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ABSTRACT

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Developmental and Sex Differences in the Early Mentions of Kindergarten Through Twelfth Graders' Spontaneous Self-Perceptions: Implications for Educational Research and Practice

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Abstract

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Reactive scales dominate the self-concept field. Using these instruments leave two questions unanswered. First, if left to his/her own devices would the individual even think of him/herself in terms of that dimension? Second, what are the dimensions in terms of which individuals do think of themselves? With these two questions in mind 536 Kindergarten through twelfth graders were asked the single question: "Tell me about yourself?". All statements in every student's protocol were analyzed on the basis of self-concept content; self-esteem judgments; and as to whether the mentions appeared early or late in the protocol. One of the numerous findings was support for an ontogenetic shift in self-concept characterized as: "I am what I own" to "I am what I do" to "I am what I am". All the findings were discussed by indicating ways for curriculum planners to respond to the data.

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THE SELF-CONCEPT

How a person describes his or her self is revealing in several ways. What one chooses to say about self may reflect the specific concerns and/or preoccupations of the individual. One's conception of self, or self-concept, has recently become the focus of research, theory, and speculation in psychology and education. Various definitions of the self-concept have been offered, each with its own element of commonly shared meaning. For example, Yamamoto (1972) sees the self-concept as "the composite of all the descriptions, verbal, pictorial or otherwise, of me" (p. 3), while Felker (1974) describes it as "a unique set of perceptions, ideas and attitudes which an individual has about himself" (p. 2). Rosenberg (1979) conceives of the self-concept as "the totality of the individual's thoughts and feelings having reference to himself as an object" (p. 7). Finally, in an attempt to differentiate self-concept and self-esteem, Beane and Lipka (1980) have focused on the idea of one's valuative versus nonvaluative descriptions of self. Self-concept, according to them, is one's nonvaluative description of personal attributes and the roles one plays or fulfills.

Inherent in the above, as well as most other, definitions of self-concept is the idea that a process is involved. Whether it is a description, a result of perceptions or reflections, or a response to that perception or reflection, the self-concept has come to represent that which is the outcome of self and other perceptions. Rosenberg (1979) insists that it is not the "real self" but rather "the picture of the self" (p. 7). The self-concept as entity has

been picked up on both as the cause of particular behaviors and as the effect of particular experiences, for example a given classroom environment. It has in various contexts been given credit and it has been blamed. But most importantly, it has become a psychological reality and, as such, a major concern of psychologists and educators.

While the self-concept has been much investigated, seemingly little progress has been made toward answering the questions of the developmental psychologist. Wylie (1974) has criticized the textbook treatments of it on both the introductory and intermediate levels. She points out that discussions of self-concept and self-concept research have been marked by a paucity of critical evaluation and characterized by the use of broad and primarily unsupported generalizations. Research has generally focused on "reactive" self-concept (McGuire, Fujioka, and McGuire, 1979), involving the presenting of a dimension and having an individual react to it, that is, place him- or herself somewhere along that experimenter-provided dimension.

One of the safest conclusions one could make regarding the data on the development of self and questions of age is that little has as yet been answered to any degree of satisfaction (Yamamoto, 1972; McGuire, et al., 1979; Rosenberg, 1979). This area remains unexplored despite the fact that many theoretical positions have been proposed relating to self-concept development either explicitly or implicitly. It is to some of these perspectives, and towards an integration of the research that has concentrated on age differences, that we now turn.

Developmental Differences in Self-Perceptions

Central to this study is the emergence of evidence for developmental differences relating to self-perceptions. Livesley and Bromley (1973) have explored children's verbal impressions of self and others and found that as age increases the tendency is to describe self and others in terms of internal

psychological qualities.

Seven year old children described themselves primarily in terms of objective information such as possessions, physical appearance, and general information and identity. As age increased, there was an increased use of statements from categories such as general personality attributes, specific behavioral consistencies, and orientation. Data on the descriptions of others showed that the seven year olds favored external, readily observable attributes. When making trait statements they favored global, vague, and highly evaluative terms (e.g. good, bad, nice, funny). With an increase in age, the use of more abstract and conceptual terms was evidenced (e.g. shy, jealous, boastful). Livesley and Bromley found a clear shift in descriptive emphasis between the ages of seven and eight and proposed this period to be an important one.

