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ABSTRACT

A study examined the effects of educational interventions of conflict resolution and cooperative learning on adolescent vocational readiness at three inner-city alternative public high schools in New York City. The study used a combination of correlation design and pre-post design. Associations among study variables were explored using pretest data, and effects of training were estimated using a pre-post design and multiple regression analysis. There were 558 pretest participants, although only 85 of those students were posttested due to high turnover and absenteeism. Of those completing the pretest, 90 percent were either Hispanic American or Afro-American. The results of the study provide general support to the hypotheses that cooperative learning and conflict resolution would positively affect vocational readiness. Among the specific findings are the following: (1) pretest results demonstrated a sparse knowledge of the world of work; (2) males reported greater work-related information than did females; (3) posttest results indicate an increase in the amount of work-related information, an increase in work-related knowledge, and a decrease in scores pertaining to work values. Included are three appendixes containing descriptions of student vocational experience, instrumentation information, and other study results. Included are 63 tables, 1 graph, and 40 references. (JB)

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THE EFFECTS OF CONFLICT RESOLUTION AND COOPERATIVE LEARNING INTERVENTIONS UPON ADOLESCENT VOCATIONAL READINESS

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Abstract

This report will examine the effects of educational interventions of conflict resolution and cooperative learning upon adolescent vocational readiness. Previous research pertaining to adolescent vocational adjustment is briefly reviewed. The role of conflict resolution and cooperative learning training regarding adolescent work readiness is explained. Several hypotheses are proposed and tested using data collected in three inner-city alternative high schools in New York City. It was proposed that due to the exposure to training students will demonstrate an increased amount of work-related information obtained from different resources; more positive work values; and increased work-related knowledge. Greater vocational readiness was expected to be associated with higher self-esteem, more internal locus of control and favorable general well-being. It was also hypothesized that employers will rate positively students who demonstrate greater work readiness. The results provide general support for the proposed hypotheses. Based on the obtained results, the potential interventions for secondary educators regarding adolescent work readiness are suggested. Future research activities are outlined.

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THE EFFECTS OF CONFLICT RESOLUTION AND COOPERATIVE LEARNING INTERVENTIONS UPON ADOLESCENT VOCATIONAL READINESS

INTRODUCTION

The purpose of this study is to determine the effects of the educational interventions of cooperative learning and conflict resolution upon adolescent vocational readiness. This study addresses an important question of how youngsters can be better prepared to resolve conflicts constructively and interact cooperatively in the workplace.

Finding work and becoming economically independent is one of the most important events during the transition from adolescence to adulthood (Dayton, 1981). A large number of youth are failing to achieve such transitions successfully. Desire for a meaningful job may be unfulfilled because there is no such job, or because young people are lacking the skills of job seeking and on-the-job behavior, not because they lack the technical skills to do the job (e.g., Eggemen, Campbell, & Garbin 1969). For example, it has been demonstrated that the information concerning how the potential worker gets along with other people is of greater importance during the job interview than information concerning employable skills and work experience (Hollandsworth, et al., 1979). Also, one of the most frequent reasons for firing workers is that they lack the

skills necessary for working well with others (Schuh, 1973; Urlich & Trumbo, 1965).

Since most work implies frequent interaction among workers, it is common for conflicts and interpersonal frictions of various sorts to occur during the course of work. Conflict may arise between two or more parties when self-interests clash or the actions of individuals adversely affect productivity and/or working relationships (Chasnof & Muniz, 1985). Conflict may in addition occur because of the many organizational problems and ambiguities, as well as the rapid pace of change in contemporary organizations.

Transition in organizational size and complexity coupled with technological advances inevitably change work relations. The altered nature and structure of work require enhanced collaborative and conflict resolution skills for dealing with these changes. In addition, increasingly common the multicultural composition of organizations demands effective skills to cope with the occurring frictions (Tjsovold & Johnson, 1983; Kohn, 1986). One of the reasons conflict may take a destructive course is due to the lack of skills needed for constructive conflict resolution (Deutsch, 1973). Research has shown that understanding, confronting and resolving conflicts constructively enhances organizational productivity and interpersonal relationships. Teaching cooperative learning has proven to encourage mutual helping, peer support and greater acceptance of others from different cultures and

backgrounds, higher self-esteem, and greater ability to take the cognitive and affective perspective of others.

