AN INVESTIGATION OF THE CONTENT AND CONTEXT OF SOCIAL INTELLIGENCE

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This thesis is dedicated to the memory of my father, Wilfred H. Mauthe (1920 - 1971), whose social intelligence was recognized and appreciated by all who knew him.

ABSTRACT

Subjects' views and conceptions of social intelligence were investigated by having 40 adults, male inmates in an Alberta correctional centre rate the importance of 20 behavioral characteristics representing the domain of social intelligence. Social intelligence was defined as a person's ability to understand others and to act wisely in social situations. The 20 characteristics, derived from an earlier study by Ford and Miura (1983), were rated for each of three common social contexts by having subjects think of the kind of person who would be a close personal friend, a teacher, or a person in a conflict.

The following research questions were addressed in the study: a) How do adult, male inmates in an Alberta correctional centre view the construct of social intelligence? b) Do subjects' ratings of the 20 characteristics that describe social intelligence form factors that resemble the clusters identified by subjects rating the same 20 characteristics in a study by Ford and Miura (1983)? c) How do subjects' ratings of social intelligence differ among the three social contexts investigated? d) Is there a common core of social intelligence characteristics that subjects rate as important across all three social contexts?

Descriptive statistics revealed that subjects generally rated the 20 characteristics as quite high in importance in all three social contexts. However, the characteristics were rated highest in importance in the context "A teacher", followed by "A close personal friend" and "A person in conflict". Factor analyses revealed that subjects' ratings in the present study shared some similarities in

structure with the clusters or categories of characteristics identified by subjects in the earlier study by Ford and Miura (1983). Analyses of variance revealed several significant differences when subjects' ratings of importance of the 20 characteristics and four categories of social intelligence were compared across contexts. In the present study, a common core of four characteristics of social intelligence were ranked highly in importance across all three social contexts.

Findings from the present study provide support for the existence of the categories "Prosocial skills" and "Social-instrumental skills" as identified in the study by Ford and Miura (1983). The importance of studying the construct of social intelligence in particular social contexts and particular populations was also demonstrated. Finally, the implications of the findings of the present study are discussed in relation to the planning and delivery of inmate education programs as well as the continuing study of the construct of social intelligence.

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"Intelligence has very little to do with ordinary education and everything to do with curiosity and the kind of retention of information that comes from caring and being able to make sense of it in a way that benefits people."

Diane Sawyer, television journalist

CHAPTER I

INTRODUCTION

Although there is no consensus as yet, the construct of social intelligence has been defined as, "The ability to understand others and to act wisely in social situations" (Walker & Foley, 1973, p. 839) and as, "one's ability to accomplish relevant objectives in specific social settings" (Ford & Tisak, 1983, p. 197). Researchers who have studied the construct of social intelligence have recognized that it is associated with effective human functioning in everyday, practical settings. As the above definitions point out, social intelligence can be viewed in terms of effective social behavior and satisfactory behavioral outcomes (Ford, 1983).

Traditionally, the study of the construct of intelligence has focused on the academic domain, with its emphasis on academic skills and standardized intelligence tests. Research in the area of social intelligence, on the other hand, is concerned with how intelligence operates in social settings in the everyday world. It is also concerned with what competencies are relevant in particular social settings. Studying social intelligence can make a significant contribution to broadening the concept of intelligence to include behaviors that are more reflective of the entire range of human intellectual functioning. Wagner (1987) supports further research in the area of social intelligence when he states that, "Our understanding of intelligence will continue to be limited, at best, until the breadth of the domains in which we study intelligence becomes a closer approximation of the breadth of domains in which intelligence is manifested" (p. 1247).

Research in the area of human intelligence and intelligent functioning reveals that subjects of various ages, backgrounds and levels of expertise identify a social competence factor and share a consistent view of what behaviors characterize the ideally or prototypically socially intelligent person (Berg & Sternberg, 1985; Fry, 1984; Sternberg, 1985b; Sternberg, Conway, Ketron, & Bernstein, 1981; Yussen & Kane, 1985). The behaviors identified are distinct from those that characterize academic intelligence. Also, the behaviors are revealed through subjects' implicit views or their own conceptions of what constitutes social intelligence.

Recent research on social intelligence has often employed people's implicit theories of the construct. These theories are based on subjects' own notions and belief systems concerning the construct. For example, Ford and Miura (1983) asked subjects to identify the characteristics of the ideally socially intelligent person and group them according to what characteristics they thought went together.

People's implicit views of social intelligence are valuable and worthwhile to investigate because they reveal what people mean by the construct in the context of their own living. Also, since people employ their implicit views for assessment purposes, researchers can learn how people evaluate their own and other people's social intelligence. Furthermore, the study of people's implicit theories of social intelligence can provide information for theory building, since implicit notions of a construct can contribute to existing explicit theories and provide a framework for constructing and testing new explicit theories.

This study is an attempt to add to the developing theory of social intelligence by building on and extending the research findings of Ford and Miura (1983). Specifically, subjects were asked to rate the importance of 20 characteristics of the ideally socially intelligent person identified by the subjects in the earlier study. The present study adds to previous research in two significant ways. First, the

investigation of people's implicit views of the construct of social intelligence was extended to another unique population. Subjects for the present study were adult, male inmates in an Alberta correctional centre. Also, social intelligence was studied in three common social contexts that had not been investigated before. Subjects were be asked to rate the importance of the 20 characteristics of social intelligence in the kind of person who would be "A close personal friend", "A teacher", or "A person in a conflict".

As the instructor of personal development programs at the Lethbridge Correctional Centre, I am interested in determining if the subjects in the present study have the same implicit views of the construct of social intelligence as subjects from previous studies. Also, I am interested in learning whether the subjects' implicit views of the construct will change from context to context. The information obtained from this study can be used not only to contribute to the theory of social intelligence, but also to plan and develop further personal development programs for correctional education students.

This study can contribute to the recent movement and renewed interest on the part of researchers in both education and psychology to investigate human intelligence in terms of real-world adaption and functioning (see Sternberg and Caruso, 1985). It is considered important for people to learn to function effectively and appropriately in their everyday lives and to be able to apply their intelligence to real-world situations. In this way, people develop a greater ability to behave effectively and achieve their goals satisfactorily in social situations. Studies, such as this one, are an attempt to understand practical, everyday intelligent functioning and an attempt to contribute to the further development of the theory of social intelligence.

CHAPTER II

REVIEW OF THE LITERATURE

Theories of Human Intelligence

Theories of human intelligence may be either implicit or explicit. Implicit theories are based on people's informal views of the nature of intelligence. Explicit theories, on the other hand, are based on data collected by researchers when their subjects perform tasks presumed to measure intelligent functioning. Theory construction, according to Sternberg (1985a), evolves from the implicit theories of experts. These theories give rise to explicit theories which are then tested on objective behavioral data. In order to clarify the relationship between explicit and implicit theories of intelligence and to understand how each has contributed to a fuller understanding of human intelligence, a survey of human intelligence research will be presented beginning with the explicit theories. The survey follows the framework presented by Sternberg (1985a).

Explicit Theories of Intelligence

Psychometric theories. These theories represent one set of explicit theories. They are based on the study of individual differences among people and are an attempt to understand intelligence in terms of a set of underlying abilities. Psychometric theories vary according to the number of factors that are identified. For example, Spearman (1927) argued that there was one factor of real psychological interest underlying all intellectual performance which he called "g".

Vernon (1971) expanded Spearman's theory to include both verbal-educational ability and practical-mechanical ability under g. Thurstone (1938) identified seven "primary mental abilities" and devised specific ways to measure each ability. All factors were considered to be of equal importance. Guilford (1967, 1982) has proposed 150 mental tasks composed of five "operations," five "contents," and six "products". The 150 mental abilities form a cubic arrangement made up of the three dimensions of operations, contents, and products. In summary, the psychometric theories all assume that human intelligence can be understood in terms of underlying individual differences or "factors". The various theories are similar mathematically and differ mainly according to the number and structure of the factors involved.

Cognitive theories. These theories are concerned with the way in which individuals process information and attempt to understand intelligence with respect to the mental processes that contribute to the performance of a cognitive task. For example, pure speed or response time to a mental task has been studied extensively by cognitive theorists and researchers. Since correlations between speed of information processing and psychometrically measured intelligence have been found to be low, cognitive researchers have expanded their approach to include the investigation of other kinds of tasks and other levels of processing (Brown, 1978; Hunt, 1980; Jensen, 1982; and Sternberg, 1977). In summary, the cognitive theories all assume that intelligence can be understood in terms of information-processing components studied in carefully controlled laboratory settings.

Implicit Theories of Intelligence

Implicit theories of intelligence are based on people's conceptions of what intelligence is. The theorist defines intelligence according to what people say it is.

Neisser (1979) has argued that intelligence is a person's conception of a prototype of the ideally intelligent person. Intelligence, therefore, can be measured as the degree of similarity between an actual person and the prototype. Implicit theories of human intelligence have been derived from the conceptions of intelligence held by experts in the field of intelligence, by laypersons in our culture, and by people in other cultures.

In an early attempt to define the construct, fourteen experts gave their views on the nature of intelligence to the editors of the *Journal of Educational Psychology* in "Intelligence and its Measurement" (1921). Intelligence was defined as the ability to carry on abstract thinking, the ability to adapt to relatively new situations in life, the capacity to learn from experience, and the ability to adapt to one's environment. Sixty years later, Sternberg, Conway, Ketron, and Bernstein (1981) did a more elaborate study of the implicit views of both experts and laypersons regarding the construct of intelligence. Subjects were asked to list and rate characteristics of the ideally intelligent person and the ratings were factor analyzed. Laypersons' and experts' conceptions of intelligence were highly similar in that the three factors of practical problem-solving ability, verbal ability, and social competence emerged in each group. People's implicit theories of intelligence in other cultures were investigated by Wober (1974) who found that conceptions of intelligence among members of different tribes in Uganda varied both within and between tribes. For example, in terms of semantic-differential scales, the Baganda tended to associate intelligence with mental order whereas the Batoro associated it with mental turmoil.

Implicit theories of intelligence would appear to be an improvement over explicit theories since implicit theories are derived from and are sensitive to the real-world contexts in which intelligence occurs. Thus, implicit theories can

uncover aspects of intelligence that are ignored by explicit theories. For example, people's implicit conceptions of intelligence include nonacademic abilities, such as practical intelligence and social competence, as well as academic abilities. Also, implicit theories provide information about what a particular group of people in a given culture at a given time mean by intelligence. This information is important because it allows researchers to understand what people mean when they refer to the construct of intelligence. Furthermore, this knowledge is valuable because people use their own conceptions of intelligence to assess their own and other people's performance.

The Study of the Construct of Social Intelligence

With respect to social intelligence, Walker and Foley (1973) reviewed the literature and found that the construct had not been clearly defined and that there was considerable uncertainty as to how it might be studied. A number of approaches to understanding social intelligence have been taken. The *definitional approach* means the investigator defines the construct. For example, Thorndike (1920) stated that social intelligence is the ability to understand others and to act or behave wisely in relation to others and Wechsler (1958) said that it was one's facility in dealing with human beings. However, the definitional approach is of limited value because empirical testing is difficult.

Two explicit theoretical approaches to the study of social intelligence are the psychometric approach and the social-experimental approach. *The psychometric approach* seeks to understand the construct of social intelligence by obtaining individual scores on tests that are designed to measure the construct. Examples are the George Washington Social Intelligence Test (Moss, Hunt, Omwake, & Woodward, 1949), the Social Insight Test (Chapin, 1967), and Guilford's (1982) test

of social intelligence which is part of his structure-of-intellect (SI) model of intelligence. *The social-experimental approach* is related either to social-developmental psychology involving an assessment of social intelligence skills based on ratings of oneself and/or others (Ford, 1982; Ford and Tisak, 1983; and Keating, 1978) or to the social psychology of nonverbal communication involving the decoding of nonverbal cues (Archer, 1980; Rosenthal, 1979; and Sternberg and Smith; 1985).

Another recent and productive approach to the study of the construct of social intelligence is *the implicit approach*. This approach involves the investigation of people's own conceptions of the construct. Sternberg et al. (1981) began with an investigation of people's implicit views of the construct of intelligence and found that a clear social intelligence factor emerged. Other researchers using a similar approach have had similar findings (Berg and Sternberg, 1985; Ford and Miura, 1983; Fry, 1984; Sternberg, 1985b; and Yussen and Kane, 1985).

Researchers continue to study social intelligence by investigating people's implicit theories of the construct. Social intelligence has been studied in people of various professions, in laypersons, and in people of various ages by having people identify the characteristics that define social intelligence and rating the importance of these characteristics in themselves and others. Researchers are interested in determining if subjects identify a common core of behaviors that define social intelligence and if the relative importance of these behaviors changes as various subjects and contextual variables are investigated.

Research based on implicit theorizing in the area of social intelligence has contributed significantly to the understanding of the construct. Since the implicit approach has been so productive and since this approach is being used in the present study, the remainder of this literature review will examine in detail the studies that have led up to the present one.

Studies of People's Implicit Views of Intelligence That Reveal a Social Component

Sternberg et al. (1981) investigated people's implicit theories of human intelligence. Their research goal was to find out the form and content of people's informal conceptions of intelligence. The researchers began with a definition of intelligence as the capacity to learn from experience and the capacity to adapt to one's environment. They also began with the belief that there is value and importance in knowing people's implicit theories of intelligence because people's conceptions guide their own functioning and their interactions with others.

The researchers asked a total of 186 people (commuters at a train station, shoppers entering a supermarket, and students in a library) to list behaviors characteristic of either "intelligence," "academic intelligence," "everyday intelligence," or "unintelligence". In total, subjects identified 170 characteristics that they believed described the three types of intelligence. A follow-up experiment involved 122 laypersons and 140 experts in the field of human intelligence. All subjects were asked to rate 98 particularly relevant items selected from the 170 items found in the earlier experiment, on a nine-point scale, in relation to how characteristic each item was of an "ideally intelligent person".

Each group's ratings were factor analyzed and the results were compared. In the domain of everyday intelligence, four factors emerged from the laypersons' ratings accounting for 50% of the variance in the data. These factors were labeled *practical problem-solving ability, social competence, character,* and *interest in learning and culture.* From the experts' ratings of everyday intelligence, three factors emerged. These factors were labeled *practical problem-solving ability, practical adaptive behavior*, and *social competence.* These factors accounted for 55% of the variance in the data. Table 1 presents the social competence variables from the above study.