Similar results have been noted by Montemayor and Eisen (1977) who used subjects ranging from nine to eighteen years of age. With increasing age they found that an individual's self-concept becomes more abstract. Children were apt to describe themselves in terms of physical appearance or personal possessions. Adolescents on the other hand describe themselves in terms of beliefs, motives or interpersonal characteristics.

According to Morris Rosenberg (1979), "with increasing age the child becomes less of a Skinnerian, more of a Freudian" (p. 202). This quite aptly describes the trends that have arisen out of recent work with spontaneous self-concept. Rosenberg maintains that crucial to the understanding of self-concept differences between younger and older children is the distinction between an external, overtly revealed self and an internal, covertly concealed self. He reports data from subjects aged 8-19 that shows that the eight or nine year old responds to open-ended questions about particular aspects of self in terms of social exterior- by listing those characteristics that are behavioral, observable, overt, public.

The picture painted by Rosenberg is that the younger child of eight or nine turns his or her view outward. The older child's view is turned inward towards the private and invisible. The youngest of Rosenberg's sample favored self-identifiers like physical characteristics, elements of social identity and preferences for certain objects or activities. According to his data, as the child's age increases, he or she becomes less of a demographer, less of a behaviorist, and more of a psychological clinician. While the adolescent reflects on an inner life of thought and feeling, this is apparently not the case with the preadolescent.

Recently, Lipka, Beane and Ludewig (1980) conducted a study involving 1102 kindergarten through twelfth grade students. Each was asked to "tell me about yourself", was asked whether what they mentioned was something they would like to keep or change, and then, if the mention was school-related, why they would keep or change it. Thus not only were the salient dimensions identified, but also the valuation that the child attaches to such dimensions. Lipka, et al. found that 17% of the mentions were school-related. An analysis of the qualifiers used by students on these mentions revealed that secondary students used negative qualifiers three times more often than elementary students. Such a finding, in addition to its implications for the school as an institution would appear to be in line with findings relating to an increase in reality-orientation.

Sex Differences In Self-perceptions

In examining the developmental literature we found very little reason to disagree with Rosenberg's (1979) general conclusion that sex difference research in the self-concept field is scarce and inconsistent in its findings. One of the few consistent findings is sex differences in protocol length (Livesley and Bromley, 1973; McGuire and Padawer-Singer, 1976); where females tend to generate protocols that are about fifteen to twenty percent longer than male subject

Livesley and Bromley (1973) found that females were much more likely to adopt the stance of psychological clinician. That is, the female provided descriptions that were more abstract and generalized than those of males; and, they demonstrated a propensity for referring to a greater number of personal qualities in their description. However, and certainly supportive of the view of inconsistency in the literature, McGuire and Padawer-Singer (1976) noted that females tended to mention their sex as part of their generalized self-concept while males tended to mention their sex as part of the discrete category known as physical self-concept.

Spontaneous vs Reactive Instrumentation in Self-Perception Research

No introduction to our work would be complete without an examination of the issue of spontaneous versus reactive instruments in gathering self-perception data.

Historically, the accepted instrumentation in the self-concept field is of a reactive nature (e.g. Coopersmith 1967; Fitts 1964; Piers and Harris 1964). That is, the instrument requires the individual to locate him/herself on a scale tied to a dimension which is imposed by the developer of the self-concept instrument. This technique reveals how the individual thinks about him/herself on that dimension; however, this methodology leaves two questions unanswered. First, if left to his/her own devices would the individual even think of him/herself in terms of that dimension? Second, which are the dimensions in terms of which individuals do think of themselves?

These questions were made even more cogent in a study conducted by Lipka and Beane (1978). One hundrend fifth and seventh graders were given a modification of Coopersmith's Self Esteem Inventory. The modification consisted of the addition of three columns labeled "keep", "change" and "don't care". After responding to Coopersmith's scale of "like me" and "unlike me", the students were instructed to place a check mark in one of the three columns that most

accurately reflected their feelings about the dimension under consideration. In the original instrument Coopersmith indicated that responding "like me" to the statment, "I would rather play with children younger than me" was indicative of negative self-esteem. However, within the study almost equal numbers of students responded "keep" and "change" which led to the hypothesis that "I would rather play with children younger than me" could reflect a close knit family or an accurate perception of sibling responsibility just as easily as negative self-esteem.

