 114). They further suggested that the curriculum means the methods used to teach students, the interactions that occur among people, and the school-sponsored activities that contribute to the “life experience”; moreover, they stated that formal curriculum often is referred to as the planned content and objectives such as language arts, mathematics, social science,

science, and all the other subject areas. Students are educated not only by the formal curriculum, but by the informal curriculum as well. The individual teacher is a major variable in what students actually learn, so the classroom context may affect the delivery of the curriculum more than the school context. Accordingly, curriculum works as a process in which the interaction between teachers, students and knowledge occurs so that curriculum becomes “an organic process by which learning is offered, accepted and internalized” (Newman & Ingram, 1989, p. 1).

Teacher self-disclosure is a component of the informal curriculum. Teacher self-disclosure is informal because it is not written in textbooks. Teachers may not prepare for their disclosure before they teach a lesson, but they may just find something related to their educational experiences, family, relatives, opinions and hobbies and use it as part of impromptu and supplementary teaching materials. In this context, what they self-disclose acts as a significant part of the curriculum.

Teacher self-disclosure is a living curriculum. What teachers self-disclose which is live and vivid makes students feel that the teaching content is natural and related to their life, a result of which is that students may be more interested in learning. In this context, teacher self-disclosure is considered as a particular type of process. Cornbleth (1990) believed that curriculum is what actually happens in classrooms, that is, “an ongoing social process comprised of the interactions of students, teachers, knowledge and milieu” (p. 5). Cornbleth (1990) further argued that curriculum in practice cannot be understood sufficiently or changed substantially without paying attention to its setting or context where interactions between students, teachers, knowledge, and milieu reveal the nature of teacher-student relationships, organization of classes, streaming, and so forth.

Through teacher self-disclosure, students may not only understand teaching materials more easily but also intentionally or unintentionally learn the perspectives, values, and cultures from their teachers. Therefore, teacher self-disclosure should be considered to be an informal and living curriculum. Ideally, teacher self-disclosure should support a complex network of physical, social, and intellectual conditions that shapes and reinforces the behavior of individuals and takes into consideration the individual's perceptions and interpretations of the environment in order to reinforce the learning objectives.

If the formal and explicit curriculum as a recipe for a dish can nourish students, teacher self-disclosure as one of the components of the informal and living curriculum may make the dish taste good. Accordingly, there are some questions that should be addressed. How can teachers make the dish nourish the students? In other words, how can teachers use teacher self-disclosure properly? What types of teacher self-disclosure should be used? How do teachers apply teacher self-disclosure disclosure? What are their purposes for using teacher self-disclosure?

Appropriateness of Teacher Self-Disclosure

This section consists of two parts. The first part summarizes the dimensions of teacher self-disclosure. The second part synthesizes the dimensions including topics, purposes, and consideration of students, all of which are considered to be dimensions of appropriateness of teacher self-disclosure.

Teacher self-disclosure is an effective instructional tool that can be used to increase student participation, interest, understanding, and motivation, and if used appropriately, it can produce a positive learning environment that benefits both teachers

and students. Unfortunately, it often is ignored in teacher preparation and application (Cayanus, 2004). First, the dimensions of teacher self-disclosure will be discussed in order to illustrate the understanding of appropriateness of teacher self-disclosure. Following is a review of some dimensions of teacher self-disclosure and the aspects of each dimension.

Because the study of self-disclosure has influenced that of teacher self-disclosure, it is necessary to review the dimensions of self-disclosure. Initial self-disclosure studies (Altman & Taylor, 1973; Cozby, 1973; Jourard, 1971; Jourard & Lasakow, 1958; Pearce & Sharp, 1973; Wheelless & Grotz, 1976) investigated dimensions of self-disclosure including topics, honesty, amount (breadth), depth, and so forth.

Wheelless and Grotz (1976) stated that future research on self-disclosure should pay attention to the multidimensional aspects. These researchers posited that there are the following four interdependent dimensions of self-disclosure: intent to disclose, the positive-negative nature of the disclosure (valence), honesty or accuracy of the disclosure, and amount (frequency and duration) of disclosure (Wheelless and Grotz, 1977). The intent dimension is the “conscious willingness” of an individual to reveal information regarding himself or herself. In addition, intent may be utilized as a strategic communication construct allowing the receiver(s) to relate to the speaker(s). The disclosure may vary in degrees of valence, which are based upon the perceptions that either the receiver(s) or the speaker(s) may regard the message as positive or negative. Honesty is understood as the accuracy with which an individual perceives her/himself and the degree to which she/he is able to disclose their perceptions to others. Amount of self-disclosure is the quantity of information that one discloses to another.

Under the influence of these studies, researchers in educational fields studied teacher self-disclosure and its dimensions. After Wheelless (1976, 1977) developed the Revised Self-Disclosure Scale based on Jourard Self-Disclosure Questionnaire (JSDQ), Nussbaum and Scott (1979) studied teacher self-disclosure with the modified Revised Self-Disclosure Scale that consists of five dimensions (intent, amount, positiveness-negativeness, depth and honesty) to investigate the relationship between perceived teacher communication behaviors and classroom learning. Among the five dimensions of teacher self-disclosure, honesty of disclosure and other variables such as general evaluation of communication style, competence of communication style, and solidarity were found to be the main contributors to the variable representing communication behaviors.

Downs, Javidi, and Nussbaum (1988) investigated how college teachers use humor, self-disclosure, and narratives as a tool for teaching effectiveness and also compared the differences between award-winning teachers and non-awarded teachers in the amount of different topics of teacher self-disclosure and purpose of self-disclosure through the examination of frequency of use of teacher self-disclosure. In their study, 57 college instructors' lectures were tape-recorded and analyzed. Each self-disclosive message was counted and coded into a topic regarding the instructor's education, experience, family, friends/colleagues, beliefs and/or opinions, leisure activities, personal problems, or other categories. The study results showed that among the general self-disclosure topics, teacher beliefs/opinions rank the highest. Results also identified that an average of ten self-disclosure attempts occurred per fifty-minute lecture. Downs and

colleagues (1988) identified three purposes of teacher self-disclosure: not relevant to course content, clarifying teaching materials, and promoting discussion.

Sorensen (1989) examined the relationship between teacher self-disclosure and students' affective learning. In her study, she investigated how teachers' competence levels were related with the following four dimensions of teacher self-disclosure: amount and depth of teacher self-disclosure, honesty, conscious intent, and the positive/negative nature of the disclosure. According to Sorensen, the valence of teacher self-disclosure is very important in that the valence is identified as two parts: positive messages and negative messages. Walker (1999) replicated Sorensen's study adding the examination of students' perceptions of actual teachers' positive and negative messages rather than those of the hypothetical teachers in Sorensen's study.

Cayanus and Martin (2002) stated that teacher self-disclosure can occur at any point and consists of these three dimensions: amount, valence, and relevance. Amount refers to how often a teacher self-discloses in the classroom, valence refers to both positive and negative disclosure, and relevance involves whether the disclosure is relevant to course content. Cayanus and Martin (2003) developed a measure of teacher self-disclosure, which consists of the following three dimensions: relevance, amount and positiveness. Cayanus (2004) discussed several facets of how teachers effectively use teacher self-disclosure, and he asserted that teachers should use positive self-disclosure, engage in self-disclosure that is relevant to the teaching materials, pay attention to self-disclosure and timing, and be aware of the amount of self-disclosure. Gregory (2005) investigated the relationship of frequency and level of teacher self-disclosure and

students' learning outcome and developed a survey of teacher self-disclosure to identify appropriate topics and inappropriate teacher self-disclosure topics.

Table 1. Dimensions of Teacher Self-Disclosure

	Nussbaum & Scott (1979)	Downs, Javidi, & Nussbaum (1988)	Sorensen (1989)	Walker (1999)	Cayanus & Martin (2002)	Minger (2004)	Gregory (2005)
Topics		√				√	√
Purposes	√	√					√
Relevance		√			√		
Amount	√	√	√	√	√	√	
Depth	√		√	√		√	
Frequency							√
Positivity- Negativity	√		√	√	√		
Honesty	√		√	√			
Intent			√	√			

As Table 1 indicates, various researchers have identified dimensions of self-disclosure. However, because of the multidimensional characteristics of teacher self-disclosure, different researchers studied different dimensions based on their study purposes and research designs. Since the previous studies were influenced by communication theory, the dimensions that the early researchers studied may not be appropriate for the study of teacher self-disclosure that is built on the philosophy that teacher self-disclosure is both an informal and living curriculum and/or an instructional tool. To study appropriateness of teacher self-disclosure, it is necessary to examine the dimensions of appropriateness of teacher self-disclosure in this regard. The following

section first will discuss definitions of appropriate teacher-self-disclosure and then the dimensions of appropriateness of teacher self-disclosure.

Considering appropriateness of teacher self-disclosure, Chelune (1979) offered a comprehensive concept of appropriateness of teacher self-disclosure by summarizing the body of research. Chelune stated that research indicates three major factors influence the relationship between self-disclosure and positive evaluation of the discloser. The first factor is the appropriateness of what is disclosed; the second is the discloser's motives; and the last is the individual characteristics of the evaluators. These factors influence how people judge the discloser. These three factors also may be considered applicable to the classroom setting. First, what teachers self-disclose is really an important matter to students. Second, disclosers' different motives or purposes may produce difference responses from an audience. Just as Chelune stated, "If disclosers appear indiscriminate in what they reveal, or if they disclose personal information for ulterior motives, they are negatively evaluated" (p. 248). Although Chelune (1979) did not discuss teacher self-disclosure directly, it is reasonable to assume that these factors are also essential factors for appropriateness of teacher self-disclosure. For example, the last factor, the individual characteristics of evaluators, can be considered as students' individual characteristics, such as their age, grade, gender, emotional status, cultural background and the like. These characteristics may influence students' judgments about their teachers' self-disclosure. If so, teachers should consider students' individual characteristics in addition to considering what, when, whether, how much and how to self-disclose in their teaching. To date, few studies on teacher self-disclosure addressed the consideration of students' individual characteristics.

Chelune (1979) offers a summary of theoretical analysis of appropriateness of self-disclosure, which can be viewed from both functional and normative perspectives. The functional approach examines self-disclosure in terms of expressive function, function of increasing personal clarification or obtaining social validation, function of developing and maintaining social relationships, and function of controlling outcomes in social relationships through impression management. The normative approach considers the social rules that govern appropriate disclosure. Chelune (1979) stated that norms regarding self-disclosure may have powerful effects on controlling a person's behavior because negative sanctions may occur as a result of violations of the norms.

Context also is considered an important aspect of appropriateness of teacher self-disclosure. Spitzberg and Cupach (1984) defined appropriateness as "the extent to which a communicative performance is judged legitimate within a given context" (p. 65).

Appropriateness is dependent upon knowing how to act in particular social settings so a self-disclosing teacher is required to be attuned to social and cultural norms and to choose to live within the parameters sketched out for acceptable behavior. Cooper and Simonds (1999) stated that, to be effective in self-disclosing, teachers should consider the time of their disclosure, the other person's capacity to respond, the short-term effects, the motives for disclosure, how much detail is called for, whether the disclosure is relevant to the current situation, and the feelings of the other person as well as their own.

Appropriateness of teacher self-disclosure also can be viewed from functional and normative perspectives. Social norms govern teachers' use of teacher self-disclosure and students' acceptance. It is important that teachers understand the social norms in

classroom teaching, which help them understand whether their self-disclosure is socially acceptable. However, teachers should not be bound to social norms, and they should be able to sufficiently consider contextual factors such as students' individual characteristics, engage in teacher self-disclosure fitting for the context, and at the same time reach the intended instructional goals. Minger (2004) stated that appropriateness is dependent upon knowing how to act in a particular social setting and further asserted that teacher self-disclosure should be attuned to social and cultural norms. Based on her literature review, Minger (2004) provided some guidelines for evaluating the appropriateness of teacher self-disclosure. She offered four types of inappropriate self-disclosure: 1) self-disclosure with no consideration of student characteristics; 2) self-disclosure that is not judicious or tasteful or is promoted by ulterior motives, including meeting the ego needs of the teacher; 3) self-disclosure with no consideration of cultural norms and societal expectations; and 4) self-disclosure that is primarily negative and exhibits a lack of tolerance. In addition, Minger also presented three types of appropriate teacher self-disclosure: 1) teacher self-disclosure that shows teachers' empathy in choosing what to disclose by considering the students' apprehensions, motivations, emotional stability, and personal characteristics; 2) teacher self-disclosure that is selective and that is delivered with altruistic motives; and 3) teacher self-disclosure that is governed by the social and cultural norms in the classroom teaching setting.

The above review regarding appropriateness of teacher self-disclosure indicates the complexities and multiple dimensions of appropriateness of teacher self-disclosure. In the following section, studies of specific dimensions of appropriateness of teacher self-disclosure will be reviewed.

Topics of Teacher Self-Disclosure

Topics of teacher self-disclosure were considered to be an important dimension and were studied by researchers such as Cayanus and Martin (2002), Downs, Javidi, and Nussbaum (1988), Holladay (1984), Javidi and Long (1989), Minger (2004), and Gregory (2005). The topics that these researchers studied include teachers' education experience, teaching experience, family, friends, beliefs/opinions, leisure activities, personal problems, hobbies, favorite food, personal characteristics, happiest moments and intimacy (see Table 2). Some studies identified the topics teachers often disclose, and others investigated what topics are appropriate and inappropriate.

Table 2. Topics of Teacher Self-Disclosure

	Holladay (1984)	Downs, Javidi, & Nussbaum (1988)	Javidi & Long (1989)	Cayanus & Martin (2002)	Minger (2004)	Gregory (2005)
Education	√	√	√		√	√
Teaching Experience	√	√	√			√
Family	√	√	√	√		√
Friends	√	√	√	√		√
Beliefs/Opinions	√	√	√	√		√
Leisure Activities	√	√	√			
Personal Problems	√	√	√			√
Hobbies		√		√	√	
Favorite Food					√	
Personal Characteristics					√	√
Happiest Moments					√	
Intimacy					√	√

Holladay (1984) pioneered the study of topics of teacher self-disclosure. Holladay asked students to recount episodes of teacher self-disclosure and found that teachers self-disclosed information concerning their education, experience as teachers, family, friends, beliefs and opinions, leisure activities, and personal problems.

To provide normative data regarding teacher use of humor, self-disclosure, and narratives as verbal behaviors utilized within the classroom context, Downs, Javidi, and Nussbaum (1988) analyzed 57 college instructors' lectures. Each self-disclosive message was counted and coded into a topic regarding the instructor's education, experience, family, friends/colleagues, beliefs and/or opinions, leisure activities, personal problems, or other categories. The study results indicated that among the general self-disclosure topics, teacher beliefs/opinions appear most often. Results also identified that an average of ten self-disclosure attempts occurred per fifty-minute lecture. In addition, 70% of the self-disclosure was used for the purpose of clarifying course material.

Javidi and Long (1989) identified five categories of topics of teacher self-disclosure: teachers' education and teaching experience; their family, friends and colleagues; their beliefs and opinions; their leisure activities; and their personal problems. Cayanus and Martin (2002) developed the Teacher Self-Disclosure Scale, and the topics consisted of general beliefs, dislikes and likes, using family/friends/self as examples, or opinions about current/campus/community events.

The preceding studies identified the topics that teachers often disclosed in their teaching; however, they failed to clarify appropriate and inappropriate teacher self-disclosure topics. Knowing the appropriate and inappropriate topics of teacher self-disclosure may help teachers use teacher self-disclosure more effectively. Just as Minger

(2004) stated, teachers' hobbies, favorite foods, educational background, personal characteristics, and happiest moments are acceptable topics while inappropriate self-disclosure includes intimacy.

Gregory (2005) explored how college students perceived topics of teacher self-disclosure with regard to comfort level and taboos. Students were asked what topics of teacher self-disclosure they perceived as making them feel comfortable or uncomfortable, as taboo in classrooms, or as required of teachers. Results indicated that knowing the education of the teacher ($n = 37, 21\%$), knowing the teacher's professional experience ($n = 28, 16\%$), and the teacher's expounding on the course/content/grading/pedagogy ($n = 26, 15\%$) are appropriate teacher self-disclosure topics. Students considered taboo topics to be sexuality, sexual practices, attractiveness ($n = 151, 87\%$); religious beliefs/practices ($n = 50, 29\%$); personal problems ($n = 50, 29\%$); drug or alcohol use ($n = 47, 27\%$); and political beliefs ($n = 34, 20\%$).

The literature regarding topics of teacher self-disclosure indicated a certain degree of agreement among the studies (see Table 2). Teachers' education, teaching experience, family, friends, beliefs/opinions, leisure activities, personal problems and hobbies were among the common topics of teacher self-disclosure of the college level. It is necessary to conduct further investigation regarding topics of teacher self-disclosure in K-12 schools.

Purposes of Teacher Self-Disclosure

Purposes of teacher self-disclosure function as an important dimension of appropriateness of teacher self-disclosure. Appropriate purposes of teacher self-disclosure may yield more effective teaching and learning outcomes, and inappropriate teacher self-disclosure may produce negative teaching and learning outcomes. Deiro

(2003) stated that teachers' motivation for establishing teacher-student relationships should not be for mutual satisfaction or self-fulfillment and that teacher self-disclosure should not be the tool for the satisfaction of teachers' ego needs. Therefore, it is necessary to investigate appropriate purposes of teacher self-disclosure.

Some studies shed light on the perceptions of purposes of teacher self-disclosure. Derlega and Grzelak (1979) reviewed the functional and normative aspects of self-disclosure and urged the need to investigate individuals' subjective reasons for self-disclosing. They provided the following five reasons: disclosure for self-expression or to release pent up emotions; to clarify opinions or ideas; to obtain social validation or feedback to aid self-concept validation; to develop or maintain an interpersonal relationship; or, to gain control of a situation or to manipulate the behavior of others. Rosenfeld and Kendrick (1984) studied how the relationship between self-discloser and self-disclosee determines the subjective reasons for self-disclosing. The results suggest that important reasons for disclosing to strangers are reciprocity and impression formation and that important reasons for disclosing to friends are relationship maintenance/enhancement, self-clarification and reciprocity. Moreover, Rosenfeld and Kendrick (1984) found that catharsis best predicted amount of disclosure to strangers, whereas both relationship maintenance/enhancement and catharsis predicted amount of disclosure to friends.

Two important studies that investigated the purposes of teacher self-disclosure were conducted by Downs, Javidi, and Nussbaum (1988) and Gregory (2005). As mentioned earlier, Downs and colleagues (1988) identified three purposes of teacher self-disclosure (not relevant to course content, clarifying teaching materials, and promoting

discussion). The frequency of use of self-disclosure by 57 teachers showed that not relevant to course content to be 1.23 (12%), clarify course material, 7.19 (70%), and promote discussion, 1.85 (18%). The results indicated that teachers use self-disclosure as well as humor and narratives mostly to clarify teaching materials and that some teachers use it for the promotion of classroom discussion. However, Downs, Javidi, and Nussbaum (1988) found that very few teachers use self-disclosure that is irrelevant to the teaching materials. It may be doubtful, therefore, whether irrelevance should be considered as a purpose of teacher self-disclosure. Because teachers use both relevant and irrelevant teacher self-disclosure for different purposes, the relevance/irrelevance to teaching materials might be more appropriately studied together with teacher self-disclosure purposes.

Gregory (2005) investigated the purposes of teacher self-disclosure by asking 50 teachers an open-ended question, "What intentions or purposes do you have when you use self-disclosure in the classroom?" Gregory identified such purposes to clarify materials ($n = 40$, 80%), relate material to real world ($n = 44$, 88%), make lesson more interesting ($n = 42$, 84%), admit personal bias ($n = 32$, 64%), make personal connection with students ($n = 37$, 74%), make students laugh ($n = 39$, 78%), share concerns ($n = 34$, 68%), inform students ($n = 34$, 68%), open students' minds ($n = 34$, 68%), influence students beliefs or behaviors ($n = 15$, 30%), emotional outlet ($n = 4$, 8%) and others ($n = 12$, 24%). In summary, Gregory's results revealed these five major purposes of teacher self-disclosure: clarify material, relate material to the real world, make lessons more interesting, admit personal bias and make personal connections with students. Results also indicated that teachers used self-disclosure to understand/apply the material,

increase affect with students, admit personal bias, raise student awareness and open their minds, influence students, and outlet their emotions.

Gregory (2005) investigated the comprehensive purposes of teacher self-disclosure; however, he did not identify appropriate and inappropriate purposes. Due to small sample size of the study, moreover, the generalizability is limited. In addition, there might be different perceptions of purposes of teacher self-disclosure between college teachers and K-12 teachers, so there is a need to further investigate the appropriate and inappropriate purposes of teacher self-disclosure in K-12 classroom settings.

Amount of Teacher Self-Disclosure

The amount of teacher self-disclosure is the most studied and controversial dimension of teacher self-disclosure. Under the influence of Jourard (1958, 1971), who found that amount of self-disclosure was related positively to the relationship between disclosers and audience, several studies on teacher self-disclosure attempted to confirm such a hypothesis in the study of teacher self-disclosure, that is, there is a positive relationship between amount of teacher self-disclosure and teaching effectiveness. This section will examine the results of the studies on amount of teacher self-disclosure and discuss what may be considered as the appropriate amount of teacher self-disclosure.

Several studies failed to find a positive relationship between amount of teacher self-disclosure and teaching effectiveness. Nussbaum and Scott (1979) investigated the relationship between perceived teacher communication behaviors and classroom learning. The study intended to investigate whether students' perceptions of teacher self-disclosure, together with communicator style and solidarity, are related significantly to the cognitive, affective, and behavioral learning in the classroom environment. Of the

five dimensions of teacher self-disclosure (intent, amount, positiveness-negativeness, depth, and honesty), only honesty of disclosure and the other variables such as general evaluation of communication style, competence of communication style, and solidarity were examined. Nussbaum and Scott (1979) found that perceived honesty of instructor's disclosure, general communication style, and competence of communication style contributed positively to affective and behavioral learning but were negatively associated with cognitive learning. The linear composite representing teacher communication behaviors consisted of the following variables relating to the variable by the levels of correlation as follows: intent of disclosure ($r = -.001$), amount of disclosure ($r = -.09$), positiveness-negativeness of disclosure ($r = .05$), honesty of self-disclosure ($r = .50$), general evaluation of communication style ($r = .81$), assertiveness of communication style ($r = .08$), and competence of communication style ($r = .87$). Nussbaum and Scott failed to find that amount of teacher self-disclosure significantly contributes to cognitive, affective and behavioral learning.

Similar to Nussbaum and Scott (1979), Sorensen (1989) found no positive relationship between amount of teacher self-disclosure and students' affective learning. In this study, Sorensen operationalized three types of teacher profiles (*good, neutral and poor*) and asked 617 college students to indicate the degree of likelihood that the three types of teachers would use each of the 150 disclosive statements. Sorensen (1989) examined whether there is any difference among three types of teachers in their perceived use of teacher self-disclosure. She found that the perceived good teachers were considered to disclose less than the perceived poor teachers and that poor teachers were perceived as disclosing more than teachers in the mixed and neutral conditions. Sorensen

(1989) considered the results reasonable because an obsessive amount of teacher self-disclosure might take too much class time better spent on the lesson.

Walker (1999) partially replicated and extended Sorensen (1989)'s research, one objective of which was to determine the relative effect of amount of teacher self-disclosure on students' affective learning. Walker (1999) utilized students' perceptions of actual teachers and investigated the association of the valence of the messages and students' reciprocation of information. In her study, 303 college students were asked to complete three surveys: Teacher Self-Disclosure Survey (Sorensen, 1989), Affective Learning Survey (Andersen, 1979), and the Revised Self-Disclosure Scale (Wheless & Grotz, 1976). The Pearson product-moment correlation was used to examine how students' perceptions of teachers' self-disclosive messages related to students' affective learning. Correlations were also computed to determine how amount, valence, honesty, and depth of students' reciprocal communication behaviors were related to teachers' self-disclosive messages. The results failed to find that the amount of teacher self-disclosure is significantly associated with affective learning ($r = .04$; $p = .244$; $N = 303$), although they showed that positively-valenced self-disclosive messages used by teachers in the classroom were positively associated with students' affective learning ($r = .26$; $p < .000$, $N = 303$). Walker (1999) explained that such results are caused by the teacher self-disclosure, which does not differentiate between positively-valenced and negatively-valenced self-disclosive statements. However, a positive association was obtained between teachers' use of positive messages and student affective learning and a negative association between teachers' use of negative self-disclosive statements and students' affective learning. This study also suggests that the amount of teacher self-disclosure

alone, as a factor of self-disclosure, is not an indicator of teaching effectiveness. It must be studied with the integration of other factors such as topics, purposes, relevance, and other contextual factors.

Similarly, Minger (2004) examined the relationship between teacher self-disclosure, perceived instructor caring, interpersonal solidarity, learner empowerment, and students' affective and cognitive learning. It was hypothesized that, as student perceptions of teacher self-disclosure increased, student reports of teacher caring would increase. Pearson's product moment correlations were calculated between teacher self-disclosure and the subscales of self-disclosure amount and depth. Results indicated that the amount of teacher self-disclosure was not correlated with teacher caring, $r(273) = -.033, p > .05$ and that the depth of teacher self-disclosure was negatively correlated with teacher caring, $r(270) = -.084, p > .05$.

Cyanus, Martin and Weber (2003) investigated the relationship between teacher self-disclosure and students' out-of-class communication with teachers, interest in the class, and cognitive learning. They hypothesized that there was a positive relationship between teacher self-disclosure and students' out-of-class communication, interest in the class, and cognitive learning. Teacher Self-Disclosure Scale (Cyanus & Martin, 2002) was administered to 208 college students. The cognitive learning was measured by using one item from the Cognitive Learning Inventory (McCrosky, Kearney & Plax, 1987) "How much did you learn in this class?" using a 9-point Likert-type scale. Results indicated a positive relationship between perceived amount of teacher self-disclosure and cognitive learning, $r = .18, p < .05$. Cyanus, Martin and Weber (2003) further elucidated

that teacher self-disclosure concerning important class information may make it easier to comprehend information and synthesize data.

On the contrary, Cayanus and Martin (2004) found inconsistent results regarding the relationship between amount of teacher self-disclosure and students' affective learning. Cayanus and Martin (2004) introduced the Instructor Self-Disclosure Scale with an 18-item measure of the amount of teacher self-disclosure. In this study, two of the hypotheses were that perceived teacher self-disclosure would be positively related to student affect for the instructor and that perceived teacher self-disclosure would be positively related to student affect for course material. Results indicated that there was no positive relationship between amount of perceived teacher self-disclosure and student affect for the instructor, $r = -.01, p > .05$, and that there was no positive relationship between perceived amount of teacher self-disclosure and student affect for the course material, $r = .04, p > .05$.

Cyanus (2005) investigated amount of teacher self-disclosure and classroom participation, and tried to determine whether cognitive flexibility, teacher self-disclosure, student motives to communicate, and affective learning influence question asking in the classroom. He found that the participatory student motive to communicate is the largest predictor of question asking in the classroom, R^2 change = .09, $\beta = .40, p < .001$, and cognitive flexibility was second, R^2 change = .05, $\beta = .24, p < .001$. Cyanus failed to find any of the three dimensions of teacher self-disclosure including amount ($\beta = .05, p > .05$), positiveness ($\beta = -.01, p > .05$) and relevance ($\beta = .06, p > .05$) to be predictors of question asking in the classroom.

In addition to the studies on relationships between amount of teacher self-disclosure and learning outcomes, two studies discussed appropriate amounts of teacher self-disclosure. Downs, Javidi and Nussbaum (1988) studied amount of teacher self-disclosure by comparing award-winning teachers and non-awarded teachers. These researchers found that the award-winning teachers self-disclosed less frequently than the non-awarded teachers. Downs, Javidi and Nussbaum (1988) validated that “too much humor or self-disclosure is inappropriate and moderate amounts are usually preferred” and that the award-winning teachers “were able to differentiate moderate from excessive use of these verbal behaviors, thus contribute to their ability to relate to students and overall perceived effectiveness” (p. 139).

Cayanus (2004) discussed how to use teacher self-disclosure and provided five strategies to effectively incorporate teacher self-disclosure into classroom teaching: organize the lecture, engage in positive self-disclosure, engage in self-disclosure relevant to the material, vary the topics and timing of self-disclosure, and be aware of the amount of teacher self-disclosure. Regarding amount of teacher self-disclosure, Cayanus (2004) further explained what is too much and too little teacher self-disclosure. He stated that if teachers self-disclose too much, even if the disclosure is relevant and positive, students may give these teachers negative perceptions, and he suggested that “a degree of professionalism needs to be maintained” (p. 8). He also stated that too little self-disclosure can result in students’ perceptions of teachers being stiff, unyielding, and unfriendly. He asserts that too little self-disclosure and too much self-disclosure both contribute to a negative learning environment. He suggested that teachers should keep in

mind how much they self-disclose and that they also try to get feedback from their students to know whether their self-disclosure is appropriate (Cayanus, 2004).

The above discussions reveal that there is a borderline between an appropriate and inappropriate amount of teacher self-disclosure. These discussions also reflect that teacher self-disclosure is completely different from self-disclosure in interpersonal communication. Considering the limited amount of time in each class, and the different roles of teachers and students in classroom teaching, the amount of teacher self-disclosure should be controlled. Therefore, it is of great significance to examine the amount of teacher self-disclosure. However, to date, there has been no study on the amount of teacher self-disclosure in K-12 classroom teaching; such a study will provide vital information of the application of teacher self-disclosure, and it may identify the supposed differences between teachers who teach different grade level, subjects, and so forth.

Consideration of Students

Consideration of students' acceptance has never been explored as a dimension of appropriateness of teacher self-disclosure in the previous studies. Chelune (1979) stated that three major factors influence the relationship between self-disclosure and positive evaluation of the discloser. The first factor is the appropriateness of what is disclosed; the second factor is the discloser's motives; and the final factor is the individual characteristics of the evaluators. He highlighted the possibility that appropriate self-disclosure does not reside solely in message content but also in the receiver and the evaluator of self-disclosure. It is safe to assume that this is also true in the classroom setting where students vary in the aspects of age, grade, gender, emotional status, and

cultural background. These characteristics may influence students' judgments about their teachers' self-disclosure. This section will examine a number of studies in which teachers and students were considered as contextual factors of appropriateness of teacher self-disclosure.