Table 1

Social Competence Factor Items (Sternberg et al., 1981)

1.	Accepts others for what they are
2.	Admits mistakes
3.	Displays interest in the world at large
4.	Is on time for appointments
5.	Has social conscience
6.	Thinks before speaking and doing
7.	Displays curiosity
8.	Does not make snap judgments
9.	Assesses well the relevance of information to a problem at hand
10.	Is sensitive to other people's needs and desires
11.	Is frank and honest with self and others
12.	Displays interest in the immediate environment

Fry (1984) investigated teachers' implicit views of intelligence and intelligent functioning of students. Eighty-three teachers from each educational level–primary, secondary, and post secondary–were randomly selected from school districts in four Canadian and four United States cities. The 248 participating teachers were required to have a minimum of three years teaching experience. Subjects were asked to list characteristics of intelligent as opposed to unintelligent functioning children and to rate the importance of each characteristic on a 1 (low) to 9 (high) point scale. Using this procedure, a list of 70 characteristics rated "important to very important" was compiled. A factor analysis reduced the original 70 characteristics to 37 when the minimum criterion for an item loading on a factor was set at 0.65. Three factors were extracted and labeled by the researcher as cognitive, verbal, and social. The ratings of the three groups of teachers on the 37 items with high factors loadings then were compared by means of analysis of variance. In general, it was found that the post-secondary teachers attached highest ratings to cognitive dimensions while elementary teachers attached highest ratings to social and verbal dimensions. Fry (1984) concluded that, "Teachers at various levels seem to have fairly distinguishable conceptions of students' intelligent functioning but at the same time have a few organized prototypic conceptions of intelligent functioning students" (p. 465). Table 2 presents the social variables from the above study.

A second phase of the study was conducted by Fry (1984) to determine if primary, secondary, and post-secondary level teachers shared prototypic views of the characteristics of "ideally intelligent functioning" students at the teachers' respective levels of schooling. Three-hundred teachers from the same cities but from different school districts than the first phase of the study participated. There was equal representation from each of the three school levels and from both male

Table 2

Social Factor Items (Fry, 1984)

1.	Displays interest in surroundings
2.	Is sensitive to others' needs
3.	Is fair in dealing with others
4.	Is prompt
5.	Respects law and order
6.	Is self-confident
7.	Is not afraid to speak the truth
8.	Is friendly
9.	Is helpful
10.	Respects the judgment of adults
11.	Is gracious in dealing with others
12.	Is persistent
13.	Is diligent and anxious to please
14.	Is very popular

and female teachers. Each participant had a minimum of three years teaching experience. Teachers rated on a 1 (low) to 9 (high) point scale how characteristic each of the 37 cognitive, verbal, and social characteristics should be of the "ideally intelligent" student at each teacher's respective level of schooling. Teachers' responses were compared by an analysis of variance conducted on each of the 37 variables. Generally, verbal and social variables were found to be more characteristic of the "ideally intelligent" elementary level students as opposed to secondary and post-secondary level students, whereas cognitive factors were regarded as more characteristic of the "ideally intelligent" post-secondary level students as opposed to secondary and elementary level students. When multiple regression was used to predict the overall ratings that teachers in general assigned to intelligent functioning students, the results showed that cognitive factors accounted for 38% of the variance, social factors accounted for 16% of the variance, and verbal factors accounted for 7% of the variance.

It can be concluded that teachers at all levels hold their own implicit views of intelligence. Teachers at all levels have common views of what constitutes intelligent functioning in students even though some significant differences between groups of teachers were found on some of the dimensions investigated. These findings are consistent with findings from other studies that have investigated people's implicit notions of intelligence and the findings have implications for the measurement and training of intelligent functioning in our society.

Berg and Sternberg (1985) investigated people's implicit views of what constitutes intelligent functioning in individuals of either 30, 50, or 70 years of age. Using the research methodology developed by Sternberg et al. (1981), the researchers asked subjects ranging from 20 to 83 years of age to list behaviors that they viewed as characteristic of an exceptionally intelligent person of either 30, 50,

or 70 years of age. A second group made up of young, middle-aged, and older subjects rated how likely it would be for people 30, 50, and 70 years of age to engage in the behaviors listed by the first group of subjects.

Subjects ratings were factor analyzed separately for each age group. The three major factors of what characterizes intelligence at 30 years of age were (a) solving novel problems, (b) crystallized intelligence, and (c) everyday competence. For 50 year olds, the three major factors were (a) solving novel problems, (b) everyday competence, and (c) social competence. The major factors of intelligent functioning for 70 year olds were (a) composite fluid and crystallized intelligence, (b) everyday competence, and (c) cognitive investment. The researchers concluded that, "These factor analyses demonstrate that similarities exist in the types of behaviors that are considered to be adaptive and reflective of intelligent behavior at different adult ages. However, the perceived rank or importance of these adaptive behaviors in characterizing intelligence seems to differ from one age to the next" (p. 347). For example, it was found that behaviors related to adaption to the everyday environment are perceived by subjects as being more important in characterizing intelligence at 50 and 70 years of age than at 30 years of age.

In this study, people's implicit views of intelligent behavior were helpful in identifying what constitutes intelligence at various points in adult development. In particular, a common core of characteristics that subjects considered to be important for intelligent functioning across the adult life span was identified, as well as the relative importance of these characteristics for people to have at 30, 50, and 70 years of age respectively. These findings lend support to the contextual subtheory of the triarchic theory of human intelligence (Sternberg, 1985a) which recognizes intelligent functioning as people's ability to adapt to changing environmental conditions. Depending on one's environmental context, one

particular behavior or set of behaviors may be more adaptive and therefore more intelligent than another. In this study, the subjects believed that certain behaviors were more adaptive at certain ages than at others. Therefore, people who display these behaviors are considered to be functioning more intelligently than people who do not.

Sternberg (1985b) reported on a series of studies undertaken by himself and his colleagues that investigated the nature and use of people's implicit theories of the constructs of intelligence, creativity, and wisdom. Subjects for the investigation were professors of art, business, philosophy, and physics, as well as laypersons from the community. The professors were asked to list behaviors that they considered to be characteristic of the ideally intelligent, creative, or wise person in general. Also, a further study in the series had subjects rate themselves in relation to the characteristics listed so that the researchers could compare these ratings with the ideal ratings obtained in the previous studies in the series.

In general, it was found that people have organized, implicit views of the constructs of intelligence, creativity, and wisdom and that they use these implicit views consistently when evaluating themselves and hypothetical others. Although a coherent set of behaviors was found for each of the constructs being studied, the list of behaviors did vary somewhat depending upon which group of professors generated the list.

In another study in the series, 40 college students sorted 40 behaviors from each of the constructs being investigated into groups that they thought would likely be found together in a person. The behaviors that the subjects were asked to sort were the top 40 behaviors that laypersons from an earlier study in the series considered to be characteristic of the ideally intelligent, creative, or wise individual. Multidimensional scaling was employed to determine the relevant dimensions for

each of the three constructs.

The results obtained for the construct of intelligence are particularly interesting because they are similar to those obtained by Sternberg et al. (1981) using a different method of analysis, a different group of subjects, and a different but related set of behaviors. For example, the two polarities of the first dimension of the present study replicate the first two factors of the Sternberg et al. (1981) study, that is, practical problem-solving ability and verbal ability. Also, the second dimension of the present study resembles the social competence factor of the previous study.

The series of studies reported by Sternberg (1985b) reinforces findings reported from other studies that have investigated people's implicit views of the construct of intelligence. These findings include: (a) people's conceptions of intelligence overlap with, but go beyond, the behaviors and skills measured by conventional intelligence tests. For example, practical, everyday skills such as those involving social functioning are considered important to the subjects, as well as the more conventional intellectual skills of problem-solving and verbal abilities; (b) there is a common, central core of behaviors identified by subjects as characteristic of intelligent functioning. However, there are variations in this list depending on the group of subjects being studied. For example, professors from the four disciplines of art, business, philosophy, and physics each had somewhat different lists of behaviors that in their view characterized the ideally intelligent individual; (c) people's implicit views of the construct of intelligence provide relevant information as to how judgments of one's own and others' abilities are actually made in the everyday world. It would appear that people have a prototypical view of what constitutes intelligence and they judge the intelligence of themselves and others according to how closely it matches the prototype; and (d)

people's implicit views or theories of the construct of intelligence can be valuable in providing the framework and foundation for a more complete theory of human intellectual functioning.

Yussen and Kane (1985) investigated children's conceptions of intelligence. They interviewed children from the first, third, and sixth grade to determine the children's common-sense notions of the concept of intelligence. To provide a framework for their research, Yussen and Kane posed questions to the subjects, "derived from historically prominent issues in the study of intelligence" (p. 212). This approach, according to the researchers, fell midway between the extremes of having subjects affirm or deny the validity of existing explicit theories of intelligence, on the one hand, and definitions arrived at by experts versus an atheoretical, random selection of subjects' conceptions of intelligence, on the other. Using structured interviews, the researchers collected information from subjects regarding "visible signs of intelligence," "qualities associated with intelligence," "the influence of nature and nurture on intelligence," "the constancy or malleability of intelligence," "a general definition of intelligence," and "an assessment of their own 'relative intelligence' ".

The researchers were able to identify some major "meanings" that children attach to the construct of intelligence and how the meanings change as children grow older. For example, children's definitions of intelligence showed increased differentiation with age, as older children defined intelligence in terms of academic knowledge while younger children associated intelligence more with social behaviors and qualities.

Studies of People's Implicit Views of Social Intelligence

Ford and Miura (1983) studied people's conceptions of social intelligence by

asking 99 university students to describe the most socially competent person that they could think of. Subjects gave a detailed description of the person and their reasons for choosing the person. The researchers combined the characteristics according to similarity of content and got a list of 20 descriptors representing the prototypically socially competent person. Another group of 44 university students from various disciplines and representing a wide range of ages and ethnic groups was asked to combine the list of descriptors into categories that they thought would provide the best representation of the interrelationship among the elements of the socially competent prototype. The researchers did a cluster analysis to determine the major components in the subjects' conceptions of social competence and four major components were found. These components were: (a) prosocial skills, (b) social-instrumental skills, (c) social ease, and (d) self-efficacy. Table 3 presents the four components and the 20 descriptors of the prototypically socially competent person.

Ford and Miura (1983) extended their study to include thirty-five third- and fifth-grade students from a suburban school. They asked the subjects to describe the most socially competent child they knew between the ages of six and ten. The results indicated that the prototype derived was similar to that of the first phase of the study with all of the original descriptors included and some new items added, such as "is good in sports" and "has a good physical appearance." The researchers concluded that people's conceptions of social competence did not appear to vary as a function of the age of the subjects.

In a related study, Ford and Tisak (1983) investigated the construct of social intelligence in order to distinguish it conceptually and operationally from the construct of academic intelligence. The criterion used to measure social intelligence was the effectiveness or adaptiveness of one's social performance. This way of

Table 3

The Prototype of the Socially Competent Adult (Ford and Miura, 1983)

I	Prosocial Skills
1.	Is sensitive to the feelings of others
2.	Respects others and their viewpoints
3.	Is socially responsible
4.	Responds to the needs of others
5.	Is genuinely interested in others
6.	Is emotionally supportive
7.	Can be counted on
II	Social-Instrumental Skills
8.	Knows how to get things done
9.	Has good communication skills
10.	Likes to set goals
11.	Can handle stressful situations
12.	Has leadership abilities
III	Social Ease
13.	Is easy to be around
14.	Is socially adaptable
15.	Enjoys social activities and involvement
16.	Opens up to people
IV	Self-Efficacy
17.	Has own identity and own values
18.	Has a good self-concept
19.	Is open to new experiences
20.	Has a good outlook on life

looking at social intelligence corresponds closely to the implicit theories of the subjects in the Ford and Miura (1983) and the Sternberg et al. (1981) studies concerning the nature of social intelligence and the characteristics of the socially competent person. Six-hundred and twenty ninth- and twelfth-grade students from two schools participated in the study in which four measures of academic intelligence and six measures of social intelligence were obtained from each subject. Ford and Tisak (1983) hypothesized that, "Measures of social intelligence that are behaviorally validated should be better predictors of directly observed social-behavioral performances than measures of academic intelligence" (p. 203). This hypothesis was confirmed when a regression analysis revealed that the first four variables selected in the analysis were all social intelligence variables. The variables were, (a) teacher ratings of social competence, (b) empathy, (c) self-ratings of social competence, and (d) social attainment skills. In other words, the social intelligence variables were the best predictors of the behavioral criterion measure which was a structured, quantitatively-measured social competence interview of each subject. This measurement was used by the researchers as an assessment of each subject's social-behavioral effectiveness.

Summary

To summarize, investigators who are studying the construct of social intelligence are concerned with a number of important issues. For example, there is a concern with how social intelligence develops in real-world contexts. There is growing evidence to show that social intelligence develops and changes throughout the life cycle as a consequence of interaction with real-life problems and situations in the environment where one is living, working, or otherwise functioning. Also, researchers are concerned with the issue of how generalizable the results of their

studies are. Research is being done in a growing number of settings with a growing variety of people as subjects. There is evidence to support the argument that certain competencies of effective social functioning are important in and are being performed consistently in a number of social contexts. Furthermore, researchers are concerned with the issue of improving social functioning and social intelligence as it occurs in the real world. By focusing on specific performances in real-world social settings, researchers are beginning to realize that, "There is good reason to believe that social intelligence is indeed a domain of educationally relevant skills in which one can potentially promote competencies that go beyond those suggested by traditional conceptions of human abilities" (Ford & Tisak, 1983, p. 206).

This study is concerned with building on the research that has already been done and extending the investigation of the construct of social intelligence to determine how a particular group of subjects (adult, male inmates in an Alberta provincial correctional centre) view socially intelligent functioning in three common social contexts (when rating the kind of person who would be "A close personal friend," "A teacher," or "A person in a conflict").

Research Questions

The following research questions are being addressed in the present study:

1. How do male, adult inmates in an Alberta correctional centre view the construct of social intelligence?

2. Do subjects' ratings of the 20 characteristics that describe social intelligence form factors that resemble the clusters identified by subjects rating the same 20 characteristics in the study by Ford and Miura (1983)?