Gordon (1968) and McGuire et al. (1976, 1979) have also argued at length for the position that a comprehensive view of self-conception requires a spontaneous response technique. Their arguments are so convincing and elegant that the questions for this study are a direct extension of McGuire's work; while the protocol coding has utilized Gordon's categories.

Early versus Later Mentions

In our growing examination of the spontaneous response technique literature, we have become intrigued by the person-perception researchers' use of a tact similar to the stack-depth and category labels employed in verbal memory research. That is, when a person is asked to make a description of a near or distant other, the early part of the response reflects what is most accessible or most readily available to the person. However, is what is most available central to an understanding of the perception? Fiske and Cox (1979) found that when subjects were asked to write a description of another person, appearance statements dominated the early writing while personality descriptions and relationship terms characterized the later writing. Is it possible that this same temporal effect can be found in the self-concept content of an individual?

In summary then, our understanding of the literature and numerous discussions have placed us in a position to ponder the following questions:

1. What are the developmental trends in self-perception? Is there a movement away from demographic variables and towards psychological constructs? Do we find the ontogenetic shift that the second author calls: "I am what I own" to "I am what I do" to "I am what I am"?
2. What are the sex differences in self-perception? Are females more likely to adopt a psychological clinician stance, and/or do they adopt this perceptive at an earlier age?
3. Is the early portion of a protocol more fruitful for ascertaining particular developmental and sex differences?

Method

Subjects The Ss for this investigation were kindergarten through twelfth graders attending two central school systems in the southwestern portion of New York State. It was the intention to interview 50 students randomly selected from each grade level for a total of 650 students per school system. Problems of time, schedule constraints, interviewer absenteeism, and subject refusal reduced the sample to a range of 30 to 50 students per grade level. However, at no time was randomness sacrificed during the sampling procedure. Additionally, training of the raters for this study involved the utilization of 75 protocols, leaving a yield of 536 subjects for the purposes of this study.

Materials and Procedures Twelve adults trained in the interview format arrived at the participating schools, unannounced from a student perspective, to conduct the data collection. Each student selected for the study was interviewed ouside his/her regular classroom (e.g. cafeteria, library, nurses office, auditorium) by the "visitor" to the school. The format of the interview consisted of a simple introduction by first names and a brief statement

to the effect that the interviewers were out asking "young people like you to tell us about themselves". The interviewer indicated that he/she would be writing down what was said, but assured each student that nothing that was said would be told to teachers, principals or parents; in other words what they said was between them and the interviewer. Further, each student was told that the interviewer could not answer any questions until the completion of this interview. With that the interviewer asked the student if he/she was ready to begin. If yes, the student was asked to "tell me about yourself". If the student responded "no" the interviewer asked if he/she would prefer to talk to one of the other interviewers. If the response was still "no" the interview was terminated by stating "well, perhaps some other time. I'll walk back to your classroom with you". If silence was the initial response to the question "tell me about yourself", the interviewer had three temporally related utterances. At the 5 second mark the interviewer stated "you can start anytime"; at 30 seconds "anytime you want to start, tell me about yourself"; at 3 minutes the interview was terminated with the statement "well, perhaps some other time".

For the students who responded "yes" the interviewer recorded as accurately as possible all phrases and statements made by the students to the questions "tell me about yourself". When the students appeared finished and after at least 5 seconds had elapsed after the last response the interviewer said "now I would like to ask you some questions about the things you told me". For each item on the list the student was asked if that was something he/she would like to change or keep the same. At the end of this procedure the interviewer asked the student his/her age and grade level, thanked the student and walked him/her back to class. If at this point the student had any questions, the directions were repeated. That is "well, as I said we are asking young people your age to tell us about themselves. We are just

interested in finding out what they say".

All mentions were analyzed on the basis of self-concept content (the description of self); self-esteem judgments (whether or not the student wanted to change or keep the self-concept content), and as to whether the mentions appeared early or late in the protocol; specifically, the self-concept content was coded using Gordon's (1968) system for the analysis of free response self-representations. Two graduate students were prepared to use the system by a multiple-step training procedure. The students were given one random sample for coding with an ensuing discussion of the system. This entire procedure was completed a second time. A third random sample was then used to generate an inter-coder agreement of 78 percent.

Secondly, the coders were asked to employ the plus-minus system utilized by Lipka, Beane and Ludewig (1980) for coding self-esteem (key-change) statements, with pluses denoting "keep" and minuses denoting "change" statements.