Adolescents, as members of the future work force need to be equipped with vocational skills that would help them build more healthful and productive organizations. It is thus not surprising that educational and social institutions are often charged with imbuing young people with work attitudes, knowledge and skills that are judged to bolster their work readiness and thus increase their attractiveness to potential employers (Steinberg, 1982).

Adolescent work readiness pertains to competencies such as work attitudes, values, and a variety of skills that are associated with the individual's work performance (Herr, 1984). In addition to the possession of commonly recognized work habits such as punctuality or regularity, the image of the "ideal worker" is changing to include emphasis on such skills as problem-solving, cooperativeness, and constructive conflict management (Miller, 1984).

One way of providing youth with opportunities for acquiring vocational readiness prior to the termination of their education is to encourage a movement between school and workplace through various forms of career education and work experience (Coleman et al., 1972). An integration of young people into workplace has both social and economic determinants (Steinberg, 1982). Work situation may involve interdependent and collective tasks, experience of having others dependent on one's actions, and experience with

others differing in background and in age. Adults in the work settings may become enough involved with young persons and therefore constitute a potential resource of support. Work involvement may enhance adolescent academic skills by making the classroom context appear more relevant (Coleman et al., 1972). Youngsters may in addition gain a clearer insight into the careers and occupations and develop some important work habits such as punctuality and responsibility (Gaff, 1973). All these potential benefits of adolescent work experience are expected to prepare young people better for their future roles as full-time adult workers. Work experience is in addition portrayed as potentially enhancing future employability.

Despite the extensive favorable assertions concerning the value of work experience, its benefits are not as yet empirically well established (Watts, 1980). Although there is some evidence that career education and work experience may facilitate the acquisition of work-related attitudes, skills and knowledge (e.g., Tesolowsky & Halpin, 1978; Yen & Healey, 1977), these effects appear to be short-lived and vanish soon after program termination (see Owens et al., 1979). Little or no impact has been found with respect to school retention (e.g., Bhaerman, 1977). The scant research regarding the proposition that career education and work involvement positively impact adolescent future employability is not favorable.

Demands of the workplace are different from those of the other settings in which adolescents typically spend time (Steinberg et al., 1981). First, the workplace requires young person to shift back and forth between different roles rapidly and frequently. The adolescent worker must behave authoritatively at times (e.g., toward customers or junior co-workers), deferentially at times (e.g., toward supervisors), and coequally at times (e.g., toward co-workers). In contrast, the adolescent position in the family, in the school, or with friends is not likely to shift so much in short periods.

Work in addition provides greater opportunity for contact with strangers and persons of different ages and backgrounds (Steinberg et al., 1981). Interactions with family members, friends, and teachers are grounded in previous interactions, and can often be negotiated successfully by long-used response patterns. With strangers, however, the adolescent must rely on more general appreciation of norms of social behavior, and on his or her skills in social inference and social communication. Successful role adjustment and interaction with strangers necessitate a level of social understanding that is more sophisticated and more developmentally advanced than that which is minimally sufficient for functioning in nonwork settings. For example, adolescents' success in retail or service positions, which require interpersonal accommodation, compromise, and persuasiveness depends

largely on their ability to understand the perspective of the customer, interpret subtle social cues, and adjust his or her behavior in order to complete a sale or earn the customer's satisfaction (Steinberg et al., 1981).

Adolescent actual work involvement is predominantly part-time and short-term, concentrated mostly in low-level, noncareer jobs (Hamilton & Crouter, 1980). It has many forms. Some youngsters work for remuneration, others do not. Some receive academic credit for their work. Work may be monitored by the school or government agencies. Some work is not monitored by anyone in an official capacity. Adolescents may work in jobs created specifically for them or in naturally occurring jobs.