3. How do subjects' ratings of social intelligence differ among the three social contexts being investigated?

4. Is there a common core of social intelligence characteristics that is rated by subjects as important across all three social contexts?

CHAPTER III

METHODOLOGY

Sample

The subjects for the study were 40 inmates at the Lethbridge Correctional Centre in Lethbridge, Alberta. All subjects were male and were eighteen years of age or older. The subjects represented approximately 25 percent of the inmate population in the centre at the time that the study was conducted. Subjects were selected at random from among all the inmates residing in the four main "living units" at the time that the study was conducted.

This particular population was investigated because it is the population from which the researcher recruits his students for the personal development programs which he instructs at the centre. It was important to the researcher that he determine this population's perceptions of people's social intelligence in order to plan and conduct future personal development programs at the centre. Also, selecting a sample from a population that has not been studied before will help expand the research findings that have already been determined as researchers continue to study the construct of social intelligence.

Subjects' participation in the study was entirely voluntary, all participants were eighteen years of age or older, all guidelines of the Faculty of Education Human Subject Research Committee at the University of Lethbridge were strictly followed, and the approval of the Faculty of Education Human Subject Committee and the Alberta Solicitor General was secured before the study was conducted.

Rating Scales

Subjects were asked to complete three rating scales, each consisting of the same 20 items in three different random orders. The order for each rating scale was determined when numbers from 1 to 20 corresponding to the 20 items being rated were placed on separate pieces of paper and then drawn in random order by the researcher. The items for the study consisted of the 20 characteristics of the prototypically socially competent adult derived from subjects in a previous study by Ford and Miura (1983). The earlier study is reported in detail in the literature review section of this thesis.

Three rating scales were presented to subjects in the present study because each of the three rating scales asks subjects to rate how important it is for a hypothetical person to have each of the characteristics listed in three different common social contexts. In the first condition, subjects were asked to rate the hypothetical person, "A Close Personal Friend". In the second condition, the person being rated was "A Teacher". In the third condition, the person being rated was "A Person In A Conflict".

These three social contexts were chosen by the researcher because they represent a broad selection of common social contexts encountered by people in their everyday lives. Previous studies of the construct of social intelligence have not included an investigation of subjects' ratings of the importance of people's social characteristics in specific contexts. This study is a beginning attempt to understand the construct of social intelligence in context. The word "context" is used in this thesis as it is used by Sternberg (1985a) who defines intelligence in context as, "mental activity directed toward purposive adaption to, and selection and shaping of, real-world environments relevant to one's life" (p. 45). The contexts in this study were created by asking subjects to imagine specific kinds of persons who would be

interacting with others in everyday life.

Rating scales for each of the social contexts were presented to subjects in counterbalanced order so that each subject was as likely as the next to receive the rating scales in any of the possible orders available. For example, one subject might receive the rating scales in the order "A person in conflict", "A teacher", and "A close personal friend" while the next subject might receive them in the order "A teacher", "A close personal friend", and "A person in conflict". The following number scale was used by subjects to indicate the importance of each of the characteristics for the person being rated to have in each of the social contexts presented: 6 = Extremely Important, 5 = Very Important, 4 = Somewhat Important, 3 = Somewhat Unimportant, 2 = Not Very Important, 1 = Not Important At All. A six-point scale was chosen because it allowed subjects sufficient choice to discriminate the various levels of importance without allowing so much choice that subjects could become overwhelmed or confused by the task. Appendix A presents the three rating scales and the instructions that subjects were given to complete them.

The Pilot Study

A pilot study was conducted to determine the final form that the rating scales would take before being administered to subjects in the present study. The pilot study focused on the following concerns: (a) the appropriateness of the instructions given on the rating scales, (b) the appropriateness of the reading level on the rating scales, (c) the length of time required to complete the rating scales, and (d) any other information for making the rating scales clear and understandable for subjects to complete.

Subjects for the pilot study consisted of a group of eight inmates in a recent personal development program conducted by the researcher at the Lethbridge

Correctional Centre. Although not a random sample, the subjects were typical of the population under investigation in the main study. The subjects were given the three rating scales and instructions for completing them. An open discussion concerning the rating scales and their administration was included as part of the pilot study.

Based on the results of the pilot study, a number of steps were taken to improve the presentation of the rating scales to be used in the main study. First, the context under investigation, whether "A close personal friend," "A teacher," or "A person in a conflict," was printed just above the list of items to be rated in addition to being printed across the top of the page. Also, 16-point print was used on the rating scale for easy reading and attention getting purposes.

Second, it was decided that the researcher would have a list containing explanations of each of the items to be rated. In this way, subjects in the main study would be able to have an item explained upon request. The rating scale items, followed by an explanation for each, are presented in Appendix B.

Third, an assessment of the reading level of the rating scale items, using Gunning's Fog Index (Gunning, 1968), revealed a reading level of Grade 6.7. The calculations for determining the reading level are presented in Table 4. As a way to determine the appropriateness of this reading level for the inmate population, the average reading level of 25 randomly selected inmates who had applied to the education program at the Lethbridge Correctional Centre between September 1988 and May 1989 was calculated. The average total reading score (i.e., reading vocabulary + reading comprehension) on the Canadian Achievement Test for these inmates was Grade 9.3. The standard deviation was 3.70. This reading level is 2.8 grades above the reading level on the rating scales administered to subjects in the present study.

Table 4

Readability Level of the Rating Scale Items

Source: The Gunning Fog Index (Gunning, 1968)

Formula for Calculating Grade Level = % of Hard Words* + Average Sentence Length x .4

% of Hard Words = No. Hard Words x 100/Total No. Words

12 x 100/86 = 8.05

Average Sentence Length = No. Words/No. Sentences

174/20 = 8.70

Grade Level = 8.05 + 8.70 = 16.75 x .4 = 6.7

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* Hard words are usually any words of three or more syllables. Not counted as hard words are any three-syllable words made up of two syllables and one of the following endings: -s, -es, -'s, -s', -ed, -ing, -er, -est, -ly. For a complete set of rules used to determine hard words, see Gunning (1968).

Fourth, subjects in the pilot study were all able to complete the three rating scales within one-half hour or less. This information was useful in planning the conducting of the main study.

It can be concluded that the pilot study provided valuable information to improve the presentation of the rating scales, make any necessary modifications, and ensure that the main study be conducted in a smooth and efficient manner.

Procedure

The researcher presented those subjects who had been selected at random and who were asked to participate in the study with a statement of the purpose of the study and their expected involvement in it. Since potential subjects were selected from the population of the Lethbridge Correctional Centre, the researcher contacted them in the four living units in which they resided. In order to ensure that participation was voluntary, each living unit was visited twice. The first time was to explain the study and ask potential subjects to participate. Appendix C contains the letter given to the inmates at that time. The second visit which occurred within 48 hours of the first visit was to administer the rating scales to those inmates who had returned to take part in the study.

Subjects completed the rating scales at tables in the common areas of their living units at a time that was convenient for all concerned. Before completing the rating scales, subjects were given verbal instructions by the researcher and had the opportunity to ask any questions at that time. The researcher was present throughout the data collection process to assist subjects and make certain that the scales were completed properly.

Limitations of the Study

Since subjects for the present study were incarcerated, the question of their level of cooperation arose. How willing would subjects be to respond to the rating scales in an honest and forthright manner? Various precautions were taken to ensure the highest level of cooperation possible. For example, participation in the study was voluntary and subjects could withdraw at any time without penalty. Also, the benefits of participating in the study were outlined in the letter given to potential participants. Furthermore, the researcher has been an instructor of college programs at the Lethbridge Correctional Centre for several years, was known by many of the inmates, and represented an outside agency.

Another possible limitation of the study could be the low reading level of many of the participants. This limitation was addressed by checking the readability of the rating scales and determining that the reading level was at Grade 6.7 (see Table 4). Not only is this reading level lower than the average reading level of inmates who apply to the academic program at the correctional centre, but additional explanations of all items of the rating scales were provided by the researcher at the time of their administration (see Appendix B).

Analysis

Scoring of subjects' responses to the rating scales have yielded basic profiles of all responses for each of the three contexts being investigated in the study. These data are presented in a descriptive manner in tables and figures to give an overall view of the findings of the study. These data have also been used as the basis for the statistical analyses to follow. In this way, the research questions can be examined thoroughly and accurately.

A factor analysis was done using a principal components analysis. Factors

were selected by orthogonal rotation using the Varimax criterion (Rummel, 1970). Tables are presented for each of the three contexts, indicating the number of factors obtained, the factor loadings for each variable, the percentage of variance accounted for by each factor, and the total percentage of variance accounted for by the factors in each of the contexts being studied. These analyses provided the information necessary to examine another research question investigated in this study. Specifically, the three factor structures obtained in the present study were compared to the cluster analysis done by Ford and Miura (1983). Also, an analysis of variance was conducted on each of the 20 items of social intelligence so that subjects' ratings could be compared across the three social contexts. Furthermore, the importance ranking from highest to lowest of subjects' ratings of the 20 items was used to determine if there was a common core of items that subjects rated as highly important across contexts.

CHAPTER IV.
RESULTS

Introduction

Although there is some overlap in the presentation of the results, generally they are presented in the same order as the research questions addressed in this study. The descriptive statistics derived from subjects' ratings of the 20 items of social intelligence in the three social contexts are presented first so that the research question of how subjects view the construct of social intelligence can be addressed. The second research question, concerned with the similarity in structure between subjects' responses in the present study and the study by Ford and Miura (1983), is examined by presenting the results of the factor analyses that were conducted. Analyses of variance are presented next in order to address the third research question which is concerned with how subjects' ratings differ across contexts. The fourth research question asks if there is a common core of characteristics that is important across contexts. In order to examine this question, the results of importance rankings of the 20 items in the three social contexts are presented. Finally, the chapter concludes with an overall summary of results.

The 20 items of social intelligence on the rating scales used in the present study are the same 20 items identified by subjects in the Ford and Miura (1983) study as characteristics of the prototypically socially competent adult. Throughout this chapter, the results of subjects' ratings of the 20 items are presented in the same order as items in the previous study. In addition, these items are grouped according to the four categories derived from a cluster analysis of subjects' ratings

in the earlier study. The first seven items make up the category "Prosocial skills", the next five items form the category "Social-instrumental skills", the next four items make up the category "Social ease" and the last four items form the category "Self-efficacy". Table 3 presents the items and categories in their original order.

The results of this study are arranged according to the order described above so that the research questions can be investigated and discussed in an organized, consistent and meaningful manner. Also, this organization of results will make it possible to compare the current findings with those of Ford and Miura (1983).

Descriptive Statistics

Tables 5 presents a description of the results of the present study. Means, standard deviations and range of scores are presented for each of the 20 items of social intelligence, averaged over the 40 subjects, for each of the three social contexts studied. The order of the items is arranged according to the categories identified by Ford and Miura (1983).

As can be seen, the ratings for all items in each of the contexts were relatively high, considering the 6-point scale with 1 (lowest) to 6 (highest). For example, in the context "A close personal friend", the mean scores ranged from a low of 3.98 for the item "has leadership ability" to a high of 5.45 for the item "can be counted on". For the context "A teacher", scores ranged from a low of 4.55 for "enjoys social activities and involvement" to a high of 5.58 for "has good communication skills". For the context "A person in a conflict", the lowest mean score was 3.80 for the item "opens up to people", while the highest mean score was 5.05 for "has good communication skills". In general, it appears that items were rated highest in the context "A teacher", followed by "A close personal friend" and "A person in a conflict".

Table 5

Scores for the 20 Items of Social Intelligence in the Three Social Contexts (n=40)

	Friend			Teacher			Conflict		
Item	M	SD	Range	M	SD	Range	M	SD	Range
1. Is sensitive to the feelings of others	5.08	1.02	2 - 6	4.98	1.00	2 - 6	4.50	1.04	1 - 6
2. Respects others and their viewpoints	4.78	1.05	1 - 6	5.18	.78	3 - 6	4.60	.96	2 - 6
3. Is socially responsible	4.78	.80	3 - 6	4.78	1.00	1 - 6	4.28	1.22	1 - 6
4. Responds to the needs of others	4.63	.98	3 - 6	5.13	.79	3 - 6	4.13	1.09	2 - 6
5. Is genuinely interested in others	4.68	.89	3 - 6	5.05	.88	3 - 6	4.18	1.13	1 - 6
6. Is emotionally supportive	4.88	1.02	2 - 6	5.03	.83	3 - 6	4.15	1.03	2 - 6
7. Can be counted on	5.45	.85	3 - 6	5.33	.69	4 - 6	4.50	1.32	1 - 6
8. Knows how to get things done	4.73	1.38	1 - 6	5.28	.60	4 - 6	4.73	.99	2 - 6
9. Has good communication skills	4.70	1.18	1 - 6	5.58	.71	4 - 6	5.05	.88	3 - 6
10. Likes to set goals	4.45	1.36	1 - 6	5.10	.90	2 - 6	4.40	1.15	1 - 6
11. Can handle stressful situations	4.38	1.10	1 - 6	5.10	.74	4 - 6	4.60	1.17	2 - 6
12. Has leadership abilities	3.98	1.33	1 - 6	5.35	.77	3 - 6	4.30	1.22	1 - 6
13. Is easy to be around	5.18	.81	3 - 6	5.00	.91	3 - 6	4.13	1.36	1 - 6
14. Is comfortable in social situations	4.18	1.11	1 - 6	4.70	1.04	1 - 6	4.18	1.15	1 - 6
15. Enjoys social activities	4.48	1.04	1 - 6	4.55	1.11	1 - 6	3.93	1.46	1 - 6
16. Opens up to people	4.25	1.08	1 - 6	4.63	1.03	2 - 6	3.80	1.24	1 - 6
17. Has own identity and own values	4.83	1.28	1 - 6	4.60	1.15	1 - 6	4.95	.96	1 - 6
18. Has a good self-concept	4.68	1.21	1 - 6	5.23	.73	4 - 6	4.75	1.03	2 - 6
19. Is open to new experiences	4.78	1.03	1 - 6	4.95	.93	3 - 6	4.38	1.15	1 - 6
20. Has a good outlook on life	4.68	1.27	1 - 6	5.23	1.03	1 - 6	4.18	1.24	1 - 6

Overall, ratings were quite high for all items. This indicates that subjects found the items to be quite characteristic of social intelligence in the three contexts studied. This finding can be expected since the 20 items were already determined to be characteristic of social intelligence by subjects in the Ford and Miura (1983) study.