Finally, at the suggestion of the work of Fiske and Cox (1979), early (first-third) mentions were coded to denote the relative position within the total protocol.

In summary then, each statement in a protocol yielded a three part coded response - self-concept content, self-esteem, and its relative position in the protocol.

Results

For purposes of analysis, the responses of the students were organized according to the percentage of those (in a given age group) who used a particular category at least once.

Overall differences

Analysis of the entire protocols of all students showed significant age changes in the usage of seven of the 30 categories (see Table 1). Significant increases with age were observed for the following categories: age, $X^2(6)=23.32$ ($p < .001$);

occupational role, $X^2(6)=59.86$ ($p < .001$); student role, $X^2(6)=32.63$ ($p < .001$); sense of self-determination, $X^2(6)=45.05$ ($p < .001$), and sense of unity, $X^2(6)=13.32$ ($p < .05$). Significant decreases with age were observed for two categories; name, $X^2(6)=20.27$ ($p < .01$), and possessions, resources, ($X^2(6)=26.88$ ($p < .001$). Older students described themselves more often in terms of age and roles and demonstrated a greater interest in personal goal-attainment and integration at the person level. On the other hand, younger students tended to be more concrete and objective, by mentioning name and material objects as elements of identification.

An analysis of the mean number of categories used at least once for each age group failed to reach significance. The mean number of categories used by each age were: 3.65, 4.09, 4.51, 4.16, 4.51, 4.14, and 5.04; $F(6,529)=2.05$, ns. While a trend toward greater category usage with age was evident the overall increase with age was not systematic.

First-third Differences

In addition to the above analysis of the entire protocols of the students, the early (or first one-third) of the protocols were examined for developmental trends. Significant age changes were observed in the usage of nine of the 30 categories (See Table 2). Those categories increasing use with age included: age, $X^2(6)=19.33$ ($p < .01$); occupational role, $X^2(6)=26.79$ ($p < .001$); and student role, $X^2(6)=20.36$ ($p < .01$); significant decreases with age were observed in the following categories: name, $X^2(6)=15.82$ ($p < .05$); kinship role, $X^2(6)=17.31$ ($p < .05$); and other activities, $X^2(6)=13.41$ ($p < .05$). Finally, significant curvilinear changes with age were found in the following categories: territoriality, citizenship, $X^2(6)=18.31$ ($p < .01$); judgments, tastes, likes, $X^2(6)=16.02$ ($p < .05$); and interpersonal style, $X^2(6)=15.38$ ($p < .05$). These results only partially replicate the overall trends noted above. Clearly qualitatively different trends exist in the early part of the students' protocols.

Among the early protocol findings paralleling the overall protocol

analysis was that the age, occupational role and student role categories showed increases with age. Similarly, a decrease with age in the frequency of name mentions was observed in the early part of the protocol. However, the significant overall trends of possessions/resources, sense of self-determination, and sense of unity failed to reach significance in the first-third analysis. That is, while these categories gave rise to age differences when the entire protocol was considered, a consideration of only the early part of th protocol erased these differences.

Sex differences

To assess differential usage of categories according to sex, the age factor was collapsed. Analysis of the proportion of males and females who used each category revealed two categories mentioned more by females: student role, $X^2(1)=3.88$ ($p < .05$), and membership in actual interacting group, $X^2(1)=10.54$ ($p < .01$); and three categories more often mentioned by males: judgments, tastes, likes, $X^2(1)=4.426$ ($p < .05$), other activities, $X^2(1)=4.21$ ($p < .05$), and sense of moral worth, $X^2(1)=5.82$ ($p < .02$)

These findings supported a more thorough check of sex differences by age group. Chi-square tests of independence were performed on all categories on both the entire protocols and the early portions of them. The analysis of the entire protocols revealed only one significant finding. Of those mentioning occupational role, males between the ages of 7-12 and females between the ages of 13-16 did so more often; $X^2(6)=13.36$ ($p < .05$). The analysis of the first-third of the protocols also yielded only one significant difference. Females in the 4-6 and 11-14 year age groups tended to mention kinship role more often than did males; $X^2(6)=17.15$ ($p < .01$).

A final sex difference analysis compared mean protocol length for males and females, with the age factor collapsed. No difference between the length of protocols supplied by males and females was observed; t $(534)=.22$ ($p > .05$).