The consideration of students' differences and their acceptance has not been examined systematically in the study of teacher self-disclosure. Accordingly, Rouse and Bradley (1989) suggested some questions that should be investigated in the future study regarding the grade level, the students' emotion, and academic achievement. At what grade level might certain types of self-disclosure be most useful? These questions remain unanswered.

Minger (2004) acknowledged that teacher-self-disclosure might be effective if the instructor demonstrates empathy in choosing self-disclosive content by considering the students' apprehensions, motivations, emotional stability, and personal characteristics. Minger (2004) also affirmed that appropriate teacher self-disclosure may look different depending on the grade level, mental competence, and age of the students. Such a statement demonstrates the importance of and necessity for the consideration of students' age, grade level, emotional status, and cultural background.

Despite the studies on students' gender and its relation to teacher self-disclosure, no literature has been found regarding teacher self-disclosure and consideration of students' ethnicity, culture, grade, and feelings when they are in the classroom. Nevertheless, there were several studies on the contextual factors such as age, gender, and ethnicity groups. Although those studies are not new, a brief review on studies of self-disclosure regarding receivers' individual characteristics and relating the studies to

K-12 classroom teaching may better reveal the significance of studying the acceptance of students' individual characteristics.

Racial issues have been an important concern of educators for decades. In every classroom in America, there is a resource for the study of within-group cultural diversity as well as between-group diversity. Students come to school with a personal cultural background that influences their perceptions of teachers and teacher behaviors. Teachers carry into the classroom their personal background as well. Together students and teachers construct an environment of meanings enacted in individual and group behaviors of rejection and acceptance. In reality, ethnicity is a significant filter through which one's individuality is manifest. Teachers who pay enough attention to these differences in teaching may succeed in creating an effective multicultural classroom. Teacher self-disclosure, often used in the classroom, may play an important role in the equity and equality of multicultural education.

Similar to consideration of students as a contextual factor of appropriateness of teacher self-disclosure, teachers' differences deserve as much consideration. Teachers may teach different subjects and grade levels, which may result in different amounts and purposes of teacher self-disclosure. However, no studies have been conducted on how these factors influence the use of teacher self-disclosure in K-12 classroom teaching, which further adds to the importance of studies of contextual factors as a dimension of teacher self-disclosure. Based on the literature review, the current study intends to explore the preservice teachers' and K-12 inservice teachers' perceptions of appropriateness of teacher self-disclosure, and K-12 inservice teachers' application of teacher self-disclosure through the following research questions:

Research Question 1: Is there any difference among K-12 inservice teachers in their perceptions of appropriateness of teacher self-disclosure?

Research Question 2: Is there any difference among preservice teachers in their perceptions of appropriateness of teacher self-disclosure?

Research Question 3: Is there any significant difference between preservice teachers and K-12 inservice teachers in their perceptions of appropriateness of teacher self-disclosure?

Research Question 4: Is there any difference among K-12 inservice teachers in their application of teacher self-disclosure?

Summary

This section reviewed the studies of appropriateness of teacher self-disclosure. First, studies of the dimensions of teacher self-disclosure were summarized. Second, each specific dimension of appropriateness of teacher self-disclosure (topics, purposes, amount, and consideration of students) was reviewed.

Teaching Effectiveness of Teacher Self-Disclosure

Teaching is such a broad concept that there exists no parsimonious definition of teaching effectiveness. Studies regarding teaching effectiveness stress qualities such as knowledge and organization of the subject matter, skills in instruction, and personal qualities and attitudes that are useful in classroom teaching (Braskamp, Brandenburg & Ory, 1984; Cashin, 1995). Some studies on the college level found that teacher self-disclosure is an effective instructional communication tool that can be used to enhance teaching effectiveness such as students' classroom participation, interest, understanding, motivation, and cognitive learning. Nussbaum and Scott (1979, 1980); McCarthy and

Schmeck (1982); Sorensen (1989); Walker (1999); Hartlep (2001); Cayanus, Martin and Weber (2003); and Minger (2004) found that teacher self-disclosure have effects on students' both affective learning and academic learning outcomes. Goldstein and Benassi (1994, 1997), Wambach and Brothen (1997), and Cayanus (2005) investigated how teacher self-disclosure enhances classroom participation. Kryspin and Feldhusen (1974) stated that effective teaching requires an understanding of the "nature of the relationship between the teacher and the student" (p. 2).

Based on Bloom's (1956) taxonomy of domains of learning: cognitive learning, affective learning, and psychomotor, Nussbaum and Scott (1979) examined teaching effectiveness via three aspects of learning: cognitive learning, affective learning and behavioral learning. Cognitive learning is for mental skills, affective learning is for growth in feelings or emotional areas, and behavioral learning is for manual or physical skills. Behavioral learning is considered as the behavioral effects of the classroom in which students participate in learning activities. The literature review in this section will examine teaching effectiveness of teacher self-disclosure from the three domains: affective learning, cognitive learning, and classroom participation and classroom behavior.

Affective Learning

Affective learning is "an internalization of student attitudes and values of the teachers, content of the subject matter, and teacher communication practices" (Walker, 1999, p. 17). Researchers based their studies on social penetration theory found relations between teacher self-disclosure and students' affective learning that includes the communication and relationship between teachers and students.

Nussbaum and Scott (1979) investigated the relationship between teacher self-disclosure, together with two other classroom communication behaviors: communicator style and interpersonal solidarity, and students' classroom learning, and they found that teacher self-disclosure has a positive relationship with affective learning. Nussbaum and Scott (1979) assessed affective learning with the measures of communication practices suggested in the course and content/subject matter of the course. Eight 7-point, evaluative, semantic differential scales were administered to measure affective learning. Nussbaum and Scott found that perceived communicator style and teacher disclosiveness were significantly related to a linear combination of cognitive, affective and behavioral domains of learning. A significant canonical correlation ($r = .32, p < .001$) was observed between linear composites representing teacher classroom communication behaviors and classroom learning. The linear composite representing classroom learning was composed of the following variables: affective learning ($r = .78, p < .001$), behavioral learning ($r = .61, p < .001$), and cognitive learning ($r = -.56, p < .001$). Results of this research indicated that teacher self-disclosure has a positive relationship with affective learning and behavioral learning, but it failed to find the positive relationship between teacher self-disclosure and cognitive learning.

Rouse and Bradley (1989) investigated whether teacher self-disclosure produces more student self-disclosure in reading instruction. They studied 125 rural fifth grade middle school students. A teacher read the story "The Cub" which is a story about a boy who wrestles with his father as he is growing up. After reading the story, the teacher asked the students to answer some questions in "Guide for Examining Personal Responses to a Story". Then the teacher self-disclosed regarding why the story was

meaningful to him and how it related to his own childhood. After the teacher self-disclosure, students were asked how the story related to their personal lives. The questions and answers were tape-recorded. The average number of responses for the 11 questions in the "Guide" was 38, with an average response time of 2.4 seconds. The average number of responses after the teacher self-disclosure was 13, with an average length of 9.6 seconds. The results showed that teacher self-disclosure is very effective in creating a classroom communication environment that is conducive to personally relevant talk so that students revealed themselves in a way that fostered a strong sense of mutual understanding and human bonding. Teacher self-disclosure appears to be a factor that creates a warm and emotionally safe classroom environment in which students are willing to open up through self-disclosure, and, consequently, teachers and students understand each other better. Rouse and Bradley further suggested that this feeling of emotional warmth may help students learn better. Furthermore, they mentioned that when the artificial barriers between students and teachers are broken down, students are provided with a stronger sense of personal involvement in the educational process.

Sorensen (1989) further clarified that "the teacher's communication skills in the classroom have a greater probability of increasing students' affective learning" (p. 262) and she found that teachers who self-disclose the type of statements associated with the good teacher condition will probably increase positive student affect, and that the positive student affect, in turn, leads to their teaching effectiveness. Walker (1999) extended Sorensen's research by utilizing students' perceptions of actual teachers and investigated the association of the valence of the messages and students' reciprocation of information. The Pearson product-moment correlation was used to examine how students' perceptions

of teachers' self-disclosive messages influenced students' affective learning. Correlations were also computed to determine how amount, valence, honesty, and depth of students' reciprocal communication behaviors were related to teachers' self-disclosive messages. Although the results did not show that the amount of teacher self-disclosure is significantly associated with affective learning ($r = .04$; $p = .244$; $N = 303$), positively-valenced self-disclosive messages used by teachers in the classroom were found to be positively associated with students' affective learning ($r = .26$; $p < .000$; $N = 303$).

Hartlep (2001) used her family and friends as topics of self-disclosure to examine whether these examples make students remember more teaching materials. Sixty-three college students in an undergraduate course participated in the college psychology lectures by Hartlep. The lectures were divided randomly into four different forms of presentation. Eight lectures included teacher self-disclosure, and eight did not. Results indicated that lectures with teacher self-disclosure led to better exam performance than lectures without teacher self-disclosure. In addition to positive impacts on cognitive learning effects, Hartlep believed that even if self-disclosure may not have an effect on every exam, it at least helps establish a friendly classroom atmosphere. Hartlep (2001) also mentioned that teacher self-disclosure irrelevant to teaching materials may be used to "break the ice," and consequently, students are more willing to ask questions, make comments in class, and even speak to their teacher after class.

Minger (2004) studied the relationship between teacher self-disclosure, perceived instructor caring, interpersonal solidarity, learner empowerment and students' affective and cognitive learning. Participants in this study consisted of 282 students in a Master's program at Asbury Theological Seminary. Data were collected in 15 classes taught by 14

teachers. Self-disclosure was measured using a composite of amount and control of depth subscales from Wheelless' (1978) revised self-disclosure scale. Minger (2004) changed "I" statements into "My teacher". This rewording allowed students to report their perceptions of teacher self-disclosure. Results indicated that students' perception of teacher self-disclosure is not related to how much they perceive their teachers care for them, $r(268) = -.039, p > .05$; that there is a weak relationship between teacher self-disclosure and students' interpersonal solidarity with the instructor, $r(267) = .116, p < .05$; that students who report stronger perceptions of being cared for by their instructors are very likely to report a sense of relational solidarity with instructors, $r(273) = .644, p < .05$; that the interpersonal solidarity resulting from teacher self-disclosure and perceived teacher caring for students has a strong relationship with student empowerment, $r(270) = .600, p < .05$; and that student empowerment is related moderately to students' affective learning, $r(264) = .640, p < .05$, and perceived cognitive learning, $r(267) = .368, p < .05$.

Cayanus, Martin and Weber (2003) investigated the relationship between teacher self-disclosure and students' out-of-class communication with teachers, interest in the class, and cognitive learning. Cayanus and colleagues studied teacher self-disclosure and affective learning from the perspective of student interest. The participants of this study were 208 college students from a university who were asked to complete a survey. Teacher self-disclosure was measured using the Teacher Self-Disclosure Scale (Cayanus & Martin, 2002). Results showed that teacher self-disclosure had a positive relationship with out-of-class communication, $r = .27, p < .001$. Cayanus and Martin (2002) also

found that a positive relationship existed between perceived teacher self-disclosure and these two dimensions of student interest: impact ($r = .18, p < .05$), and meaningfulness ($r = .24, p < .001$) while the feelings of competence dimension was not related to teacher self-disclosure ($r = .03, p < .05$). Results also indicated a positive relationship between perceived teacher self-disclosure and cognitive learning ($r = .18, p < .05$).

Despite that aforementioned studies revealed a positive relationship between teacher self-disclosure and students' affective learning, two studies yielded contrary results. Cayanus and Martin (2004) introduced the Instructor Self-Disclosure Scale with an 18-item measure of the amount of teacher self-disclosure. Two of the hypotheses were that perceived teacher self-disclosure will be related positively to student affect for the instructor and that perceived teacher self-disclosure will be related positively to student affect for course material. The findings showed no positive relationship between perceived teacher self-disclosure and student affect for the instructor, $r = -.01, p > .05$, and no positive relationship between perceived teacher self-disclosure and student affect for the course material, $r = .04, p > .05$.

Gregory (2005) investigated the relationships between frequency and level of teacher self-disclosure and students' affective learning as well as cognitive learning. Four hundred and seventy-one college students volunteered to take the survey. A multiple linear regression was calculated to predict students' affective learning from frequency and level of teacher self-disclosure. The regression equation was not significant, $F(2, 470) = 1.695, p > .05$, with an R^2 of .007.

With the exception of the study by Cayanus and Martin (2004) and that by Gregory (2005), the studies reviewed showed support for the conclusion that teacher self-

disclosure leads to students' affective learning in several different aspects. With regard to the participants, only Rouse and Bradley (1989) conducted the study of teacher self-disclosure in a K-12 school; the other studies regarding teacher self-disclosure and affective learning were conducted in colleges. There is an urgent need for the investigation of teacher self-disclosure and its effects on different aspects of affective learning in K-12 schools.

Cognitive Learning

In the 1970s, some researchers in the area of human learning and memory studied the factors involved in information processing and the ways in which these factors influence the retention and recall of the information processed (Craik & Tulving, 1975). Several of the researchers suggested self-reference to be an important factor involved in information processing. McCarthy and Schmeck (1982), Rogers, Kuiper, and Kirker (1977), and Bower and Gilligan (1979) reported superior retention in subjects who were instructed to use the self as a reference point in processing information; accordingly, Rogers and colleagues (1977) suggested that the self is a very unique and useful cognitive structure for encoding a broad range of information.

The literature provides inconsistent results of teacher self-disclosure and cognitive learning. Some studies suggested that teacher self-disclosure does not relate to students' cognitive learning. Nussbaum and Scott (1979) investigated the relationship between perceived teacher communication behaviors and classroom learning, and they intended to investigate whether students' perceptions of teacher self-disclosure, together with communicator style and solidarity, are related significantly to the cognitive, affective, and behavioral learning in the classroom environment. Among the five dimensions of teacher

self-disclosure, and the other variables such as general evaluation of communication style, competence of communication style, and solidarity, Nussbaum and Scott found that perceived honesty of instructor's disclosure, general communication style, and competence of communication style contributed positively to affective learning ($r = .87$, $p < .001$) and behavioral learning ($r = .61$, $p < .001$), but they were negatively associated with cognitive learning ($r = -.56$, $p < .001$). Nussbaum and Scott (1979) synthesized the research findings and considered that the negative relationship between teacher self-disclosure and cognitive study results from too much affect between teachers and students because "too much homophily between teacher[s] and student[s] may detract from cognitive learning" (p. 579).

Similarly, Gregory (2005) studied college teachers' self-disclosure and student cognitive and affective learning outcomes. Four hundred and seventy-one college students volunteered for the survey. Using Learning Loss Measure developed by Richmond, McCroskey, Kearney, and Plax (1987), Gregory (2005) examined student perceptions of cognitive learning in considerable communication research. This measure was used to assess learning in a specific class by comparing students' perceptions of how much they actually learned with how much they perceive they could have learned from the ideal teacher. A multiple linear regression was calculated to determine whether teacher self-disclosure frequency and level predicts cognitive learning. The regression equation was not significant, $F(2, 470) = 2.454$, $p > .05$, with an R^2 of .010 indicating that neither frequency nor level was predictive of cognitive learning.

However, several researchers found that teacher self-disclosure is positively related to students' cognitive learning. Based on previous research, McCarthy and

Schmeck (1982) expressed their agreement that human beings have cognitive schema for many individuals that are useful for encoding information. In a classroom setting, teacher self-disclosure might stimulate self-reference in students, which might enhance students' memory of the lecture material. McCarthy and Schmeck (1982) examined the effects of teacher self-disclosure on college students' recall of lecture material and their perceptions of the teacher. Thirty-two male and 32 female undergraduate college students were assigned to listen to one of two recordings of a lecture by a male professor. The students were asked to recall the lecture material through a test and also rate the teacher on the dimensions of expertness, social attractiveness, and trustworthiness. An analysis of variance conducted on the free recall of lecture material indicated that females generally scored higher than males, $M = 9.5$ versus 6.7 , but this difference was significant only in the no self-disclosure condition, $F(1, 63) = 13.24, p < .001$. The results also indicated that male students in the self-disclosure group scored higher than those in no self-disclosure groups, $M = 7.6$ versus 5.9 , but female students in no self-disclosure groups scored higher than female students in self-disclosure, $M = 11.1$ versus 7.9 . Such results suggest that teacher self-disclosure can raise male student recall of lecture material.

Hartlep (2001) investigated how teacher self-disclosure leads to better academic achievement than lectures with no teacher self-disclosure. Hartlep (2001) used her family and friends as topics of self-disclosure to examine whether these examples make students remember more teaching materials. Sixty-three college students in an undergraduate course participated in the lectures by Hartlep. She used 16 class lectures for a college psychology course and randomly divided the lectures into four forms of presentation: lectures with pair-share experiences, lectures with no pair-share experiences, lectures

with teacher self-disclosure and lectures with no teacher self-disclosure. While the researcher found no support for a student self-reference effect, she found that lectures with teacher self-disclosure lead to better exam performance than lectures without teacher self-disclosure.

The inconsistent results regarding the relationship between teacher self-disclosure and students' cognitive learning may result from the different measures implemented by the researchers. Another argument is that teacher self-disclosure may not lead to observable cognitive learning because learning outcomes involve so many aspects that it is difficult to identify teacher self-disclosure per se as the factor that enhances cognitive learning. It may be safe to conclude that teacher self-disclosure may enhance cognitive learning with the support of other aspects in the learning and teaching processes such as affective learning and classroom participation; therefore, the measurement for cognitive learning is difficult to make. To investigate the relationship between teacher self-disclosure and cognitive learning, it may be practical to combine the investigation of cognitive learning with affective learning and classroom participation.

In addition, similar to the studies of teacher self-disclosure and its effects on students' affective learning, no study of the effects of teacher self-disclosure on cognitive learning has been conducted in K-12 schools. Thus, there is an urgent need for the investigation of teacher self-disclosure and cognitive learning in K-12 schools.

Classroom Participation and Classroom Behavior

The studies of self-disclosure in the early stages exerted strong influences on the study of teacher self-disclosure and classroom participation. According to the dyadic or reciprocity effect advanced by Jourard (1971), Goldstein and Benassi (1994) stated that

although it may be difficult to identify the variables that account for this interpersonal environment, teacher self-disclosure is a starting point for such an investigation for the reason that “self-revelation may set the affective and interpersonal tone of the classroom” (p. 212). For that reason, Goldstein and Benassi (1994) hypothesized a positive relationship between teacher self-disclosure and students’ classroom participation. The dimensions of class participation examined were class discussion, question asking, and students’ willingness to express their opinions and feelings in class. Teachers and students in 64 undergraduate classes completed questionnaires that assessed teacher self-disclosure, class participation, and students’ willingness to participate in class. Correlations between student perceptions of teacher self-disclosure and student perceptions of classroom participation and between student perceptions of teacher self-disclosure and student perceptions of the freedom to participate in class were significant, $r(62) = .29, p < .01$, and $r(62) = .46, p < .001$, respectively. The results showed that teacher self-disclosure is associated positively with students’ classroom participation in a natural classroom setting.

Wambach and Brothen (1997), however, found different results from those in Goldstein and Benassi’s (1994) study. Data were collected through observing 22 college classes. The results identified four forms of student participation: responding to teachers’ questions, asking the teacher questions, private conversation between students, and true discussions. Correlations between teacher self-disclosure and measures of student participation were: responding $r = -.01$, questioning, $r = -.18$, private conversation, $r = -.03$, and discussion, $r = .02$. Results suggested that teacher self-disclosure is not associated with student class participation. Therefore, Wambach and Brothen (1997)

questioned the research conducted by Goldstein and Benassi (1994) on methodological, empirical, and conceptual grounds. Wambach and Brothen's criticism was not convincing because their study was different from Goldstein and Benassi's (1994). First of all, Goldstein and Benassi measured the perceptions of classroom participation with self-report surveys, but Wambach and Brothen examined the relationship between teacher self-disclosure and several measures of student participation by means of actual observation of student behavior in the college classroom. Second, two groups of researchers defined classroom participation differently. Wambach and Brothen (1997) defined teacher self-disclosure as "divulging personal information about oneself, such as statement about affect and personal anecdotes" (p. 262). The dimensions of classroom participation include discussion, student questioning, responding to teachers' questions, and private conversation. However, in Goldstein and Benassi's study, Goldstein and Benassi's study identified the following aspects of classroom participation: class discussion, question asking, and students' willingness to express their opinions and feelings in class.

Cayanus (2005) investigated teacher self-disclosure and its effects on question asking in the classroom as a component of classroom participation. Two hundred and sixteen undergraduate students were asked to complete the survey. A simultaneous multiple regression was conducted, and an analysis was performed to examine whether cognitive flexibility, the three dimensions of teacher self-disclosure, the five student motives to communicate and the two dimensions of affective learning positively influence question asking in the classroom. Results showed that participatory and cognitive flexibility contributed to student question asking in the classroom, $F(2, 210) =$

5.88, $p < .001$, and accounted for 24% of the variance. The participatory student motive to communicate is the largest predictor of question asking in the classroom, and cognitive flexibility was second. Cayanus failed to find any of the three dimensions of teacher self-disclosure: amount, positiveness, and relevance to be predictors of question asking in the classroom.

The contradictory results indicated that it is of great importance to conduct further investigation into teacher self-disclosure's effects on classroom participation.

Considering the relationship between classroom behavior and classroom participation, it is possible and reasonable to consider the two aspects: classroom participation and classroom behavior as one dimension. As a result, classroom participation and classroom behavior taken together as learning behavior refers to any students' learning activities and any learning behavior, explicit or implicit, which help students learn in the process of classroom teaching. Unfortunately, there is little literature regarding the study of the relationship between teacher self-disclosure and both students' classroom participation and their classroom behavior. In addition, no study of the effects of teacher self-disclosure on students' classroom participation and classroom behavior has been conducted in K-12 schools. There is also an urgent need for the investigation of teacher self-disclosure and classroom participation and behavior in K-12 schools. Based on the literature review, the current study examines preservice teachers' and K-12 inservice teachers' perceptions of teaching effectiveness of teacher self-disclosure through the following questions:

Research Question 5: Is there any difference among K-12 inservice teachers in their perceptions of effects of teacher self-disclosure on teaching effectiveness?

Research Question 6: Is there any difference among preservice teachers in their perceptions of effects of teacher self-disclosure on teaching effectiveness?

Research Question 7: Is there any significant difference between preservice teachers and K-12 inservice teachers in their perceptions of effects of teacher self-disclosure on teaching effectiveness?

Summary

This section reviewed the studies of teaching effectiveness of teacher self-disclosure from the following three perspectives: affective learning, cognitive learning, and classroom participation and behavior. The literature review revealed some problems in the study of teacher self-disclosure and its effects on teaching effectiveness. The first problem is that few studies have been conducted in K-12 schools and that study on teacher self-disclosure of K-12 inservice teachers has been ignored. Second, since Nussbaum and Scott (1979) studied teacher self-disclosure and its effects on teaching effectiveness via these three aspects (cognitive learning, affective learning and behavioral learning), there has been no study that has considered the three aspects of teaching effectiveness together. Rather, they have been investigated separately. Finally, changes have occurred in education since Nussbaum and Scott (1979)'s study was conducted almost 27 years ago, so teachers may understand and use teacher self-disclosure differently than they did. It is of great significance to conduct this study on teacher self-disclosure.

CHAPTER 3: METHODOLOGY

Chapter three consists of three sections. The first section introduces a preliminary study, which involves exploration of preservice teachers' perceptions of appropriateness of teacher self-disclosure and teaching effectiveness of teacher self-disclosure in spring 2005. The second section introduces the development of three instruments: Appropriateness of Teacher Self-Disclosure Scale, Teaching Effectiveness of Teacher Self-Disclosure Scale, and Application of Teacher Self-Disclosure Scale, all of which were developed based on the preliminary study. The third section as the primary study explores K-12 inservice teachers' and preservice teachers' perceptions of appropriateness of teacher self-disclosure and teaching effectiveness of teacher self-disclosure; moreover, K-12 inservice teachers' application of teacher self-disclosure is also examined in the primary study.

Preliminary Study

The preliminary study involved a qualitative methodology, and was designed to examine appropriateness of teacher self-disclosure and its teaching effectiveness. A convenience sampling method was used for this study.

Participants

Participants in the preliminary were undergraduates ranging from sophomores to seniors in an urban university in the Eastern United States who were preservice teachers. These students were enrolled in a Social and Cultural Foundations of Education course, required for education majors and for teacher licensure. One hundred and twenty-nine

students were registered for this class in the spring semester of 2005 and were eligible to participate in this research.

Data Collection

Data were collected from on-line group discussions in Blackboard 6.0. The students were assigned to groups of five to seven students, and students in each group were asked to answer the following two questions: 1) what is appropriate and inappropriate teacher self-disclosure? 2) what is teaching effectiveness of teacher self-disclosure? The students who completed the assignments received a 30-point credit toward their grade for the completion of the assignments. The researcher retrieved the data at the end of spring semester of 2005 saved the data in an electronic file.

Data Analysis

Two researchers read the discussion and independently identified generated topics, clustered and prioritized similar topics. Categories then were compared for inter-rater consistency and a common category set was adopted. Ten percent of the items in the data were cross-coded to determine inter-rater reliability. Inter-rater reliability was eighty-five percent. Then QSR Nvivo software was used for coding and data analysis. The results and discussions were organized into the following two aspects: perceptions of appropriateness of teacher self-disclosure, and perceptions of teaching effectiveness of teacher self-disclosure.

Results for Appropriateness of Teacher Self-Disclosure

This section presented preservice teachers' perceptions of appropriateness of teacher self-disclosure. Six self-disclosure categories were identified and arranged based on the numbers of respondents, and the categories included topics of teacher self-

disclosure, relevance to teaching materials, amount and degree of intimacy, purposes, consideration of students, and teacher judgment.

Topics of Teacher Self-disclosure

Studies showed that the topic of teacher self-disclosure received the most attention of preservice teachers. Altogether 60 out of 107 respondents commented on teacher self-disclosure topics. Appropriate topics of teacher self-disclosure included personal experiences/stories, personal family/relatives/friends, and personal interests/hobbies/likes and dislikes. Personal opinions were fairly divided among the respondents regarding its appropriateness and inappropriateness. Inappropriate topics included personal beliefs/political perspectives, and marriage/sex/alcohol/abortion/other personal behavior. Table 3 shows the number of respondents regarding appropriate and inappropriate topics of teacher self-disclosure.

Table 3. Perceived Topics of Teacher Self-Disclosure

Topics	Appropriate	Inappropriate	Total
Personal Experiences/Stories	28	1	29
Personal Family/Relatives/Friends	8	4	12
Personal Interests/Hobbies/Likes & Dislikes	7	2	9
Personal Opinions	5	3	8
Personal Beliefs/Political Perspectives	1	6	7
Personal Marriage/Sex/Alcohol/Abortion/ Other	3	20	23
Illegal Behaviors			
Others	3	3	6

Relevance to Teaching Materials

Among 107 respondents, 35 mentioned that whether teacher self-disclosure is relevant to the teaching materials could cause appropriate and inappropriate teacher self-

disclosure. Seventeen out of 35 respondents stated that teacher self-disclosure relevant to teaching materials is appropriate self-disclosure; 11 respondents agreed on that, but meanwhile, they also indicated that teacher self-disclosure irrelevant to teaching materials is inappropriate teacher self-disclosure. Four other respondents also revealed that irrelevant teacher self-disclosure is inappropriate. However, three exceptional respondents indicated that even irrelevant teacher self-disclosure is acceptable. The results indicated that preservice teachers considered teacher self-disclosure relevant to teaching content to be appropriate and that most participants encouraged teacher self-disclosure relevant to teaching materials. Such teacher self-disclosure enhances understanding and increases interest. Only a few participants would encourage teacher self-disclosure that is irrelevant to teaching materials. Three students vigorously argued that even if teacher self-disclosure is irrelevant to the teaching materials, it is still appropriate and meaningful because it enhances the learning environment.

Amounts and Degree of Intimacy

Preservice teachers agreed that a moderate amount of teacher self-disclosure is appropriate and that too much self-disclosure is inappropriate. Several respondents believed that appropriate teacher self-disclosure is important and necessary, but that its amount should be modest. Eleven respondents believed disclosing too much information, disclosing too frequently, and taking too much time to be inappropriate teacher self-disclosure.

Good teacher-student relationships create a positive learning environment. According to 14 responses, teachers need to draw the line between encouraging a good relationship and an intimate relationship. One respondent suggested that teachers and

students should relate to each other “on a semi personal level.” Quite a few of the responses affirmed that if teachers and students keep “buddy-buddy” relationship or the relationship similar to family or friends, teachers might disclose overly personal or intimate topics which may be offensive or may make students feel “uncomfortable, insecure or untrusting.”

Purposes of Teacher Self-Disclosure

Eighteen out of 107 respondents mentioned purposes of teacher self-disclosure. All of them talked about what purposes would be appropriate regarding students’ cognitive learning, affective learning and some learning outcomes. Four respondents believed that teacher self-disclosure should be “educational,” and/or be “used as instructional tools” with the intention that the discussion between teachers and students would have some positive impact on the students or “enhance a learning topic.” Moreover, a couple of students pointed out that teacher self-disclosure should be intended to enhance the learning environment in the classroom to “gain the child’s attention in the classroom.”

It is strongly evident that 10 respondents believed that teacher self-disclosure should be delivered with the aim of enhancing students’ affective learning. They mentioned that teacher self-disclosure should be a tool for a teacher to “gain the trust” of the students, “provide wisdom to the students,” inspire or motivate students, teach students “a quick or moral lesson,” and “help students make proper decisions and develop proper values.”

These responses mentioned above showed the appropriate motivations or purposes of teacher self-disclosure. Five remarks pointed out that some teacher self-

disclosure is not well meant. Teachers brag about themselves, belittle their students, or just aim at “making the teacher look like a big shot or getting a laugh from the students.” The majority of responses confirmed that most teacher self-disclosure was educational self-disclosure that enhanced students’ learning.

Consideration of Students

Results revealed that some respondents expressed their opinions about the consideration of students. There was general agreement that teachers should consider students’ age, grade, and maturity levels. Out of 107 respondents, 12 responses were identified to mention the relevance of appropriate teacher self-disclosure and students’ age or grade level. According to the responses, teachers should consider students’ age, grade level, or “the maturity level” when they self-disclose in classroom teaching in order to prevent students from receiving harmful information.