Although the mean scores reported in Table 5 are relatively high, it can be seen that the range of mean scores reported is quite broad for most items. With the exception of five items in the context "A teacher", the range of scores for all other items was three or more. For example, in the contexts "A close personal friend" and "A person in a conflict", subjects used the entire 6-point scale for 13 of the 20 items. For the context "A teacher", the entire scale was used when rating five of the 20 items of social intelligence.

Figures 1-4 present, in graph form, the results shown in Table 5. The figures make it possible to compare the mean scores for each of the 20 items of social intelligence across the three social contexts. Also, each figure displays the items from each of the categories identified by Ford and Miura (1983). Figure 1 displays the scores for the "Prosocial skills" items, Figure 2 for the "Social-instrumental skills" items, Figure 3 for the"Social ease" items and Figure 4 for the "Self-efficacy" items.

As can be seen, the mean of each item in the category "Prosocial skills" is lowest in the context "A person in a conflict" (see Figure 1). Figure 2 shows that mean scores for items in the category "Social-instrumental skills" are all highest in the context "A teacher". In Figures 3 and 4, it can be seen that for the categories "Social ease" and "Self-efficacy" there are no consistent patterns when mean scores for the items are compared across contexts. However, the overall results displayed in Figures 1-4 confirm the earlier findings shown in Table 5 that mean scores are