Research evidence suggests that the quality of work experience for adolescents is generally limited by the lack of interesting jobs and jobs that provide learning opportunities (Greenberger, Steinberg, & Ruggiero, 1982). Existing jobs rarely supply adolescents with opportunities to exercise basic school-taught skills (Steinberg, 1982). In addition, little formal instruction is provided. Most adolescents' time on the job is spent in repetitive, low level, menial tasks which require little exercise of cognitive competencies or personal initiative (Greenberger, Steinberg, & Ruggiero, 1982).

Researchers and policy makers have often treated adolescent work involvement as a unidimensional phenomenon, even though various work settings may expose adolescent

workers to substantially different experiences (Greenberger, Steinberg, & Ruggiero, 1982). For example, adolescents' jobs may vary regarding opportunities for learning (formal and informal contact with supervisors, time spent receiving formal instruction or training, and the degree to which school-taught skills are called for on the job); opportunities for exercising initiative or autonomy (extent of worker initiated attempt to influence or advise others, the degree to which workers' tasks vary during his time on the job, and the extent to which the pace of the work environment is slow enough to permit genuine decision making); and opportunities for social interaction (contact with others, especially adults and peers, time spent in non-task related social interaction, and frequency of cooperation on the job).

Work readiness programs that involve collegial relation with coworkers were shown to have the strongest impact on adolescents' social, psychological and intellectual development (Hamilton, Basseches & Richards, 1985). Work settings which demand social interaction were shown to contribute to the development of sophisticated social-cognitive abilities such as accurate perspective-taking, social inference and attribution, and empathy (Greenberger, Steinberg, & Ruggiero, 1982).

Adolescents develop aspirations about the types of jobs they would like to hold in the future. These aspirations may affect their prospective job satisfaction and personal

adjustment (Furnham, 1985). It has been shown that lowered job expectations affect job-search strategies which in turn lower the probability of getting a job (Miller & McDougle, 1986).

Realistic and accurate articulation of career values is necessary for good career decisions. Previous attempts to measure students' articulation accuracy suggested a notable lack of this ability (Cochran, 1983a, 1983b). Persons who are unable to explicitly articulate the values they use in expressing vocational preferences are less effective in making decisions around these preferences (Katz, Norris, & Pears, 1978). Previous work experience and one's family were shown to be the most helpful in providing knowledge relevant to future career plans.

In order to better prepare young people for their future work roles, educational institutions implement a variety of programs. In addition to career education and work internships that are common to many schools, there is an increased recognition of a need for designing additional training programs aimed at enhancing adolescent work readiness. Given the importance of interpersonal skills in a complex and fast changing modern workplace, training students in collaborative skills and constructive conflict resolution seem to be a task of utmost importance.

To be "work ready", adolescents must evidence both general and specific employability (Vandergoot, 1982). General employability pertains to generic competencies such

as job search, work attitudes and values, interpersonal relations and communications with coworkers, decision making and planning, punctuality and proper appearance. The attitudes, knowledge, and skills that make up general employability are likely to be durable, resistant to obsolescence, and generalizable. Specific training, on the other hand, is relevant to only a limited number of jobs, and it deals with skills required in the performance of specific tasks.

Since specific skills are frequently learned at the actual worksite, it is crucial to equip young people with general employability skills before they enter the work arena. Enhanced general skills would facilitate acquisition of job specific tasks since most work situations involve interaction with others. Training in conflict resolution and collaborative skills is expected to advance general work competencies and thus enhance adolescent future employability.

Three important questions may be asked about the psychosocial outcomes of such training: 1. What effects does training have on adolescent work readiness (acquisition of work-related information from various resources; work values; and work-related knowledge)? 2. Which kinds of psychosocial development relevant to the work environment are promoted by the training (e.g., problem-solving, self-esteem, locus of control, general well-being)? 3. What

effects does training have on the perceptions of adolescents by their employers?