Keeps and Changes

While the predominant self-esteem judgment was a "keep" (87%), analysis of those mentions which a student wished to "change" (13% of all mentions) revealed an early protocol effect. Significantly more "change" judgments than expected by chance were given in the first-third of the protocols; $X^2(1)=9.83$ ($p < .01$). Nearly 40% of all "change" judgments were given in the early portion of the protocol. One possible contributor to such a trend might be that older students are more critical of certain aspects of self. This was not the case, however, as it was found that the tendency to give "change" judgments in the early protocol did not depend on age level, $X^2(6)=8.89$ ($p > .05$).

Discussion

The methodology of the present research differs from previous studies on the developmental and sex differences in self-concept in a few important ways. One difference is that the present data was collected by an interviewer. Individual students told another person about themselves. It is not surprising that certain categories previously found to differ in usage across age groups failed to differ, given this methodology. For example, Montemayor and Eisen (1977), in a study in which students wrote down their responses in class group testing sessions, found significant differences in the physical self, body image and the sex categories. No such differences were found in the present study. A second methodological variation was that students were not required to supply a set amount of self-description. Thus, while Montemayor and Eisen (1977) required students to give 20 different answers to the question "Who am I?", no such structure was imposed on the present students. The overall mean protocol length (8.73 mentions per student) reflected this.

Overall Differences

When the entire protocol was considered trends emerged which are consistent

with previous research on self-concept development (e.g. Livesley and Bromley, 1973; Montemayor and Eisen, 1977). Of those ascribed characteristics which Gordon (1968) calls "structural locators" (categories 1-5), age and name showed significant developmental trends. While name mentions decreased, age mentions increased. Given that age is one of this society's primary means of differentiation, the growing importance of age to oneself is understandable.

Among the "roles and memberships" categories of Gordon (categories 6-12) increases with age in occupational role and student role mentions stood out. It is not surprising that when the adolescent tells us about him or herself, a greater concern with occupation emerges. Undoubtedly this student is beginning to feel the pressures of the "real world." That one's role as an interacting student increases in importance suggests that the school setting is a key contributor to one's identity. Interestingly, student role is mentioned more often by the 11-12 year old group (36%) than any other except the 17-19 year old group (62.5%). It is these two periods as a student, where major transitions as student are occurring (i.e. from elementary to junior high school and from high school to college or no school). It should be noted that two categories that likely tie in with the student role category, intellectual concerns and artistic activities, were most often mentioned by the 11-12 year old group (see Table 1).

The one "material references" category expected to show a decrease with age, did so. The frequency of possessions, resources, suggesting the importance of other material objects as elements of identification, was highest in the younger children. Finally, two of the four "systemic senses of self" of Gordon (1968), sense of self-determination and sense of unity, showed increased frequency of usage with age. These categories are concerned with the more subjective sense of self, pertaining to goal attainment and personal integration (Gordon, 1968).

Taken together with the possessions category trend, we have moderate support for the development of the self-concept as proceeding from more objective to more abstract, internal psychological qualities (Livesley and Bromley, 1973).

First-third Differences

It appears that the question of whether or not a consideration of the early portion of a student's protocol is fruitful, can be answered in the affirmative. The overall trends of the age, name, occupational role and student role categories were replicated in the first-third analysis. Also, an overall trend that failed to reach significance, judgments, tastes, likes, was significant when only the first-third of the protocol was considered. Apparently, references to judgments of quality peak for the 13-14 year old. The first-third analysis also showed that the final of the "role" categories, kinship role, decreased in frequency with age. The suggestion here is that one's role identification switches from family concerns to school and career concerns. Interestingly, the interpersonal style category reached its low point in usage for the 11-12 year olds. While no differences existed when the entire protocol was considered, a U-shaped function emerged in the first-third analysis. We take this as further support for the role identification argument. Apparently at this age concern about friends and one's interpersonal interactions takes a back seat to other concerns, at least when it comes to self-identification.

Yet another illustration that there is important information to be drawn out of the early mentions of students lies in the observed decrease with age in using the other activities category. This was found to be true only in the first-third analysis. It is this first third finding that supports our notion of the younger child as conceiving of self in terms or what he or she does. While all students mentioned activities, the younger students mentioned

their activities more often in the early stages of their self-descriptions.