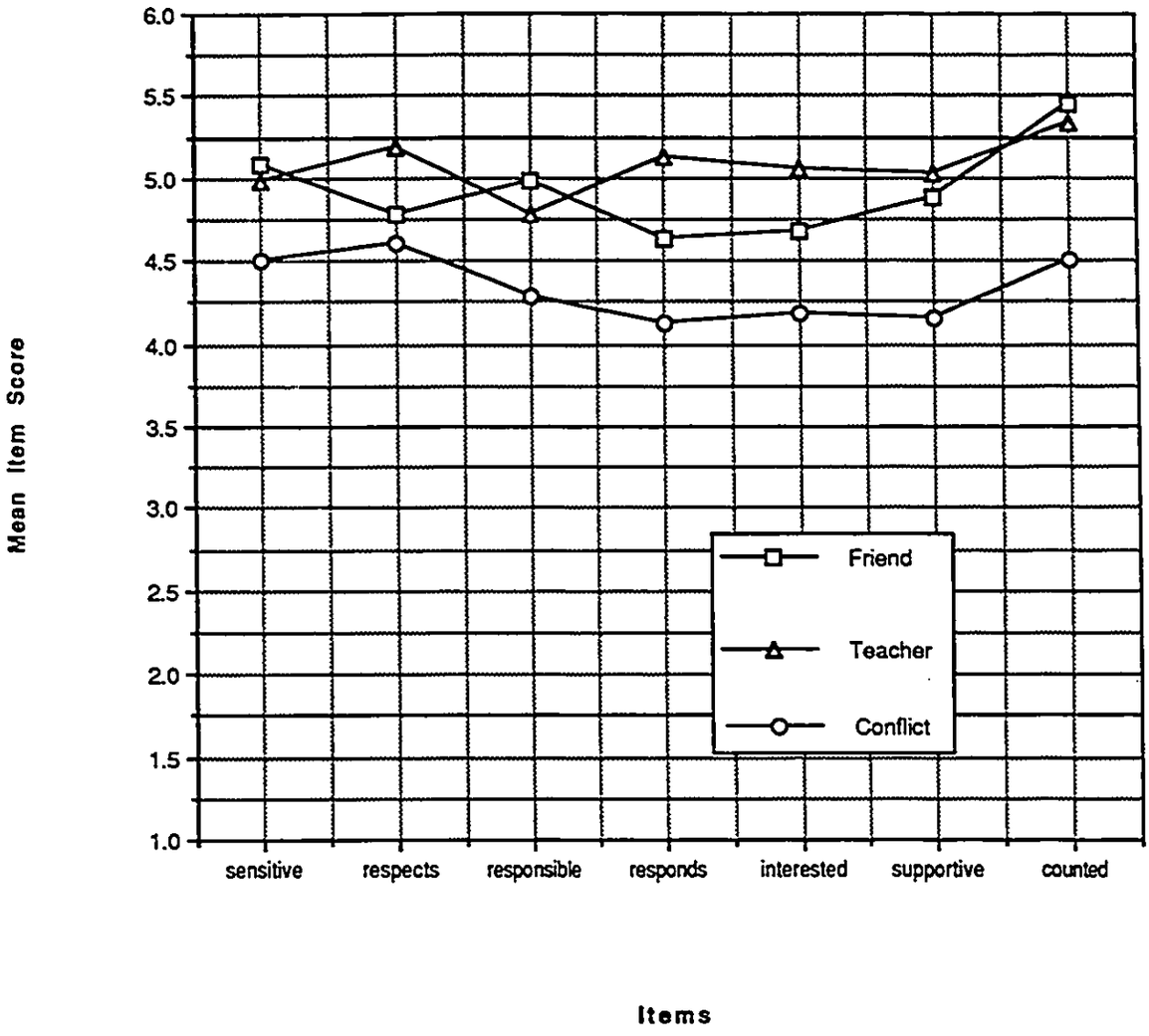

Figure 1: Scores for Prosocial Skills Items Rated in Three Contexts

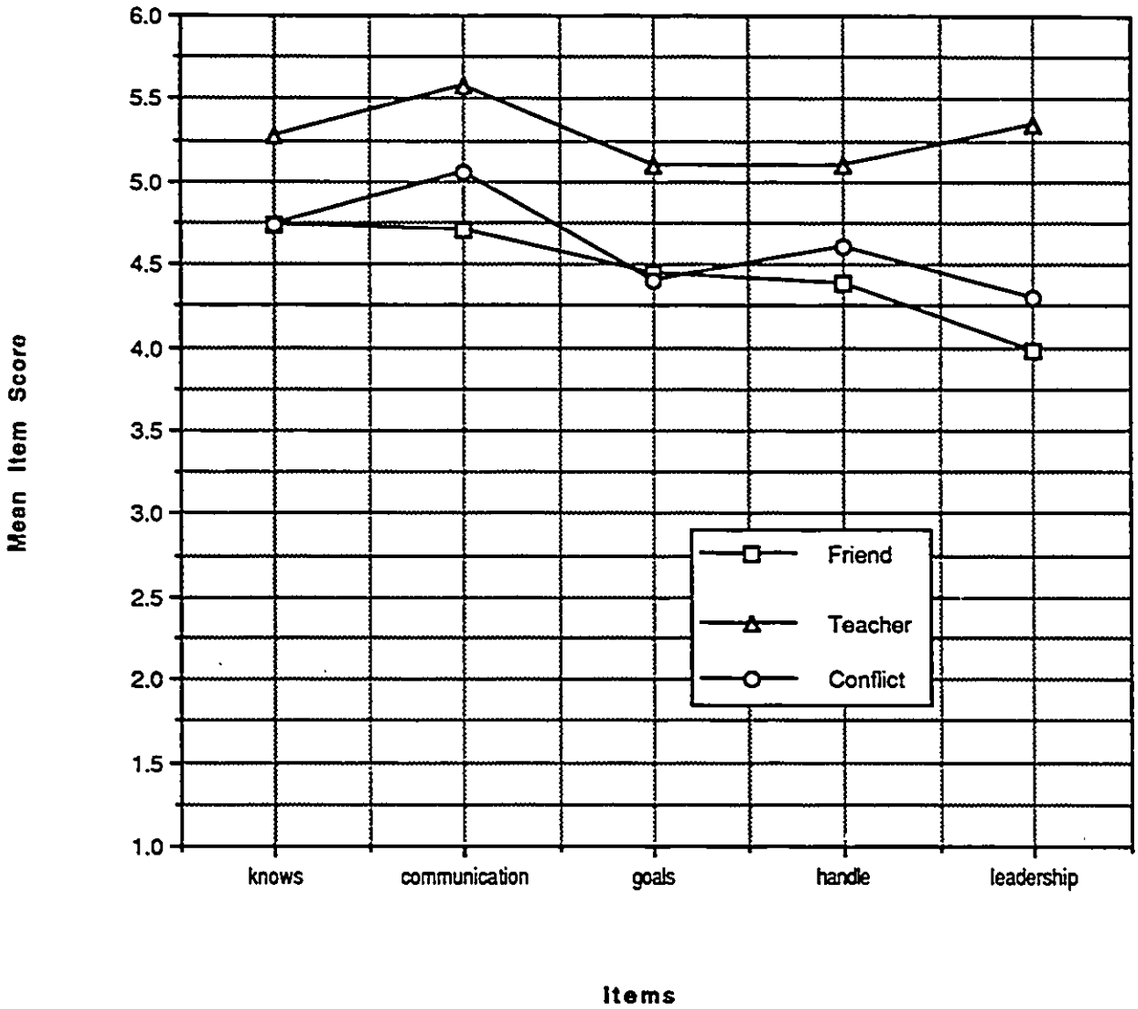

Figure 2: Scores for Social-Instrumental Skills

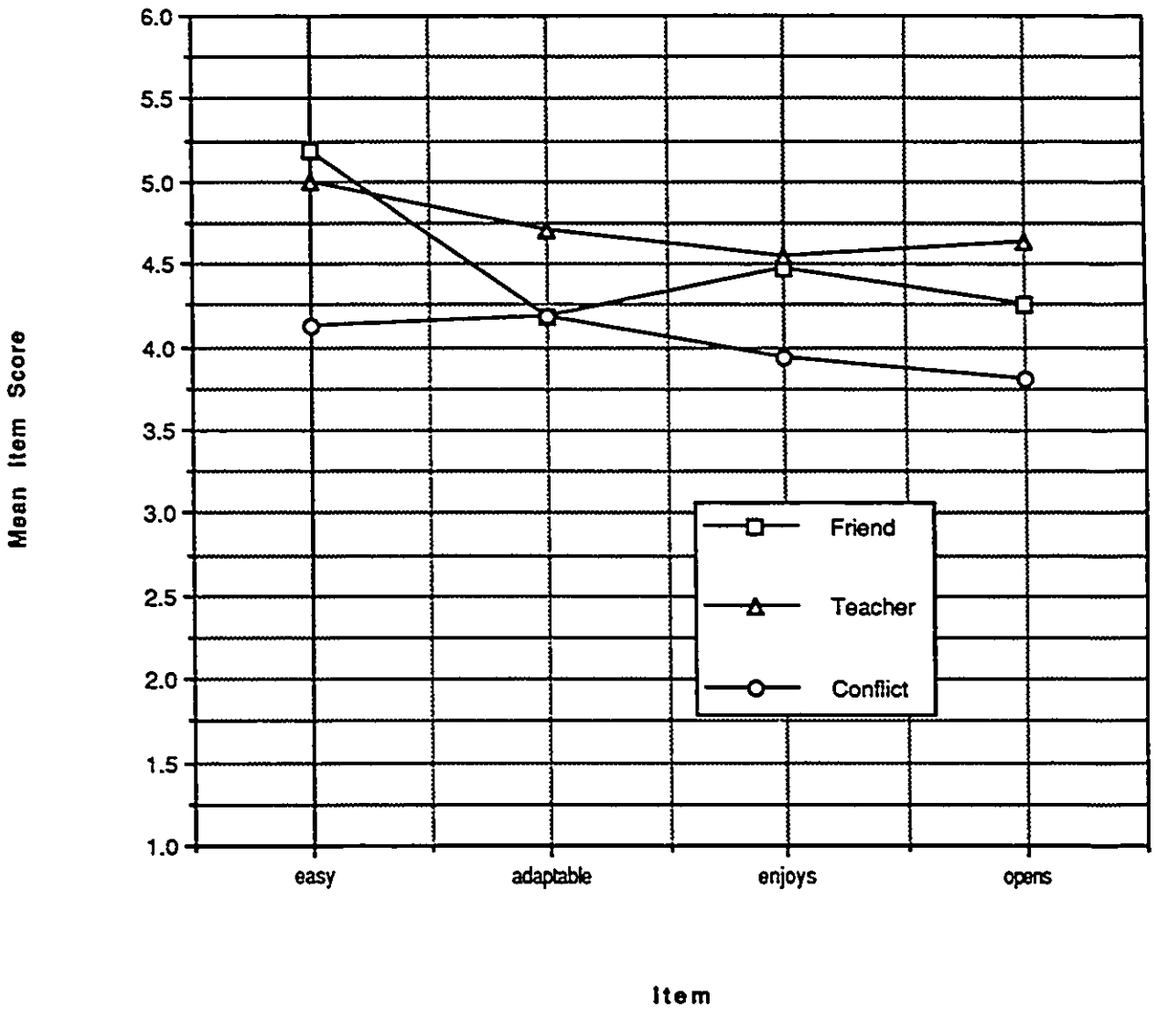

Figure 3: Scores for Social Ease Items Rated in Three Contexts

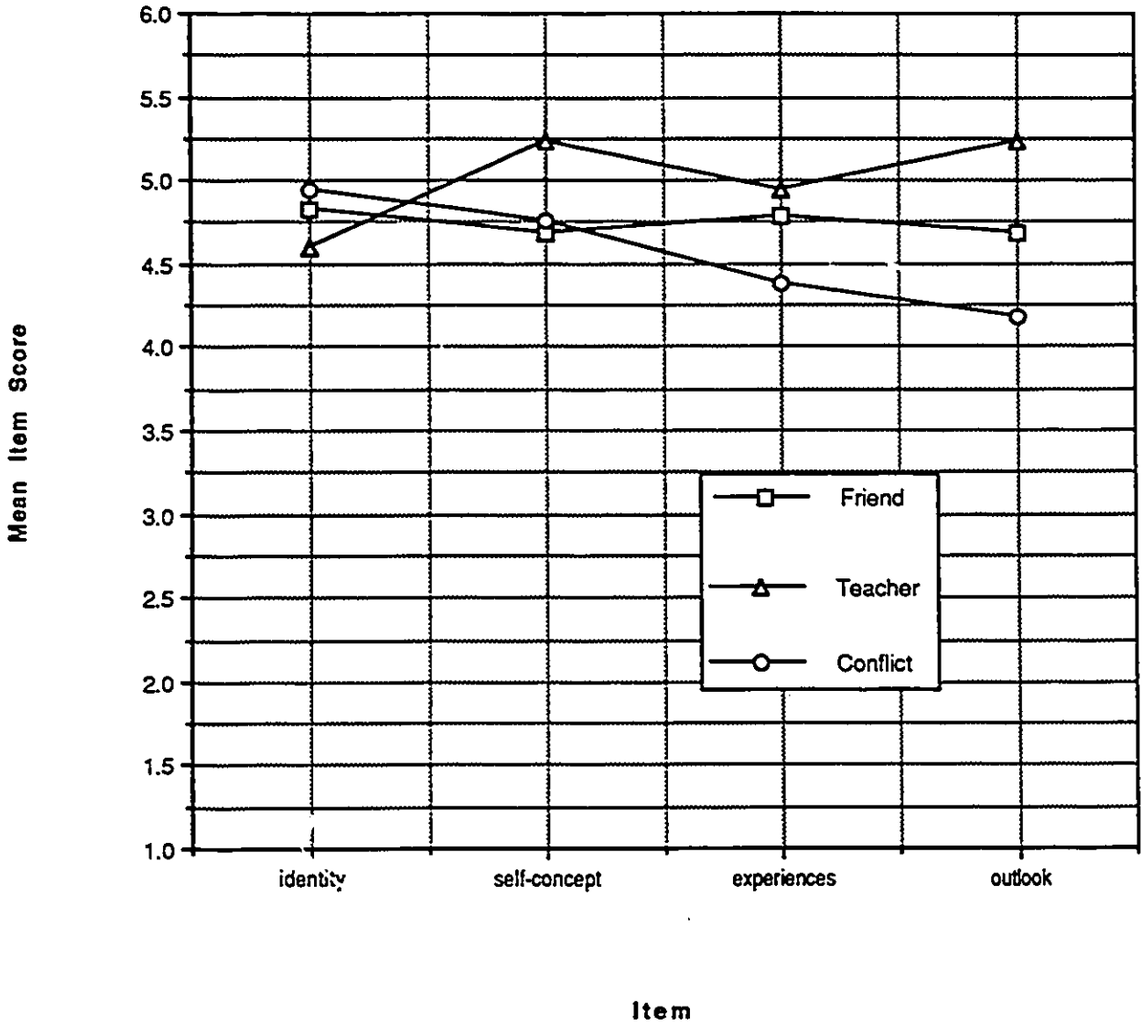

Figure 4: Scores for Self-Efficacy Items Rated in Three Contexts

highest in the context "A teacher", followed by "A close personal friend" and "A person in a conflict".

Ratings for the Four Categories of Social Intelligence

Table 6 presents the mean ratings and standard deviations from the present study for the four categories of social intelligence identified by Ford and Miura (1983). The means of the individual items of social intelligence in each category were used to calculate the means in Table 6.

The results indicate that in the context "A close personal friend", the category "Prosocial skills" has a mean of 4.93 with "Self-efficacy" next ($\bar{X}$=4.74), followed by "Social ease" ($\bar{X}$=4.52) and "Social-instrumental skills" ($\bar{X}$=4.45). The category "Social-instrumental skills" has a mean of 5.28 in the context "A teacher", followed by "Prosocial skills" ($\bar{X}$=5.07), "Self-efficacy" ($\bar{X}$=5.00) and "Social ease" ($\bar{X}$=4.72). In the context "A person in a conflict", the category "Social-instrumental skills" has a mean of 4.62 with "Self-efficacy" next ($\bar{X}$=4.57), followed by "Prosocial skills" ($\bar{X}$=4.33) and "Social ease" ($\bar{X}$=4.01).

Once again, all scores were relatively high in all categories and in all contexts. This finding reflects the earlier finding that the scores of the 20 items of social intelligence are relatively high when individual items scores are examined (see Table 5).

Factor Analyses

In order to compare the findings of the present study with those of Ford and Miura (1983), three separate factor analyses were conducted using subjects' scores on the twenty items of social intelligence in the three social contexts. Factor analysis was the most appropriate procedure to use to investigate the structure of

Table 6

Scores for the Four Categories of Items of Social Intelligence in the Three Social Contexts (n=40)

	Friend		Teacher		Conflict	
Category	M	SD	M	SD	M	SD
1. Prosocial Skills	4.93	.28	5.07	.17	4.33	.20
2. Social-Instrumental Skills	4.45	.30	5.28	.20	4.62	.30
3. Social Ease	4.52	.46	4.72	.20	4.01	.18
4. Self-Efficacy	4.74	.08	5.00	.30	4.57	.35

subjects' responses in the present study considering that the data collected were in the quantitative form of subjects' scores on the rating scales. Cluster analysis, on the other hand, which was used in the earlier study is a procedure that requires subjects to arrange items that they believe go together best into categories. The researcher then computes a matrix showing how often each item is categorized together with each other item. Next, the matrix is subjected to a cluster analysis in order to identify major clusters or categories of items (Horowitz, French, & Anderson, 1982). The number of factors to be selected in each analysis of the present study was set at four in an attempt to correspond to the number of clusters identified in the earlier study. The principal components method of analysis was used and the factor structure was established by orthogonal rotation using the Varimax criterion. An item was considered to load on a factor if the factor loading was $\geq .40$.

Tables 7-9 present the results of the factor analyses for each of the social contexts studied. The factors are arranged in the tables to demonstrate their resemblance to the clusters identified by Ford and Miura (1983). As can be seen, Factor I in Table 7 for the context "A close personal friend" closely resembles the component of social intelligence labeled "Prosocial skills" in the earlier study. All seven items from that component have factor loadings $\geq .40$ in the present study, while only one other item has a factor loading $\geq .40$ on that factor. Factor II in the present study appears to be a general factor with various items from all four components of the Ford and Miura study (1983) loading highly. Factors III and IV do not appear to have any identifiable structure with loadings of $\geq .40$ on only three items each from various components of the earlier study.

Factor I in the context "A teacher" appears to be a general factor with one or more items from each of the components of the earlier study having factor loadings

Table 7

Factor Loadings ≥ .40 from the Factor Analysis of the 20 Items of Social Intelligence in the Context "A Close Personal Friend" (n=40)

Item		Factor Loadings			
		I	II	III	IV
Prosocial Skills					
1.	Is sensitive to the feelings of others	.57			
2.	Respects others and their viewpoints	.42	.46		.54
3.	Is socially responsible	.41	.51		
4.	Responds to the needs of others	.73			
5.	Is genuinely interested in others	.68		.45	
6.	Is emotionally supportive	.82			
7.	Can be counted on	.81			
Social-Instrumental Skills					
8.	Knows how to get things done		.85		
9.	Has good communication skills		.78		
10.	Likes to set goals		.74		
11.	Can handle stressful situations				-.79
12.	Has leadership abilities		.76		
Social Ease					
13.	Is easy to be around	.78			
14.	Is comfortable in social situations		.79		
15.	Enjoys social activities		.74		
16.	Opens up to people			.70	
Self-Efficacy					
17.	Has own identity and own values		.59	-.50	
18.	Has a good self-concept		.84		
19.	Is open to new experiences		.72		
20.	Has a good outlook on life		.82		.52

Table 8

Factor Loadings ≥ .40 from the Factor Analysis of the 20 Items of Social Intelligence in the Context "A Teacher" (n=40)

Item		Factor Loadings			
		I	II	III	IV
Prosocial Skills					
1.	Is sensitive to the feelings of others	.50			
2.	Respects others and their viewpoints	.61			.44
3.	Is socially responsible		.72		
4.	Responds to the needs of others		.73		
5.	Is genuinely interested in others		.62		.42
6.	Is emotionally supportive	.56			
7.	Can be counted on	.71			
Social-Instrumental Skills					
8.	Knows how to get things done				.82
9.	Has good communication skills		.72		
10.	Likes to set goals			.54	.62
11.	Can handle stressful situations	.59	.61		
12.	Has leadership abilities		.50		.45
Social Ease					
13.	Is easy to be around	.44	.60		
14.	Is comfortable in social situations			.72	
15.	Enjoys social activities			.80	
16.	Opens up to people			.66	
Self-Efficacy					
17.	Has own identity and own values			.57	
18.	Has a good self-concept			.65	
19.	Is open to new experiences	.74			
20.	Has a good outlook on life			.51	.61

Table 9

Factor Loadings ≥ .40 from the Factor Analysis of the 20 Items of Social Intelligence in the Context "A Person in a Conflict" (n=40)

Item		Factor Loadings			
		I	II	III	IV
Prosocial Skills					
1.	Is sensitive to the feelings of others	.72			
2.	Respects others and their viewpoints	.51	.68		
3.	Is socially responsible		.67		
4.	Responds to the needs of others			.54	
5.	Is genuinely interested in others	.50			
6.	Is emotionally supportive	.41	.56	.45	
7.	Can be counted on		.50	.50	
Social-Instrumental Skills					
8.	Knows how to get things done	.57	.48		
9.	Has good communication skills		.81		
10.	Likes to set goals			.73	
11.	Can handle stressful situations		.76		
12.	Has leadership abilities			.73	.48
Social Ease					
13.	Is easy to be around			.74	
14.	Is comfortable in social situations	.53		.63	
15.	Enjoys social activities			.84	
16.	Opens up to people			.73	
Self-Efficacy					
17.	Has own identity and own values				.77
18.	Has a good self-concept	.73			
19.	Is open to new experiences	.82			
20.	Has a good outlook on life		.51		

≥ .40. Factor II in Table 8 resembles a combination of the two components "Prosocial skills" and "Social-instrumental skills" identified by Ford and Miura (1983). Three items from each of those components have factor loadings ≥ .40 in the present study, while only one other item has a factor loading ≥ .40 on Factor II.

Factor III in the context "A teacher" resembles a combination of the "Social ease" and "Self-efficacy" components of the Ford and Miura (1983) study with three of the four items for each component having loadings ≥ .40 in the present study. Factor IV has no identifiable structure with the five items with high factor loadings distributed among three components of the earlier study.

Table 9 presents the results of the factor analysis for the context "A person in a conflict". As can be seen, Factors I and II are similar in structure to those found in the context "A teacher" (see Table 8). Once again, Factor I appears to be a general factor with items having factor loadings ≥ .40 distributed among the four components of the Ford and Miura (1983) study. Factor II in the context "A person in a conflict", as in the context "A teacher", resembles a combination of the first two components of the earlier study. Four of the seven items from the component "Prosocial skills" have factor loadings ≥ .40, while three of the items from the component "Social-instrumental skills" have factor loadings ≥ .40.

Factors III and IV in the context "A person in a conflict" have no identifiable factor structure. Factor III in Table 9 has items from three of the four components identified by Ford and Miura (1983) with factor loadings ≥ .40, while Factor IV has only two items with factor loadings ≥ .40.

Table 10 shows the percentage of variance accounted for by each factor and the total percentage of variance for all factors identified in each of the three social contexts.

In the context "A close personal friend", the four factors identified accounted

Table 10

The Percentage of Variance Accounted for by the Four Factors from the Factor Analyses of the 20 Items of Social Intelligence in the Three Social Contexts (n=40)

Context	Factor I	Factor II	Factor III	Factor IV	Total
1. A Close Personal Friend	20.6%	32.7%	7.2%	7.1%	67.6%
2. A Teacher	14.5%	17.0%	15.0%	12.4%	58.9%
3. A Person in a Conflict	16.8%	18.7%	22.5%	8.5%	66.5%

for a total of 67.6% of the variance in the data. Factor I accounted for 20.6% of the variance, Factor II accounted for 32.7%, Factor III for 7.2% and Factor IV for 7.1%.

The four factors identified in the context "A teacher" accounted for a total of 58.9% of the variance in the data. Factor I accounted for 14.5% of the variance, Factor II accounted for 17.0%, Factor III for 15.0% and Factor IV for 12.4%.

In the context "A person in a conflict", the four factors identified accounted for a total of 66.5% of the variance in the data. 16.8% of the variance was accounted for by Factor I, 18.7% by Factor II, 22.5% by Factor III and 8.5% by Factor IV.

In conclusion, a few similarities were found between the results of the factor analyses in the present study and the results of the cluster analysis in the study by Ford and Miura (1983). To find only a slight resemblance in structure is understandable considering that two different methods of analysis were used. Also, unlike subjects in the earlier study, subjects in the present study were presented with the 20 items of social intelligence in three different social contexts. Furthermore, subjects in the present study are from an entirely different population than subjects in the previous study.

Analyses of Variance

In order to compare subjects' ratings of the 20 items of social intelligence across the three social contexts, an analysis of variance was conducted on each item using a repeated measures design. Table 11 presents the results of the analyses of variance for the 20 items. Tables 12-14 present the results of Scheffé post hoc tests comparing each context with each of the other contexts. The Scheffé method was used because it is one of the most rigorous methods of comparison available. As Ferguson (1981) explains, "The Scheffé method is more rigorous than other multiple comparison methods with regard to Type I error. It will lead to fewer significant

differences" (p. 308).

Results of the analyses of variance reveal a significant difference across social contexts for 19 of the 20 items using the criterion $p < .05$ (see Table 11). The only item on which significance was not found was "has own identity and own values". These findings indicate that subjects' ratings differed significantly across contexts for 19 of the 20 items of social intelligence.

Scheffé post hoc tests were used to compare the means for each pair of contexts for each of the 20 items of social intelligence. Using the criterion $p < .05$, significant differences were found on seven of the 20 items when the contexts "A close personal friend" and "A teacher" were compared (see Table 12). In all cases, subjects rated the items higher in the context "A teacher". These items were: "knows how to get things done", "has good communication skills", "likes to set goals", " can handle stressful situations", "has leadership abilities", "has a good self-concept", and "has a good outlook on life". Furthermore, the first five items mentioned above make up the category labeled "Social-instrumental skills" by Ford and Miura (1983). The other two items are from the category labeled "Self-efficacy" in the earlier study.