Teacher Judgment

Results suggested the necessity for teachers to judge the appropriateness of all information before it is disclosed. On the subject of what is appropriate and inappropriate self-disclosure, 14 respondents discussed the differentiations between these. Eight respondents insisted that there should be a line between appropriate and inappropriate teacher self-disclosure, and that teachers should know where the line is drawn. However, results also showed that 6 of the 14 respondents mentioned that there is a very fine line between appropriate self-disclosure and inappropriate self-disclosure, and they stated the difficulties with differentiation between what is appropriate and what is inappropriate because “the line between appropriate and inappropriate disclosure is very blurred.” Concerning several aspects such as the amount and degree of intimacy, the topics of

teacher self-disclosure, the teachers' purposes, the relevance to the topics, students' age, and so forth, a teacher can inappropriately cross that line if they do not use teacher self-disclosure cautiously. One response pointed out that "it's important as a teacher to know the boundaries between the two."

Good judgment acts as a condition or basis for proper behaviors. Twenty-four responses mentioned the exercise of good judgment about appropriate and inappropriate teacher self-disclosure. Some of them thought that it is necessary and possible for teachers to exercise good judgment, although it is not very easy. They suggested that teachers should "use their best professional judgment" or use their "common sense" for their judgment. What is their best professional judgment and common sense? As well as aspects such as amount and degree of intimacy, topics of teacher self-disclosure, teachers' purposes, relevancy to the topics, and students' age, one response suggests that a teacher must keep a balance between these aspects; another two responses revealed that teachers need to be careful and "don't let it get out of hand" to avoid potential negative outcomes.

Summary

This section discussed preservice teachers' perceptions of appropriate and inappropriate teacher self-disclosure. Six self-disclosure categories were identified with general agreement about the objectives for teacher judgment in self-disclosure. The categories include topics of teacher self-disclosure, relevance to teaching materials, amount and degree of intimacy, purposes, consideration of students, and teacher judgment.

Results for Teaching Effectiveness of Teacher Self-Disclosure

This section presented preservice teachers' perceptions of teaching effectiveness of teacher self-disclosure. Their perceptions were interpreted through two parts. In the first part, the positive effects of teacher self-disclosure were identified. The second part focused on the three dimensions of teaching effectiveness of teacher self-disclosure: affective learning, cognitive learning, and classroom participation and classroom behavior.

Positive Effects of Teacher Self-Disclosure

Among 111 respondents who participated in the discussion, 66.6% ($n = 74$) stated that teacher self-disclosure is a useful tool to enhance teacher effectiveness. The respondents asserted that teacher self-disclosure can be "necessary in a classroom," "an effective way of teaching," "useful in certain instances," "a good tool," and so forth. More respondents held stronger beliefs that teacher self-disclosure is "very useful," "extremely useful in a classroom setting," "very important in the classroom," "a very important tool," "a great help in the classroom," "very important in relation to teacher effectiveness," "a very important part of being an effective teacher," "indeed a great thing to use in the classroom," and so forth.

Despite positive teaching effectiveness of teacher self-disclosure, 24.3% ($n = 27$) respondents provided negative comments on teacher self-disclosure. Some respondents stated that teacher self-disclosure is "a touchy subject," that "[teachers] should be careful with what [they] disclose," and that "there is a line that should not be crossed." Three respondents believed that teacher self-disclosure is completely inappropriate in a classroom setting. One respondent stated, "Students should know very little about their

teachers' personal life (political views, personal events, anything that a student or parent may object to)." Another person believed that teachers should "do [their] business on [their] own time." The other student felt that teacher self-disclosure "is not necessary in a classroom setting."

Seven (6.4%) respondents failed to contribute relevant comments. The results indicated that the majority of preservice teachers considered teacher self-disclosure to be a useful tool for effective teaching. Therefore, it is significant to further explore how useful it is. The following section will probe into the specific teaching effectiveness of teacher self-disclosure, and thereafter, appropriate and inappropriate teacher self-disclosure.

Affective Learning

Results indicated that about 84.7% ($n = 94$) responses of the participants reported that teacher self-disclosure is related to positive teacher-student relationships and other aspects of affective learning. The results suggested that teacher self-disclosure enhances teacher-student relationships in such ways as "students are better able to relate to the teacher." Preservice teachers also believe that, with the positive teacher-student relationships, teacher self-disclosure may generate positive outcomes in areas such as teacher-student classroom communication, students' attitudes toward their teachers, and students' understanding of teachers.

Evidence was found to support the claim that teacher self-disclosure creates a positive classroom communication environment. Five respondents described the general positive results in classroom communication and 12 responses asserted that teacher self-disclosure makes students feel comfortable communicating with their teachers.

In addition to the belief that teacher self-disclosure makes students feel comfortable to open up to their teachers, seven respondents believed that teacher self-disclosure creates mutual or reciprocal understanding and relationship between teachers and students. Moreover, some responses believed that teacher self-disclosure helps students solve their problems. About 12 respondents asserted that when teachers open themselves to students and students feel comfortable, students open up to their teachers in return to ask for help with their problems, questions or concerns.

To conclude, teacher self-disclosure generates effective classroom communication between teachers and students and encourages students to open up to their teachers to ask teachers for help with their concerns, questions or problems. Preservice teachers believed that teacher self-disclosure helps students understand what their teachers are like and see their teachers as human beings rather than working machines or authority.

Cognitive Learning

Evidence was identified that teacher self-disclosure generates positive student learning effects. Results yielded 30.6% ($n = 34$) responses assuring that teacher self-disclosure generates positive learning outcomes. Other respondents believed that teacher self-disclosure leads to retention, memorization and understanding of teaching material. The way that a teacher explains certain topics is very critical to students' retention and comprehension of the topics or subjects. Seven responses were found to show that teacher self-disclosure is such an effective tool. Preservice teachers believed that teacher self-disclosure makes it "easier to understand difficult concepts," or to "better understand what they are being taught," and at the same time, they are more likely to "remember that information to this day," "retain the information" or "intake information."

Evidence was found that teacher self-disclosure also influences students' classroom learning behaviors, which helps student learn better, more, and more easily. Teacher self-disclosure includes different topics, stories, and opinions so that students are exposed to more aspects. Teaching materials, teachers' characters, and teaching strategies may make lectures interesting, thus leading to effective teaching. Four respondents considered teacher self-disclosure as a factor that makes lectures interesting.

Role modeling is a process of socialization. Seven respondents believed that teacher self-disclosure helps students know that their teachers have experienced similar situations, and students are likely to gain insight or experience from their teachers.

Six responses talked about other aspects of learning such as motivation, self-esteem, and trust. For instance, one respondent stated, "I believe that teacher self-disclosure builds up my self-esteem by letting me know that it is OK to be honest with myself and with my classes." The classroom is not only a place for learning knowledge but for something beyond that as well.

In summary, preservice teachers agreed that teacher self-disclosure has positive effects on cognitive learning. Specifically, teacher self-disclosure can make teaching more vivid and interesting, help students retain more information and understand the lectures better, and make learning easier. In addition, when teachers use their self-disclosure as role modeling teacher self-disclosure may enhance students' social learning.

Classroom Participation and Classroom Behavior

About 13.5% ($n = 15$) responses stated that teacher self-disclosure had positive effects on classroom participation and classroom behavior. Teacher self-disclosure, as a part of classroom communication, creates an open, sharing, and conducive environment

where positive classroom behaviors such as class participation and concentration occur. Consequently, students' classroom participation and concentration will lead to good learning effects. Nine responses regarding participation and concentration were found to state that "There can be a positive relationship between self-disclosure and classroom participation," and "The student will listen more attentively to someone who is more open" because "it captures your students' attention."

Two responses stated that teacher self-disclosure can even ease the tension in the room and reduces student stress. Another respondent said, "Students will more likely respond to instruction and even discipline from a more personable teacher when they feel [he] is fair and compassionate." The findings suggested that teacher self-disclosure interests students so much that it may make instruction and classroom management easier because teacher self-disclosure can ease the tension in the room and reduce students' stress, therefore enhancing classroom participation and reducing classroom misbehavior.

Summary

This preliminary study revealed how preservice teachers perceived the teaching effectiveness of teacher self-disclosure. First, positive effects of teacher self-disclosure were identified. The second part focused on the following three themes of teaching effectiveness of teacher self-disclosure perceived by preservice teachers: affective learning, cognitive learning, and classroom participation and classroom behavior. With respect to affective learning, the majority of responses reported that teacher self-disclosure is related to teacher-student relationships and other aspects of affective learning. Evidence was identified that teacher self-disclosure generates positive students'

cognitive learning effects. The findings also suggested that teacher self-disclosure may enhance students' classroom participation and reduce students' misbehavior.

Instrument Development

This section provides the process of development of three surveys: Appropriateness of Teacher Self-Disclosure Scale, Teaching Effectiveness of Teacher Self-Disclosure Scale, and Application of Teacher Self-Disclosure Scale used in the primary study. In addition, this section introduces a pilot study as a process of development of the three surveys.

Appropriateness of Teacher Self-Disclosure Scale

Based on the literature review and the researcher's preliminary study, 20 items of teacher self-disclosure were identified and organized into three dimensions: topics (Items 1-7), purposes (Items 8-16), and consideration of students' acceptance (Items 17-20). The Appropriateness of Teacher Self-Disclosure Scale (see Appendix E) measures teachers' perceptions of appropriateness of teacher self-disclosure using a 5-point Likert-type scale with responses from 1 "very inappropriate" to 5 "very appropriate."

Appropriateness of teacher self-disclosure is examined through three dimensions: topics, purposes and consideration of students. The first dimension, topics of teacher self-disclosure, includes the following items: personal experiences/stories, political perspectives, religious beliefs, information related to their family, relatives and friends, information from their intimate relationships, personal opinions, and personal interests or hobbies. The second dimension, purposes of teacher self-disclosure, consists of the following nine items: to entertain their students, to offer real-world, practical example, to attract students' attention, to create positive teacher-student relationships, to set social

role models, to create a class environment comfortable for students, to enhance students' learning interests, to please themselves, to clarify learning materials. The third dimension, consideration of students contains considering students' grade level, cultural background, gender, and feelings.

Teaching Effectiveness of Teacher Self-Disclosure Scale

Based on literature review and findings of the preliminary study, The Teaching Effectiveness of Teacher Self-Disclosure Scale (see Appendix F) was developed using a 17-item, 5-point Likert-type scale ranging from 1 "strongly disagree" to 5 "strongly agree". The 17 items that involve affective learning (Item 1, 9, 14, 17, 8) cognitive learning (Item 2, 7, 10, 15, 11, 6, 3) and classroom participation and classroom behavior (Item 4, 12, 13, 16, 5) were randomly arranged.

Application of Teacher Self-Disclosure Scale

The Application of Teacher Self-Disclosure Scale (see Appendix G) is developed to investigate how K-12 inservice teachers use their self-disclosure. The 20 items in the survey of application of teacher self-disclosure were measured using a 5-point Likert-type scale with responses from 1 "Never" to 5 "A great deal." The dimensions and items in this survey are the same as those in Appropriateness of Teacher Self-Disclosure Scale, including dimensions of topics, purposes, and consideration of students.

Amount of teacher self-disclosure as a dimension of appropriateness of teacher self-disclosure was not examined in the Appropriateness of Teacher Self-Disclosure Scale, but the Application of Teacher Self-Disclosure Scale will reveal the amount of teacher self-disclosure through the investigation of amount of the seven topics of teacher self-disclosure that K-12 inservice teachers use in practice. The scale also investigates

nine purposes of using teacher self-disclosure, and how much they consider students' acceptance in terms of their grade level, gender, cultural background, and feelings.

Pilot Study

The researcher outlined the blueprints, drafted the three surveys, and then consulted the other researchers about the blueprints and the items in the survey. A pilot study was conducted in the same course taught by another instructor in the same college. Twenty-one participants volunteered for the pilot study. The researcher administered the initial instruments to pilot participants in exactly the same way as they were administered in the main study. The subjects in the pilot study were asked to provide feedback and to identify ambiguities and difficult questions, recorded the time taken to complete the questionnaire and to decide whether the amount of time for completion of the survey is reasonable. After collecting the completed surveys, the researcher reworded or discarded all unnecessary, difficult, or ambiguous questions. Another researcher who taught the students in the pilot study also gave suggestions on the offering of examples of teacher self-disclosure so that subjects would better understand teacher self-disclosure, since teacher self-disclosure is not a widely recognized term for either students or teachers.

Summary

This section introduced the development of three surveys of teacher self-disclosure- Appropriateness of Teacher Self-Disclosure Scale, Teaching Effectiveness of Teacher Self-Disclosure Scale, and Application of Teacher Self-Disclosure Scale. A preliminary study was conducted, and it provided information for the development of three surveys. Finally, a pilot study was conducted.

Primary Study

This study examines both K-12 inservice teachers' and preservice teachers' perceptions of appropriateness of teacher self-disclosure and teaching effectiveness of teacher self-disclosure. Moreover, this study also investigates how K-12 inservice teachers use teacher self-disclosure in their classroom teaching.

Participants

The three hundred and fifteen participants in this study consisted of 135 K-12 inservice teachers and 180 preservice teachers. The Human Subjects Review was exempt under 6.3 by the Human Subject Review committee (see Appendix H). All the K-12 inservice teachers mentored preservice teachers in order for them to complete a 30-hour classroom teaching observation for the Social and Cultural Foundations of Education course in a metropolitan area in an eastern state. Of the 135 K-12 inservice teachers, 112 (83.0%) were female, 23 (17.0%) were male. With regard to ethnic groups, 118 (87.4%) were Caucasian American, 17 (12.6%) from minority groups. Sixty-three (46.7%) taught general education classes, and 72 (53.3%) taught both general education classes and special education classes. Regarding years of teaching, 36 (26.7%) have taught for 1-5 years, 34 (25.2%) for 6-10 years, 34 (25.2%) for 11-20 years, and 31 (23.0%) for over 20 years. Regarding levels of teaching, 68 (50.4%) taught elementary school students, 16 (11.9%) taught junior school students, and 51 (37.8%) taught high school students. As to subject area, 60 taught Math, 71 taught English, 65 taught Social Science, 62 taught Science and 50 taught others, which included foreign language, ESL, Music, Art, and other subjects. Since elementary school teachers taught more than one subject, no

percentage was reported. Demographic information also documented that 51 (37.8%) were award-winning teachers, and 84 (62.2%) were non-awarded teachers.

Table 4. Preservice and Inservice Teachers' Demographic Information

Variables	<i>n</i>	%
Students	180	57.1
<i>Gender</i>		
Male	38	21.1
Female	142	78.9
<i>Ethnic Group</i>		
Caucasian American	137	76.1
Minority	43	23.9
Teachers	135	42.9
<i>Gender</i>		
Male	23	17.0
Female	112	83.0
<i>Ethnic Group</i>		
Caucasian American	118	87.4
Minority	17	12.6
<i>Type of Education</i>		
General Education	63	46.7
Special Education	72	53.3
<i>Years of Teaching</i>		
1-5 years	36	26.7
6-10 years	34	25.2
11-20 years	34	25.2
Above 20 years	31	23.0
<i>Grade Level of Teaching</i>		
Elementary School	68	50.4
Junior/Middle School	16	11.9
High School	51	37.8
<i>Subjects</i>		
Math	60	
English	71	
Social Science	65	
Science	62	
Others	50	
<i>Award Status</i>		
Yes	51	37.8
No	84	62.2

Note: *N* = 315.

The 180 preservice teachers in this study consisted of undergraduate students taking a Social and Cultural Foundations of Education course in a college in an Eastern

state in fall, 2005 and spring, 2006. Students who volunteered to complete the survey obtained extra credit points for the course. Of the 180 preservice teachers, 142 (78.9%) were female, 38 (21.1%) were male. Among ethnic groups, there were 137 (76.1%) Caucasian American and 43 (23.9%) minorities (see Table 4).

Measures

Three measures employed in this study were Appropriateness of Teacher Self-Disclosure Scale (see Appendix E), the Teaching Effectiveness of Teacher Self-Disclosure Scale (see Appendix F), and Application of Teacher Self-Disclosure Scale (see Appendix G). For each of the measures, factor analysis, the internal consistency reliability, and correlation analysis were reported.

The Appropriateness of Teacher Self-Disclosure Scale. The Appropriateness of Teacher Self-Disclosure Scale was intended to investigate the perceptions of appropriateness of three dimensions of teacher self-disclosure. Participants were asked to respond to the items with 1, very inappropriate to 5, very appropriate. An exploratory principal components analysis with Varimax rotation of the items of Appropriateness of Teacher Self-Disclosure Scale produced five components with Eigenvalues over 1.00, accounting for 60.69% of the variance. The dimensionality of the 20 items from the scale was analyzed using a maximum likelihood factor analysis. The rotated solution showed seven items (#11, #16, #14, #9, #13, #10, #12) loaded on the first component, appropriate purposes, 4 items (#18, #19, #20, #17) loaded on the second component, consideration of students, 3 items (#3, #2, #5) loaded on the third component, inappropriate topics, 2 items (#15, #8) loaded on the fourth component, inappropriate purposes, and 4 items (#4, #7, #1, #6) loaded on the fifth component, appropriate topics. The differences between the

pre-established 3 dimensions and the five components produced by the exploratory factor analysis (EFA) were that factor analysis divided topics of teacher self-disclosure into appropriate and inappropriate topics and divided purposes of teacher self-disclosure into appropriate purposes and inappropriate purposes of teacher self-disclosure (see Table 5).

Table 5. Factor Loadings of the Appropriateness of TSD Scale

Dimensions	Items	1	2	3	4	5
1. Appropriate Purposes	11. to create a positive teacher-student relationships	.77				
	16. to clarify learning materials	.76				
	14. to enhance students' learning interests	.76				
	9. to offer real-world , practical examples	.74				
	13. to create a class environment comfortable to students	.73				
	10. to attract students' attention	.65				
	12. to set social role models	.48				
2. Consideration of Students	18. students' cultural background		.89			
	19. students' gender		.87			
	20. students' feelings		.80			
	17. students' grade level		.73			
3. Inappropriate Topics	3. Teachers use their religious beliefs as TSD topics.			.88		
	2. Teachers use their political perspectives as TSD topics.			.86		
	5. Teachers use information from their intimate relationships as TSD topics			.46		
4. Inappropriate Purposes	15. to please themselves				.77	
	8. to entertain their students				.76	
5. Appropriate Topics	4. Teachers use the information related to your family, relatives, and friends as TSD topics.					.74
	7. Teachers use their personal interests or hobbies as TSD topics.					.61
	1. Teachers use their personal experiences/stories as TSD topics.					.50
	6. Teachers use their personal opinions as TSD topics.					.46

The internal consistency reliability for the five dimensions of appropriateness of teacher self-disclosure was: Appropriate Purposes, $\alpha = .85$; for Consideration of Students, $\alpha = .86$; for Inappropriate Topics, $\alpha = .67$; for Inappropriate Purposes, $\alpha = .53$; and for Appropriate Topics, $\alpha = .48$ (see Table 6). A correlation analysis employing Pearson's product moment correlations between five dimensions of appropriateness of teacher self-disclosure was conducted to reveal correlations between the five dimensions as presented in Table 7.

Table 6. Internal Consistency Reliability of Appropriateness of TSD Scale

Dimensions	Items	Internal Consistency Reliability (α)
Appropriate purposes	7	.85
Consideration of Students	4	.86
Inappropriate Topics	3	.67
Inappropriate Purposes	2	.53
Appropriate Topics	4	.48

Table 7. Correlations for the Dimensions of Appropriateness of TSD Scale

Dimensions	1	2	3	4	5
1. Appropriate Purposes					
2. Consideration of Students	.255**				
3. Inappropriate Topics	.009	-.172			
4. Inappropriate Purposes	.140*	-.070	.305**		
5. Appropriate Topics	.408**	.134*	.181**	.249**	

Note: * $p < .05$, ** $p < .01$

This exploratory factor analysis results showed the consistency between the pre-established dimensions of the survey and the newly produced components; furthermore, the exploratory factor analysis divided topics of teacher self-disclosure and purposes of teacher self-disclosure into appropriate and inappropriate. The new components helped

identify and investigate the appropriate and inappropriate teacher self-disclosure (see Table 8).

Table 8. Comparison of Dimensions of Teacher Self-Disclosure Between Pre-Established and EFA Components

Pre-Established Dimensions	Items	EFA Components	Items
Topics	#1, #2, #3, #4, #5, #6, #7	Appropriate topics	#4, #7, #1, #6
Purposes	#8, #9, #10, #11, #12, #13, #14, #15, #16	Inappropriate Topics	#3, #2, #5
		Appropriate Purposes	#11, #14, #16, #9, #13, #10, #12
Consideration of Students	#17, #18, #19, #20	Inappropriate Purposes	#15, #8
		Consideration of Students	#18, #19, #20, #17

The Teaching Effectiveness of Teacher Self-Disclosure Scale. The Teaching Effectiveness of Teacher Self-Disclosure Scale was developed to examine preservice and K-12 inservice teachers' perceptions of teaching effectiveness of teacher self-disclosure. The 17 items in the survey of teaching effectiveness of teacher self-disclosure were measured using a 5-point Likert-type scale with responses from "strongly disagree" to "strongly agree."

An exploratory factor analysis was conducted to examine the loading of each item. An exploratory principal components analysis with Varimax rotation of the items of Teacher Self-Disclosure Teaching Effectiveness Scale produced three components with Eigenvalues over 1.00, accounting for 55.17% of the variance. The dimensionality of the 17 items from the scale was analyzed using maximum likelihood factor analysis. The

rotated solution showed that nine items (#10, #7, #15, #3, #11, #12, #2, #16) loaded on the first component-students' learning effect, 5 items (#17, #9, #8, #14, #1) loaded on the second component, teacher-student relationships and classroom communication environment, and that four items (#13, #4, #5, #6) loaded on the third component, classroom participation and classroom behavior. The pre-established three dimensions in the survey and the three components produced by the exploratory factor analysis (EFA) were different. Table 11 indicates the differences in detail.

Table 9. Factor Loadings of Teaching Effectiveness of TSD Scale

Dimensions	Items	1	2	3
1. Students' Learning	10. TSD makes students' learning experiences more engaging.	.71		
	7. TSD makes course content more interesting.	.70		
	15. TSD makes teaching more vivid to students.	.67		
	3. TSD provides different ways for students to understand the class content.	.66		
	11. TSD helps students apply the knowledge gained to real life situations.	.65		
	12. TSD attracts students' attention.	.57		
	2. TSD helps students understand teachers' lectures.	.55		
	16. TSD contributes to students being more active classroom participants.	.41		
	2. Teacher-Student Relationships and Classroom Communication Environment	17. TSD helps students feel comfortable about communicating with their teachers.		.80
9. TSD helps students open up to their teachers about problems they may be having.			.78	
8. TSD creates caring relationships between teachers and students.			.73	
14. TSD helps students understand their teachers as real people.			.55	
1. TSD contributes to developing trust between teachers and students			.53	
3. Classroom Participation and Classroom behavior	13. TSD reduces students' misbehaviors.			.80
	4. TSD contributes to classroom discipline.			.78
	5. TSD makes students enthusiastic about classroom activities.			.49
	6. TSD contributes to students' willingness to learn.			.44

1. Item #6, which was grouped in dimension of Students' Learning Effects, loaded on the component of Classroom Participation and Classroom Behavior;
2. Item #16, which was grouped in dimension of Classroom Participation and Classroom Behavior, loaded on the component of Students' Learning Effects;
3. Item #12, which was grouped in dimension of Classroom Participation and Classroom Behavior, loaded on the component of Students' Learning Effects.

While three items did not load on the pre-established dimensions of the survey, the components and most of the items in each component were consistent with pre-established dimensions and the items in each dimension. Results were based on the components and the items in each component produced by the exploratory factor analysis (see Table 9).

Table 10 showed that the internal consistency reliability for Learning Effects was $\alpha = .83$; for Teacher-Student Relationships and Classroom Communication Environment, $\alpha = .81$; and for Classroom Participation and Classroom Behavior, $\alpha = .73$.

Table 10. Internal Consistency Reliability of Teaching Effectiveness of TSD Scale

Dimensions	Items	Internal Consistency Reliability (α)
1. Learning Effects	8	.83
2. Teacher-Student Relationships and Classroom Communication Environment	5	.81
3. Classroom Participation and Classroom Behavior	4	.73

A correlation analysis employing Pearson's product moment correlations between three dimensions of Teaching Effectiveness of Teacher Self-Disclosure Scale was conducted to reveal correlations between the five dimensions as presented in Table 11. The differences between the pre-established three dimensions and the three components produced by the exploratory factor analysis (EFA) are shown in Table 12.

Table 11. Correlations for the Dimensions of Teaching Effectiveness of TSD Scale

Dimensions	1	2	3
1. Learning Effects			
2. Teacher-Student Relationships and Classroom Communication Environment	.570**		
3. Classroom Participation and Classroom Behavior	.572**	.516**	

Note: ** $p < .01$

Table 12. Comparisons of Dimensions of Teaching Effectiveness of TSD Scale

Pre-Established Dimensions	Items	EFA Components	Items
Learning Effect	#2, #3, #6, #7, #10, #11, #15	Learning Effect	#10, #7, #15, #3, #11, #12, #2, #16
Classroom Communication Environment	#1, #8, #9, #14, #17	Teacher-Student Relationships and Classroom Communication Environment	#17, #9, #8, #14, #1
Classroom Participation and Classroom Behavior	#4, #5, #12, #13, #16	Classroom Participation and Classroom Behavior	#13, #4, #5, #6

The Application of Teacher Self-Disclosure Scale. The Application of Teacher Self-Disclosure Scale was used to measure how K-12 inservice teachers use teacher self-disclosure regarding the topics, purposes and consideration of students. In the 5-point Likert-type scale, teachers' use of disclosure was responded with a 1 indicating that TSD is never (N) used, a 2, TSD is used very little (L), a 3, TSD is somewhat (SW) used, a 4, TSD is much used (M) and a 5, TSD is used a great deal (GD). An exploratory factor analysis was conducted to examine the loading of each item. An exploratory principal components analysis with Varimax rotation of the items of Application of Teacher Self-Disclosure Scale produced three components with Eigenvalues over 1.00, for 61.34% of the variance. The dimensionality of the 17 items from the scale was analyzed using maximum likelihood factor analysis. The rotated solution showed 10 items (#13, #11, #10, #14, #16, #1, #9, #12, #4, #7) loaded on the first component, students' Appropriate Topics and Purposes of teacher self-disclosure, 4 items (#19, #18, #20, #17) loaded on the second component, Consideration of Students, and 6 items (#2, #6, #3, #15, #8, #5) loaded on the third component, Inappropriate Topics and Purposes of teacher self-disclosure (see Table 13).

The internal consistency reliability for the three dimensions of the Application of Teacher Self-Disclosure Scale (see Table 14) resulting from an exploratory factor analysis was measured respectively. The internal consistency reliability for Appropriate Topics and Purposes was $\alpha = .93$; for Consideration of Students, $\alpha = .88$; and for Inappropriate Topics and Purposes, $\alpha = .75$.

Correlation analysis employing Pearson's product moment correlations between

three dimensions of application of teacher self-disclosure were conducted to reveal correlation between the five dimensions as presented in Table 15.

Table 13. Factor Loadings of the Application of TSD Scale

Dimensions	Items	1	2	3
1. Appropriate Topics and Purposes	13. to create a class environment comfortable to students	.86		
	11. to create positive teacher-student relationships	.83		
	10. to attract students' attention	.83		
	14. to enhance students' learning interests	.81		
	16. to clarify learning materials	.80		
	1. I use their personal experiences/stories as TSD topics.	.79		
	9. to offer real-world , practical examples	.77		
	12. to set social role models	.72		
	4. I use the information related to your family, relatives, and friends as TSD topics.	.65		
	7. I use their personal interests or hobbies as TSD topics.	.65		
2. Consideration of Students	19. students' gender		.89	
	18. students' cultural background		.87	
	20. students' feelings		.86	
	17. students' grade level		.74	
3. Inappropriate Topics and Purposes	2. Teachers use their political perspectives as TSD topics.			.80
	6. I use their personal opinions as TSD topics.			.69
	3. Teachers use their religious beliefs as TSD topics.			.69
	15. to please themselves			.63
	8. to entertain their students			.59
	5. I use information from their intimate relationships as TSD topics			.44

Table 14. Internal Consistency Reliability of Application of TSD Scale

Dimensions	Items	Internal Consistency Reliability (α)
Appropriate Topics and Purposes	10	.93
Consideration of Students	4	.88
Inappropriate Topics and Purposes	6	.75

Table 15. Correlations for the Dimensions of Application of TSD Scale

	1	2	3
1. Appropriate Purposes and Topics			
2. Consideration of Students	.300**		
3. Inappropriate Purposes and Topics	.441**	-.029	

Note: ** $p < .01$

Table 16. Comparisons of Dimensions of Application of TSD

Pre-Established Dimensions	Items	EFA Components	Items
Topics	#1, #2, #3, #4, #5, #6, #7	Appropriate Topics and Purposes	#13, #11, #10, #14, #16, #1, #9, #12, #4, #7
Purposes	#8, #9, #10, #11, #12, #13, #14, #15, #16	Inappropriate Topics and Purposes	#2, #6, #3, #15, #8, #5,
Consideration of Students	#17, #18, #19, #20	Consideration of Students	#19, #18, #20, #17

The differences between the pre-established three dimensions and the three components produced by the exploratory factor analysis (EFA) were that factor analysis reorganized topics of teacher self-disclosure and purposes of teacher self-disclosure into

appropriate and inappropriate topics and purposes and the results of consideration of students were consistent (see Table 16).

Data Collection

To collect data from inservice teachers, the researcher asked the preservice teachers taking the Social and Cultural Foundations of Education course to deliver the survey packet to the K-12 inservice teachers. A letter for the mentor teachers was attached to the survey in which there were specific instructions for completing the survey. After they had completed the survey, the mentor teachers put the survey in an envelope, seal it, either handed it back to the students or asked the preservice teachers to bring the completed survey back to the researcher.

For the data collection of preservice teachers, the survey was conducted at the beginning of the semester. The researcher explained the purpose of this survey and then read the instructions and gave necessary explanations to supplement the directions for completing the survey successfully. The preservice teachers were asked to sign their names on the informed consent letter before they started the survey. When students started the survey, the researcher walked around and answered any questions the students had. Before the participants submitted the survey, the researcher examined each survey to be sure that each survey was complete and valid.