Most research conducted on the effects of cooperative learning and conflict resolution training has been confined to school environment and rarely extended beyond the immediate classroom. This study, in addition to the educational implications, is expected to have implications for vocational policy and practice. The research has been conducted in the inner-city alternative high schools. Students in this school are required to undertake work internship. They were also exposed to the conflict resolution and/or cooperative learning training[1]. Positive effects of training upon adolescent work readiness would provide vocational educators with new methods of training that could enable students to become more effective workers. More detailed description of students' vocational experience in this inner-city high school is presented in Appendix A.

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1 In addition to the required classes and work internship, adolescents were exposed to conflict resolution and/or cooperative learning training. Campus A received conflict resolution training, Campus B received both interventions, and Campus C was exposed to cooperative learning. These interventions were aimed at advancing student collaborative skills and conflict resolution skills that are relevant in their work environment. Some training sessions concerned actual problems students encountered at work. Role playing and brainstorming the possible solutions were often used to help students to deal constructively with arising work problems. Some typical problems stressed during training sessions were: relationship with supervisor, having more say in the workplace, lack of respect, boring and dull work, sexual harassment, discrepancy between hours worked and pay, etc.

Hypotheses:

1. The cooperative learning and the conflict resolution interventions will have positive effects on student vocational readiness.

   1.1. Students will demonstrate an increased amount of work-related information from different resources.

   1.2. Students will demonstrate more positive work values.

   1.3. Students will demonstrate an increase in work-related knowledge.

2. Adolescents with higher self-esteem, internal locus of control and with more favorable general well-being will demonstrate higher vocational readiness.

3. Employers will rate more positively students who demonstrate higher work readiness.

METHODS

This section provides a description of the methods used to test the study hypotheses. It includes information about research design, sample characteristics, operationalization of constructs, instrumentation, and a brief review of data analysis strategies.

Research Design

This study used a combination of correlation design and pre-post design. Associations among study variables were explored using pretest data. Effects of training were estimated using a pre-post design and Multiple Regression analysis.

Subjects

The participants in this study were students from three inner-city alternative high schools. 558 subjects were pretested. Only 85 of those students were posttested due to high turnover and absenteeism. Male adolescents comprised 46% of the sample, while females comprised 54%. Of 558 students that completed the pretest, 90% (501) were either of Hispanic or Afro-American decent (represented about equally). The rest of the student population were ethnically diverse (e.g., Asian, White, Hispanic-Black, etc.). Subjects ranged in age from 16 to 25 years with an average age of 18.7. They were of similar socioeconomic status.

Procedure

The respondents participated in this study voluntarily. They signed a consent form personally since most of them were over the age of eighteen. The consent form is shown in Appendix A. Subjects were given a respondent identification number to preserve confidentiality. The self-report questionnaire was approved by the New York City Board of Education and distributed during school time. A standardized instructional set was recited, at which time the anonymous nature of the questionnaire was repeatedly stressed. The questionnaire was completed within one class period. The items used to measure study constructs can be found in Appendix B.

Measurement Instruments

1. Vocational/Work Readiness questionnaire (adapted from Kuder, 1966; and Super, 1970). Subjects were asked to respond to items concerning their future employment. Specific questions measured the amount of work-related information students obtained from different resources (e.g., school, family); work values (e.g., job autonomy, job security, work success); and the knowledge relevant for obtaining employment. In addition to the subjective assessment of adolescent vocational readiness, their work-related knowledge was objectively assessed. This measure is shown in Appendix B.

2. Student Questionnaires contained subject variables (self-esteem, locus of control, problem-solving, general well-

being), demographic variables (age, gender, ethnicity, socio-economic background), and school variables (victimization, violence and drug use, school climate, class organization, disciplinary problems, etc). The posttest version of this instrument in addition contained student assessment of their own experience with the training, their attitudes regarding conflict and working cooperatively within groups, the generalizability of learned skills beyond the classroom, and perceived improvement in the areas of cooperation and conflict resolution. All variables relevant for assessing student vocational readiness were extracted from this instrument and used for purposes of the present study.