Significant differences were found on seven of the 20 items when comparing the context "A close personal friend" with the context "A person in a conflict" (see Table 13). Subjects rated all seven items higher in the context "A close personal friend". These items were: "is sensitive to the feelings of others", "is socially responsible", "is genuinely interested in others", "is emotionally supportive", "can be counted on", "is easy to be around", and "has a good outlook on life". Furthermore, the first five items mentioned above are from the category labeled "Prosocial skills" by Ford and Miura (1983). The last two items are from the categories labeled "Social ease" and "Self-efficacy", respectively.

When comparing the contexts "A teacher" and "A person in a conflict",

Table 11

Results of Repeated Measures ANOVA Across the Three Social Contexts for the 20 Items of Social Intelligence (n=40)

	Item	F (2, 38)
1.	Is sensitive to the feelings of others	4.82 **
2.	Respects others and their viewpoints	4.70 **
3.	Is socially responsible	7.21 ***
4.	Responds to the needs of others	12.06 ***
5.	Is genuinely interested in others	11.43 ***
6.	Is emotionally supportive	11.42 ***
7.	Can be counted on	13.26 ***
8.	Knows how to get things done	5.43 **
9.	Has good communication skills	11.39 ***
10.	Likes to set goals	6.39 **
11.	Can handle stressful situations	5.26 **
12.	Has leadership abilities	17.51 ***
13.	Is easy to be around	17.84 ***
14.	Is comfortable in social situations	4.10 *
15.	Enjoys social activities	4.01 *
16.	Opens up to people	8.72 ***
17.	Has own identity and own values	.73
18.	Has a good self-concept	4.32 *
19.	Is open to new experiences	3.40 *
20.	Has a good outlook on life	13.90 ***

* $p < .05$ ** $p < .01$ *** $p < .001$

Table 12

Post Hoc Comparisons Between the Contexts
"A Close Personal Friend" and "A Teacher" for the
20 Items of Social Intelligence (n=40)

	Item	Scheffé F (2, 38)
1.	Is sensitive to the feelings of others	.08
2.	Respects others and their viewpoints	2.16
3.	Is socially responsible	.55
4.	Responds to the needs of others	3.02
5.	Is genuinely interested in others	2.09
6.	Is emotionally supportive	.29
7.	Can be counted on	.19
8.	Knows how to get things done	4.07 *
9.	Has good communication skills	11.24 ***
10.	Likes to set goals	4.43 *
11.	Can handle stressful situations	5.04 **
12.	Has leadership abilities	16.03 ***
13.	Is easy to be around	.43
14.	Is comfortable in social situations	3.07
15.	Enjoys social activities	.05
16.	Opens up to people	1.80
17.	Has own identity and own values	.22
18.	Has a good self-concept	3.67 *
19.	Is open to new experiences	.30
20.	Has a good outlook on life	3.81 *

* $p < .05$ ** $p < .01$ *** $p < .001$

Table 13

Post Hoc Comparisons Between the Contexts "A Close Personal Friend" and "A Person in a Conflict" for the 20 Items of Social Intelligence (n=40)

	Item	Scheffé F (2, 38)
1.	Is sensitive to the feelings of others	4.10 *
2.	Respects others and their viewpoints	.41
3.	Is socially responsible	6.79 **
4.	Responds to the needs of others	3.02
5.	Is genuinely interested in others	3.71 *
6.	Is emotionally supportive	6.85 **
7.	Can be counted on	11.23 ***
8.	Knows how to get things done	.00
9.	Has good communication skills	1.80
10.	Likes to set goals	.03
11.	Can handle stressful situations	.52
12.	Has leadership abilities	.90
13.	Is easy to be around	15.54 ***
14.	Is comfortable in social situations	.00
15.	Enjoys social activities	2.60
16.	Opens up to people	2.59
17.	Has own identity and own values	.15
18.	Has a good self-concept	.07
19.	Is open to new experiences	1.57
20.	Has a good outlook on life	3.15 *

* $p < .05$ ** $p < .01$ *** $p < .001$

significant differences were found on 15 of the 20 items of social intelligence (see Table 14). In all cases, subjects rated the items higher in the context "A teacher". These items were: "respects others and their viewpoints" "is socially responsible", "responds to the needs of others", "is genuinely interested in others", "is emotionally supportive", "can be counted on", "knows how to get things done", "has good communication skills", "likes to set goals", "has leadership abilities", "is easy to be around", "enjoys social activities and involvement", "opens up to people", "is open to new experiences", and "has a good outlook on life". Furthermore, the first six items mentioned above are from the category labeled "Prosocial skills" by Ford and Miura (1983) The next four items are from the category labeled "Social-instrumental skills". The next three items and the final two items are from the categories labeled "Social ease" and "Self-efficacy", respectively.

There are two items on which no significant differences were found when contexts were compared. These items were: "is comfortable in social situations" and "has own identity and own values".

In conclusion, post hoc comparisons between contexts for the 20 items of social intelligence reveal that 29 out of 60 comparisons were significant using the criterion $p < .05$. Quite a high number of significant differences were found in the present study considering that the rigorous Scheffé method was used to make the comparisons.

In order to compare subjects' ratings of the four categories of items of social intelligence across the three social contexts, an analysis of variance was conducted on each category of items using a repeated measures design. Table 15 presents the results of the analyses of variance for the four categories across contexts. Table 16 presents the results of Scheffé post hoc tests comparing each context with each of the other contexts.

Table 14

Post Hoc Comparisons Between the Contexts
"A Teacher" and "A Person in a Conflict" for the
20 Items of Social Intelligence (n=40)

	Item	Scheffé F (2, 38)
1.	Is sensitive to the feelings of others	3.06
2.	Respects others and their viewpoints	4.47 *
3.	Is socially responsible	3.47 *
4.	Responds to the needs of others	12.06 ***
5.	Is genuinely interested in others	11.36 ***
6.	Is emotionally supportive	9.98 ***
7.	Can be counted on	8.47 ***
8.	Knows how to get things done	4.07 *
9.	Has good communication skills	4.04 *
10.	Likes to set goals	5.13 **
11.	Can handle stressful situations	2.32
12.	Has leadership abilities	9.35 ***
13.	Is easy to be around	10.79 ***
14.	Is comfortable in social situations	3.07
15.	Enjoys social activities	3.36 *
16.	Opens up to people	8.70 ***
17.	Has own identity and own values	.73
18.	Has a good self-concept	2.74
19.	Is open to new experiences	3.24 *
20.	Has a good outlook on life	13.89 ***

* $p < .05$ ** $p < .01$ *** $p < .001$

Table 15

Results of Repeated Measures ANOVA Across Contexts
for the Four Categories of Social Intelligence (n=40)

	Category	F (2, 38)
I	Prosocial Skills	37.66***
II	Social-Instrumental Skills	30.73***
III	Social Ease	10.32**
IV	Self-Efficacy	2.01

* $p < .05$ ** $p < .01$ *** $p < .001$

Results of the analyses of variance reveal significant differences across contexts for three of the four categories of items using the criterion $p \leq .05$. The only category on which significance was not found was "Self-efficacy" (see Table 15).

Scheffé post hoc tests were used to compare the means of each pair of contexts for each of the four categories of items of social intelligence. Using the criterion $p < .05$, a significant difference was found on one of the four categories when the contexts "A close personal friend" and "A teacher" were compared. This category was "Social-instrumental skills" and subjects rated that category higher in the context "A teacher". A significant difference was found on one of the four categories when comparing the context "A close personal friend" with the context "A person in a conflict". This category was "Prosocial skills" and subjects rated that category higher in the context "A close personal friend". When comparing the contexts "A teacher" and "A person in a conflict", significant differences were found on three of the four categories of items. Subjects rated all three categories of items higher in the context "A teacher". The only category lacking a significant difference was "Self-efficacy" (see Table 16).

Importance Ranking of Items of Social Intelligence

Table 17 presents the importance ranking from highest to lowest of the 20 items of social intelligence in each of the three social contexts beginning with the context "A close personal friend". The means for the 20 items for each social context were given in Table 5.

As shown in Table 17, four individual characteristics of social intelligence are ranked tenth or higher in all three social contexts. These items are: "can be counted on", "respects others and their viewpoints", "knows how to get things done", and "has good communication skills". The first two items are from the category

Table 16

Post Hoc Comparisons Between Contexts for the Four Categories of Social Intelligence (n=40)

	Category	Friend vs. Teacher	Friend vs. Conflict	Teacher vs. Conflict
		Scheffé F	Scheffé F	Scheffé F
I	Prosocial Skills	1.88	20.21***	34.40***
II	Social-Instrumental Skills	27.47***	1.12	17.52***
III	Social Ease	.75	5.05	9.86**
IV	Self-Efficacy	.70	.33	1.99

* $p < .05$ ** $p < .01$ *** $p < .001$

Table 17

Importance Ranking of the 20 Items of
Social Intelligence for the Three Social Contexts (n=40)

	Context		
Item	Friend	Teacher	Conflict
Can be counted on	1	3	8
Is easy to be around	2	13	18
Is sensitive to the feelings of others	3	14	7
Is socially responsible	4	16	12
Is emotionally supportive	5	12	16
Has own identity and own values	6	19	2
Respects others and their viewpoints	7	7	5
Is open to new experiences	8	15	10
Knows how to get things done	9	4	4
Has good communication skills	10	1	1
Is genuinely interested in others	11	11	13
Has a good self concept	12	5	3
Has a good outlook on life	13	6	15
Responds to the needs of others	14	8	17
Enjoys social activities	15	20	19
Likes to set goals	16	9	9
Can handle stressful situations	17	10	6
Opens up to people	18	18	20
Is comfortable in social situations	19	17	14
Has leadership abilities	20	2	11

labeled "Prosocial skills" by Ford and Miura (1983) and the other two items are from the category labeled "Social-instrumental skills". In the present study, the four items identified above form a common core of social intelligence characteristics that received consistently high rankings across contexts.

At the other end of the importance ranking are four characteristics that are ranked eleventh or lower in all three social contexts. These items are: "is genuinely interested in others", "enjoys social activities", "opens up to people", and "is comfortable in social situations". The first item is from the category labeled "Prosocial skills" by Ford and Miura (1983) while the other three items are from the category "Social ease". The four items listed above received consistently low rankings from subjects in the present study and would appear to be outside the common core of important characteristics of social intelligence.

Findings from the present study indicate that there is a small, identifiable core of common characteristics of social intelligence that is important across contexts. Furthermore, the items that make up this common core are from the categories "Prosocial skills" and "Social-instrumental skills".

Three Spearman rank correlation coefficients were computed in order to compare the ranking of items in each context with the ranking of items in each of the other contexts. The Spearman rank correlation coefficient comparing the contexts "A close personal friend" and "A teacher" was –.01 (n.s.), "A close personal friend" and "A person in a conflict" .23 (n.s.), "A teacher" and "A person in a conflict" .45 ($p < .05$). These findings indicate that a significant relationship was found in only one of the three comparisons of rankings of the 20 items of social intelligence.

Summary of Results

1) Ratings of importance for all 20 items of social intelligence in all three social contexts were relatively high, although the range of scores was quite broad.

2) Overall ratings were generally higher in the context "A teacher", followed by "A close personal friend" and then by "A person in a conflict".

3) In the context "A close personal friend", on average, the category "Prosocial skills" had the highest mean ratings. On average, the category "Social-instrumental skills" had the highest mean ratings in the context "A teacher". In the context "A person in a conflict", on average the category "Social-instrumental skills" had the highest mean ratings, followed closely by the category "Self-efficacy".

4) The factor structure of the present study reveals some similarities with the clusters identified by Ford and Miura (1983). In particular, a factor resembling the component "Prosocial skills" was identified in the context "A close personal friend".

5) In both the contexts "A teacher" and "A person in a conflict", a general factor was identified as well as a factor resembling a combination of the components "Prosocial skills" and "Social-instrumental skills" from the Ford and Miura (1983) study.

6) A separate factor identified in the context "A teacher" resembled a combination of the "Social ease" and "Self-efficacy" components of the earlier study.

7) Subjects' ratings differed significantly across contexts for 19 of the 20 items of social intelligence.

8) Items were rated higher in the context "A teacher" than in the context "A close personal friend" when the contexts were compared, with most of the significantly different items coming from the "Social-instrumental" category.

9) Items were rated higher in the context "A close personal friend" than in the

context "A person in a conflict". Most of the significantly different items from this comparison were from the category "Prosocial skills".

10) When the contexts "A teacher" and "A person in a conflict" were compared, items were rated higher in the context "A teacher". Items came from all four categories, with the most coming from the "Prosocial skills" category.

11) Only two items showed no significant differences when each of the contexts was compared with each of the others.

12) Subjects' ratings differed significantly across contexts for three of the four categories of items of social intelligence.

13) Importance ranking of items indicated that a common core of four characteristics of social intelligence was identifiable across the three social contexts. These items were: "can be counted on", "respects others and their viewpoints", "knows how to get things done", and "has good communication skills".

14) The common core of highly ranked characteristics included items from both the "Prosocial skills" category and the "Social-instrumental skills" category.

15) Importance ranking of items also indicated that there were four items of social intelligence that received consistently low rankings across contexts. These items were: "is genuinely interested in others", "enjoys social activities", "opens up to people", and "is comfortable in social situations".

16) The importance rankings differed considerably when contexts were compared with one another. Rankings were significantly correlated only when the contexts "A teacher" and "A person in conflict" were compared.

CHAPTER V.

DISCUSSION

The results of this study suggest that, when the subjects were given the opportunity to rate the importance of 20 characteristics of social intelligence in three social contexts, organized conceptions of the construct of social intelligence did emerge.

Overall, subjects rated the 20 characteristics quite highly in importance in the three social contexts studied. Also, the structure of subjects' ratings had a slight resemblance to the structure of subjects' ratings in an earlier study of the construct of social intelligence. Furthermore, when subjects' ratings of the 20 characteristics of social intelligence were compared across contexts, there were a number of identifiable differences as well as some recognizable commonalities in the findings of the present study.

In this chapter, each of the four research questions will be discussed separately with respect to the results of the study. The chapter will conclude with a discussion of a number of important issues related to the implications of the findings of the present study and their impact on the continuing study of the construct of social intelligence.

Research Question #1: How do male, adult inmates in an Alberta correctional centre view the construct of social intelligence?