Data Analysis

To investigate the differences in preservice and K-12 inservice teachers' perceptions of appropriateness of teacher self-disclosure, one-way MANOVAs were conducted to evaluate whether there were any significant differences among preservice teachers and K-12 inservice teachers in the three dimensions of appropriateness of

teacher self-disclosure: topics, purposes and consideration of students. The demographic variables for the above investigations include preservice teachers' demographic variables such as their gender and ethnic group and K-12 inservice teachers' demographic variables such as their gender, ethnicity group, years of teaching, grade level of teaching, subject area and award status. To evaluate the nature of differences between preservice teachers and K-12 inservice teachers in their perceptions of appropriateness of teacher self-disclosure, two sample independent *t*-tests were conducted.

Frequencies of both preservice and K-12 inservice teachers' perceptions of appropriateness were presented to identify the degree of appropriateness of teacher self-disclosure. The frequencies of items in each dimension were reported in each dimension of the survey to explore how differently teachers understand appropriateness of each item. To simplify the data analysis, researchers collapsed the 5-point Likert-type scale from five to three responses as "very appropriate/appropriate," "undecided," and "appropriate/very appropriate." The percentage and the number of the three responses to each item were presented in Figures 1-6.

To investigate the differences in K-12 inservice teachers' application of teacher self-disclosure, one-way MANOVAs were conducted to evaluate whether there were any significant differences among K-12 inservice teachers in their use of appropriate topics and purposes, inappropriate topics and purposes, and consideration of students. The independent variables include inservice teachers' demographic information such as their gender, ethnicity group, years of teaching, grade level of teaching, subject area and award status.

Frequencies of K-12 inservice teachers' application of teacher self-disclosure were presented to identify how differently teachers use each item of teacher self-disclosure. To simplify the data analysis, researchers collapsed the 5-likert scale from five to three responses as "never/little," "somewhat," and "much/a great deal." The percentage and the number of the three responses to each item were presented in the frequency Figures 7-9.

One-way MANOVAs were conducted to evaluate whether there were any significant differences among preservice and K-12 inservice teachers in their perceptions of teaching effectiveness of teacher self-disclosure. The three dependent variables were learning effects, teachers-student relationship and classroom communication environment, and classroom participation and classroom behavior. The independent variables included preservice teachers' demographic information such as their gender and ethnic group and K-12 inservice teachers' demographic information such as their gender, ethnicity group, years of teaching, grade level of teaching, and award status. To evaluate the nature of difference between preservice teachers and K-12 inservice teachers in their perceptions of teaching effectiveness of teacher self-disclosure, two sample independent *t*-tests were conducted.

Frequencies of preservice and K-12 inservice teachers' perceptions of teaching effectiveness of teacher self-disclosure were presented to identify degree of agreement of teaching effectiveness of teacher self-disclosure. The frequencies of each item were reported in each dimension of the survey. In the Teaching Effectiveness of Teacher Self-Disclosure Scale, a 1 means you strongly disagree (SD), a 2 means you disagree (D), a 3 means you are undecided (UND), a 4 means agree (A), and 5 means you strongly agree

(SA). To simplify the data analysis, researchers collapsed the 5-Likert scale from five to three responses as “strongly disagree/disagree,” “undecided,” and “agree/strongly agree.” The percentage and the number of the three responses to each item were presented in the frequency Figures 10-15.

CHAPTER 4: RESULTS

Chapter Four presents results of the current study. In order to organize and present the results, this chapter is divided into three parts. Part 1, Preservice and K-12 inservice teachers' perceptions of appropriateness of teacher self-disclosure, includes results for research questions 1-3 based on the Appropriateness of Teacher Self-Disclosure Scale. Part 2, K-12 inservice teachers' application of teacher self-disclosure, provides results for research question 4 based on the Application of Teacher Self-Disclosure Scale. Part 3, Preservice and K-12 inservice teachers' perceptions of teaching effectiveness of teacher self-disclosure, presents results for research questions 5-7 based on the Teaching Effectiveness of Teacher Self-Disclosure Scale.

Perceptions of Appropriateness of Teacher Self-Disclosure

Research questions 1-3 were intended to investigate preservice and K-12 inservice teachers' perceptions of appropriateness of teacher self-disclosure through the Appropriateness of Teacher Self-Disclosure Scale. Research Question 1 investigated the differences among K-12 inservice teachers in their perceptions of appropriateness of teacher self-disclosure; Research Question 2 explored the differences among preservice teachers in their perceptions of appropriateness of teacher self-disclosure; and Research Question 3 examined the differences between preservice and K-12 inservice teachers in their perceptions of appropriateness of teacher self-disclosure.

Research Question 1—Is there any difference among K-12 inservice teachers in their perceptions of appropriateness of teacher self-disclosure?

Table 17. Means and Standard Deviations on K-12 Inservice Teachers' Perceptions

of Appropriateness of TSD

Variables	<i>n</i>	1		2		3		4		5	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
<i>Gender</i>											
Male	23	4.15	.40	4.32	.57	1.93	.77	2.85	.75	3.70	.57
Female	112	4.24	.50	4.59	.56	1.80	.72	2.66	.86	3.70	.60
Total	135	4.23	.48	4.55	.57	1.82	.72	2.69	.84	3.70	.59
<i>Ethnic Group</i>											
Caucasian	118	4.24	.48	4.56	.55	1.82	.76	2.69	.85	3.69	.60
Minority	17	4.14	.54	4.43	.68	1.88	.44	2.71	.81	3.74	.51
Total	135	4.23	.48	4.55	.57	1.82	.72	2.69	.84	3.69	.59
<i>Type of Education</i>											
General Education	63	4.31	.48	4.63	.51	1.87	.75	2.83	.82	3.73	.58
Special Education	72	4.16	.47	4.47	.60	1.78	.70	2.58	.85	3.67	.60
Total	135	4.23	.48	4.55	.57	1.83	.72	2.69	.84	3.70	.59
<i>Years of Teaching</i>											
1-5 Years	36	4.13	.44	4.51	.64	2.02	.78	2.85	.72	3.77	.58
6-10 Years	34	4.38	.54	4.66	.48	1.74	.77	2.71	1.05	3.79	.60
11-20 Years	34	4.22	.52	4.54	.49	1.93	.63	2.69	.80	3.74	.54
20+ Years	31	4.18	.40	4.48	.64	1.58	.63	2.50	.76	3.47	.59
Total	135	4.23	.48	4.55	.57	1.82	.72	2.69	.84	3.70	.60
<i>Grade Level of Teaching</i>											
Elementary School	68	4.22	.50	4.63	.52	1.66	.63	2.69	.85	3.66	.59
Junior School	16	4.21	.36	4.53	.54	1.71	.62	2.66	.81	3.66	.68
High School	51	4.24	.50	4.45	.63	2.09	.81	2.71	.86	3.76	.57
Total	135	4.23	.48	4.55	.57	1.82	.72	2.69	.84	3.70	.59
<i>Award Status</i>											
Award-winning	51	4.19	.46	4.62	.48	1.74	.66	2.53	.78	3.66	.60
Non-Awarded	84	4.25	.50	4.50	.61	1.88	.76	2.79	.87	3.72	.58
Total	135	4.23	.48	4.55	.57	1.82	.72	2.69	.84	3.70	.59

Note: 1. Appropriate Purposes
 2. Consideration of Students
 3. Inappropriate Topics
 4. Inappropriate Purposes
 5. Appropriate Topics

For research question 1, six one-way MANOVAs were conducted to evaluate the differences among six independent variables of K-12 inservice teachers in their perceptions of five dimensions of teacher self-disclosure: Appropriate Purposes, Consideration of Students, Inappropriate Topics, Inappropriate Purposes, and Appropriate Topics. Table 17 contains the means and the standard deviations of the five dimensions for the six demographic variables (Gender, Ethnic Group, Type of Education, Years of Teaching, Grade Level of Teaching, and Award Status). Table 18 provides the MANOVA results. Alpha was set at .01 for each univariate ANOVA follow-up test using Bonferroni method to control for Type I error across the five dependent variables.

Table 18. MANOVA of Inservice Teachers' Perceptions of Appropriateness of TSD

Variables	Wilks's Λ	F	Significance	η^2
Gender	.96	1.05	.390	.039
Ethnic Group	.99	0.33	.892	.013
Type of Education	.93	1.88	.111	.066
Years of Teaching	.87	1.22	.255	.046
Grade Level of Teaching	.89	1.51	.137	.056
Award Status	.97	0.92	.472	.034

As Table 18 shows, no significant differences were found in their perceptions of appropriateness of teacher self-disclosure across the levels of K-12 inservice teachers' gender, ethnic group, type of education, years of teaching, grade level of teaching, and

award status. However, with respect to the examination of the effects of grade level on the perceptions of appropriateness of teacher self-disclosure, while no significant differences were found among three groups of inservice teachers who taught in elementary schools, junior schools and high schools in the five dimensions of the Appropriateness of Teacher Self-Disclosure Scale, ANOVAs as follow-up tests identified significant difference across the teachers' grade level in their perception of Inappropriate Topics, $F(2, 132) = 5.71, p = .004, \eta^2 = .080$. Pairwise comparisons were conducted to find out the mean difference among the teachers who taught in elementary schools, junior schools and high schools. For Inappropriate Topics, the comparison results indicated that there were significant differences between Elementary School Teachers ($M = 1.66, SD = .63, n = 68$) and High School Teachers ($M = 2.09, SD = .81, n = 51$), $p < .01$, and thus High School Teachers considered the items of inappropriate topics to be less inappropriate than Elementary School Teachers. However, there were no significant differences between Elementary School Teachers ($M = 1.66, SD = .63, n = 68$) and Junior School Teachers ($M = 1.71, SD = .62, n = 16$), $p = 1.0$, and there were no significant differences between Junior School Teachers ($M = 1.71, SD = .62, n = 16$) and High School Teachers, ($M = 2.09, SD = .81, n = 51$), $p = .19$.

To examine the K-12 inservice teachers' perceptions of appropriateness of each item in the Appropriateness of Teacher Self-Disclosure Scale, frequencies were reported in the order of the dimensions of the survey: topics, purposes and consideration of students. As Figure 1 shows, among the 135 K-12 inservice teachers, teachers' *personal interests or hobbies* ($n = 123, 91.1\%$), *personal experiences/stories* ($n = 119, 88.1\%$) and *information related to their family, relatives and friends* ($n = 89, 65.9\%$) were perceived

to be “very appropriate/appropriate” teacher self-disclosure topics. K-12 inservice teachers had diverse opinions about the appropriateness of *personal opinions* as teacher self-disclosure topics; 42 (31.1%) of them considered it “very appropriate/appropriate”; 47 (34.8%) were uncertain of its appropriateness, and 46 (34.1%) considered it to be “very inappropriate/inappropriate.” K-12 inservice teachers considered that *information from their intimate relationships* ($n=116$, 85.9%), *religious beliefs* ($n=104$, 77%), and *political perspectives* ($n=103$, 76.3%) were “very inappropriate/inappropriate” teacher self-disclosure topics.

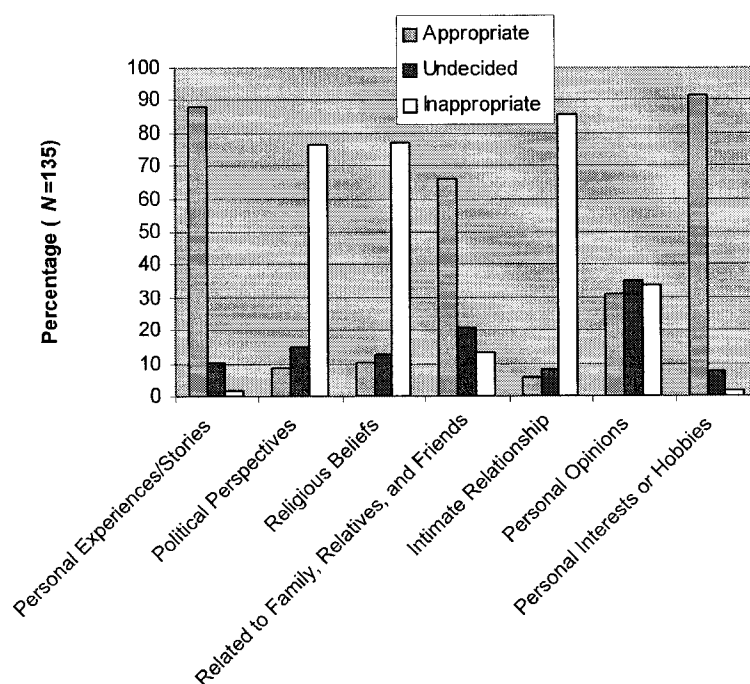


Figure 1. Inservice Teachers' Perceptions of Topics of TSD.

Also for the 135 K-12 inservice teachers, offering real-world, practical examples as a purpose of teacher self-disclosure, ranked the highest with one hundred and thirty-four (99.3%) teachers considering it to be a “very appropriate/appropriate” purpose. The other items that K-12 inservice teachers considered to be “very appropriate/appropriate” purposes were clarifying learning materials ($n=129$, 95.6%), enhancing students’ learning interests ($n = 128$, 94.8%) creating positive teacher-student relationships ($n = 120$, 88.9%), creating a class environment comfortable to students ($n = 120$, 88.9%), attracting students’ attention ($n = 117$, 86.7%) and setting social role models ($n = 107$, 79.3%).

With regard to the appropriateness of entertaining their students as a purpose of teacher self-disclosure, 73 (54.1%) K-12 inservice teachers considered it to be “very appropriate/appropriate;” however, 30 (22.2%) of them were undecided about its appropriateness, and 32 (23.7%) considered it to be “very inappropriate/inappropriate.” Pleasing themselves as a purpose of teacher self-disclosure was considered to be “very inappropriate/inappropriate.” ($n = 97$, 71.9%) (see Figure 2).

Regarding the appropriateness of *consideration of students* in teacher self-disclosure, of 135 K-12 inservice teachers, 132 (97.8%) teachers believed that it is “very appropriate/ appropriate” for teachers to consider *students’ grade level*; 131(97%) teachers believed it is “very appropriate/appropriate” that teachers consider *students’ feeling*; 124 (91.9%) teachers believed that it is “very appropriate/appropriate” that teachers consider *students’ cultural background*; and 118 (87.4%) teachers considered that it is “very appropriate/appropriate” that teachers consider *students’ gender* in their use of teacher self-disclosure (see Figure 3).

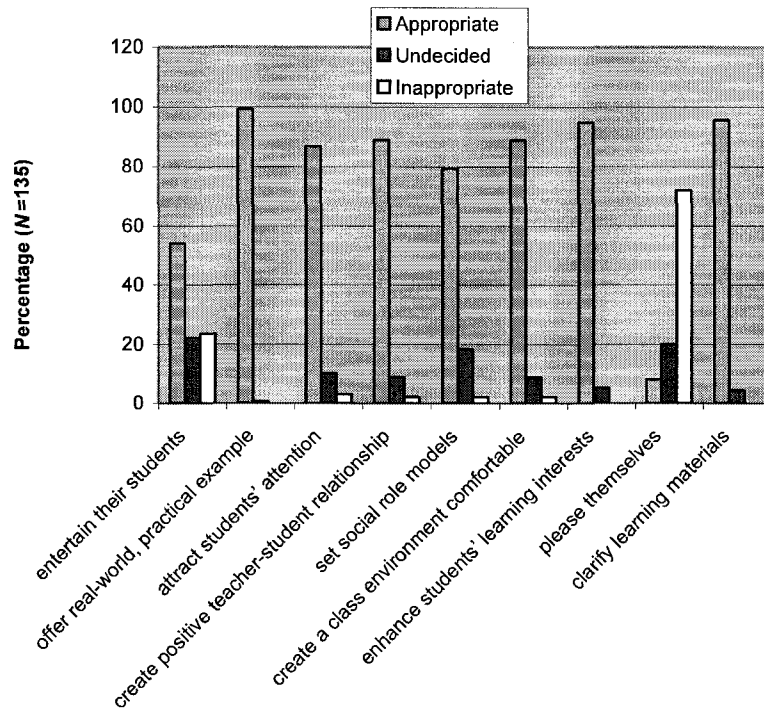


Figure 2. Inservice Teachers' Perceptions of Purposes of TSD.

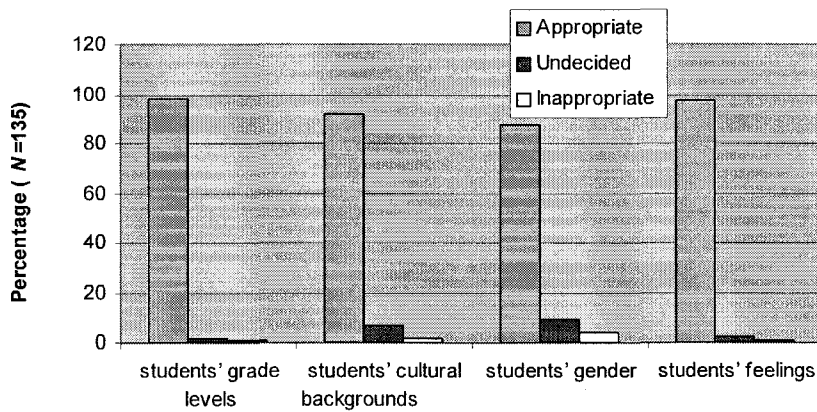


Figure 3. Inservice Teachers' Perceptions of Consideration of Students.

Research Question 2—Is there any difference among preservice teachers in their perceptions of appropriateness of teacher self-disclosure?

For research question 2, two one-way multivariate analyses of variance (MANOVA) were conducted to evaluate the differences among demographic variables of preservice teachers—Gender and Ethnic Group in their perceptions of five dimensions from the Appropriateness of Teacher Self-Disclosure Scale—Appropriate Purposes, Consideration of Students, Inappropriate Topics, Inappropriate Purposes and Appropriate Topics. Table 19 contains the means and the standard deviations on the five dimensions of appropriateness of teacher self-disclosure for the two independent variables (Gender and Ethnic Group).

Table 19. Means and Standard Deviations on Preservice Teachers' Perceptions of Appropriateness of Teacher Self-Disclosure

Variables	Gender				Ethnic Group			
	Male (142)		Female (38)		Caucasian (137)		Minority (43)	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Appropriate Purposes	4.15	.50	4.27	.42	4.25	.43	4.25	.45
Consideration of Students	4.18	.83	4.25	.74	4.24	.74	4.20	.83
Inappropriate Topics	2.41	.81	2.30	.75	2.30	.75	2.40	.83
Inappropriate Purposes	3.11	.62	2.88	.80	2.89	.76	3.02	.79
Appropriate Topics	3.76	.52	3.72	.51	3.72	.50	3.76	.55

Table 20 shows the MANOVA results of preservice teachers' perceptions of appropriateness of teacher self-disclosure. No significant differences were found across

levels of preservice teachers' gender and ethnic group on the five dependent measures of appropriateness of teacher self-disclosure.

Table 20. MANOVA Results of Preservice Teachers' Perceptions of Appropriateness of Teacher Self-Disclosure

Variables	Wilks's Λ	F	Significance	η^2
Gender	.97	1.20	.311	.033
Ethnic Group	.99	0.26	.933	.007

To examine the preservice teachers' perceptions of degree of appropriateness of each item in the Appropriateness of Teacher Self-Disclosure Scale, frequencies were reported on three dimensions: topics, purposes, and consideration of students. Among the 180 preservice teachers, teachers' *personal interests or hobbies* ($n = 166, 92.2\%$), *experiences/stories* ($n = 163, 90.6\%$) were perceived to be "very appropriate/appropriate" teacher self-disclosure topics. Preservice teachers have diverse opinions about the appropriateness of *personal opinions* and *information related to their family, relatives and friends* as teacher self-disclosure topics. Ninety-nine (55%) preservice teachers considered *personal opinions* as teacher self-disclosure topics to be "very appropriate/appropriate"; 52 (28.9%) were uncertain of its appropriateness, and 29 (16.1%) considered it to be "very inappropriate/inappropriate." Ninety (50%) preservice teachers considered *information related to their family, relatives and friends* as teacher self-disclosure topics to be "very appropriate/appropriate," 43 (23.9%) of them were

uncertain of its appropriateness, and 47 (26.1%) of them considered it to be “very inappropriate/inappropriate.”

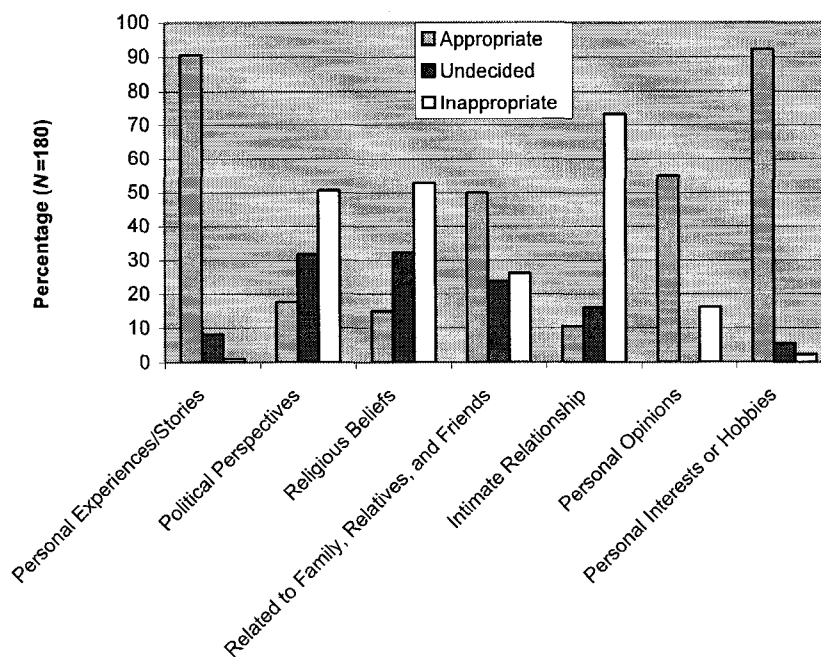


Figure 4. Preservice Teachers' Perceptions of Topics of TSD.

Preservice teachers considered that information from their intimate relationships ($n = 132, 73.3\%$) to be “very inappropriate/inappropriate” teacher self-disclosure topics. However, there were inconsistent opinions about *political perspectives* and *religious beliefs*. Concerning preservice teachers’ perceptions of appropriateness about *religious beliefs*, 95 (52.8%) of them agreed that it is a “very inappropriate/inappropriate” teacher

self-disclosure topic; 58 (32.2%) preservice teachers were undecided about its appropriateness; and 27 (15%) of the preservice teachers believed that it is a “very appropriate/appropriate” teacher self-disclosure topic. Regarding *political perspectives*, 91 (50.6%) agreed that it is “very inappropriate/inappropriate” teacher self-disclosure topics; 57 (31.7%) preservice teachers were undecided about its appropriateness; and 32(17.8%) of the preservice teachers believed that it is a “very appropriate/appropriate” teacher self-disclosure topic (see Figure 4).

Among the 180 preservice teachers, *offering real-world, practical examples* as a purpose of teacher self-disclosure, ranked the highest with one hundred and seventy-nine of them (99.4%) considering it to be a “very appropriate/appropriate” purpose. The other items that preservice teachers considered to be “very appropriate/appropriate” purposes were *creating positive teacher-student relationships* ($n = 171, 95\%$), *creating a class environment comfortable to students* ($n = 167, 92.8\%$), *enhancing students’ learning interests* ($n = 166, 92.2\%$), *clarifying learning materials* ($n = 165, 91.7\%$), *attracting students’ attention* ($n = 162, 90\%$) and *setting social role models* ($n = 139, 77.2\%$). *Pleasing themselves* as a purpose of teacher self-disclosure was considered to be inappropriate ($n = 116, 64.4\%$). Regarding *entertaining their students* as a purpose of teacher self-disclosure, 118(65.6%) teachers considered it to be “very appropriate/appropriate”; however, 34 (18.9%) of them were undecided about its appropriateness, and 28 (15.6%) of them considered it to be “very inappropriate/inappropriate” (see Figure 5).

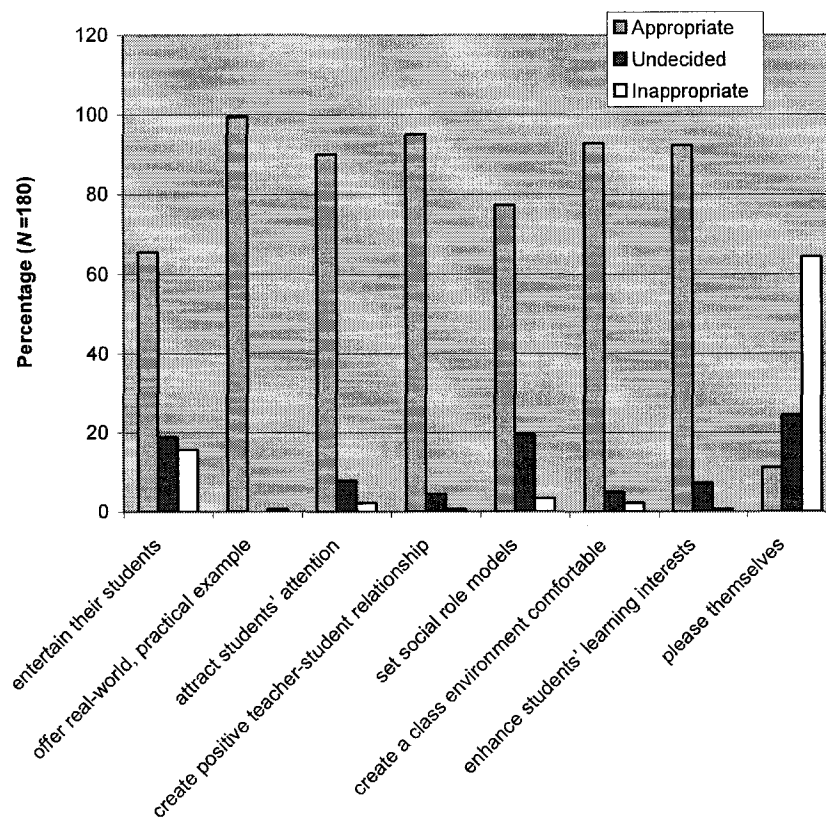


Figure 5. Preservice Teachers' Perceptions of Purposes of TSD.

Concerning *consideration of students* in teacher self-disclosure, of 180 preservice teachers, 166 (92.2%) teachers believed that it is “very appropriate/appropriate” for teachers to consider *students' grade level*; 162 (90%) teachers believed that teachers should consider *students' feelings*; 149 (82.8%) teachers believed that it is “very appropriate/appropriate” that teachers consider *students' cultural background*; and 134 (74.4%) teachers believed that teachers should consider *students' gender* (see Figure 6).

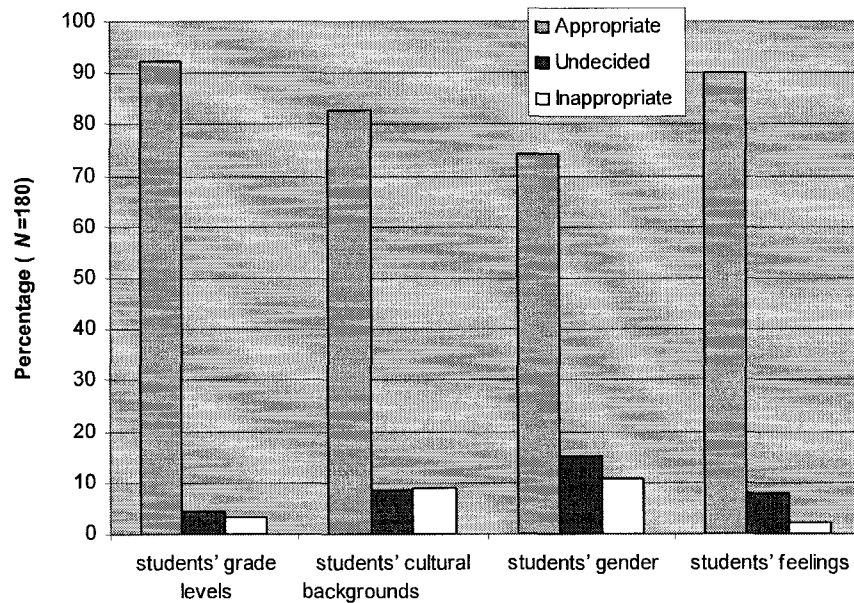


Figure 6. Preservice Teachers' Perceptions of Consideration of Students.

Research Question 3—Is there any significant difference between preservice teachers and K-12 inservice teachers in their perceptions of appropriateness of teacher self-disclosure?

Five independent-samples *t* tests were conducted to evaluate the differences between preservice teachers and K-12 inservice teachers in their perceptions of five dimensions from the Appropriateness of Teacher Self-Disclosure Scale. Means and standard deviations of preservice and K-12 inservice teachers were shown in Table 21. Three tests were significant and two tests were nonsignificant (see Table 22).

Table 21. Means and Standard Deviations for Preservice and Inservice Teachers'
Perceptions of Appropriateness of Teacher Self-Disclosure

	Preservice Teachers (<i>n</i> = 180)		Inservice Teachers (<i>n</i> = 135)	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Appropriate Purposes	4.25	.44	4.23	.48
Item # 11	4.33	.59	4.23	.70
Item # 16	4.32	.62	4.30	.55
Item # 14	4.24	.60	4.28	.56
Item # 9	4.54	.53	4.48	.52
Item # 13	4.19	.63	4.15	.66
Item # 10	4.15	.67	4.12	.70
Item # 12	3.95	.73	4.02	.76
Consideration of Students	4.23	.76	4.55	.57
Item # 18	4.12	1.02	4.53	.69
Item # 19	3.96	1.10	4.36	.80
Item # 20	4.40	.77	4.62	.57
Item # 17	4.46	.76	4.67	.54
Inappropriate Topics	2.32	.77	1.82	.72
Item # 3	2.42	1.04	1.93	.99
Item # 2	2.53	.96	1.97	.95
Item # 5	2.02	1.01	1.58	.90
Inappropriate Purposes	2.93	.77	2.69	.84
Item # 15	2.26	.97	2.03	.93
Item # 8	3.60	.94	3.36	1.06
Appropriate Topics	3.73	.51	3.70	.59
Item # 4	3.21	1.11	3.59	.98
Item # 7	4.18	.65	4.17	.69
Item # 1	4.11	.61	4.17	.70
Item # 6	3.41	.86	2.86	1.09

Table 22. Results of T-Test for Dimensions of Appropriateness of TSD

	<i>t</i>	<i>df</i>	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
						Lower	Upper
Appropriate Purposes	.38	313	.707	.02	.05	-.08	.12
Consideration of Students	-4.20	312.9	.000**	-.31	.07	-.46	-.17
Inappropriate Topics	5.87	313	.000**	.49	.09	.33	.67
Inappropriate Purposes	2.55	273.6	.010**	.24	.09	.05	.42
Appropriate Topics	.48	313	.633	.03	.06	-.09	.15

Note: * $p < .05$, ** $p < .01$

Consideration of Students

The test for Consideration of Students was significant $t(313) = -4.20, p < .01$. Results demonstrated that the mean for K-12 inservice teachers ($M = 4.55, SD = .57$) was significantly greater than the mean for preservice teachers ($M = 4.23, SD = .76$). The 95% confidence interval for the mean difference was -0.46 to -0.17. The effect size index, d was -.477, indicating a medium effect size.