3. Employer Rating Scale (ERS). Supervisors at the work sites were asked to rate student work performance at the end of the internship. The interns were rated regarding their responsibility, effectiveness on the job, dress, enthusiasm, timeliness, initiative, persistence at difficult tasks, response to instructions and criticism, cooperation with others, and leadership potential. The ERS was mailed to the employers. During the course of the study, ratings for a total of 86 students were obtained. This measure is shown in Appendix B.

4. Behavior Rating Scale (BRS) was administered to teachers. They were asked to rate various behaviors of a random sample of students such as effectiveness, hardiness, planfulness,

social withdrawal, etc. This instrument is presented in Appendix B.

Analysis Plan

The analyses plan involves several steps. First, the adolescent work readiness at the time of the pretest will be described. Students' career goals, their subjective as well as an objective assessment of their work-related knowledge, will be stressed. Second, data reduction through factor analysis will be performed. Then, descriptive statistics and reliabilities for all study constructs will be computed. The score distribution for each measure will be inspected to determine its general shape. Third, inferential statistics will be used to determine patterns by demographic variables (gender, ethnicity and school site). Additionally, work constructs will be crosstabulated with psychological variables using a median split in order to detect some specific characteristics of subjects who score differently on vocational readiness variables. Fourth, associations between the study variables will be inspected. In addition to the intercorrelations of self-reported variables, employer and teacher perceptions of students will be compared with self-perceived characteristics. Fifth, the effects of our training on student vocational readiness will be examined. This analysis will be performed by examining: 1. pre-post differences regarding vocational readiness scores; 2. associations of work readiness constructs at the posttest with measures of student exposure to training;

3. associations of work readiness constructs at the posttest with other variables affected by the intervention. Multiple Regression analyses will be employed to predict work readiness posttest scores as well as employer ratings of students from the set of independent variables involving student self-report and training exposure measures.

Ethnographic observations of student work internships as well as clinical interviews with career coordinators, the Principal, and the site coordinators will be used as a qualitative characterization and the context for interpreting the quantitative data.

RESULTS

Description of Student Work Readiness

Pretest scores on vocational readiness variables were explored prior to examining the impact of training on student work readiness. Adolescents were asked to designate jobs they desired to have after they finish their education. These results are displayed in Table 1. Inspection of this table suggests that adolescents expressed their preference for a whole variety of jobs ranging from professional positions to skilled worker jobs. These preferred jobs would require differential amount of education and are associated with varied social and financial rewards.

Students were further asked to assess their ability to take specific steps necessary to obtain these preferred jobs or any other jobs. These results are shown in Table 2. Responses to this question indicate insufficient knowledge regarding the job seeking process. For example, 43% of students claimed they were not sure or did not know how to apply for a job in a big company; 49% were not sure or did not know how to write a resume, etc.

In addition to the subjective appraisal of work-related knowledge, student responses were objectively assessed for accuracy. A resource book "Occupational Outlook Handbook" published annually by The U.S. Department of Labor Bureau of Labor Statistics was used for that purposes. These results are displayed in Table 3.

Table 1

Student career goals after they finished their education (N = 558).

	%
Architect/Engineer	5
Art/Entertainment	9
Business/Clerical	19
Computer program.	8
Financial/Banking	5
Medical	10
Lawyer/Law	16
Social Service	6
Skilled/Service worker	12
Other*	10

Note:

* Other (homemaker; journalist; airline pilot; airline mechanic; traffic; military; real estate; sports; education; public relations; archaeologist; F.B.I.; psychologist)

Table 2

Student Work-related Knowledge (Subjective Assessment):

(N=558)

	% Yes	% Not sure	% No
Do you know how to?			
Apply for job in big company	57	36	7
Choose school program that will help to get into college	62	32	6
Apply to college for admission	47	42	11
Find out about different jobs	76	20	3
Fill out job application	92	7	1
Write resume	51	38	11
Handle interview	83	15	2
Get info about military service	54	26	20

Table 3.