The fact that subjects used the high end of the scale when rating the importance of the 20 items of social intelligence indicates that, in general, the items that were listed were ones that were quite characteristic of the construct. Although

the 20 items were derived from those listed by subjects in the Ford and Miura (1983) study, a number of the same items were listed by subjects in studies by Fry (1984) and Sternberg et al. (1981) as well. Findings from the present study provide further evidence to support the notion that researchers are beginning to focus on a number of important and relevant characteristics that define the prototype of the socially intelligent person.

It should also be noted that although subjects in previous studies have varied in stage of life cycle development (Berg and Sternberg, 1985), age (Ford and Miura, 1983), nationality (Fry, 1984), and professional status and occupation (Sternberg, 1985b; Sternberg et al., 1981), they did have their own organized conceptions and implicit views of what characterizes socially intelligent behavior. Subjects in the present study, who are from an entirely different population, appear to discriminate among the various items and categories of social intelligence when rating their respective importance. This discrimination was most evident when subjects were asked to do their ratings in three specific social contexts. Ratings were consistently higher in the context "A teacher", followed by "A close personal friend" and "A person in a conflict". It can be assumed, as in earlier studies, that subjects' implicit views and organized conceptions of what it means to be socially intelligent quite likely influence their perceptions, evaluations, and expectations of themselves and other people in their lives.

As noted earlier, subjects in the present study rated characteristics of social intelligence from a previously established list rather than generated their own list of characteristics. This was done so that comparisons could be made between subjects' ratings in the present study and in the previous study by Ford and Miura (1983). In future studies, however, subjects from the male, adult inmate population in Alberta as well as from other populations being studied could generate their own

lists of characteristics and rate them according to importance. In this way, the process of establishing a valid and reliable set of characteristics that identify people's implicit notions of what constitutes the construct of social intelligence could be continued.

Research Question #2: Do subjects' ratings of the 20 characteristics that describe social intelligence form factors that resemble the clusters identified by subjects rating the same 20 characteristics in the study by Ford and Miura (1983)?

The factor structure derived from subjects' ratings of the 20 items of social intelligence in the three social contexts indicates that only slight similarities in structure exist when compared to the categories identified when a cluster analysis of the same 20 items was conducted by Ford and Miura (1983). There are no consistent patterns in any of the three social contexts of the present study that parallel the findings from the previous study.

It should be noted, however, that when social contexts were varied in the present study, the structure changed. For example, in the context "A close personal friend", a factor emerged that resembled the "Prosocial skills" component of the earlier study. In the context "A teacher", one factor resembled a combination of the "Prosocial skills" and "Social-instrumental skills" components, while a second factor resembled a combination of the "Social ease" and "Self-efficacy" components of the Ford and Miura (1983) study. In the context "A person in a conflict", a factor emerged that was similar to the one found in the context "A teacher" that was a combination of the first two components of the earlier study. These findings suggest at least two possibilities. In the first place, it is quite possible that the subjects in the present study view the construct of social intelligence differently in different social contexts. Secondly, it is possible that the unique population being studied

may have a particular view of social intelligence that not only differs from the view of the subjects in the earlier study but also differs from context to context as well. In order to determine the relevant variables that are operating, further empirical studies need to be conducted using other populations and other social contexts.

There is no evidence from a search of the literature to indicate that the results of the Ford and Miura (1983) study have been replicated by means of either cluster analysis or factor analysis. It is interesting to note, however, that Ford (1983) develops a theory of social intelligence based on the results of the cluster analysis. He argues that the four categories identified are actually four different ways of being socially intelligent.

Although the factor analyses conducted in the present study failed to replicate the findings reported by Ford (1983) and Ford and Miura (1983), the arrangement of the 20 characteristics of social intelligence into four distinct categories appears to have merit on both logical and theoretical grounds. However, it appears that, empirically, further study needs to be done in order to establish the validity and reliability of the structure identified in the earlier study.

Research Question #3: How do subjects' ratings of social intelligence differ among the three social contexts being investigated?

Context has been identified as an important part of the theory of intelligence whereby a person displays the ability to adapt to changes in the environment (Berg and Sternberg, 1985; Sternberg, 1985a). In the present study, social intelligence has been studied in three social contexts. Findings reveal several significant differences in subjects' ratings of importance of the 20 characteristics of social intelligence across contexts. For example, subjects' ratings of importance differed significantly across contexts for all but one of the items. This item was "has own

identity and own values". It would appear that subjects in the present study have quite distinct views of what social intelligence is when characterizing the kind of person who would be a close personal friend, a teacher, or a person in a conflict. These findings are unique to the present study since the construct of social intelligence has not been studied in these three social contexts before. Since human behavior occurs in context, social intelligence needs to be studied in specific contexts to develop a fuller understanding of the construct.

The present study not only examines social intelligence in context, but also examines the views of the construct in a unique population. It is quite likely that context and population interact. For example, in the present study, inmates rated the importance of the 20 characteristics of social intelligence highest in the context "A teacher". According to the subjects of the present study, it is important for the kind of person who would be a teacher to have good communication skills, to have leadership abilities, to be able to be counted on, and to know how to get things done. This may be a reflection of the high expectations this population puts on the performance of teachers since many inmates have not had successful experiences with their schooling. Also, the 20 characteristics of social intelligence were rated lowest in importance in the context "A person in a conflict". This finding may be an indication that inmates do not expect as much from a person with whom there is conflict since many inmates tend to have a considerable amount of conflict with authority and other people in their lives.

Although there is not a great deal of empirical evidence to support the existence of the four categories identified by Ford and Miura (1983), it is interesting to see how the relative importance of the groups of items making up the categories vary when contexts are compared with one another. For example, the category "Prosocial skills" appears to be most important in the context "A close personal

friend". Subjects in the present study are indicating that it is important for the kind of person who would be a close personal friend to be sensitive, respectful, responsive and emotionally supportive. The category "Social-instrumental skills" appears to be most important in the context "A teacher". Subjects are indicating that it is important for the kind of person who would be a teacher to have good communication skills, know how to get things done, have leadership abilities and like to set goals.

The above findings support the findings of other studies concerned with understanding the construct of social intelligence that "Prosocial skills" and "Social-instrumental skills" are two distinct types of social intelligence and represent two different ways that people behave in a socially intelligent manner (Ford, 1983; Ford, 1986; Ford and Miura, 1983). Furthermore, findings from the present study indicate that each type of social intelligence seems to be important in a particular social context, (i.e., it is important for the kind of person who would be a close personal friend to show respect for others, while it is important for the kind of person who would be a teacher to know how to make things happen).

Research Question #4: Is there a common core of social intelligence characteristics that is rated by subjects as important across all three social contexts?

There has been some success on the part of researchers in the area of human intelligence to identify a common core of behaviors that define the construct. For example, Berg and Sternberg (1985) found that, "Implicit theories of adult intelligence throughout the life span held by people of various ages indicate that the core of adaptive behaviors considered intelligent in this culture consists of solving novel problems, verbal ability, everyday competence, and social competence. Depending upon one's environmental context, these behaviors may become

differentially important for assessing one's intelligence over adult development" (p. 359).

In the present study, a common core of four characteristics of social intelligence was identified. It was found that the four characteristics were ranked consistently high in importance across all three social contexts. Two of these items were from the "Prosocial skills" category identified by Ford and Miura (1983) and the other two items were from the "Social-instrumental skills" category. These items were "can be counted on", "respects others and their viewpoints", "knows how to get things done", and "has good communication skills".

These findings are consistent with those reported by Ford (1986) who found that the results of three separate studies of the construct of social intelligence conducted by himself and his colleagues indicated that the components of "Prosocial skills" and "Social-instrumental skills" were especially relevant in defining the construct. As Ford (1986) states, "There was a strong emphasis on integrative achievements such as having good family and friendship relations, showing concern and respect for the rights of others, treating other people fairly and equitably, and being a responsible citizen. Mastery and management objectives also appear to be regarded as core criteria . . . with the focus placed both on a set of instrumental skills closely associated with these outcomes (i.e., goal-setting, decision-making, planning, and problem-solving skills) and the outcomes themselves" (p. 199).

Even though a common core of characteristics ranked as important was identified, the importance rankings differed considerably when contexts were compared with one another. It was found that the rankings were significantly correlated only when the contexts "A teacher" and "A person in a conflict" were compared. This finding demonstrates, once again, the importance of studying social intelligence in specific contexts in order to develop a greater understanding of the construct.

General Discussion

This study has been an attempt to develop a clearer empirical understanding of the construct of social intelligence and to contribute further to the building of the theory of social intelligence. Subjects were asked to communicate their own notions concerning the nature of social intelligence in three common social contexts. Although the present study restricted subjects to the rating of importance of 20 specific characteristics of social intelligence in hypothetical other people, previous studies reveal that subjects use a similar list of characteristics to rate their own social intelligence and to evaluate the social intelligence of others (Berg & Sternberg, 1985; Fry, 1984; Sternberg, 1985b; Sternberg et al., 1981). As a "prototype" or organized concept of the socially intelligent person develops, oneself and others are viewed as socially intelligent to the extent that they resemble the prototype. Therefore, in order to understand the construct of social intelligence it is important to continue to determine what people's implicit views are and to determine if these views are consistent across cultures, across the life span and across social contexts. Since most judgments of people's social intelligence are made informally and in real-life settings, it is important to continue to study the construct by focusing on people's implicit theories as they operate in their everyday world.

The findings of the present study are in agreement with other research that has found the construct of social intelligence to be not only distinct from academic intelligence, but also to have a number of distinct components within itself (Ford, 1983; Ford & Miura, 1983). For example, the previously identified components "Prosocial skills" and "Social-instrumental skills" were found to be closely related to the contexts "A close personal friend" and "A teacher", respectively, in the present

study. Although some progress has been made toward determining the components that constitute social intelligence, much more needs to be known. As Ford and Tisak (1983) point out, "There are many ways of being socially intelligent. One might be intelligent in one social setting but not another or, within a given setting, one might be effective at accomplishing certain kinds of social objectives but not others" (p. 203).

A number of concerns can be identified that are related to the study of social intelligence. First, the selection of characteristics to be studied could be affected by researcher bias. Although the original lists of characteristics have been generated by the subjects themselves, the items are screened by researchers and items are eliminated because of apparent redundancies (Ford & Miura, 1983; Sternberg et al., 1981) or because of methodological procedures such as factor analysis (Fry, 1984). Researchers must address the issue of their own bias before a valid list of characteristics representing the construct of social intelligence can be established.

A second concern of researchers who study the construct of social intelligence is to determine how subjects' ratings of the importance of lists of characteristics relate to the subjects' functioning in their everyday lives. Researchers need to continue their efforts to establish both content validity and concurrent validity. For example, Ford and Tisak (1983) established a "behavioral effectiveness criterion" so that the measurement of social intelligence could "translate into precise, relevant, and practical operationalizations of the construct which retain at least some of the richness and meaning of real-life social interactions" (p. 198). The behavioral effectiveness measure was based on researchers' ratings of subjects' social competence as displayed in an interview situation. This measurement could then be correlated with other measures of subjects' social intelligence based on ratings of characteristics of the construct.

Cultural bias is a third concern when studying the construct of social intelligence. Studies that are limited to one particular culture, as most studies of social intelligence have been, will have findings that are not legitimately generalizable outside that culture. Our understanding of the construct will be limited until it is studied in various cultural settings. In the present study, adult, male inmates in an Alberta correctional centre were asked to respond to a list of characteristics of social intelligence that had been generated by a group of U.S. college students. Findings from the present study indicate that subjects found this list of characteristics to be a valid representation of the construct since they rated their importance relatively high in all three social contexts. Furthermore, Fry (1984) found that U.S. and Canadian teachers shared similar conceptions of what constituted the "ideally intelligent functioning student" in relation to 37 cognitive, verbal, and social characteristics. Nevertheless, further research needs to be done to identify the similarities and differences that exist in people's conceptions of social intelligence across cultures.

A fourth concern involves the application of the findings from research on the construct of social intelligence to educational programs. Educators need to be able to make informed decisions about what aspects of social intelligence will be included in the curriculum and on what theoretical and empirical grounds these aspects will be introduced. One reason for conducting the present study was to gain a greater understanding of the subjects' conceptions of social intelligence in various social contexts so that the information could be used to design further programs to enhance students' social intelligence in the correctional education program at the Lethbridge Correctional Centre.

Various researchers (Ford, 1983; Ford & Tisak, 1983; Fry, 1984) are concerned with the level of educators' understanding of the construct of social intelligence. A

definition of the construct, a statement of desired program outcomes, a list of specific skills to be learned and specific contexts in which the skills will be used – all based on empirical evidence – need to be made explicit in order for social intelligence to become a legitimate part of the curriculum. The findings of the present study will be helpful in designing an effective approach to teach socially intelligent functioning.

In conclusion, the importance and relevance of studying the construct of social intelligence in specific populations and in specific social contexts has been demonstrated in the present study. By addressing the question of how adult, male inmates in an Alberta correctional centre rate the importance of various characteristics of social intelligence when relating to a friend, a teacher, or a person in a conflict, the study of the construct has been extended with the intention of increasing our understanding and building the theory of social intelligence.

Suggestions for Further Study

The following suggestions related to difficulties encountered in the present study could prove helpful to researchers who are continuing the study of the construct of social intelligence:

1. With regard to the population being studied, great care must be taken to present appropriate items, contexts, and reading levels. For example, in the present study, the inmate population in an Alberta correctional centre was studied. Considerable care was taken to ensure that the reading level of the rating scales was appropriate. Also, 30 to 40 percent of the inmate population is Native and these subjects may not share the same understanding of items and contexts as other populations. The need exists for researchers to achieve a greater sensitivity to other cultures and populations in order to design better studies of the construct of

social intelligence in the future. Furthermore, follow-up interviews with subjects could provide researchers with additional information to determine if the subjects shared similar interpretations of items and contexts.

2. The choice of social contexts to be studied must be made carefully and must follow specific criteria to ensure uniformity of response from context to context. For example, the context "A teacher" in the present study appeared to be the most clearly defined. This can be concluded because most people share a common perception of what a teacher does and what activities are engage in with a teacher. On the other hand, the context "A close personal friend" can be interpreted differently by different people, since a person could engage in a wide variety of activities with a friend. Also, the context "A person in a conflict" is open to interpretation, since a person's involvement with another person in a conflict could range from violent confrontation to rational negotiation. Perhaps, in future studies, specific scenarios involving the people portrayed in each context could be presented to subjects. In this way, the problem of individual interpretation associated with subjects completing the rating scales could be lessened.