Independent-samples t tests were conducted to investigate the differences between preservice teachers and K-12 inservice teachers in the four items in the dimension of Consideration of Students. Means and standard deviations for preservice and inservice K-12 teachers were shown in Table 21. All the tests (#18, #19, #20, #17) were significant, *considering students' cultural background*, $t(309.8) = -4.24, p < .01$; *considering students' gender*, $t(313) = -3.61, p < .01$; *considering students' feelings*,

$t(312.9) = -2.93, p = .004$; and *considering students' grade level*, $t(312.5) = -2.98, p = .003$. Results indicated that K-12 inservice teachers obtained significantly greater means than preservice teachers in their perceptions of appropriateness of the four items of Consideration of Students and that K-12 inservice teachers considered the four items to be more appropriate than preservice teachers.

Inappropriate Topics

The test for Inappropriate Topics was significant $t(313) = 5.87, p < .01$. Results demonstrated that the mean for preservice teachers ($M = 2.32, SD = .77$) was significantly greater than that for inservice teachers ($M = 1.82, SD = .72$). The 95% confidence interval for mean difference was .33 to .67. The effect size index, d was .667 indicating a medium effect size.

Independent-samples t tests were conducted to investigate the differences between preservice teachers and K-12 inservice teachers in their perceptions of three items of Inappropriate Topics. Means and standard deviations for preservice and K-12 inservice teachers were shown in Table 21. All the tests for #3, #2, and #5 were significant, *religious beliefs as teacher self-disclosure topics*, $t(313) = 4.26, p < .01$; *political perspectives as teacher self-disclosure topics*, $t(313) = 5.17, p < .01$; and *information from teachers' intimate relationships as teacher self-disclosure topics*, $t(313) = 4.01, p < .01$. Results showed that preservice teachers had significantly greater means than K-12 inservice teachers on the three items of Inappropriate Topics and that K-12 inservice teachers considered the three items to be more inappropriate than preservice teachers.

Inappropriate Purposes

The test for Inappropriate Purposes was significant, $t(273.6) = 2.55, p = .011$. Results revealed that the mean for preservice teachers ($M = 2.93, SD = .77$) and the mean for inservice teachers ($M = 2.69, SD = .84$) were significantly different. The 95% confidence interval for the mean difference was 0.05 to 0.42. The effect size index d was .290, indicating a small effect size.

Independent-samples t tests were conducted to investigate the differences between preservice teachers and K-12 inservice teachers in the two items of dimension of inappropriate purposes. Means and standard deviations of preservice and inservice teachers were shown in Table 21. Both tests (#15, #8) were significant, *to please themselves*, $t(313) = 4.26, p < .01$; and *to entertain their students*, $t(313) = 5.17, p < .01$. Results revealed that preservice teachers had significantly greater means than K-12 inservice teachers on the two items of Inappropriate Purposes, and that K-12 inservice teachers considered the two purposes to be more inappropriate than preservice teachers.

Appropriate Purposes

The test for Appropriate Purposes was nonsignificant, $t(313) = .38, p = .71$. Results showed that the mean for preservice teachers ($M = 4.25, SD = .44$) and the mean for inservice teachers ($M = 4.23, SD = .48$) were not significantly different. The 95% confidence interval for the mean difference was -0.08 to 0.12.

Independent-samples t tests were conducted to further evaluate the differences between preservice teachers and K-12 inservice teachers in the seven items of dimension of Appropriate Purposes. Means and standard deviations for preservice and K-12 inservice teachers were shown in Table 21. All seven tests (#11 #16, #14, #9, #13, #10

and #12) were nonsignificant, *to create positive teacher-student relationships*, $t(313) = 1.43, p = .155$; *to clarify learning materials*, $t(313) = 1.92, p = .05$; *to enhance students' learning interests*, $t(313) = -.64, p = .52$; *to offer real-world, practical examples*, $t(313) = .96, p = .34$; *to create a class environment for students*, $t(313) = .63, p = .53$; *to attract students' attention*, $t(313) = .40, p = .69$; *to set social models*, $t(313) = -.85, p = .395$.

Results revealed that there were no significant differences between preservice and K-12 inservice teachers in their perceptions of appropriateness of the seven teacher self-disclosure purposes and that both groups considered the seven purposes to be appropriate.

Appropriate Topics

The test for Appropriate Topics was nonsignificant, $t(313) = .48, p = .63$. Results indicated that the means for preservice teachers ($M = 3.73, SD = .51$) and K-12 inservice teachers ($M = 3.70, SD = .59$) were not significantly different. The 95% confidence interval for the mean difference was -0.09 to 0.15.

Independent-samples t tests were conducted to investigate the differences between preservice teachers and K-12 inservice teachers in the four items of dimension of Appropriate Topics. Means and standard deviations of preservice and K-12 inservice teachers were shown in Table 21. Two tests for item #4 and #6 were significant, *information related to their family, relatives and friends as teacher self-disclosure topics*, $t(305.1) = -3.22, p = .001$; and *personal opinions as teacher self-disclosure topics*, $t(248.1) = 4.84, p < .01$. The tests for other two items, #7 and #1 were nonsignificant, *personal interests or hobbies as teacher self-disclosure topics*, $t(305.1) = 0.10, p = .922$; *personal experiences/stories as teacher self-disclosure topics*, $t(265.3) = -0.79, p = .431$.

While the *t*-test results showed that the means for preservice teachers ($M = 3.73$, $SD = .51$) and K-12 inservice teachers ($M = 3.70$, $SD = .59$) were not significantly different, the tests for the four items yielded two significant and two nonsignificant results. The two groups both considered *personal interests or hobbies as teacher self-disclosure topics* and *personal experiences/stories as teacher self-disclosure topics* to be appropriate teacher self-disclosure topics. Two tests for item #4 and #6 were significant, and K-12 inservice teachers ($M = 3.59$, $SD = .98$) considered *information related to their family, relatives and friends as teacher self-disclosure topics* to be more appropriate than preservice teachers ($M = 3.21$, $SD = 1.11$) but preservice teachers ($M = 3.41$, $SD = .86$) considered *personal opinions as teacher self-disclosure topics* to be more appropriate than K-12 inservice teachers ($M = 2.86$, $SD = 1.09$).

Application of Teacher Self-Disclosure

Research Question 4—Is there any difference among K-12 inservice teachers in their application of teacher self-disclosure?

Research question 4 was intended to investigate K-12 inservice teachers' application of teacher self-disclosure through the following three dimensions of application of teacher self-disclosure: Appropriate Topics and Purposes, Inappropriate Topics and Purposes, and Consideration of Students. For research question 4, six one-way MANOVAs were conducted to evaluate the differences among six demographic variables of K-12 inservice teachers (gender, ethnic group, type of education, years of teaching, grade level of teaching, and award status) in the three dimensions of application of teacher self-disclosure.

Table 23. Means and Standard Deviations for K-12 Inservice Teachers' Application of TSD

Variables	<i>n</i>	Appropriate Topics and Purposes		Consideration of Students		Inappropriate Topics and Purposes	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
<i>Gender</i>							
Male	23	3.64	.73	3.97	.80	1.87	.71
Female	112	3.72	.76	4.50	.67	1.78	.59
Total	135	3.71	.75	4.41	.72	1.79	.61
<i>Ethnic Group</i>							
Caucasian	118	3.74	.73	4.45	.69	1.80	.62
Minority	17	3.46	.87	4.15	.88	1.76	.57
Total	135	3.71	.75	4.41	.72	1.79	.61
<i>Type of Education</i>							
General Education	63	3.80	.76	4.52	.66	1.80	.61
Special Education	72	3.63	.75	4.31	.75	1.78	.62
Total	135	3.71	.75	4.41	.72	1.79	.61
<i>Years of Teaching</i>							
1-5 Years	36	3.75	.61	4.14	.65	1.96	.62
6-10 Years	34	3.79	.89	4.67	.58	1.76	.67
11-20 Years	34	3.78	.77	4.53	.62	1.82	.61
Above 20 Years	31	3.49	.71	4.31	.91	1.59	.47
Total	135	3.71	.75	4.41	.72	1.79	.61
<i>Grade Level of Teaching</i>							
Elementary School	68	3.68	.78	4.50	.70	1.64	.53
Junior School	16	3.66	.57	4.53	.60	1.73	.55
High School	51	3.76	.78	4.25	.76	2.01	.67
Total	135	3.71	.75	4.41	.72	1.79	.61
<i>Award Status</i>							
Award-winning	51	3.71	.77	4.50	.61	1.77	.54
Non-Awarded	84	3.71	.75	4.35	.77	1.81	.65
Total	135	3.71	.75	4.41	.72	1.79	.61

Table 23 shows the means and the standard deviations on the dependent variables for the six independent variables. Table 24 shows the MANOVA results. Table 25 shows

results for Analyses of Variance (ANOVA) as follow-up univariate tests to the MANOVA. Alpha was set at .017 (.05/3) for each ANOVA using Bonferroni method to control for Type I error across the three dependent variables.

Table 24. MANOVA Results of Inservice Teachers' Application of TSD

Variables	Wilks's Λ	F	Significance	η^2
Gender	.92	3.91	.010**	.082
Ethnic Group	.97	1.24	.297	.028
Type of Education	.97	1.19	.317	.026
Years of Teaching	.87	2.06	.033*	.045
Grade Level of Teaching	.89	2.54	.021*	.055
Award Status	.99	0.48	.692	.011

Note: * $p < .05$, ** $p < .01$

Table 25. ANOVA Results of Inservice Teachers' Application of TSD

Group	Dependent Variables	F	Sig.	η^2
Gender	Appropriate Topics & Purposes	0.19	.661	.001
	Consideration of Students	11.38	.001*	.079
Ethnic Group	Inappropriate Topics & Purposes	0.46	.501	.003
	Appropriate Topics & Purposes	2.12	.148	.016
	Consideration of Students	2.64	.107	.019
Type of Education	Inappropriate Topics & Purposes	0.04	.848	.000
	Appropriate Topics & Purposes	1.70	.195	.013
	Consideration of Students	2.86	.093	.021
Years of Teaching	Inappropriate Topics & Purposes	0.03	.856	.000
	Appropriate Topics & Purposes	1.16	.327	.026
	Consideration of Students	3.99	.009*	.084
Grade Level of Teaching	Inappropriate Topics & Purposes	2.17	.095	.047
	Appropriate Topics & Purposes	0.20	.819	.003
	Consideration of Students	2.07	.130	.030
Award Status	Inappropriate Topics & Purposes	5.60	.005*	.078
	Appropriate Topics & Purposes	0.00	.993	.000
	Consideration of Students	1.32	.253	.010
	Inappropriate Topics & Purposes	0.12	.730	.001

Note: * $p < .017$

Table 24 shows that there were no significant differences in K-12 inservice teachers' use of teacher self-disclosure across the levels of ethnic group, type of education and award status. However, significant differences were found across levels of K-12 inservice teachers' gender, years of teaching, and grade level of teaching.

Gender

With regard to the examination of male and female K-12 inservice teachers' application of teacher self-disclosure, significant differences were found between male and female inservice teachers on the three dependent measures (Appropriate Topics & Purposes, Consideration of Students, and Inappropriate Topics & Purposes) from the Application of Teacher Self-Disclosure Scale, Wilks's $\Lambda = .92$, $F(3, 131) = 3.91$, $p = .010$. The multivariate $\eta^2 = .082$ indicated medium effect size. The ANOVA test for Consideration of Students was significant, $F(1, 133) = 11.38$, $p = .001$, $\eta^2 = .079$. The ANOVA for Appropriate Topics and Purposes was nonsignificant, $F(1, 133) = 0.19$, $p = .661$, $\eta^2 = .001$. The ANOVA test for Inappropriate Topics and Purposes was nonsignificant, $F(1, 133) = 0.46$, $p = .501$, $\eta^2 = .003$.

Pairwise comparisons were conducted to find out mean difference between male and female K-12 inservice teachers in their application of Consideration of Students. Results revealed that there were significant differences between male K-12 inservice teachers ($M = 3.97$, $SD = .80$) and female K-12 inservice teachers ($M = 4.50$, $SD = .67$), $F(1, 133) = 11.38$, $p < .001$ and that female teachers considered students' situations much more than male teachers.

Years of Teaching

With respect to the examination of the effects of K-12 inservice teachers' years of teaching on their application of teacher self-disclosure, significant differences were found among four groups of inservice teachers who had taught for 1-5 years, 6-10 years, 11-20 years and above 20 years on the three dependent measures from the Application of Teacher Self-Disclosure Scale, Wilks's $\Lambda = .87$, $F(9, 314.1) = 2.06$, $p = .033$. The multivariate $\eta^2 = .045$ indicated a medium effect size. ANOVA for Consideration of Students was significant, $F(1, 133) = 3.99$, $p < .017$, $\eta^2 = .084$. However, the ANOVA test for Appropriate Topics and Purposes was nonsignificant, $F(1, 133) = 1.16$, $p = .327$, $\eta^2 = .026$. Similarly, ANOVA for Inappropriate Topics and Purposes was nonsignificant, $F(1, 133) = 2.17$, $p = .095$, $\eta^2 = .047$. Therefore, pairwise comparisons were conducted for Inappropriate Topics and Purposes to find out the mean difference among the four groups of teachers who taught for different years. Results showed that there were significant differences between the K-12 inservice teachers who had taught 1-5 years ($M = 4.14$, $SD = .62$) and the K-12 inservice teachers who taught 6-10 years ($M = 4.67$, $SD = .69$), $p = .010$, but there were no significant differences in other pairwise comparisons (see Table 23).

Grade Level of Teaching

Respecting the examination of effects of K-12 inservice teachers' grade level of teaching on their application of teacher self-disclosure, significant differences were found among three groups of inservice teachers who taught in elementary, junior and high school levels in the six dependent measures from the Application of Teacher Self-Disclosure Scale, Wilks's $\Lambda = .89$, $F(6, 260) = 2.54$, $p = .021$. The multivariate $\eta^2 = .055$

indicated medium effect size. ANOVA for Inappropriate Topics and Purposes was significant, $F(1, 133) = 5.60, p = .005, \eta^2 = .078$; therefore, pairwise comparisons were conducted for Inappropriate Topics and Purposes to find out the mean difference among the three groups of teachers who taught in different grade levels. Results revealed that there were significant differences between elementary school teachers ($M = 1.64, SD = .53$) and high school teachers ($M = 2.01, SD = .67$), $p = .004$, but there were no significant differences between elementary school teachers and junior school teachers ($M = 1.73, SD = .55$), and between junior school teachers and high school teachers. The ANOVA for Appropriate Topics and Purposes was nonsignificant, $F(1, 133) = 0.20, p = .819, \eta^2 = .003$. Similarly, ANOVA for Consideration of Students was nonsignificant, $F(1, 133) = 2.07, p = .130, \eta^2 = .030$.

To examine how much K-12 inservice teachers use teacher self-disclosure, frequencies were reported in three dimensions: topics, purposes and consideration of students.

Topics

In the application of teacher self-disclosure, 72 (53.3%) out of 135 K-12 inservice teachers used *personal interests or hobbies* as topics of teacher self-disclosure “much/a great deal,” 47 (34.8%) used them “somewhat,” and 16 (11.9%) used them “never/little”; 68 (50.4%) out of 135 K-12 inservice teachers used *personal experiences/stories* “much/a great deal”, 55 (40.7%) used them “somewhat”, but 12 (8.9%) used them “never/little”; 49 (36.3%) out of 135 K-12 inservice teachers used *information related to teachers’ family, relatives and friends* as TSD topics “much/a great deal,” 59 (43.7%) used them “somewhat”, but 27 (20%) used them “never/little”. Of 135 K-12 inservice teachers, 20

(14.8%) used their *personal opinions* as topics of teacher self-disclosure “much/a great deal,” 31 (23%) used them “somewhat,” but 84 (62.2%) “never/little” used them as teacher topics. K-12 inservice teachers reported “never/little” in their use of three topics: *information from teachers’ intimate relationships* ($n = 128$, 94.8%), *political perspectives* ($n = 122$, 90.4%), and *religious beliefs* ($n = 120$, 88.9%) (see Figure 7).

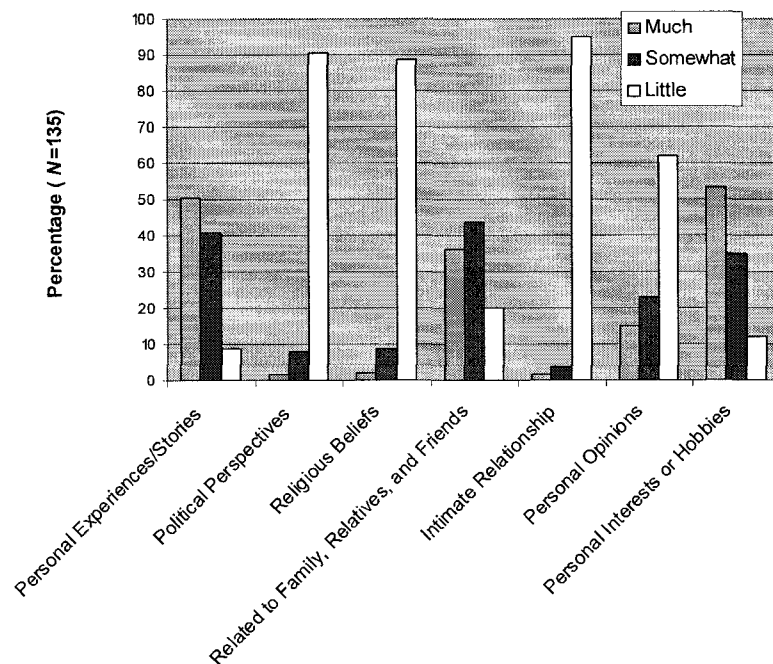


Figure 7. Inservice Teachers' Application of Topics of TSD.

Purposes

Among the purposes of using teacher self-disclosure, *to offer real-world, practical examples* ($n = 107$, 79.3%) were used most as the teachers disclosed themselves; *to clarify teaching content* ($n = 102$, 75.6%) ranked the second. Teachers also

used other purposes “much/a great deal” in their teacher self-disclosure: *to create positive teacher-student relationships* ($n = 89, 65.9\%$), *to enhance students' learning interests* ($n = 87, 64.4\%$), *to create a class environment comfortable to students* ($n = 85, 63\%$), *to attract students' attention* ($n = 72, 53.3\%$), and *to set social roles* ($n = 72, 53.3\%$).

One hundred and thirteen out of 135 (83.7%) K-12 inservice teachers reported “never/ little” use of teacher self-disclosure *to please themselves*. Thirty-three (24.4%) teachers used teacher self-disclosure reported “much/a great deal (of)” use of teacher self-disclosure *to entertain their students*, 40 (29.6%) teachers used teacher self-disclosure “somewhat”, and 62 (45.9%) teachers “never/little” self-disclosed them *to entertain their students* (see Figure 8).

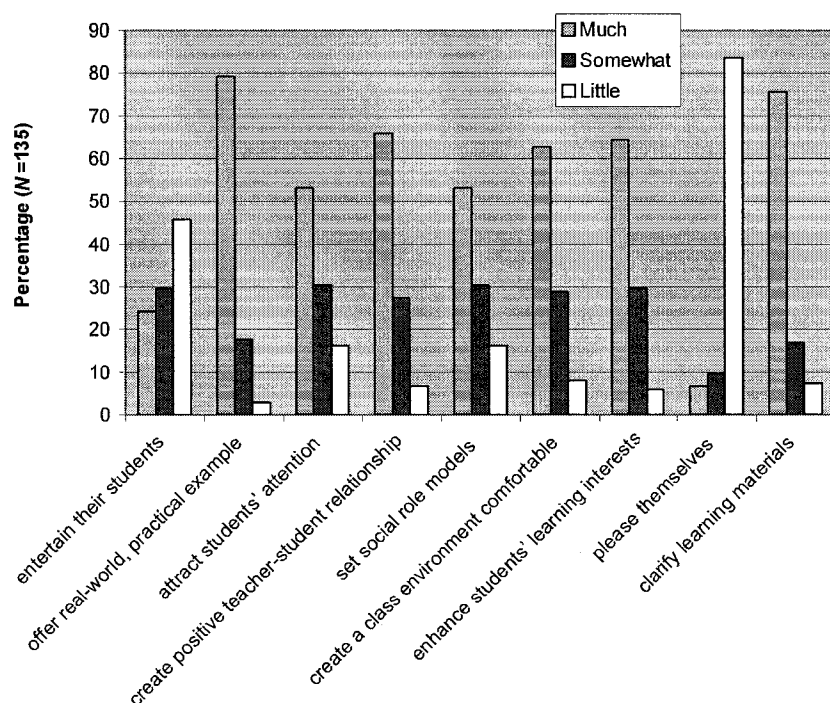


Figure 8. Inservice Teachers' Application of Purposes of TSD.

Consideration of Students

As Figure 9 indicates, in the use of teacher self-disclosure, K-12 inservice teachers gave “much/a great deal (of)” consideration of students: students’ grade level ($n = 126$, 93.3%), students’ feelings ($n = 124$, 91.9%), students’ cultural background ($n = 113$, 83.7%), and students’ gender ($n = 108$, 80%).

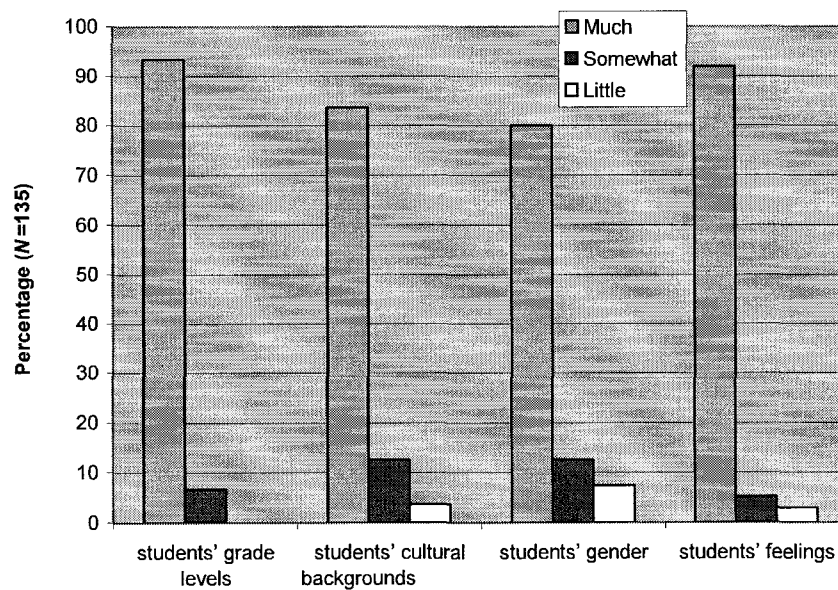


Figure 9. Inservice Teachers’ Application of Consideration of Students.

Perceptions of Teaching Effectiveness of Teacher Self-Disclosure

Research questions 5-7 were intended to investigate preservice and K-12 inservice teachers’ perceptions of teaching effectiveness of teacher self-disclosure through the

Teaching Effectiveness of Teacher Self-Disclosure Scale. Research question 5 investigated the differences among K-12 inservice teachers in their perceptions of teaching effectiveness of teacher self-disclosure; research question 6 explored the differences among preservice teachers in their perceptions of teaching effectiveness of teacher self-disclosure; and research question 7 examined the differences between preservice and K-12 inservice teachers in their perceptions of teaching effectiveness of teacher self-disclosure.

Research Question 5—Is there any difference among K-12 inservice teachers in their perceptions of effects of teacher self-disclosure on teaching effectiveness?

Table 26 provides the means and the standard deviations on the three dependent variables for the six variables. Table 27 provides results of the MANOVA tests. Results indicated that no significant differences were found in the three dependent measures of teaching effectiveness across levels of gender, ethnic group, type of education, years of teaching, grade levels of teaching, and award status.

Table 26. Means and Standard Deviations for Inservice Teachers' Perceptions of Teaching Effectiveness

Variables	<i>n</i>	1		2		3	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
<i>Gender</i>							
Male	23	4.04	.45	4.05	.60	3.61	.50
Female	112	4.19	.51	4.32	.54	3.67	.67
Total	135	4.17	.50	4.27	.55	3.66	.64
<i>Ethnic Group</i>							
Caucasian	118	4.18	.51	4.28	.57	3.67	.63
Minority	17	4.07	.49	4.25	.42	3.57	.74
Total	135	4.17	.50	4.27	.55	3.66	.64
<i>Type of Education</i>							
General Education	63	4.16	.57	4.29	.59	3.68	.67
Special Education	72	4.17	.45	4.26	.53	3.63	.62
Total	135	4.17	.50	4.27	.55	3.66	.64

Table 26. Means and Standard Deviations for Inservice Teachers' Perceptions of Teaching Effectiveness (Continued)

Variables	<i>n</i>	1		2		3	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
<i>Years of Teaching</i>							
1-5 Years	36	4.14	.53	4.24	.55	3.69	.51
6-10 Years	34	4.26	.53	4.34	.53	3.68	.74
11-20 Years	34	4.15	.49	4.34	.62	3.73	.64
Above 20 Years	31	4.11	.47	4.17	.52	3.51	.67
Total	135	4.17	.50	4.27	.55	3.66	.64
<i>Grade Level of Teaching</i>							
Elementary School	68	4.15	.49	4.26	.56	3.65	.67
Junior School	16	4.04	.63	4.39	.49	3.55	.70
High School	51	4.23	.48	4.26	.57	3.70	.58
Total	135	4.17	.50	4.27	.55	3.66	.64
<i>Award Status</i>							
Award-winning	51	4.13	.50	4.29	.58	3.65	.73
Non-Awarded	84	4.19	.51	4.26	.54	3.66	.58
Total	135	4.17	.50	4.27	.55	3.66	.64

Note: 1. Learning Effects
 2. Teacher-Student Relationships and Classroom Communication Environment
 3. Classroom Participation & Classroom Behavior

Table 27. MANOVA Results of Inservice Teachers' Perceptions of Teaching Effectiveness of TSD

Variables	Wilks's Λ	<i>F</i>	Significance	η^2
Gender	.96	1.78	.155	.039
Ethnic Group	.99	0.38	.766	.009
Type of Education	.99	0.17	.919	.004
Years of Teaching	.95	0.72	.695	.016
Grade Level of Teaching	.94	1.47	.187	.033
Award Status	.98	0.75	.523	.017

To examine the K-12 inservice teachers' perceptions of teaching effectiveness of teacher self-disclosure, frequencies were reported in the order of the dimensions of the Teaching Effectiveness of Teacher Self-Disclosure Scale: Learning Effects, Teacher-Student Relationships and Classroom Communication Environment, and Classroom Participation and Classroom behavior. One hundred and thirty-five K-12 inservice teachers reported "agree/strongly agree" regarding the following aspects of learning effects: *teacher self-disclosure helps students understand teachers' lectures* ($n = 109$, 80.7%), *teacher self-disclosure provides different ways for students to understand the class content* ($n = 127$, 94.1%); *teacher self-disclosure makes course content more interesting* ($n = 123$, 91.1%); *teacher self-disclosure makes students' learning experiences more engaging* ($n = 121$, 89.6%); *teacher self-disclosure helps students apply the knowledge gained to real life situations* ($n = 125$, 92.6%); *teacher self-disclosure attracts students' attention* ($n = 123$, 91.1%); *teacher self-disclosure makes teaching more vivid to students* ($n = 118$, 87.4%); and *teacher self-disclosure contributes to students being more active classroom participants* ($n = 111$, 82.2%) (see Figure 10).

As Figure 11 shows, K-12 inservice teachers showed a high degree of consensus as "agree/strongly agree" about the positive effects of teacher self-disclosure on teacher-student relationships and classroom communication environment as follows: *teacher self-disclosure contributes to developing trust between teachers and students* ($n = 120$, 88.9%); *teacher self-disclosure creates caring relationships between teachers and students* ($n = 122$, 90.4%); *teacher self-disclosure helps students open up to their teachers about problems they may be having* ($n = 114$, 84.4%); *teacher self-disclosure helps students understand their teachers as real people* ($n = 128$, 94.8%); and *teacher self-disclosure*

helps students feel comfortable about communicating with their teachers ($n = 122$, 90.4%).

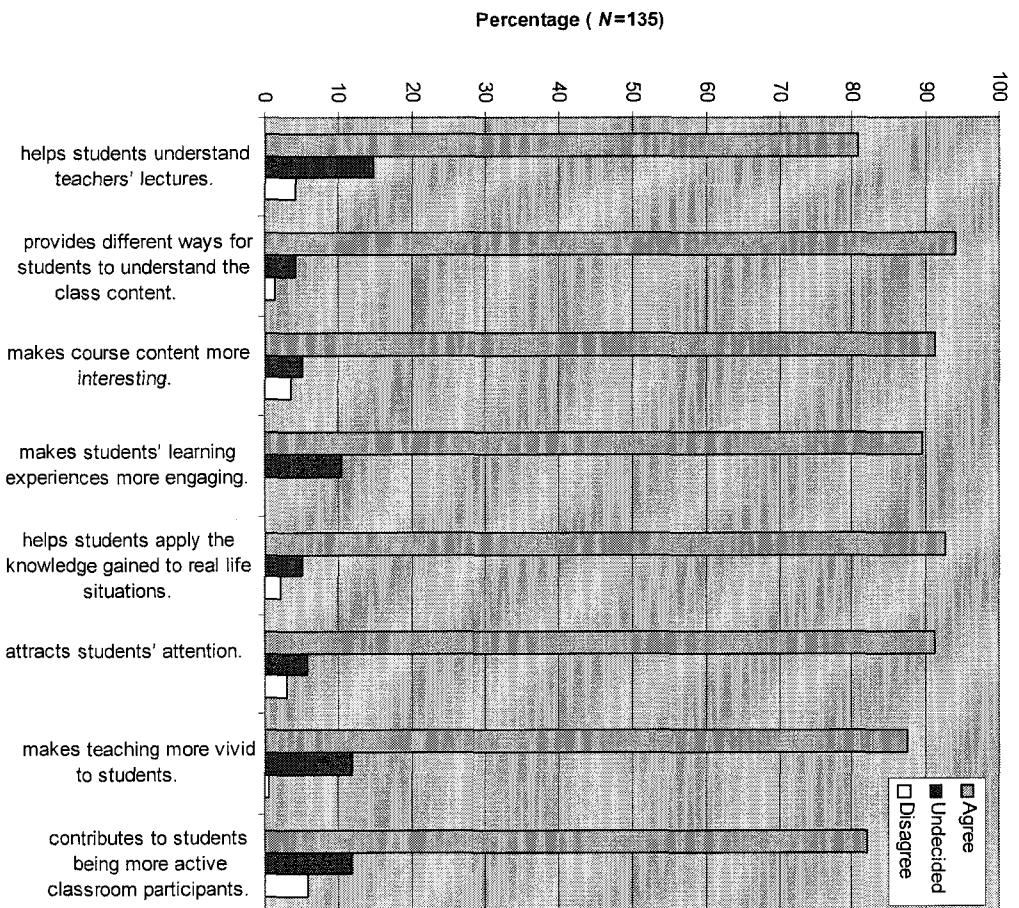


Figure 10. Inservice Teachers' Perceptions of Learning Effects of TSD.