In summarizing the developmental differences we have identified, two important points can be made. First, we believe that, given the present findings and previous research, there is support for an ontogenetic shift in self-concept characterized as: "I am what I own" to "I am what I do" to "I am what I am." Second, we believe that a solid case has been made regarding consideration of what is said by a student in the early part of a spontaneous self-description. Clearly, an examination of the first-third of the protocols has supplied additional and important information about developmental differences.

Sex Differences

Two types of findings emerged from our analysis of male versus female response patterns. What stands out about the sex by age group analysis is the absence of any differences in all but two of the categories. Clearly, there is little evidence for sex differences which depend on the age group under consideration. Interpreting differences in the occupational role and kinship role categories is difficult.

The second type of finding in the male-female analysis is that there is a differential usage of certain categories by sex which transcend age boundaries. The greater tendency on the part of females to include aspects of their student role and membership in actual interacting groups is intriguing. Apparently, females identify more strongly with groups and, perhaps, with the institution than do males. On the other hand, males seem more attuned to interests and activities, and show a greater interest in codes of moral standards or pattern maintenance at the person level (Gordon, 1968). It may be that males, overall, are more "doing" oriented.

Keeps and Changes

Analysis of self-esteem judgments provides additional evidence that time

effects in students' spontaneous self-perceptions are worthy of investigation. As noted above, significantly more "change" judgments appeared in the early part of the protocol. We believe that this supports the argument that one is more aware of those aspects of self with which he or she is dissatisfied. The fact that those things which a student would like to change about self are mentioned early in the protocol suggests that these are more readily available or accessible to the student.

Educational Implications

In the broadest sense, the evidence for developmental and sex differences in self suggests schooling that is dynamic and developmental in nature. Not in a quantitative sense of "with age comes more reading, more math;" rather in a qualitative sense of different organizational patterns, different experiences, and different modes of expression. The movement from "What I own" to "What I do" to "What I am" provides support for a curricular/institutional pattern known as the self-enhancing school (Beane and Lipka, in press). That is, school is a dynamic, evolving institution moving from a custodial to a humanistic orientation, from external control of students to self-direction in schools, from teacher exclusive planning to student and teacher planning, from expecting failure to ensuring success, and from subject-centeredness to life-centeredness.

Further, the findings provide additional support for the view that transescence (10-14 years of age) is an age group of acute vulnerability. That educators working with this age group need curricular goals emphasizing personal commitment, purpose, and the processes of evaluating and valuing. And, that these goals should be undertaken in an environment that includes cooperative learning and other constructive peer interaction techniques.

Finally, the educational community must recognize that it has a responsibility for assisting young people in the examination and evaluation of, as

well as possible changes in their self-perceptions. For the results suggest that those things which a student would like to change about self are mentioned early in the protocol and thus may be more readily available or accessible to the individual. An individual for whom the role functions related to schooling are becoming more central to his/her self-view.

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TABLE 1: PERCENTAGE OF STUDENTS USING CATEGORY AT LEAST ONCE: ENTIRE PROTOCOL

	CATEGORY	AGE 4-6	7-8	9-10	11-12	13-14	15-16	17-19	
1.	SEX	0	1	1	0	2	1	0	
2.	AGE	19	12	31	31	40	46	27	***
3.	NAME	2	19	7	9	6	3	6	**
4.	RACIAL OR NATIONAL HERITAGE	0	0	0	0	0	0	0	
5.	RELIGION	0	0	0	0	0	0	0	
6.	KINSHIP ROLE	60	52	41	33	39	33	33	
7.	OCCUPATIONAL ROLE	2	6	9	7	15	31	48	***
8.	STUDENT ROLE	25	20	18	36	18	33	62	***
9.	POLITICAL AFFILIATION	0	0	1	0	0	1	0	
10.	SOCIAL STATUS	0	0	0	0	0	0	2	
11.	TERRITORIALITY, CITIZENSHIP	8	27	22	18	24	15	15	
12.	MEMBERSHIP IN ACTUAL INTERACTING GROUP	4	4	4	4	6	12	12	
13.	EXISTENTIAL, INDIVIDUATING	0	1	2	0	0	1	0	
14.	MEMBERSHIP IN AN ABSTRACT CATEGORY	0	0	1	0	1	1	2	
15.	IDEOLOGICAL AND BELIEF REFERENCES	0	1	0	2	1	4	2	
16.	JUDGMENTS, TASTES, LIKES	35	45	61	69	79	69	44	
17.	INTELLECTUAL CONCERNS	19	18	27	29	20	13	8	
18.	ARTISITIC ACTIVITIES	15	17	27	29	16	19	23	
19.	OTHER ACTIVITIES	58	71	63	56	69	64	65	
20.	POSSESSIONS, RESOURCES	35	29	29	13	15	4	19	***
21.	PHYSICAL SELF, BODY IMAGE	15	13	16	13	10	4	21	
22.	SENSE OF MORAL WORTH	8	2	3	4	5	1	2	
23.	SENSE OF SELF-DETERMINATION	0	0	5	2	6	10	27	***
24.	SENSE OF UNITY	0	1	1	0	1	0	6	*
25.	SENSE OF COMPETENCE	8	9	12	9	15	12	10	
26.	INTERPERSONAL STYLE	27	27	34	29	29	16	46	
27.	PSYCHIC STYLE	4	1	2	2	6	5	10	
28.	JUDGMENTS IMPUTED TO OTHERS	0	2	0	2	1	0	0	
29.	SITUATIONAL REFERENCES	0	2	0	0	1	0	0	
30.	UNCODABLE RESPONSES	21	27	27	22	26	18	23	
	N	48	93	103	45	108	91	48	