3. The choice of items to be studied also needs to be undertaken with great care. Items in the present study were taken from an earlier study and had already been identified as characteristics of socially intelligent behavior. In other studies, subjects have been asked to generate their own lists of items before rating them. Perhaps subjects in future studies could be given an extensive list of items representing social intelligence and also be given the opportunity to add their own items to the list. From the entire list of items, it could be determined empirically if subjects rated a particular set of items as significantly more important the rest of the items presented.

In conclusion, the construct of social intelligence has been shown to be difficult and challenging to study. In order to advance our understanding of the construct, it is necessary for researchers to be aware of the various problems related to item and context selection, as well as the background of the subjects being studied.

Concluding Comment

To the extent that this study is valid, it would appear that the subjects generally rated the characteristics of social intelligence in a similar manner to subjects in previous studies of the construct. With regard to the contexts studied, subjects rated the importance of the characteristics highest in the context "A teacher". Subjects also identified a number of characteristics from the categories "Prosocial skills" and "Social-instrumental skills" as highly important in defining the construct. In particular, this study points out once again how difficult it is to come to a clear understanding of what social intelligence is and how people function in a socially intelligent manner. The need for a valid measure of social intelligence remains. A behavioral effectiveness criterion, as Ford and Tisak (1983) point out, could provide a measure of a person's real-life performance with respect to social intelligence. This measurement could then be correlated with ratings of characteristics of social intelligence done by oneself or others to provide an accurate assessment of what social intelligence is and how socially intelligent a given person is behaving. Although various characteristics and categories of social intelligence have been identified and measured in this study and others, I agree with Ford (1983) when he states accurately and succinctly that, "it would be nice if we could validate these measures against some external criterion" (p.7).

References

Archer, D. (1980). *How to expand your social intelligence quotient.* New York: M. Evans.

Berg, C. & Sternberg, R. (1985). A triarchic theory of intellectual development during adulthood. *Developmental Review,* 5, 334-370.

Brown, A. (1978). Knowing when, where, and how to remember: A problem of metacognition. In R. Glaser (Ed.), *Advances in instructional psychology (Vol. 1).* Hillsdale, NJ: Erlbaum.

Chapin, F. (1967). *The social insight test.* Palo Alto, CA: Consulting Psychologists Press.

Ferguson, G. (1981). *Statistical analysis in psychology and education.* New York: McGraw-Hill.

Ford, M. (1982). Social cognition and social competence in adolescence. *Developmental Psychology,* 18, 323-340.

Ford, M. (1983). The nature of social intelligence: Processes and outcomes. ERIC Document No. 243 041.

Ford, M. (1986). For all practical purposes: Criteria for defining and evaluating practical intelligence. In R. Sternberg & R. Wagner (Eds.), *Practical intelligence: Nature and origins of competence in the everyday world.* New York: Cambridge University Press.

Ford, M. & Miura, I. (1983). Children's and adults' conceptions of social competence. Paper presented at the 91st Annual Convention of the American Psychological Association, Anaheim, California.

Ford, M. & Tisak, M. (1983). A further search for social intelligence. *Journal of Educational Psychology,* 75, 196-206.

Fry, P. (1984). Teachers' conceptions of students' intelligence and intelligent functioning. *International Journal of Psychology,* 19, 457-474.

Guilford, J. (1967). *The nature of human intelligence.* New York: McGraw-Hill.

Guilford, J. (1982). Cognitive psychology's ambiguities: Some suggested remedies. *Psychological Review,* 89, 48-59.

Gunning, R. (1968). *The technique of clear writing.* New York: McGraw-Hill.

Horowitz, L., French, R., & Anderson, C. (1982). The prototype of the lonely person. In L. Peplan & D. Perlman (Eds.), *Loneliness: A sourcebook of current theory, research, and therapy.* New York: John Wiley & Sons.

Hunt, E. (1980). Intelligence as an information-processing concept. *British Journal of Psychology,* 71, 449-474.

Intelligence and its measurement. *Journal of Educational Psychology,* 1921, 12, 123-147; 195-216; 271-275.

Jensen, A. (1982). Reaction time and psychometric g. In H. Eysenck (Ed.), *A model for intelligence.* Berlin: Springer-Verlag.

Keating, D. (1978). A search for social intelligence. *Journal of Educational Psychology,* 70, 218-223.

Moss, F., Hunt, T., Omwake, K., & Woodward, L. (1949). *Social intelligence test, George Washington University series.* Washington, DC: Center for Psychological Service.

Neisser, U. (1979). The concept of intelligence. *Intelligence,* 3, 217-227.

Rosenthal, R. (Ed.) (1979). *Skill in nonverbal communication: Individual differences.* Cambridge, MA: Oelgeschlager, Gunn & Hain.

Rummel, R. (1970). *Applied factor analysis.* Evanston, IL: Northwestern University Press.

Spearman, C. (1927). *The abilities of man.* New York: Macmillan.

Sternberg, R. (1977). *Intelligence, information processing, and analogical reasoning: The componential analysis of human abilities.* Hillsdale, NJ: Erlbaum.

Sternberg, R. (1985a). *Beyond IQ: A triarchic theory of human intelligence.* Cambridge: Cambridge University Press.

Sternberg, R. (1985b). Implicit theories of intelligence, creativity, and wisdom. *Journal of Personality and Social Psychology*, 49, 607- 627.

Sternberg, R. & Caruso, D. (1985). Practical modes of knowing. In E. Eisner (Ed.), *Learning and teaching the ways of knowing.* 84th Yearbook of the National Society for the Study of Education, Part II, Chicago, IL.

Sternberg, R., Conway, B., Ketron, J. & Bernstein, M. (1981). People's conceptions of intelligence. *Journal of Personality and Social Psychology,* 41, 37-55.

Sternberg, R. & Smith, C. (1985). Social intelligence and decoding skills in nonverbal communication. *Social cognition*, 3, 168-192.

Thorndike, E. (1920). Intelligence and its uses. *Harper's Magazine,* 140, 227-235.

Thurstone, L. (1938). *Primary mental abilities.* Chicago: University of Chicago Press.

Vernon, P. (1971). *The structure of human abilities.* London: Methuen.

Wagner, R. (1987). Tacit knowledge in everyday intelligent behavior. *Journal of Personality and Social Psychology,* 52, 1236-1247.

Walker, R. & Foley, J. (1973). Social intelligence: Its history and measurement. *Psychological Reports,* 33, 839-864.

Wechsler, D. (1985). *The measurement and appraisal of adult intelligence.*

Baltimore, MD: Williams & Wilkins.

Wober, M. (1974). Towards an understanding of the Kiganda concept of intelligence. In J. Berry & P. Dasen (Eds.), *Culture and cognition: Readings in cross-cultural psychology*. London: Methuen.

Yussen, S. & Kane, P. (1985). Children's conception of intelligence. In S. Yussen (Ed.), *The growth of reflection in children*. Madison, WI: University of Wisconsin Press.

Appendix A

Social Intelligence Rating Scales

A CLOSE PERSONAL FRIEND

Think of the kind of person who would be a close personal friend to someone and rate how important each of the following characteristics is for that person to have.

Use the following rating scale: 6 = Extremely Important, 5 = Very Important, 4 = Somewhat Important, 3 = Somewhat Unimportant, 2 = Not Very Important, 1 = Not Important At All. Please circle one number only for each characteristic listed.

A CLOSE PERSONAL FRIEND . . .	Extremely Important	Very Important	Somewhat Important	Somewhat Unimportant	Not Very Important	Not Important At All
is sensitive to the feelings of others	6	5	4	3	2	1
has good communication skills	6	5	4	3	2	1
is open to new experiences	6	5	4	3	2	1
enjoys social activities and involvement	6	5	4	3	2	1
has leadership abilities	6	5	4	3	2	1
has own identity and own values	6	5	4	3	2	1
can be counted on	6	5	4	3	2	1
responds to the needs of others	6	5	4	3	2	1
is genuinely interested in others	6	5	4	3	2	1
is emotionally supportive	6	5	4	3	2	1
can handle stressful situations	6	5	4	3	2	1
is easy to be around	6	5	4	3	2	1
likes to set goals	6	5	4	3	2	1
has a good self-concept	6	5	4	3	2	1
is socially responsible	6	5	4	3	2	1
respects others and their viewpoints	6	5	4	3	2	1
opens up to people	6	5	4	3	2	1
is comfortable with a variety of people in a variety of situations	6	5	4	3	2	1
has a good outlook on life	6	5	4	3	2	1
knows how to get things done	6	5	4	3	2	1

A TEACHER

Think of the kind of person who would be a teacher to someone and rate how important each of the following characteristics is for that person to have.

Use the following rating scale: 6 = Extremely Important, 5 = Very Important, 4 = Somewhat Important, 3 = Somewhat Unimportant, 2 = Not Very Important, 1 = Not Important At All. Please circle one number only for each characteristic listed.

A TEACHER . . .	Extremely Important	Very Important	Somewhat Important	Somewhat Unimportant	Not Very Important	Not Important At All
has leadership abilities	6	5	4	3	2	1
likes to set goals	6	5	4	3	2	1
is emotionally supportive	6	5	4	3	2	1
can be counted on	6	5	4	3	2	1
has a good outlook on life	6	5	4	3	2	1
is sensitive to the feelings of others	6	5	4	3	2	1
enjoys social activities and involvement	6	5	4	3	2	1
is socially responsible	6	5	4	3	2	1
is genuinely interested in others	6	5	4	3	2	1
can handle stressful situations	6	5	4	3	2	1
responds to the needs of others	6	5	4	3	2	1
is comfortable with a variety of people in a variety of situations	6	5	4	3	2	1
respects others and their viewpoints	6	5	4	3	2	1
has a good self-concept	6	5	4	3	2	1
has good communication skills	6	5	4	3	2	1
is open to new experiences	6	5	4	3	2	1
is easy to be around	6	5	4	3	2	1
has own identity and own values	6	5	4	3	2	1
opens up to people	6	5	4	3	2	1
knows how to get things done	6	5	4	3	2	1

A PERSON IN A CONFLICT

Think of the kind of person who would be in a conflict with someone and rate how important each of the following characteristics is for that person to have.

Use the following rating scale: 6 = Extremely Important, 5 = Very Important, 4 = Somewhat Important, 3 = Somewhat Unimportant, 2 = Not Very Important, 1 = Not Important At All. Please circle one number only for each characteristic listed.

A PERSON IN A CONFLICT . . .	Extremely Important	Very Important	Somewhat Important	Somewhat Unimportant	Not Very Important	Not Important At All
has a good outlook on life	6	5	4	3	2	1
is open to new experiences	6	5	4	3	2	1
has own identity and own values	6	5	4	3	2	1
is sensitive to the feelings of others	6	5	4	3	2	1
can be counted on	6	5	4	3	2	1
is emotionally supportive	6	5	4	3	2	1
has leadership abilities	6	5	4	3	2	1
opens up to people	6	5	4	3	2	1
enjoys social activities and involvement	6	5	4	3	2	1
responds to the needs of others	6	5	4	3	2	1
likes to set goals	6	5	4	3	2	1
is genuinely interested in others	6	5	4	3	2	1
has good communication skills	6	5	4	3	2	1
is easy to be around	6	5	4	3	2	1
can handle stressful situations	6	5	4	3	2	1
is comfortable with a variety of people in a variety of situations	6	5	4	3	2	1
respects others and their viewpoints	6	5	4	3	2	1
knows how to get things done	6	5	4	3	2	1
has a good self-concept	6	5	4	3	2	1
is socially responsible	6	5	4	3	2	1

Appendix B

Explanation of Rating Scale Items

1. Is sensitive to the feelings of others (understanding and considerate)
2. Respects others and their viewpoints (open-minded)
3. Is socially responsible (willing to adapt to social rules)
4. Responds to the needs of others (helpful and supportive)
5. Is genuinely interested in others (sincerely cares about people)
6. Is emotionally supportive (warm and tender)
7. Can be counted on (trustworthy and dependable)
8. Knows how to get things done (capable and resourceful)
9. Has good communication skills (listens and expresses self well)
10. Likes to set goals (has purpose and ambition)
11. Can handle stressful situations (keeps cool and calm)
12. Has leadership abilities (can take charge of a situation)
13. Is easy to be around (pleasant and friendly)
14. Is comfortable in social situations (at ease with a variety of people)
15. Enjoys social activities (likes people and involvement with them)
16. Opens up to people (willing to share feelings)
17. Has own identity and own values (independent, thinks for self)
18. Has a good self-concept (likes and respects self)
19. Is open to new experiences (likes challenges)
20. Has a good outlook on life (positive and enthusiastic)

Appendix C

Letter to Participants

To the Participants:

I am conducting a study as part of my Master of Education program at the University of Lethbridge and *I would like your help to complete the study.* You and approximately 40 other inmates have been selected at random to participate in the study. The purpose of the study is to determine your views of other people's social characteristics in three common social situations. In order to do this, *you will be asked to complete three brief rating scales.* This task will take approximately one-half hour of your time and will take place at a time and place that is convenient to you in the next few days.

You can benefit from participating in the study by learning more about your views of other people's social characteristics in common social situations. Also, as most of you know, I am the instructor of Personal Development Programs at the Lethbridge Correctional Centre and other inmates will benefit from the study as I can use the information that I get to improve the programs that are offered here.

You will not be required to give your name and any information gathered will be handled in a confidential and professional manner. Also, the information will be reported in summary form only. Furthermore, you can withdraw from the study at any time without penalty of any kind. Please note that there are no hidden procedures in this study and it is free of any known harmful effects or risks.

I would like to thank you in advance for your willingness to participate in this study. I will return shortly with the materials for you to complete. If you have any questions about the study, you can contact me here at the Lethbridge Correctional Centre. Also, you can contact members of the Faculty of Education Human Subjects Research Committee at the University of Lethbridge for additional information. The chairperson of the committee is Dr. M. Greene.

Thank you,

Keith Mauthe
Instructor of Personal Development Programs
Lethbridge Community College