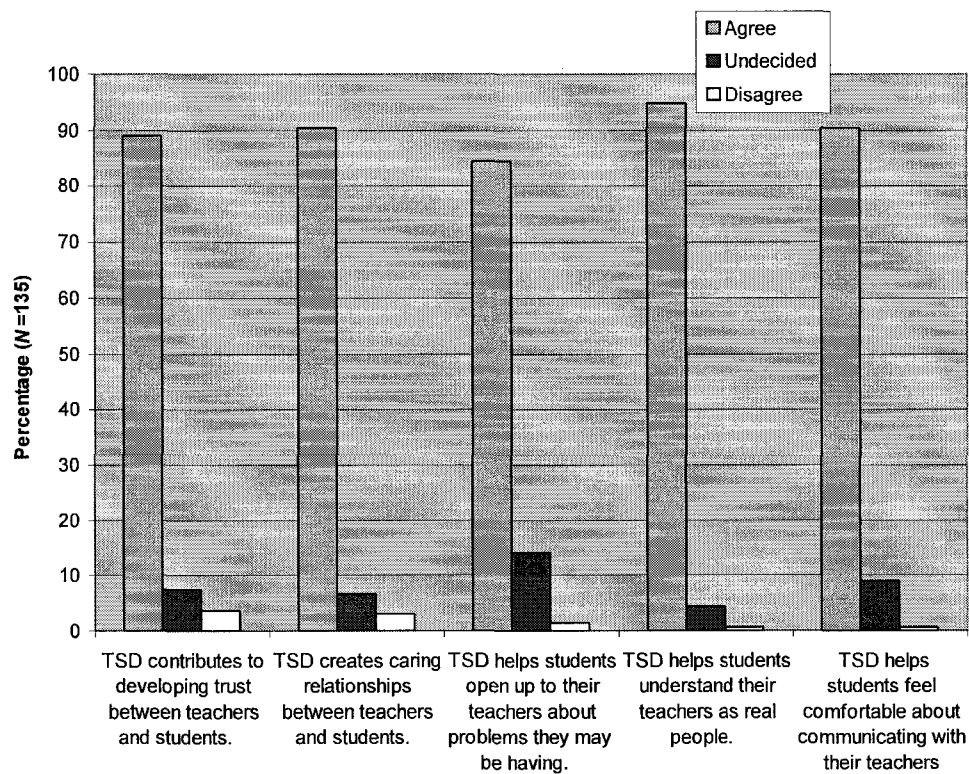


Figure 11. Inservice Teachers' Perceptions of T-S Relationships and Classroom Environment.

Regarding classroom participation and classroom behavior, K-12 inservice teachers chose “agree/strongly agree” about the effects of teacher self-disclosure on two aspects of classroom participation. One hundred and sixteen ($n = 116$, 85.9%) teachers reported “agree/strongly agree” in the item teacher self-disclosure makes students enthusiastic about classroom activities; 103 (76.3%) teachers “agree(d)/strongly agree(d)” that teacher self-disclosure contributes to students’ willingness to learn (see Figure 12).

However, the perceptions of effects of teacher self-disclosure on aspects of classroom behavior were very inconsistent. Sixty-two (45.9%) teachers “agree(d)/strongly agree(d)” that *teacher self-disclosure contributes to classroom discipline*, 50 (37%) were uncertain about the effects, and 23 (17%) did not agree with the effects. Similarly, those teachers expressed varied perceptions of effects of teacher self-disclosure on students’ misbehavior. Fifty-six (41.5%) teachers believed that *teacher self-disclosure reduces students’ misbehaviors*; however, 53 (39.3%) teachers were undecided about the effects; and 26 (19.3%) “strongly disagree(d)/ disagree(d),” with the effects (see Figure 12).

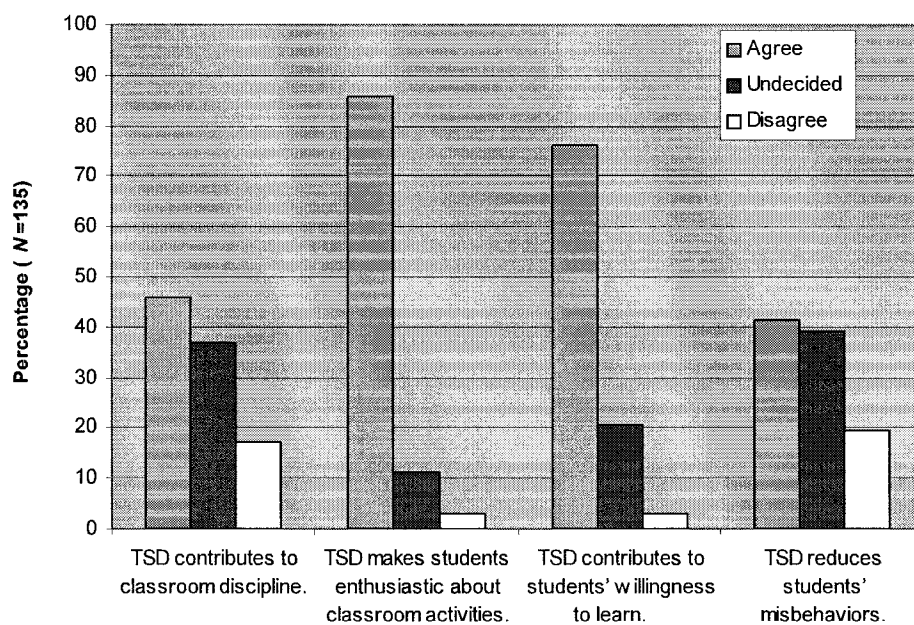


Figure 12. Inservice Teachers' Perceptions of Classroom Participation and Classroom Behavior.

Research Question 6—Is there any difference among preservice teachers in their perceptions of effects of teacher self-disclosure on teaching effectiveness?

For research question 6, two one-way MANOVAs were conducted to evaluate the differences in their perceptions of three dimensions of teaching effectiveness—Learning Effects, Teacher-Student Relationships and Classroom Communication Environment, and Classroom Participation and Classroom Behavior across levels of gender and ethnic group. Table 28 shows the means and the standard deviations on the dependent variables for gender and ethnic groups. Table 29 provides the MANOVA results. No significant differences were found in the three dependent measures of teaching effectiveness across levels of gender and ethnic group.

Table 28. Means and Standard Deviations on Preservice Teachers' Perceptions of Teaching Effectiveness of TSD

Variables	<i>n</i>	1		2		3	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
<i>Gender</i>							
Male	38	4.02	.43	4.14	.64	3.38	.62
Female	142	3.97	.45	4.16	.50	3.38	.56
Total	180	3.98	.44	4.15	.53	3.38	.57
<i>Ethnic Group</i>							
Caucasian	137	3.97	.44	4.14	.54	3.38	.58
Minority	43	4.00	.45	4.20	.50	3.37	.54
Total	180	3.98	.44	4.15	.53	3.38	.57

Notes: 1. Learning Effects

2. Teacher-Student Relationships and Classroom Communication Environment

3. Classroom Participation and Classroom Behavior

Table 29. MANOVA Results for Preservice Teachers' Perceptions of Teaching Effectiveness of TSD

Variables	Wilks' Λ	F	Sig.	η^2
Gender	.99	.23	.875	.004
Ethnic Group	.99	.25	.861	.004

To examine the preservice teachers' perceptions of teaching effectiveness of teacher self-disclosure, frequencies were reported in the order of the dimensions of the Teaching Effectiveness of Teacher Self-Disclosure Scale: Learning Effects, Teacher-Student Relationships and Classroom Communication Environment, and Classroom Participation and Classroom Behavior. One hundred and eighty preservice teachers "agree(d)/strongly agree(d)" that teacher self-disclosure leads to the following aspects of learning effects: *teacher self-disclosure helps students understand teachers' lectures* ($n = 115, 63.9\%$); *teacher self-disclosure provides different ways for students to understand the class content* ($n = 150, 83.3\%$); *teacher self-disclosure makes course content more interesting* ($n = 156, 86.7\%$); *teacher self-disclosure makes students' learning experiences more engaging* ($n = 156, 86.7\%$); *teacher self-disclosure helps students apply the knowledge gained to real life situations* ($n = 154, 85.6\%$); *teacher self-disclosure attracts students' attention* ($n = 163, 90.6\%$); *teacher self-disclosure helps students understand their teachers as real people* ($n = 170, 94.4\%$); *teacher self-disclosure makes teaching more vivid to students* ($n = 136, 75.6\%$); and *teacher self-disclosure contributes to students being more active classroom participants* ($n = 119, 66.1\%$) (see Figure 13).

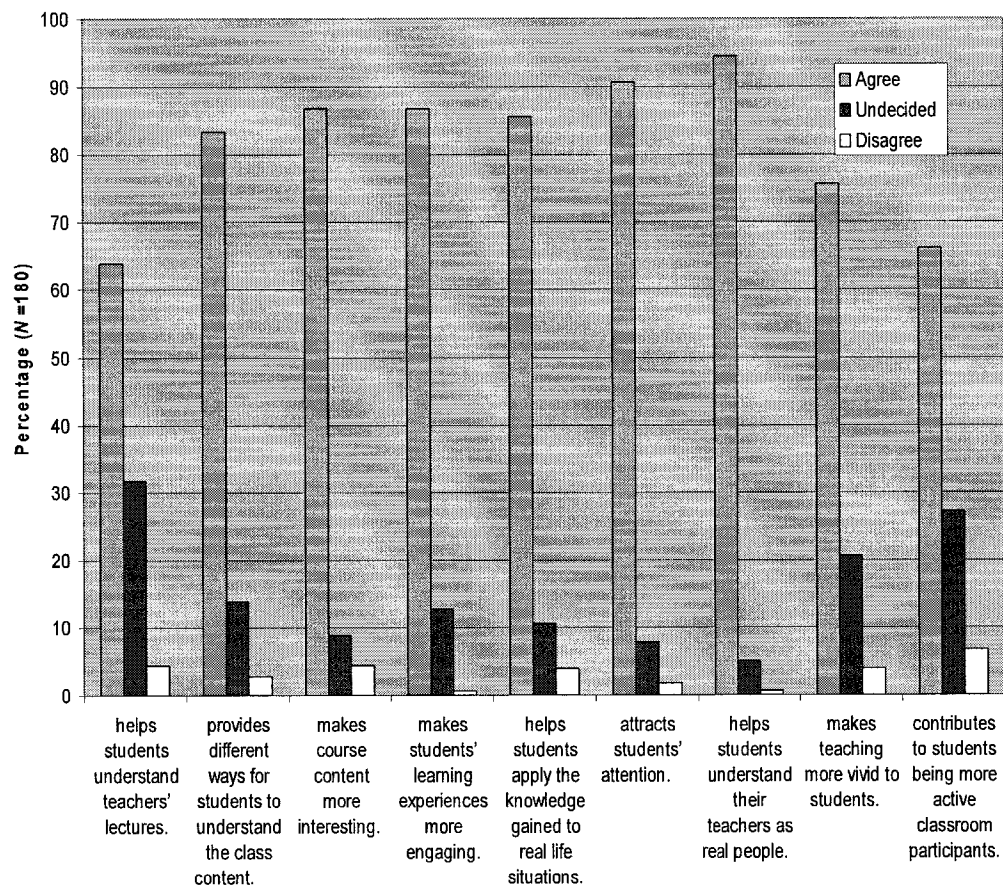


Figure 13. Preservice Teachers' Perceptions of Learning Effects of TSD.

Preservice teachers showed a high degree of consensus (“agree/strongly agree”) about the positive effects of teacher self-disclosure on teacher-student relationships and classroom communication environment as follows: *teacher self-disclosure contributes to developing trust between teachers and students* ($n=167, 92.8\%$); *teacher self-disclosure creates caring relationships between teachers and students* ($n = 145, 80.6\%$); *teacher*

self-disclosure helps students open up to their teachers about problems they may be having ($n = 141, 78.3\%$); *teacher self-disclosure helps students understand their teachers as real people* ($n = 170, 94.4\%$); and *teacher self-disclosure helps students feel comfortable about communicating with their teachers* ($n = 157, 87.2\%$) (see Figure 14).

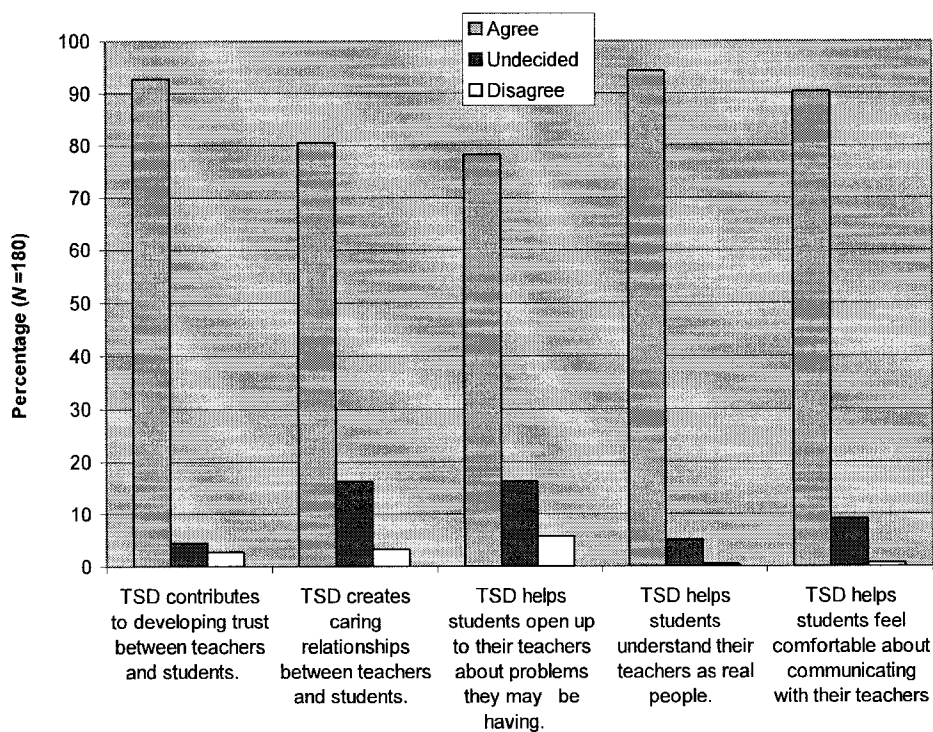


Figure 14. Preservice Teachers' Perceptions of Teacher-Student Relationships of TSD.

Preservice teachers showed general agreement about the effects of teacher self-disclosure on two aspects of classroom participation. One hundred and thirty-seven (76.1%) teachers agreed/strongly agreed that *teacher self-disclosure contributes to*

students' willingness to learn; 130 (72.2%) teachers agreed/strongly agreed that *teacher self-disclosure makes students enthusiastic about classroom activities*. However, the perceptions of effects of teacher self-disclosure on aspects of classroom behavior were very inconsistent. Fifty-four (30%) preservice teachers agreed that *teacher self-disclosure contributes to classroom discipline*, 71 (39.4%) were uncertain about the effects, and 55 (30.6%) “disagree(d)/strongly disagree(d)” that *teacher self-disclosure contributes to classroom discipline*. Similarly, those teachers expressed varied perceptions of effects of teacher self-disclosure on students' misbehavior. Thirty-five (19.4%) preservice teachers “agree(d)/strongly agree(d)” that *teacher self-disclosure reduces students' misbehaviors*; however, 86 (47.8%) teachers were undecided about the effects; and 59 (32.8%) “disagree(d)/strongly disagree(d)” that *teacher self-disclosure reduces students' misbehavior* (see Figure 15).

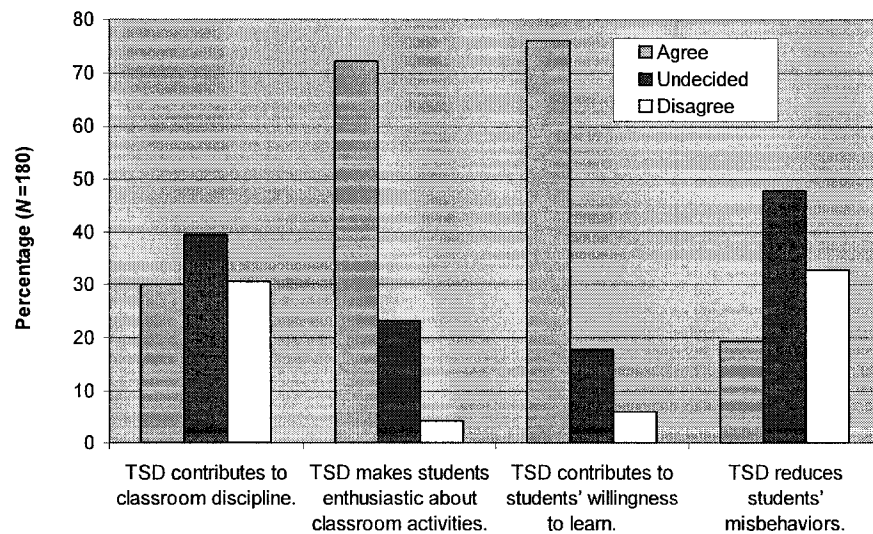


Figure 15. Preservice Teachers' Perceptions of Classroom Participation and Classroom Behavior.

Research Question 7—Is there any significant difference between preservice teachers and K-12 inservice teachers in their perceptions of effects of teacher self-disclosure on teaching effectiveness?

Three independent samples *t* tests were conducted to evaluate the differences between preservice teachers and K-12 inservice teachers in three dimensions of teaching effectiveness (Learning Effects, T-S Relationship & Classroom Communication Environment, Classroom Participation and Classroom Behavior). Means and standard deviations for preservice and inservice teachers on the three dimensions of teaching effectiveness are shown in Table 30.

Learning Effects

The test for learning effects was significant $t(313) = -3.53, p < .01$. Results revealed that the mean for preservice teachers ($M = 3.98, SD = .44$) and that for inservice teachers ($M = 4.17, SD = .51$) were significantly different. Results implied that inservice teachers considered that teacher self-disclosure has learning effects more than preservice teachers. The 95% confidence interval for the mean difference was -0.29 to -0.08. The effect size index *d* was -.401, indicating a small effect size.

Table 30. Means and Standard Deviations for Preservice and Inservice Teachers on their Perceptions of Teaching Effectiveness of TSD

Variables	Preservice Teachers (180)		Inservice Teachers (135)	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Learning Effects	3.98	.44	4.17	.50
Teacher-Student Relationships and Classroom Communication Environment	4.15	.53	4.27	.55
Classroom Participation and Classroom Behavior	3.38	.57	3.66	.64

Table 31. Results of T-Test for Preservice and Inservice Teachers' Perceptions of Teaching Effectiveness of TSD

Variables	<i>t</i>	<i>df</i>	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
						Lower	Upper
1	-3.53	313	.000**	-.19	.05	-.29	-.08
2	-1.92	313	.056	-.12	.06	-.24	.01
3	-4.09	313	.000**	-.28	.07	-.41	-.14

Notes: 1. Learning Effects

2. Teacher-Student Relationships and Classroom Communication Environment

3. Classroom Participation and Classroom Behavior

* $p < .05$. ** $p < .01$.

Independent-samples *t* tests were conducted to further evaluate the differences between preservice teachers and K-12 inservice teachers in the eight items of dimension of Learning Effects. Means and standard deviations of preservice and inservice teachers are shown in Table 32. Four tests (#15, #11, #2, and #16) were significant, *making teaching more vivid to students*, $t(313) = -3.14$, $p = .002$; *helping students apply the knowledge gained to real life*, $t(313) = -2.16$, $p = .032$; *helping students understand teachers' lectures*, $t(313) = -3.62$, $p < .01$; and *contributing to students being more active participants*, $t(313) = -3.34$, $p = .001$. Four tests (#10, #7, #3, #12) were nonsignificant (see Table 33), *making students' learning experiences more engaging*, $t(284.8) = -1.92$, $p = .056$; *making course content more interesting*, $t(313) = -1.63$, $p = .105$, *providing different ways for students to understand the class content*, $t(313) = -1.96$, $p = .051$; and *attracting students' attention*, $t(313) = -1.02$, $p = .308$. Results showed that, regarding learning effects of teacher self-disclosure, K-12 teachers accepted the teaching effectiveness of teacher self-disclosure significantly more than preservice teachers,

especially in the items of *making teaching more vivid to students, helping students apply the knowledge gained to real life, helping students understand teachers' lectures, and contributing to students being more active participants.*

Table 32. Means and Standard Deviations on Items of Preservice and Inservice Teachers' Perceptions of Teaching Effectiveness of TSD

Dimensions and Items	Preservice Teachers (<i>n</i> =180)		Inservice Teachers (<i>n</i> =135)	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
1				
Item # 10	4.06	.59	4.19	.60
Item # 7	4.13	.75	4.27	.76
Item # 15	3.90	.73	4.15	.64
Item # 3	4.03	.69	4.17	.57
Item # 11	4.09	.73	4.27	.66
Item # 12	4.19	.64	4.27	.74
Item # 2	3.69	.71	4.00	.78
Item # 16	3.72	.76	4.01	.81
2				
Item # 17	4.16	.71	4.25	.64
Item # 9	4.04	.86	4.17	.75
Item # 8	4.03	.77	4.30	.72
Item # 14	4.37	.60	4.38	.61
Item # 1	4.19	.64	4.27	.78
3				
Item # 13	2.85	.85	3.28	.97
Item # 4	3.01	.85	3.33	.99
Item # 5	3.83	.73	4.06	.68
Item # 6	3.82	.71	3.95	.74

Notes: 1. Learning Effects

2. Teacher-Student Relationships and Classroom Communication Environment

3. Classroom Participation and Classroom Behavior

Teacher-Student Relationships and Classroom Communication Environment

The *t*-test for Teacher-Student Relationships and Classroom Communication

Environment was nonsignificant, $t(313) = -1.92, p = .056$. Results revealed that the mean for preservice teachers ($M = 4.15, SD = .53$) and that for inservice teachers ($M = 4.27, SD = .55$) were not significantly different. The 95% confidence interval for the mean difference was -0.24 to 0.01.

Table 33. T-Test Results for Preservice and Inservice Teachers' Perceptions of Teaching Effectiveness of TSD

Dimensions and Items	<i>t</i>	<i>df</i>	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
						Lower	Upper
1							
Item # 10	-1.92	284.8	.056	-.13	.068	-.263	.004
Item # 7	-1.63	313	.105	-.14	.085	-.307	.029
Item # 15	-3.14	313	.002**	-.25	.079	-.404	-.092
Item # 3	-1.96	313	.051	-.14	.073	-.286	-.001
Item # 11	-2.16	313	.032*	-.17	.080	-.329	-.015
Item # 12	-1.02	313	.308	-.08	.078	-.233	-.074
Item # 2	-3.62	313	.000**	-.31	.084	-.472	-.139
Item # 16	-3.34	313	.001**	-.30	.089	-.474	-.122
2							
Item# 17	-1.17	313	.244	-.09	.078	-.244	-.062
Item # 9	-1.36	313	.175	-.13	.093	-.308	-.056
Item # 8	-3.08	313	.002**	-.26	.085	-.431	-.095
Item # 4	-.566	313	.572	-.04	.069	-.174	.096
Item # 1	-.87	254.9	.384	-.07	.083	-.235	.091
3							
Item # 13	-4.13	266.9	.000	-.43	.105	-.637	-.226
Item # 4	-3.04	264.3	.003	-.32	.106	-.531	-.114
Item # 5	-2.90	299.3	.004	-.23	.080	-.389	-.074
Item # 6	-1.60	313	.111	-.13	.082	-.293	.030

Notes: 1. Learning Effects

2. Teacher-Student Relationships and Classroom Communication Environment

3. Classroom Participation and Classroom Behavior

* $p < .05$, ** $p < .01$

Although the test for the dimension of Teacher-Student Relationships and Classroom Communication Environment was nonsignificant, independent-samples t tests were conducted to investigate the differences between preservice teachers and K-12 inservice teachers in the five items of dimension of Teacher-Student Relationships and Classroom Communication Environment. Means and standard deviations for preservice and K-12 inservice teachers were shown in Table 30. One test (#8), *creating caring relationships between teachers and students*, was significant, $t(313) = -3.08, p = .002$ and four tests (#17, #9, #14, #1) were nonsignificant, *helping students feel comfortable about communicating with their teachers*, $t(313) = -1.17, p = .244$; *helping students open up to their teachers about problems they may be having*, $t(313) = -1.36, p = .175$; *helping students understand their teachers as real people*, $t(313) = -0.57, p = .572$; *contributing to developing trust between teachers and students*, $t(254.9) = -0.87, p = .384$ (see Table 31). Results indicated that both preservice and K-12 inservice teachers agreed that teacher self-disclosure had positive effects on establishing teacher-student relationships and classroom communication environment, but K-12 inservice teachers presented more agreement than preservice teachers with the effect of *creating caring relationships between teachers and students*.

Classroom Participation and Classroom Behavior

The test for Classroom Participation and Classroom Behavior was significant, $t(313) = -4.09, p < .01$. Results showed that the mean for preservice teachers ($M = 3.38, SD = .57$) and the mean for inservice teachers ($M = 3.66, SD = .64$) were significantly different. The 95% confidence interval for the mean difference was -0.41 to -0.14. The effect size d index was -.465, indicating a medium effect size.

Independent-samples *t* tests were conducted to further evaluate the differences between preservice teachers and K-12 inservice teachers in the four items of Classroom Participation and Classroom Behavior. Means and standard deviations for preservice and inservice teachers were shown in Table 30. Three tests (#13, #4, and #5) were significant, *reducing students' misbehavior*, $t(266.9) = -4.13, p < .01$; *contributing to classroom discipline*, $t(264.3) = -3.04, p = .003$; and *making students enthusiastic about classroom activities*, $t(299.3) = -2.90, p = .004$. One test (# 6), *contributing to students' willingness to learn*, was nonsignificant, $t(313) = -1.60, p = .111$ (see Table 31). Results revealed that K-12 inservice teachers accepted *reducing students' misbehavior*, *contributing to classroom discipline*, *making students enthusiastic about classroom activities* as learning effects of teacher self-disclosure more than preservice teachers and two groups showed the same degree of acceptance of *contributing to students' willingness to learn*.

CHAPTER 5: DISCUSSION

Chapter 5 consists of three sections. The first section provides a brief review of the current study. The second section summarizes the results and then discusses possible interpretations and implications of the study. The third section addresses the limitations of the study and suggestions for future research.

Review of the Study

The purpose of the current study was to situate teacher self-disclosure research in a curriculum and instruction context. This purpose is consistent with the recognition raised by Minger (2004) that teacher self-disclosure should be studied beyond the theoretical framework of interpersonal communication. A preliminary study was conducted to investigate appropriateness of teacher self-disclosure and teaching effectiveness of teacher self-disclosure. This preliminary study provided valuable resources and a basis for the development of the following three surveys adopted in the study: the Appropriateness of Teacher Self-Disclosure Scale, the Application of Teacher Self-Disclosure Scale and the Teaching Effectiveness of Teacher Self-Disclosure Scale.

The dissertation research was conducted to examine preservice and K-12 inservice teachers' perceptions of appropriateness of teacher self-disclosure and the study investigated preservice and K-12 inservice teachers' perceptions of effects of teacher self-disclosure on teaching effectiveness. In the primary study, the differences in their perceptions of appropriateness of teaching self-disclosure and its teaching effectiveness across different levels of inservice teachers' gender, ethnic group, grade levels of teaching, type of teaching, years of teaching and award status and across preservice

teachers' gender and ethnic groups were examined. Similarly, differences in application of teacher self-disclosure were examined.

Independent-samples *t* tests were conducted to examine the differences between preservice and K-12 inservice teachers in their perceptions of appropriateness of teacher self-disclosure and its teaching effectiveness. Frequencies of the responses of the items in each dimension of appropriateness, teaching effectiveness and application of teacher self-disclosure were analyzed descriptively.

Interpretations and Implications of the Findings

This section integrates the findings of the current study with previous research, giving special attention to whether the findings in the current study converge with and/or diverge from the results of previous research of teacher self-disclosure. In addition, implications are presented considering several educational aspects such as educational policy, preservice and inservice teacher education and curriculum design. This section provides the interpretations and implications in the order of dimensions in each of the three surveys. Finally, limitations of the study and suggestions for future research are discussed.

Appropriateness of Teacher Self-Disclosure

This section focuses on the discussions on how preservice and inservice teachers perceived the appropriateness of topics, purposes and consideration of students; meanwhile, the discussion concentrates on differences in the perceptions of three dimensions of appropriateness of teacher self-disclosure across the levels of inservice teachers' gender, ethnic group, grade level of teaching, type of teaching, years of

teaching, and award status, and across the levels of preservice teachers' gender and ethnic group.

Self-Disclosure Topics

Results indicated that both preservice and K-12 inservice teachers agreed that topics such as *information related to their family, relatives and friends, personal opinions, personal interests or hobbies, and personal experiences/stories* are appropriate. Nevertheless, preservice and K-12 inservice teachers had diverse judgments about the appropriateness of teachers' *personal opinions* as topics of teacher self-disclosure. Preservice teachers had diverse opinions about the appropriateness of *religious beliefs* and *political perspectives* as inappropriate topics of teacher self-disclosure. With regard to the perceptions of inappropriate topics such as *religious beliefs, political perspectives, and information from teachers' intimate relationships*, both preservice and K-12 inservice teachers felt that they were inappropriate topics, but K-12 inservice teachers felt they were more inappropriate topics than did preservice teachers.