* Chi-square significant at .05 level
** Chi-square significant at .01 level
*** Chi-square significant at .001 level

TABLE 2: PERCENTAGE OF STUDENTS USING CATEGORY AT LEAST ONCE: FIRST ONE-THIRD OF PROTOCOL

	CATEGORY	AGE 4-6	7-8	9-10	11-12	13-14	15-16	17-19	
1.	SEX	0	0	0	0	1	1	0	
2.	AGE	17	10	19	27	34	35	25	**
3.	NAME	2	17	7	9	6	3	6	**
4.	RACIAL OR NATIONAL HERITAGE	0	0	0	0	0	0	0	
5.	RELIGION	0	0	0	0	0	0	0	
6.	KINSHIP ROLE	35	18	16	18	20	6	18	**
7.	OCCUPATIONAL ROLE	0	3	4	2	5	6	21	***
8.	STUDENT ROLE	8	9	10	13	9	13	33	**
9.	POLITICAL AFFILIATION	0	0	0	0	0	1	0	
10.	SOCIAL STATUS	0	0	0	0	0	0	0	
11.	TERRITORIALITY, CITIZENSHIP	4	12	17	7	12	6	0	**
12.	MEMBERSHIP IN ACTUAL INTERACTING GROUP	2	2	2	0	5	6	8	
13.	EXISTENTIAL, INDIVIDUATING	0	1	2	0	0	1	0	
14.	MEMBERSHIP IN AN ABSTRACT CATEGORY	0	0	0	0	1	1	0	
15.	IDEOLOGICAL AND BELIEF REFERENCES	0	0	0	0	2	1	0	
16.	JUDGMENTS, TASTES, LIKES	15	24	32	42	46	41	27	*
17.	INTELLECTUAL CONCERNS	2	6	11	7	6	2	0	
18.	ARTISTIC ACTIVITIES	4	5	10	16	4	9	10	
19.	OTHER ACTIVITIES	42	45	42	27	27	26	19	*
20.	POSSESSIONS, RESOURCES	12	15	12	4	9	2	4	
21.	PHYSICAL SELF, BODY IMAGE	6	4	6	7	6	3	0	
22.	SENSE OF MORAL WORTH	6	1	1	4	2	0	0	
23.	SENSE OF SELF-DETERMINATION	0	0	3	0	3	1	0	
24.	SENSE OF UNITY	0	1	1	0	1	0	2	
25.	SENSE OF COMPETENCE	4	6	7	4	8	3	4	
26.	INTERPERSONAL STYLE	19	8	6	4	6	5	19	*
27.	PSYCHIC STYLE	4	1	0	2	1	1	4	
28.	JUDGMENTS IMPUTED TO OTHERS	0	1	0	0	1	0	0	
29.	SITUATIONAL REFERENCES	0	0	0	0	0	0	0	
30.	UNCODABLE RESPONSES	6	13	9	7	9	5	10	
	N	48	93	103	45	108	91	48	

* Chi-square significant at .05 level
** Chi-square significant at .01 level
*** Chi-square significant at .001 level