The results of perceptions of appropriate topics partially converged with the results from recent studies (Minger, 2004; Gregory, 2005) in that they reported *teachers' personal interests or hobbies and experiences/stories* are appropriate topics. Studies (Cayanus & Martin, 2002; Downs, Javidi & Nussbaum, 1988; Holladay, 1984; Javidi & Long, 1989) found that teachers used *information related to their family, relatives and friends* as teacher self-disclosure topics. One factor that hinders the generalization of the findings from the previous studies is that these studies were conducted in colleges. The current study that was conducted among preservice teachers and K-12 inservice teachers

suggest that information related to their family, relatives and friends as teacher self-disclosure topics are also safe and well-accepted in K-12 classroom settings.

Regarding the topics about *information related to teachers' family, relatives, and friends*, one half of the preservice teachers considered it appropriate while the other half were either undecided or believed that it was an inappropriate topic of teacher self-disclosure. Other studies (Cayanus & Martin, 2002; Downs, Javidi, & Nussbaum, 1988; Holladay, 1984; Javidi & Long, 1989) provided support for the findings of the current study, but they did not investigate how appropriate the subjects perceived the topics to be. Since preservice teachers have different opinions about the appropriateness, it is unsafe to draw any conclusion about the appropriateness of *related to teachers' family, relatives, and friends* as a topics of teacher self-disclosure, but the significance of the findings lies in the original findings for future studies related to topics of teacher self-disclosure.

Preservice and K-12 inservice teachers had different preceptions about the appropriateness of teachers' *personal opinions* as topics of teacher self-disclosure. Contrary to Downs, Javidi, and Nussbaum's (1988) findings that teacher beliefs/opinions appeared in the highest frequency, the findings revealed that preservice teachers showed different opinions about the appropriateness of teachers' personal opinions. One possible explanation for the inconsistent results may be that Downs, Javidi, and Nussbaum studied college instructors' self-disclosure. College instructors may believe that college students should be open to different opinions, which is conducive to college students' critical thinking. Another possible explanation may come from preservice and K-12 inservice teachers' different perspectives about personal opinions. Some teachers may believe that teachers' opinions function as inappropriate topics of teacher self-disclosure because

teachers' biased opinions may negatively influence students. Other teachers may think that teachers' opinions or biases may encourage students' critical thinking (Gregory, 2005); therefore, they may think that teachers' opinions may be appropriate topics of teacher self-disclosure.

With regard to the perceptions of inappropriate topics, the findings of the current study were consistent with those of Gregory (2005). Gregory found that teachers considered sexuality, and intimate details regarding any topic to be taboo. In the preliminary study, preservice teachers also revealed that those topics related to marriage, sex, drugs, alcohol, abortion, and illegal issues undermine the positive teacher-student relationships and negatively influence students' education, taking into consideration the seriousness of the classroom and the students' maturity level. Gregory's (2005) study called attention to the teachers' responsibilities—teachers should not only be able to teach knowledge, but also be good role models for students.

Preservice teachers had diverse opinions about the appropriateness of self-disclosing teachers' *political perspectives* and *religious beliefs*. More than one half of preservice teachers considered them to be appropriate, one-third showed that they were undecided about the appropriateness, and the others considered them to be inappropriate. The results suggested the importance of preparing preservice teachers with knowledge of these controversial issues. This suggestion is supported by one recent study about religious issues in education. Hook (2002) investigated preservice teachers' perceived barriers for implementing multicultural curriculum with preservice teachers as they began their teacher education program. Difficulty Discussing Sensitive Topics (including Religion in the Classroom and Creating Controversy) was identified as one of the four

themes of barriers. Hook found that students considered religion to be a highly difficult topic to include in the classroom, and that they expressed their concern regarding the separation of church and state. Hook (2002) found that three students identified controversy as a major concern for implementing a diverse curriculum, and they expressed their difficulty with always being politically correct.

Another issue that the findings raised in the current study is whether teachers should be allowed to talk about political perspectives as self-disclosure in classroom teaching. Regarding teachers' political perspectives as topics of teacher self-disclosure, one possible explanation as to why teachers believed that it is inappropriate is that they believed education should not be influenced by politics. Nevertheless, Freire (1970) supported the importance of talking about politics in the classroom, and he advocated that education is politics. Therefore, what is taught or discussed in the classroom is what builds students' minds and subsequent actions. Accordingly, teachers are fulfilling their social responsibility if they challenge their students to think beyond the course content to the real world. Throughout Shor and Pari's (2000) text are examples of teachers who have done this. Gutmann (1987) also has contributed substantially to the issue of politics and education. To answer the question of who should have authority to shape the education of future citizens, she proposed that educational authority be shared among parents, citizens, and professional educators and that teachers have responsibility for the selection of teaching materials as curriculum.

Similar to religious issues in education, the findings of the current study also evoke the necessity of integrating the discussions of political issues in education. It seems reasonable to suggest that teachers should have the freedom and responsibilities to share

their political knowledge but not their political biases. Teacher education programs may teach preservice teachers how to properly talk about their political perspectives and how to educate their students properly using their political perspectives or knowledge.

While both preservice and K-12 inservice teachers felt that teachers' political perspectives and religious opinions were inappropriate topics, K-12 inservice teachers felt they were more inappropriate topics than preservice teachers. The reason for the findings may be explained by the fact that preservice teachers lack understanding and knowledge about the background of the religious issues in public education. Therefore, teacher education programs should prepare teachers to discuss religion in a proper manner and to learn how to teach about religion. Preservice teachers should learn that it is unconstitutional for public schools and their employees to promote religious beliefs, or to practice religion. Teacher education programs should also design effective programs for increasing preservice teachers' understanding of teaching about religion.

The findings of the current study raised the curriculum issue regarding what teachers should and should not teach. Concerning the religious issue in the curriculum, one possible explanation as to why teachers believed it inappropriate to self-disclose their religious beliefs is the first phrase of the First Amendment to the U.S. Constitution, the establishment clause, which requires a wall of separation between church and state. Religious teaching in the public schools is limited accordingly; public schools must remain neutral on religion. To end the confusion regarding teaching religion in public schools, Richard W. Riley, U. S. Secretary of Education, wrote in 1995, and revised in 1998, *Religious Expression in Public Schools*, a statement of principles regarding the extent to which religious expression and activity are permitted in public schools. These

guidelines helped school officials, teachers, students and parents find a new common ground on the important issues of religious freedom consistent with constitutional requirements. Other suggestions and experiences that recent scholars have offered may help preservice and K-12 inservice teachers better understand teaching about religion in public schools. Marshall (2003) argued that teachers require special clarity in order to handle questions of religion properly and legally. Dever, Whittaker, and Byrnes (2001) provided suggestions and guidelines for developmentally appropriate and educationally and constitutionally sound religious instruction across grade level in public elementary school classrooms. These studies provided resources to support teachers in their efforts to help students foster their understandings of and respect for the perspectives and religious traditions of others, and enable them to understand how religions and religious beliefs have shaped cultures. In this way, teachers may learn how to self-disclose their religious beliefs properly.

The findings of this study pinpointed the issue of freedom of teachers and called for teachers' good judgment about their opinions. As found in the preliminary study, preservice teachers stated that there is a fine line between appropriate and inappropriate teacher self-disclosure; as a result, teachers should discern whether their disclosure may have positive or negative effects on students.

In addition to comparing and contrasting preservice and K-12 inservice teachers' perceptions of appropriateness of teacher self-disclosure, preservice teachers' gender and ethnic group, and K-12 inservice teachers' gender, ethnic group, grade level of teaching, type of teaching, years of teaching, and award status were also investigated to identify the effects these variables may have on teachers' perceptions of topics of teacher self-

disclosure. The results indicated that these variables had no effect on teachers' perceptions of appropriateness of the topics, purposes, and consideration of students except inservice teachers' grade level of teaching. Further examination of these results revealed that elementary school teachers felt teachers' *political perspectives* and *information from their intimate relationships* were more inappropriate topics than did high school teachers. As shown in the preliminary study, preservice teachers believed that maturity levels should be considered in the use of self-disclosure to prevent students from receiving inappropriate information. As the grade level increases, the students' maturity level increases; therefore, teachers may safely self-disclose something in a higher-grade level that might not be appropriate in a lower grade level. Because of this, it is reasonable to assume that elementary teachers considered political perspectives and information from their intimate relationships to be inappropriate topics because they may think that their students are too young to accept the political and intimate topics they may self-disclose in classroom teaching. High school teachers showed higher acceptance about self-disclosing their political perspectives and information about their intimate relationships because they may consider students to be old enough to learn something about politics and society as future citizens from their self-disclosure. The investigation also suggested the importance of the study of students' psychological and social development in teacher education programs. Teachers should realize that students in different stages of development have different educational needs; therefore, their teaching must also fit students' acceptance.

Purposes

Results indicated that both preservice and K-12 inservice teachers consider the purposes such as *offering real-world, practical examples, clarifying learning materials, enhancing students' learning interests, creating positive teacher-student relationships, creating a class environment comfortable to students, attracting students' attention and setting social role models* to be appropriate. Significant differences were found between preservice and K-12 inservice teachers in their perceptions of inappropriate purposes. K-12 inservice teachers considered the purposes such as *pleasing themselves and entertaining their students* to be more inappropriate than did preservice teachers.

Frequencies of agreement showed that *offering real-life, practical examples* as a purpose of teacher self-disclosure ranked highest among preservice and inservice teachers. Two viable explanations present themselves in explaining the findings. The first possibility is the use of teacher self-disclosure as an informal and living curriculum. Teacher self-disclosure may be used as impromptu, unplanned or supplementary materials so that students feel that the knowledge they learn is not dull and/or pertinent to their life. When students feel that what they learn is connected with their real life, they may learn better and with less difficulty.

The identification of the two purposes (*offering real-life, practical examples and clarifying learning materials*) provide an explanation for the result that K-12 inservice teachers believed teacher self-disclosure should be used for enhancing students' learning interests. The results suggested that teacher self-disclosure as one component of informal curriculum is an appropriate tool for students' learning.

The purposes of teacher self-disclosure related to cognitive learning included *offering real world, practical examples, clarifying learning materials, and enhancing students' learning interests*. Those purposes are strongly related to students' classroom learning of content knowledge. The significance of the findings is manifold. First, the results supported the theoretical framework of the current study. Because teacher self-disclosure, used as examples, is closely related with teaching materials, it is reasonable to consider it to be an informal, living curriculum as well as an instructional tool.

Nevertheless, the question of whether teacher self-disclosure can be used as an informal curriculum needs to be investigated further, and the exploration is worthwhile. Second, the findings confirmed the previous studies (Downs, Javidi, & Nussbaum, 1988; Gregory, 2005) in that teacher self-disclosure can be used to clarify learning materials. It is generally believed that the purposes of *offering real-world, practical examples and clarifying learning materials* should relate to students' cognitive learning. When teacher self-disclosure is related to learning materials, it may be connected with academic achievements such as recall of lecture materials (McCarthy & Schmeck, 1982), students' test grades (Hartlep, 2001), and perceived cognitive learning (Cayanus, Martin & Weber, 2003). While other studies (Gregory, 2005; Nussbaum & Scott, 1979) found that teacher self-disclosure has no positive relationship with cognitive learning, it is illogical to conclude that teacher self-disclosure has nothing to do with students' academic learning. Students' test grade or their academic achievement results from several factors such as students' learning interest, parents' support, peer influence, teachers' teaching, and school culture so teacher self-disclosure may work together with other factors that result

in students' learning. Furthermore, the findings revealed preservice teachers' acceptance of enhancing students' learning interests as a purpose of teacher self-disclosure.

Affective learning is “an internalization of student attitudes and values of the teachers, content of the subject matter, and teacher communication practices” (Walker, 1999, p. 17). From the perspectives of communication theory, several studies found that teacher self-disclosure may be used as a tool for enhancing students' affective learning (Cayanus, Martin, & Weber, 2003; Hartlep, 2001; Minger, 2004; Nussbaum & Scott, 1979; Sorensen, 1989; Walker, 1999). One of the strengths of the current research is that the affective learning was measured by the emphasis of two aspects of affective learning: teacher-student relationships and classroom communication. The findings of this study revealed that preservice and K-12 inservice teachers agreed that teacher self-disclosure could be a tool for establishing positive teacher-student relationships and enhancing classroom communication and attention. When teachers use self-disclosure, students may feel that it is a signal that teachers would like their students to know them and approach them. When, and if, this first move lays a good foundation for the relationship, students may feel close to their teachers, and they may feel more comfortable and open up to them about what they want to learn from their teachers. The findings further strengthened the previous studies that based their study of teacher self-disclosure on communication theories.

Regarding the appropriate purposes of teacher self-disclosure, the current study found that preservice and K-12 inservice teachers also agreed that setting social models is an appropriate purpose. The findings raised an important question of education: What is the role that schools play? Counts (1932) wrote the book *Dare the School Build a New*

Social Order, in which he discussed what roles schools should play and what orientations should be set for education. He believed that schools are the places where students get socialized and teachers have responsibilities for students' socialization, strongly claiming that teachers should deliberately reach for power and then make the most of their conquest. Thus, teachers should be entitled to teach students social attitudes, ideals and behaviors, using the power that has come to them fully and wisely, and challenging the traditions and seeking after teacher leadership in order that they are able to bridge the gap between school and society. Therefore, it is more important to get students socialized in schools when schools are expected to take more responsibility. Without being socialized, students may feel perplexed and frustrated when they enter the workforce. However, it is not enough to advocate teachers' role as role models. Attention should be paid to proper socialization. If students are incorrectly socialized, they might destroy their futures and possibly become destructive to society. When students are young, they are very impressionable. If teachers are not cautious with students' socialization, negative student outcomes may occur. The necessity of socialization results from multicultural environment and globalization, and the classroom is a place where socialization occurs. Students tend to spend most school time in their classrooms. Classroom interactions make students' socialization occur; therefore, students not only learn the basic academic knowledge in their classrooms, but also learn to understand and to appreciate social, political, economic, and cultural aspects in their present and future life through teacher-student interactions, classroom activities and teaching strategies (Flinders & Thornton, 2004). Accordingly, teacher self-disclosure, as an informal curriculum and an instructional tool, may be the door to socialization as teachers talk about political,

religious, and any other social issues related to their personal life through teacher self-disclosure. For example, in the preliminary study, preservice teachers stated that teachers have a responsibility to act as social role models through teacher self-disclosure, and they also believed that educators are responsible for teaching social skills. In addition, the investigation of students' socialization paves the way for the future study about teacher self-disclosure and students' social learning to confirm whether teacher self-disclosure helps students to be socialized in addition to helping them to learn content knowledge.

Both preservice and K-12 inservice teachers agreed that *pleasing themselves* and *entertaining their students* are inappropriate teacher self-disclosure purposes. Deiro (2003) believed that teacher self-disclosure should not be the tool for the satisfaction of teachers' ego needs. The results of the current study also were consistent with the preliminary study, in which preservice teachers stated that teachers should not use self-disclosure to brag about their achievements and satisfy their ego.

No significant difference was found in perceptions of appropriate teacher self-disclosure purposes between preservice and K-12 inservice teachers; however, significant differences were found between preservice and K-12 inservice teachers in their perceptions of inappropriate purposes: *pleasing themselves* and *entertaining their students*. One possible explanation for the difference may be that under the NCLB acts, K-12 inservice teachers considered that teaching should be mainly targeted at the students' learning outcome; therefore, they believe that teachers should exclude any practice that satisfies themselves or entertains their students. Another explanation may be that preservice teachers considered it necessary to make their students happy with the belief in the interplay between positive emotions and learning. The findings also

suggested that there is a thin line between overly pleasing students and making students feel pleased with learning.

Consideration of Students

Results indicated that both preservice and K-12 inservice teachers believed that it is appropriate to consider students' cultural background, gender, feelings, and grade level when they use self-disclosure. However, significant differences between preservice and K-12 inservice teachers were identified in their perceptions of consideration of students. K-12 inservice teachers believed consideration of students to be more appropriate than preservice teachers. The following discussion includes the issues of students' cultural/racial background, gender, grade level, and feelings.

Research provides strong support for the consideration of students' cultural background in the use of teacher self-disclosure. What teachers say, perceive, believe, and think can support or thwart students (Nel, 1992). Consideration of students' background while teaching has become a well-accepted trend in contemporary education. With the increasing number of immigrants, more and more students speak languages other than English and multicultural education is becoming an important issue in teacher education. One approach to multicultural education is to promote respect for diversity and to develop intellectual and societal acceptance of cultural diversity. Thus, teachers must not only master content knowledge, pedagogy, and technology, but also need to know and be sensitive to the impact that culture has on students (García, 1999). Teachers should consider the developmental and educational interests and needs of each student in their classes (Wardle & Cruz-Janzen, 2004).

Educational theories provide support for consideration of students' cultural background in teaching. For example, the constructivist approach acknowledges that children come to school with some constructed knowledge about many things and that the interaction of past and present linguistic, sociocultural, and cognitive constructions helps the understanding of children's development and learning. Research confirms that knowledge is constructed differently by each student, based on his or her cultural experience, family background, and learning styles (Wardle & Cruz-Janzen, 2004). García (1999) stated that a more appropriate perspective on learning is one that recognizes that learning is enhanced when it occurs in contexts that are socioculturally, linguistically, and cognitively meaningful for learners. Consideration of students' cultural background, gender, grade level, and feelings as teachers use self-disclosure may develop an in-depth understanding of the "meaning-making" process and a strategy for enhancing students' learning.

In order to become effective teachers in a culturally diverse society, preservice teachers need to be culturally sensitive and be able to apply their knowledge about student differences to facilitate learning for all students (Banks, 2001). Since the way teachers address cultural differences can influence student learning, it is important that preservice teachers learn to become culturally responsive to students from diverse backgrounds (García & Willis, 2001).

An adequate amount of evidence on gender issues in teaching suggests that teachers interact with male and female students differently (Brophy, 1985; Duffy, Warren, & Walsh, 2001; Sadker, Sadker & Bauchner, 1984), and teachers' genders affect their interactions with their students (Bellamy, 1994; Krieg, 2005). The aforementioned

studies provided implications for preservice teachers because teachers may unknowingly stereotype and discriminate against students if they ignore or neglect gender issues in the classroom. To realize equality of education, preservice teachers may need to understand the differences between males and females related to different learning behaviors but should not stereotype their students of different gender. For example, teachers tend to believe that female students cannot learn math. It may be true that female students have more difficulty than male students in math, but it is unfair to conclude that female students cannot learn math as well as male students. Accordingly, one important task of research should concentrate on the identification of difficulties that female students may have and of the method to improve their learning of math.

Gender stereotypes and discrimination may come from a male-dominated society. Even though the women's liberation movement dramatically changed people's mentality about gender, the traditional ideas that males are more favored may still have effects on teachers' mindsets. Teacher education programs need to help preservice teachers understand the different behavior between male students and female students in the classroom, help them diminish their negative gender-role stereotyping toward both male and female students, and teach them to maximize the teaching quality of both male and female students.

Both preservice and K-12 inservice teachers believed that teachers should consider students' grade level in the use of teacher self-disclosure. The consideration of students' grade level will be discussed in the section of application of teacher self-disclosure.

Both preservice and K-12 inservice teachers also indicated that teachers should consider students' feelings in the use of teacher self-disclosure. Educational researchers and theorists focused on the unmet developmental needs of students and they argued school success should be dependent on both caring and nurturing students and promoting their academic achievement. Deiro (2005) observed six carefully selected secondary teachers' classroom teaching for three days, interviewed each teacher four times for ninety minutes each time, and interviewed two students from each teacher's class. From her observations and interviews, she identified six effective strategies for teachers to make healthy connections with students: creating one-to-one time with students, using appropriate teacher self-disclosure, having high expectations of students while conveying a belief in their capabilities, networking with parents, family members, and friends of students, building a sense of community among students within the classroom, and using rituals and traditions within the classroom. Deiro (2005) insisted that teachers have the responsibility for the meeting students' emotional and social needs, and she believed that appropriate teacher self-disclosure should be pertinent to the needs of students.

K-12 inservice teachers considered students' cultural background, grade level, gender and feelings to be more appropriate than preservice teachers did. It seems logical to conclude that preservice teachers have less awareness of consideration of students than K-12 inservice teachers. In recent years, teacher education programs have started to train preservice teachers to become culturally sensitive to diversity. Scholars suggested that teachers are required not only to master content knowledge, pedagogy, technology, and so forth, but also to know and be sensitive to the impact that culture has on students (García, 1999) and that teachers should consider the developmental and educational

interests and needs of each student in their classes (Wardle & Cruz-Janzen, 2004). In order to become effective teachers in a culturally diverse society, preservice teachers need to be culturally sensitive enough to be able to apply their knowledge about student differences to facilitate the learning of all students (Banks, 2001). Since the way teachers address cultural differences can influence student learning, it is imperative that preservice teachers learn to become culturally responsive to students from diverse backgrounds (García & Willis, 2001).

The findings of the current study show that K-12 inservice teachers' gender, ethnic group, type of teaching (general education and special education), years of teaching, and award status did not have an effect on their perceptions of three aspects of appropriateness of teacher self-disclosure: topics, purposes, and consideration of student. There is agreement about perceptions of appropriateness of teacher self-disclosure among male and female teachers, Caucasian and minority teachers, general education and special education teachers, teachers who teach different years, and award-winning and non-awarded teachers.

To summarize, the findings of the current study revealed significant differences between perceptions of inappropriate teacher self-disclosure topics, inappropriate teacher self-disclosure purposes and consideration of students. The results suggest that teacher education programs enhance preservice teachers' understanding of what they should or should not self-disclose, what purposes they should or should not set for their self-disclosure, and consideration of students' cultural background, gender, feelings, and grade level. Informal curriculum such as teacher self-disclosure should be included in teacher education programs to enhance educational quality.

Application of Teacher Self-Disclosure

The findings of the current study mirrored the amount of K-12 inservice teachers used teacher self-disclosure regarding topics, purposes, and consideration of students. K-12 inservice teachers used *personal interests or hobbies, personal experiences/stories, and information related to teachers' family, relatives and friends* the most as topics of teacher self-disclosure, while only 14.8% of teachers used their *personal opinions* the most. Among the purposes of using teacher self-disclosure, about eighty percent of the teachers used it for *offering real-world, practical examples, clarifying teaching content, creating positive teacher-student relationships, enhancing students' learning interests, creating a class environment comfortable to students, attracting students' attention, and setting social roles*. K-12 inservice teachers showed a great amount of consideration for students: *students' grade level, feelings, cultural background, and gender*.

Results revealed that K-12 inservice teachers did not share a great deal of inappropriate topics including *information from teachers' intimate relationships, political perspectives, and religious beliefs* in their teaching. Almost all the teachers reported to use very little teacher self-disclosure *to please themselves* and they have divided opinions in terms of using teacher self-disclosure *to entertain their students*.

K-12 inservice teachers' gender, ethnic group, grade level of teaching, type of teaching, years of teaching, and award status were also investigated to identify differences across levels of each demographic variable in teachers' application of teacher self-disclosure. Results indicated significant differences in their consideration of students while using teacher self-disclosure were found among inservice teachers' gender and years of teaching, and differences in their using inappropriate topics and purposes were

found among inservice teachers who taught different grade levels. There were significant differences between male and female K-12 inservice teachers in that female K-12 inservice teachers considered students' *gender, cultural background, feelings, and grade level* more than male inservice teachers in their use of teacher self-disclosure. In addition, significant differences were also found among four groups of teachers who had taught 1-5 years, 6-10 years, 10-20 years and 20 years above. Teachers who had taught 6-10 years considered students' *gender, cultural background, feelings, and grade level* more than the teachers who had taught 5-10 years in their use of teacher self-disclosure.

In their use of Inappropriate Topics and Purposes, the findings showed that elementary school teachers used in appropriate topics such as *political perspectives, personal opinions, and information from intimate relationships* and inappropriate purposes such as *pleasing themselves and entertaining their students* less frequently than high school teachers.

Inappropriate Topics and Purposes

The findings of the current study show significant differences between elementary, junior, and high school teachers with regard to self-disclosure of their inappropriate topics and purposes. Furthermore, elementary school teachers shared inappropriate topics and purposes less than high school teachers.

Several studies provided support for findings of differences between elementary and high school teachers. Tomal (2001) examined the dominant disciplinary styles of elementary and high school teachers and found that high school teachers' dominant styles, in rank order, were enforcing, negotiating, and supporting, while elementary school teachers' dominant styles were negotiating, supporting, and enforcing. Recently,

Marston, Brunetti and Courtney (2005) investigated the difference and similarities between elementary school teachers and high school teachers regarding the nature and extent of job satisfaction, goals and responsibilities, the importance of subject areas, teachers' relationships with colleagues and administrators, and their perceived balance of professional and personal lives. Elementary and high school teachers were found to be different in the way they valued freedom and flexibility in the classroom. High school teachers value freedom and flexibility in the classroom more highly than elementary school teachers; therefore, it may be safe to reason that high school teachers may tend to enhance their teaching effectiveness by retrieving some personal information for their students as teacher self-disclosure topics.

The results that high school teachers use political perspectives and their personal information as teacher self-disclosure topics more than elementary school teachers also may be justified by a number of developmental theories. Piaget (1963) developed a theory of cognitive development proposing that children progress through a series of invariant, stepwise stages of mental development, culminating with the Formal Operations stage in adolescence. Based on Piaget (1963) and Erikson (1963), Wardle (2003) proposed a developmental and ecological model for multiethnic/ multiracial children as identity development model. In the third stage, adolescents learn to separate out race, ethnicity, abilities, likes and dislikes, and career choices. Therefore, high school must be a place where students are supported in developing a secure racial and ethnic identity and where students learn to appreciate, enjoy, and work collaboratively with people different from high school students (Wardle, 2003). Considering the different needs of elementary school students and high school students, Wardle further suggested

that curricular content at the high school level must include all types of diversity (religion, language, national origin, abilities, gender, and race and ethnicity), and he asserted that high school teachers are more free to augment and enhance their materials with their own resources. The obvious differences between elementary and high school students are that high school students are more mature and more willing than elementary school students to learn the knowledge to help their socialization. In view of the students' realistic needs, high school teachers may think that sharing their personal opinions, their political and religious perspectives, and their personal information may be conducive to their students' socialization.

Results indicated that to *please themselves* and to *entertain their students* were used as inappropriate purposes of teacher self-disclosure. As found in the preliminary study, it was not considered to be appropriate for teachers to use self-disclosure to brag about themselves, belittle their students, or just aim at "making the teacher look like a big shot or getting a laugh from the students." With such inappropriate purposes of teacher self-disclosure, students' learning may be negatively affected.

In addition, elementary school teachers used self-disclosure to please themselves or entertain themselves less frequently than high school teachers. As discussed earlier, one reason may be that elementary and high school teachers have different understanding about academic freedom. Other reasons that account for the different use of inappropriate purposes of teacher self-disclosure between elementary and high school teachers remain to be identified and explained.

Appropriate Topics and Purposes

Results indicated that according to the frequencies, K-12 inservice teachers used

personal interests or hobbies, personal experiences/stories, and information related to teachers' family, and relatives and friends as the most frequently used topics of teacher self-disclosure. This finding is consistent with what preservice teachers interpreted the topics of teacher self-disclosure in the preliminary study. For instance, one preservice teachers mentioned that "Relevant stories and past experiences will enhance a student's interest as well as give them an 'anecdote' that will be more easily remembered when taking a test and using the information throughout life." Another similar response was that when a teacher talks about his or her personal experiences/stories, he or she can "make his/her class laugh," or "brings the lesson to a real life situation that the students can learn from, they may feel more at ease and learn more efficiently." A number of preservice teachers stated that when a teacher shares a personal story, it "make[s] class more interesting and more comfortable," and "makes students feel closer to them by showing them a piece of you outside of the classroom."

Among the purposes of using teacher self-disclosure, *to offer real- world, practical examples* were used most as the teachers disclosed themselves; to clarify teaching content ranked the second. Then followed the purposes including *to create positive teacher-student relationships, to enhance students' learning interests, to create a class environment comfortable to students, to attract students' attention, and to set social roles*. This finding is consistent with preservice and inservice teachers' perceptions of teacher self-disclosure. The results revealed that K-12 inservice teachers not only considered these purposes to be appropriate, but exercise these purposes in their teaching practice.

Consideration of Students

The findings of the current study reveal significant differences between male and female K-12 inservice teachers in their consideration of students when they use self-disclosure. Female K-12 inservice teachers considered students' gender, cultural background, feelings, and grade levels more than male preservice teachers. Hopf and Hatzrichristou (1999) found that, in Greece, female elementary school teachers were more sensitive to behavioral problems than male elementary school teachers. Meece (1987) found that American male teachers tended to be more authoritative and instrumental, whereas female teachers tend to be more supportive and expressive. The results suggest that male teachers may concentrate on their teaching and ignore students' characteristics and feelings. Even if the biological differences may be part of the reason why female teachers showed more concern about their students, it should not be used as a justification for male teachers' lack of attention to the students. In teacher education programs, male teachers need to be given more opportunity for the learning to paying attention to students' needs, especially those students who are in lower grades.

Regarding the application of consideration of students, significant differences also were found among four groups of teachers who had taught 1-5 years, 6-10 years, 10-20 years, and 20 years and above. Teachers who had taught 6-10 years considered students' gender, cultural background, emotional status, and grade level more than the teachers who had taught 5-10 years in their use of teacher self-disclosure. The findings can be supported by the studies of differences between new teachers and expert teachers. Housner and Griffey (1985) found that experienced teachers were sensitive to the social and physical environment in which instruction was to take place. In addition, the

experienced teachers implemented changes in their teaching more than did novices, using social cues to guide their interactive instructional decision-making. Experienced teachers used their interpretations of mood and student feelings 82% more often as a cue to change the way they were teaching than did novices. Tan, Fincher, Manross, Harrington and Schempp (1994) investigated the knowledge difference between competent and novice teachers in physical education. They found that novices and competent teachers differ in assessing student learning difficulties, conceptions of knowledge, and reflective practice in physical education. Regarding the findings of difference in reflective practice, Tan and colleagues (1994) found that competent teachers can recognize the variability of students' ability and knowledge more than novice teachers; new teachers tended to perceive limited variation in student knowledge, ability, and skill. New teachers teach based on their knowledge of the subject matter and their availability of equipment, and fail to consider the needs and abilities of their students. Martin and Baldwin (1994) investigated the difference between the beliefs of experienced teachers and new teachers regarding classroom management styles. These results suggested that new teachers' perceptions of classroom management may be influenced by their own experiences as students more than their preservice training programs, while experienced teachers may have modified their beliefs and practices to correspond to particular teaching realities. O'Connor and Fish (1998) reviewed a number of studies on expert teachers and new teachers and found that expert teachers are more sensitive to performance cues from students than novice teachers, and they are able to adapt the lesson for the students' understanding. New teachers are more structured and focus on teaching of content

knowledge and classroom management so they have less time adjusting their teaching to meet students' needs.

Further examination of differences between teachers who taught 1-5 years and those who taught 6-10 years may account for the findings. According to Berliner's (1994) five-stage theory, at the first stage (novice level), teachers quickly learn the required context-free rules and skills in which real world experience is critical for learning to teach. In learning to teach, only minimal skill at the tasks of teaching should be expected of a novice. At the second stage (advanced beginner level), the novice becomes an advanced beginner after three years' teaching practice. At this stage, experience can become melded with verbal knowledge and episodic and case knowledge is accumulated. Similarities across contexts are recognized. Without meaningful past episodes and cases to which to relate the experience of the present, individuals are unsure of themselves, they do not know what to do or what not to do. With further experience, motivated advanced beginners can reach the third stage (competent level). At this stage, competent teachers learn to make judgments on what is important and what is unimportant, and they also learn to make decisions about what and how they are going to teach. When this phenomenon occurs, advanced beginners have reached the stage of competent. In the fifth year, some competent teachers may reach the fourth level (proficient stage), where teachers have developed both intuitive sense and holistic perceptions of teaching as well as learning situations. After five years of teaching, a few proficient teachers have reached the highest level (expert level) of teaching. Teachers make decisions and execute teaching plans in an effortless manner. At this stage, teachers have become much more integrated individuals. Berliner (1994) provided a number of propositions about expertise

in pedagogy, and one proposition is that experts are more sensitive to the task demands and social situation while teaching.

In reality, many of the novices and advanced beginners are assigned to schools that have the most difficult children to teach, and within that setting, they are often assigned the most difficult classes with the most difficult students to teach. Berliner (1994) argued that teacher education programs produce only beginning teachers, and he suggested that it is inappropriate to ask new teachers to take the same responsibility as that of an experienced teacher because it is difficult for novice teachers to implement the complex activities such as running a whole-language reading program, a cooperative learning program, or a peer tutoring program that they have learned in their teacher education programs. The five-stage theory provides insight on how to bridge the gap between what teachers know and what they actually teach.

While there were differences between teachers who taught 1-5 years and those who taught 6-10 years, results of the current study showed no significant differences between the teachers who taught 1-5 years and those who taught 11-20 years and those who taught above 20 years. The reasons for this finding need to be investigated in the future study.

In summary, the findings of differences between male and female teachers and the differences between teachers who taught 1-5 years and those who taught 6-10 years mirrored the reality of classroom teaching regarding the teachers' gender and years of teaching. Moreover, the findings may help school administrators differentiate the new teachers and experienced teachers to effectively allocate reasonable teaching responsibilities.

The discussion involved elementary and high school teachers' different use of inappropriate topics and purposes, and included the different practice of consideration of students in their self-disclosure between male and female teachers and between teachers who taught 1-5 years and those who taught 6-10 years. Based on the analysis of the reasons for the differences, the discussion endeavored to provide some suggestions on teaching practice and teacher education programs.

Teaching Effectiveness of Teacher Self-Disclosure

Regarding the perceptions of effects of teacher self-disclosure on students' learning, both preservice and K-12 inservice teachers accepted the learning effects of teacher self-disclosure, but the results demonstrated significant differences between preservice and K-12 inservice teachers. K-12 inservice teachers valued the learning effects significantly more than preservice teachers, especially in the following items of *making teaching more vivid to students, helping students apply the knowledge gained to real life, helping students understand teachers' lectures, and contributing to students being more active participants.*

Results indicated significant differences between preservice and K-12 inservice teachers in their perceptions of Classroom Participation and Classroom Behavior. K-12 inservice teachers valued the effects of teacher self-disclosure on *reducing students' misbehavior, contributing to classroom discipline, and making students enthusiastic about classroom activities* significantly more than preservice teachers.

K-12 inservice teachers' gender, ethnic group, grade level of teaching, type of teaching, years of teaching, and award status were investigated to identify differences across levels of each variable on their perceptions of effects of teacher self-disclosure on

students' learning, teacher-student relationships and classroom communication environment, and classroom participation and classroom behavior. No differences were found across levels of each variable on their perceptions of teaching effectiveness of teacher self-disclosure. Similarly, results showed no difference across levels of preservice teachers' gender and ethnic group in their perceptions of teaching effectiveness of teacher self-disclosure.

Learning Effects

This section discusses the preservice and inservice teachers' perceptions of teaching effectiveness of teacher self-disclosure. This section consists of three parts: learning effects, teacher-student relationships and classroom communication environment, and classroom participation and classroom behavior.

Regarding the perceptions of teaching effectiveness of teacher self-disclosure, the results suggested that preservice and K-12 inservice teachers agreed that teacher self-disclosure enhances students' learning. Teacher self-disclosure makes course content more interesting, attracts students' attention, makes teaching more vivid to students, and makes students' learning experiences more engaging. Results suggested that lectures were more interesting to students when teachers use their self-disclosure as real-world examples in teaching. Interest motivates students to pursue the outcome of knowing (Dewey, 1913). Therefore, it seems safe to reason that teacher self-disclosure makes lectures interesting so that students become motivated; consequently, students can remember, retrieve, and retain the information, and learn more and better (Cayanus, Martin & Weber, 2003; Hartlep, 2001; McCarthy & Schmech, 1982).

Results also suggested that preservice and K-12 inservice teachers agreed that teacher self-disclosure helps students learn better because teacher self-disclosure, as an informal and impromptu curriculum, makes students feel that what they are learning is related closely to or connected with their life. Teacher self-disclosure provides different ways for students to understand the class content, helps students apply the knowledge gained to real life situations, contributes to students being more active classroom participants, and helps students understand teachers' lectures.

One-way MANOVA results showed that there were significant differences between preservice and K-12 inservice teachers in their perceptions of learning effects. K-12 inservice teachers showed more recognition of learning effects than preservice teachers in items such as *helping students apply the knowledge gained to real life situations, making teaching more vivid to students, helping students understand teachers' lectures, and contributing to students being more active participants*. One possible explanation for the results may be that K-12 inservice teachers' teaching experience made them explore the more effective teaching strategies so they knew how to apply their resources to teaching.

There was no significant difference between preservice teachers and K-12 inservice teachers in the items such as making students' learning experiences more engaging, making course content more interesting, providing different ways for students to understand the class content, and attracting students' attention. Results indicate that both preservice and K-12 inservice teachers showed high acceptance of these learning effects resulting from teacher self-disclosure. These findings strengthened the theoretical

framework of the current study-- teacher self-disclosure may be used as an informal curriculum and an instructional tool to enhance students' learning.

Teacher-Student Relationships and Classroom Communication Environment

In addition to their agreement about effects on learning, preservice and K-12 inservice teachers showed high degree of consensus about the positive effects of teacher self-disclosure on teacher-student relationships and classroom communication environment. Results supported the findings in the preliminary study, in which the preservice teachers believed that teacher self-disclosure helps students understand their teachers as human beings, not as authority figures who have no real feelings.

Preservice and K-12 inservice teachers also agreed that teacher self-disclosure contributes to developing trust between teachers, and that teacher self-disclosure creates caring relationships between teachers and students. The results were consistent with the previous studies (Cayanus, Martin, & Weber, 2003; Minger, 2004; Nussbaum & Scott, 1979; Rouse & Bradley, 1989; Sorensen, 1989), which showed that teacher self-disclosure has positive effects on students' affective learning and that teacher self-disclosure may help students evaluate their teachers positively so that trustful, respectful, and caring relationships may be established.

The findings of the current study revealed that K-12 inservice teachers agreed that teacher self-disclosure enhances teacher-student classroom communication. Results indicated that teacher self-disclosure helps students feel comfortable about communicating with their teachers, and that teacher self-disclosure helps students open up to their teachers about problems they may be having. These results support several previous studies. Rouse and Bradley (1989) found that teacher self-disclosure creates a

warm and emotionally safe classroom environment, which enhances students' communication with teachers. Hartlep (2001) believed that teacher self-disclosure helps establish a friendly classroom environment so that students are more willing to ask questions and make comments in class. Similarly, the preliminary study found that teacher self-disclosure helps create a positive classroom communication environment. In classroom teaching, when teachers use teacher self-disclosure to establish a good rapport with their students, students may feel comfortable to express themselves and raise the questions they may have. In doing so, teachers gain respect from their students; moreover, they understand how their students have learned the teaching materials since they can get feedback in class. Teacher self-disclosure helps students solve problems in a timely manner when they are able to communicate in a comfortable way with their teachers; in this way, it is a win-win situation for both teachers and students when it comes to teaching and learning.

Results demonstrated no significant difference between preservice and K-12 inservice teachers in their perceptions of teacher-student relationships and classroom communication environment. In addition, both preservice and K-12 inservice teachers showed agreement with the effects of teacher self-disclosure on helping students feel comfortable about communicating with their teachers, helping students open up to their teachers about problems they may be having, helping students understand their teachers as real people, contributing to developing trust between teachers and students, and creating caring relationships between teachers and students. The findings suggested that teacher self-disclosure is well accepted as a tool to establish a positive relationship

between teachers and students, which, in turn, may produce more classroom communication.

Classroom participation and Classroom Behavior

Preservice and K-12 inservice teachers agreed with the effects of teacher self-disclosure on classroom participation. Results confirmed that teacher self-disclosure is positively associated with students' classroom participation (Goldstein & Benassi, 1994); the results also supported the findings in the preliminary study on preservice teachers' perceptions of teaching effectiveness of teacher self-disclosure and they stated that teacher self-disclosure is conducive to students' classroom participation so that students listen more attentively.

While the preliminary study showed that teacher self-disclosure may ease students' tension and reduce their stress so that students discipline themselves, this primary study showed that preservice and K-12 inservice teachers did not believe that teacher self-disclosure may *contribute to classroom discipline* or *reduce students' misbehavior*. However, K-12 inservice teachers valued the effects of teacher self-disclosure on *reducing students' misbehavior*, *contributing to classroom discipline*, and *making students enthusiastic about classroom activities* significantly more than preservice teachers. The findings suggested that K-12 inservice teachers developed more awareness of teacher behaviors and its effects on the classroom management. The results supported the previous discussion that expert teachers are capable of integrating their teaching with flexibility and consideration of different factors in the teaching much more than novice teachers.

This section discussed the K-12 inservice teachers' perceptions of teaching effectiveness of teacher self-disclosure in terms of learning effects, teacher-student relationships and classroom participation and classroom behavior. The results supported the studies on the effects of teacher self-disclosure on learning, teacher-student relationships, classroom communication, and classroom participation, but the results gave no support for the assumption that teacher self-disclosure has positive effects on reducing students' misbehavior.

Limitations of the Study and Suggestions for Future Research

This research places teacher self-disclosure within an informal and living curriculum as the theoretical framework. In addition to considering the implications of this study, it is also important to recognize the limitations regarding the research design. This section aims to identify the limitations and provide some suggestions for the future research.

One limitation for the current study resides in the measurement. Self-report perceptions were used to measure the learning outcomes and application of teacher self-disclosure. The method per se has its disadvantages. The self-report survey is also called an opinion or attitude scale. It may be a good tool for the measurement of preservice and K-12 inservice teachers' extent of agreement of the appropriateness of teacher self-disclosure, but it may not accurately document K-12 inservice teachers' application of teacher self-disclosure. Similarly, their perceptions of teaching effectiveness may be biased.

Writing a blueprint, outlining and developing a table of specifications, reviewing literature, and consulting expertise were involved in instrument development. However,

since the current study is a pioneer study on K-12 inservice teachers, the content validity of the instruments may need further scrutiny.

Another concern is the sampling procedure. Inservice teachers were sampled through preservice teachers while the preservice teachers were taking a course required for their programs, and the preservice teachers help get the inservice teachers to complete the surveys. The preservice teachers brought the surveys to the schools where they completed 30 hours' classroom teaching observation. Despite that the preservice teachers were not required to help carry out the task, they would have been given extra credit if they could help complete the surveys. While it may produce a high probability of bias which exists in data and that the generalizability of the findings may be limited (Schloss & Smith, 1999), this convenience sampling technique made it a success to get the adequate data from the inservice teachers for the analysis of their perceptions of teacher self-disclosure.

In the initial research design, researchers planned to examine the assumption that teachers who teach different subjects may perceive and use teacher self-disclosure differently. However, in that most elementary school teachers taught more than one subject, it was impossible to explore the question. When researchers considered comparing the junior and high school teachers to find out whether there is difference in the perceptions and application of teacher self-disclosure between the teachers who teach different subjects, the sample size was not large enough for the comparison. Therefore, in the future study, the measurement of teacher self-disclosure related with subject area need to be carefully designed to identify how teachers of different subjects use teacher self-disclosure differently, if any.

In addition to the aforementioned limitations and suggestions, there are other suggestions for future research. One direction for future studies on teacher self-disclosure is the use of triangulation. For example, to investigate application of teacher self-disclosure, classroom observation may be a better method than a self-report survey. Other ways such as qualitative research and action research could also be considered.

The last suggestion that has evolved from this research is that future research is needed to verify and develop the theoretical framework. In the current study, it is proposed that teacher self-disclosure is an informal and living curriculum as well as an instructional tool and the study provided strong support for this theoretical framework. However, this proposal needs to be reexamined interpreted and discussed by future educational researchers.

In summary, this dissertation study on teacher self-disclosure was conducted under the theoretical framework of curriculum. This study not only provided the primary findings on the appropriateness of teacher self-disclosure, application of teacher self-disclosure, and teaching effectiveness, but also produced in-depth discussions about issues in curriculum issues and teacher education. As almost no research has ever investigated the use of teacher self-disclosure on K-12 inservice teachers, this study has made its initial contribution to this unknown area and so to speak, opens a new channel for the future study in this direction.

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APPENDICES

APPENDIX A A Letter to Mentor Teachers

Feb. 3, 2006

Dear mentor teacher,

My name is Shaoan Zhang, and I am a teaching assistant for ECI301, Social and Cultural Foundations of Education at Old Dominion University. I have asked this student, who is currently enrolled in ECI 301 and is required to observe your class, to request that you complete a short questionnaire. The survey is related to my doctoral dissertation and is an essential element in my data collection. I am earnestly asking for your help by having you fill out this survey. Thank you in advance!

There are six pages: the first page is the informed consent; the second page is about the definition of teacher self-disclosure and some examples; the third page is the demographic information; the fourth page is about the survey of your perceptions of appropriateness of teacher self-disclosure; the fifth page is about the survey of your perceptions of effectiveness of teacher self-disclosure; and the last page is a survey about how you use teacher self-disclosure while teaching.

The survey should take less than 30 minutes to complete. Once completed, please put the packet into the envelope, seal it, and hand it back to the student to give to me. Please complete the survey as soon as possible. I appreciate your willingness to respond to this survey, helping me complete my dissertation successfully. If you should have any questions, contact information may be found in the survey packet. Again, thank you for your cooperation.

Yours Sincerely,

Shaoan Zhang

Teaching Assistant of ECI301
Room 153 Education Building
Educational Curriculum and Instruction
Darden College of Education
Old Dominion University
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APPENDIX B Informed Consent

Feb. 3, 2006

Dear participant,

This is to request your participation in a research study we are planning to conduct this spring. I am a doctoral student working on my dissertation research on teacher self-disclosure (TSD). The purpose of this study is to investigate how and when teacher self-disclosure can be used for teaching effectiveness. The major benefit of this project involves providing resources for teacher education. You are asked to complete the attached survey that should take you no more than 30 minutes. There are no foreseeable risks to you for participating in this research. Your personal information will not appear in the data analysis or in any published papers and no personal information will be shared with any other individual(s). Your participation is voluntary and there is no penalty for refusing to participate. You may withdraw from the research at any time without retribution. Questions regarding the study may be addressed to me at (757) 683-4998 or at szhang@odu.edu. Your signature indicates your willingness to participate in the study. Please preview the survey and sign your name below. Thank you in advance for your participation!

Sincerely

Shaoan Zhang

Your Name (Printed): First Name _____ Last Name _____

I am willing to complete Shaoan Zhang's research questionnaire.

Your Signature _____ Date _____

APPENDIX C Definition of Teacher Self-Disclosure and Examples

Definition: Teacher self-disclosure (TSD) refers to the information disclosed by teachers about themselves while teaching. Teacher self-disclosure used as an informal and living curriculum and/or as instructional tool may be relevant or irrelevant to the teaching materials for different purposes.

Example 1

To keep the students interested in the subject matter, a Geography teacher brought in artifacts and photos that he has accumulated from his traveling and talked about his experiences related to the teaching content. –Recalled by a college student.

Example 2

A teacher talked about her husband's job, her son and their pet for 30 minutes before she started to teach. –Anonymous

Example 3

A teacher may do a lot of teaching by analogy, using his or her personal experiences. He or she may talk about his or her failings and mistakes as well as successes if it serves a purpose to emphasize and clarify a point. For instance, a teacher said, I once tried to ski and was just awful. For most of us, there are things we do well and things we don't do well." –Anonymous

Example 4

"I often use stories about hikes I have been on or mountains I have climbed, and so forth to create fun word problems the children are really interested in. You can estimate distances, sizes of objects, areas, volumes, and so forth with photos. You can compare measuring units. I often let the students come up with problems from my stories and photos of many of my experiences." –An elementary school Math teacher

Example 5

On the first school day Tom starts off by telling his students a few things about himself and then lets them ask any questions they want. He always starts out by saying, "You know, I can walk down to the office and pull out your permanent record file and read all kinds of stuff about you but you don't have the right to go down and ask for Mr. ___'s permanent record file and read all kinds of stuff about me. So this is your opportunity—what do you want to know?" (Deiro, 1996: 38-39).

Example 6

A teacher, who is normally very alert and ready to go in the morning, is dragging and looks tired. When the students start to ask if she is feeling ok today, her response is, "Yeah, I just have a killer hangover from last night's bar-hopping adventures." – Recalled by a college student.

APPENDIX D Demographic Information

Directions: This is a 30-minute survey about teacher self-disclosure. The purpose of this survey is to investigate how you perceive the effectiveness of using teacher self-disclosure and when it is most appropriate to use teacher self-disclosure. Moreover, we also are investigating how you actually use teacher self-disclosure in the classroom. Please try to be both thoughtful and candid in your responses in order to maximize the value of this research. Your information will be used only for research purposes and your confidentiality is guaranteed. Should you have any concern about this survey of this research, please feel free to contact Mr. Shaoan Zhang via his email: szhang@odu.edu. Completion of this survey is voluntary. Please check the item for each of the following:

1) Gender: 1. Male 2. Female

2) Ethnic Background: 1. African American 2. Asian American 3. Native American 4. Caucasian 5. Hispanic American 6. Other

* If you are a teacher, please complete items 3) to 8) prior to completing the survey. If you are not a teacher, please begin answering the survey questions on the following pages.

3) Type of Students you are Teaching: 1. General Education 2. Special Education 3. Both General and Special Education

4) Years of Teaching Experiences: 1. 1-5 years 2. 6-10 years 3. 11-20 years 4. Above 20 years

5) Level of Teaching: 1. Elementary School 2. Junior (Middle) School 3. High School

6) Subject(s) you are Teaching: 1. Math 2. English 3. Social Science 4. Science 5. Foreign Language 6. ESL 7. Music 8. Art 9. Other

7) Award Status: I have received an award(s) for my teaching. 1. Yes 2. No

If you choose Yes, then check all that apply:

School Award District Award State Award National Award

8) School District

1. Hampton Roads Area 2. Non-Hampton Roads Area 3. Outside Virginia

APPENDIX E Appropriateness of Teacher Self-disclosure Scale

Instructions: please respond to the following statements to reflect how appropriate you think those teacher self-disclosure behaviors are by circling only one number for each statement. A 1 means TSD is very inappropriate (VI), a 2 means that TSD is inappropriate (IA), a 3 means that TSD is undecided (UND), a 4 means TSD is appropriate (A), and a 5 means TSD is very appropriate (VA).

A. Topics	VI	IA	UND	A	VA
1. Teachers use my personal experiences/stories as TSD topics.	1	2	3	4	5
2. Teachers use my political perspectives as TSD topics.	1	2	3	4	5
3. Teachers use my religious belief as TSD topics.	1	2	3	4	5
4. Teachers use the information related to my family, relatives and friends as TSD topics.	1	2	3	4	5
5. Teachers use information from my intimate relationships as TSD topics.	1	2	3	4	5
6. Teachers use my personal opinions as TSD topics.	1	2	3	4	5
7. Teachers use my personal interests or hobbies as TSD topics.	1	2	3	4	5
B. Purposes	VI	IA	UND	A	VA
8. Teachers use TSD to entertain my students.	1	2	3	4	5
9. Teachers use TSD to offer real-world, practical examples.	1	2	3	4	5
10. Teachers use TSD to attract students' attention.	1	2	3	4	5
11. Teachers use TSD to create positive teacher-student relationships.	1	2	3	4	5
12. Teachers use TSD to set social role models.	1	2	3	4	5
13. Teachers use TSD to create a class environment comfortable to students.	1	2	3	4	5
14. Teachers use TSD to enhance students' learning interests.	1	2	3	4	5
15. Teachers use TSD to please myself.	1	2	3	4	5
16. Teachers use TSD to clarify teaching content.	1	2	3	4	5
C. Consideration of Students	VI	IA	UND	A	VA
17. Teachers consider my students' grade levels.	1	2	3	4	5
18. Teachers consider my students' cultural backgrounds.	1	2	3	4	5
19. Teachers consider my students' gender.	1	2	3	4	5
20. Teachers consider my students' feelings.	1	2	3	4	5

APPENDIX F Teaching Effectiveness of Teacher Self-Disclosure Scale

Instructions: Please mark the following statements to reflect how you perceive the effectiveness of teacher self-disclosure by circling **ONLY** one number for each statement. A 1 means you strongly disagree (SD), a 2 means you disagree (D), a 3 means you are undecided (UND), a 4 means agree (A), and 5 means you strongly agree (SA).

Teaching Effectiveness of Teacher Self-Disclosure (TSD)	SD	D	UND	A	SA
1. TSD contributes to developing trust between teachers and students.	1	2	3	4	5
2. TSD helps students understand teachers' lectures.	1	2	3	4	5
3. TSD provides different ways for students to understand the class content.	1	2	3	4	5
4. TSD contributes to classroom discipline.	1	2	3	4	5
5. TSD makes students enthusiastic about classroom activities.	1	2	3	4	5
6. TSD contributes to students' willingness to learn.	1	2	3	4	5
7. TSD makes course content more interesting.	1	2	3	4	5
8. TSD creates caring relationships between teachers and students.	1	2	3	4	5
9. TSD helps students open up to their teachers about problems they may be having.	1	2	3	4	5
10. TSD makes students' learning experiences more engaging.	1	2	3	4	5
11. TSD helps students apply the knowledge gained to real life situations.	1	2	3	4	5
12. TSD attracts students' attention.	1	2	3	4	5
13. TSD reduces students' misbehaviors.	1	2	3	4	5
14. TSD helps students understand their teachers as real people.	1	2	3	4	5
15. TSD makes teaching more vivid to students.	1	2	3	4	5
16. TSD contributes to students being more active classroom participants.	1	2	3	4	5
17. TSD helps students feel comfortable about communicating with their teachers.	1	2	3	4	5

APPENDIX G Application of Teacher Self-Disclosure Scale

Instructions: Please mark the following statements to reflect how you use teacher self-disclosure (TSD). Please use the following rating scale in making your judgments for the following statements:

1= never (N), 2 = little (L), 3 = somewhat (SW), 4 = much (M), 5 = a great deal (GD).

A. Topics	N	L	SW	M	GD
1. I use my personal experiences/stories as TSD topics.	1	2	3	4	5
2. I use my political perspectives as TSD topics.	1	2	3	4	5
3. I use my religious belief as TSD topics.	1	2	3	4	5
4. I use the information related to my family, relatives and friends as TSD topics.	1	2	3	4	5
5. I use information from my intimate relationships as TSD topics.	1	2	3	4	5
6. I use my personal opinions as TSD topics.	1	2	3	4	5
7. I use my personal interests or hobbies as TSD topics.	1	2	3	4	5
B. Purposes	N	L	SW	M	GD
8. I use TSD to entertain my students.	1	2	3	4	5
9. I use TSD to offer real-world, practical examples.	1	2	3	4	5
10. I use TSD to attract students' attention.	1	2	3	4	5
11. I use TSD to create positive teacher-student relationships.	1	2	3	4	5
12. I use TSD to set social role models.	1	2	3	4	5
13. I use TSD to create a class environment comfortable to students.	1	2	3	4	5
14. I use TSD to enhance students' learning interests.	1	2	3	4	5
15. I use TSD to please myself.	1	2	3	4	5
16. I use TSD to clarify teaching content.	1	2	3	4	5
C. Consideration of Students	N	L	SW	M	GD
17. I consider my students' grade levels.	1	2	3	4	5
18. I consider my students' cultural backgrounds.	1	2	3	4	5
19. I consider my students' gender.	1	2	3	4	5
20. I consider my students' feelings.	1	2	3	4	5

APPENDIX H Approved Letter from Human Subjects Committee

From: Alice Wakefield/ESSE/EDU/EDUC/ODU
10/05/2005 02:56 PM
To: Shaoan Zhang <SZhang@odu.edu>
cc: Alice Wakefield/ESSE/EDU/EDUC/ODU

Dear Mr. Shaoan Zhang,

The committee voted that your study is exempt and recommends that it fits best under exemption 6.3. You may proceed with your research.

Thank you for your submission.

Alice Wakefield,
Chair Human Subjects Committee
Darden College of Education

Alice P. Wakefield
www.odu.edu/awakefie
Early Childhood Teacher Educator
Old Dominion University
Norfolk, VA 23529

VITA

Shaoan Zhang

EDUCATION

- | | | |
|-------------|-------------------------|--------------------------------|
| 2003 - 2007 | Old Dominion University | Ph.D. in Urban Education |
| 1994 - 1997 | Hebei Normal University | M.A. in English Linguistics |
| 1988 - 1992 | Hebei Normal University | B.A. in English |
| 1982 - 1984 | Hebei Normal University | Undergraduate Study in English |

PROFESSIONAL WORK EXPERIENCE

- | | | |
|-------------|-----------------------------|--|
| 2006 - 2007 | Old Dominion University | Research Assistant at the Office of Programs for Research and Evaluation in Public Schools (PREPS) |
| 2005 - 2006 | Old Dominion University | Coordinating an Education Exchange Program |
| 2003 - 2006 | Old Dominion University | Teaching Foundations of Education and Supervising |
| 2002 - 2003 | Shijiazhuang Hutchin School | English Teacher Training |
| 2000 - 2001 | Old Dominion University | Supervising Student Teaching |
| 1998 - 2003 | 1 + 1 English School | Teaching K-12 Students |
| 1994 - 2003 | Hebei Normal University | Teaching English & Supervising Student Teaching |
| 1986 - 1994 | Langfang Normal School | Teaching English & Supervising Student Teaching |
| 1984 - 1986 | Xianghe First High School | Teaching English |

PUBLICATIONS

Zhang, S. (2001). *College English Course*. Beijing: Tsinghua University Press.

Zhang, S. & Sun, J. (2000). How to cultivate the cultural qualities of the college students through English teaching. *Journal of Hebei Normal University (Educational Science)*, 2(3), 122-125.

Zhang, S., Taylor, T., & Bian, Y. (1999). Three principles of example illustration in English teaching. *Journal of Hebei Normal University (Educational Science)*, 1(2), 102-103.

Shi, Q., Zhang, S. & Li, S. (1998). English learning characteristics of college students. *Journal of Shijiazhuang Economic College*, 12, 120-121.

Zhang, S. & Yin, L. (1996). Comparison of the educational function of English and Chinese idioms. *Journal of Shijiazhuang Normal College*, 6, 36-37.

Zhang, S. (1995). Problems of pronunciation in English teaching. *Teaching and Research*, 2, 12-14.

PRESENTATIONS

Zhang, S., Shi, Q., Tonelson, S., & Robinson, J. (April, 2007). *Different Perceptions of Teacher Self-Disclosure Between Preservice and Inservice Teachers*. Paper presented at the AERA Annual Conference, Chicago, IL.

Zhang, S., Shi, Q., Tonelson, S. & Allen, D. (January 2007). *Preservice Teachers' Perceptions of Appropriateness of Teacher Self-Disclosure*. Paper presented at the 5th Hawaii International Conference on Education, Honolulu, HI.

RESEARCH PROJECTS

2006 - 2007, Research Assistant, Teaching American History Grant for Newport News Public Schools, sponsored by the U.S. Department of Education.

2006 - 2007, Research Assistant, Gaining Early Awareness & Readiness for Undergraduate Program (GEAR UP) for Newport News Public Schools, sponsored by the U.S. Department of Education.

2006 - 2007, Research Assistant, Developing a Wiki Book as an Interactive Text Alternative, sponsored by Faculty Innovator Grant, Old Dominion University, Virginia.

2000 - 2001, Research Assistant, U.S. Department of Education No.84.342, ACCT Now: The Old Dominion University and Brunswick County Schools Program for Aligning Credential Training with Technology.

1999 - 2000, Principal Investigator, How to Cultivate the College Students' Qualities through English Teaching, sponsored by Hebei Normal University.

1998 - 1999, Research Assistant, United Nations Development Program in China Project No.401: Teacher Training for the Rural Areas in China.

AWARD AND HONORS

2005 - 2006, Doctoral Dissertation Fellowship, Old Dominion University.

2000, College Award for Excellent English Teachers, Hebei Normal University.

1998, College Award for the Teachers Competence Contest, Hebei Normal University.

1996, National HUAZANG Scholarship for Graduate Students, Hebei Normal University.

1986-1990, Awards for Teaching Excellence, Langfang Normal School.

PROFESSIONAL AFFILIATIONS

Member of American Educational Research Association, 2005-present.