Student Work-related Knowledge (Objective Assessment):

	% Do not know	% Inaccurate	% Incomplete	% Accurate
Describe educ training needed for desired job (113)*	18	10	52	20
Where could get educ/training needed for desired job (130)	10	8	51	26
How long would take to get needed educ/training (429)	19	13	19	40
Estimate tuition cost (429)	53	11	20	15
Describe job duties (429)	24	[illegible]	54	18
Describe people would work with (293)	19	1	70	10
Estimate weekly hours (293)	20	12	17	51
Describe expected promotion (293)	47	2	37	13
How to get desired job (293)	27	3	58	11
Other requirements for job (e.g. apprenticeship) (136)	32	16	52	0
List steps to get desired job (136)	22	16	50	12
Estimate average annual salary (136)	44	30	9	17

Note:

* N varies for different items because there were three slightly different versions of the pretest

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Inspection of Table 3 indicates that students were rarely accurate when asked to provide specific information regarding their future jobs. For example, less than 1/4 of the students (23%) were able to accurately describe the education/training needed for their preferred jobs; almost 3/4 of the adolescents did not know, were inaccurate or provided incomplete information when asked where they could get education/training needed for their desired job; only 15% of the students correctly estimated tuition costs for the education/training they might need; only 10% were able to accurately list all necessary steps to get future job; etc. Clearly, most of these adolescents were lacking the information relevant for their future careers.

More detailed description of other aspects of student initial work readiness as well as some interesting breakdowns and group differences are presented in Appendix C (Table 20 through Table 37).

Prior to computing the descriptive statistics and reliability coefficients for the study measures, data reduction was performed. Vocational variables were submitted to factor analysis. The obtained vocational constructs are shown in Appendix C (Table 38 through Table 41).

Descriptive Statistics

The range of possible and observed scores, means, and standard deviations for the measures used in this study are presented in Table 4. The obtained statistics are

contrasted with possible scale ranges and scale midpoint to assess the skewness of observed scores.

Several trends are clear in these data. The full or almost the full range of possible scores was observed on all work readiness measures, problem-solving dimensions and general well-being constructs. The observed ratings on the less favorable side of psychological variables (locus of control and self-esteem) and on ratings by others (employers and teachers) tended to be skewed toward the scale midpoint. Ratings on the favorable side of the midpoint for the same measures tended to be evenly distributed. Overall, the distribution of scores for all scales was somewhat skewed. Without exception, mean scores were on the favorable side of the midpoint of the possible score range; higher than the midpoint for favorably, and lower for unfavorably scored scales. Despite the skewed distributions, there was a substantial score variability on all measures. Scores varied considerably across the possible range and standard deviations tended to be large. Overall, the variability on all measures was sufficient for the intended analyses.

Reliability

Internal consistency for all measures was estimated using Cronbach's coefficient alpha. Reliability coefficients were computed for the previously published scales (e.g., Rosenberg's Self-esteem scale), as well as for constructs that resulted from factor analysis (e.g., work constructs) and for measures that were composed by summing

Table 4

Descriptive Statistics for Study Measures and Range of Possible Scores

Scale #Items	Alpha	Possible Scores	Observ. Scores	Scale Midpt.	Mean	SD	Scoring Direction
Work							
SCHEMP 4	[illegible]	4-[illegible]	4-[illegible]	[illegible]	[illegible]	[illegible]	hi=more info
BPEOTV 3	.6[illegible]	[illegible]	3-[illegible]	[illegible]	[illegible]	[illegible]	hi=more info
FAMFRND 3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	hi=more info
GENSEC 3	.6[illegible]	3-[illegible]	3-[illegible]	[illegible]	[illegible]	[illegible]	hi=more import.
JOBAUT 5	.7[illegible]	5-[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	hi=more import.
WORKCON 4	.6[illegible]	4-16	4-16	[illegible]	[illegible]	[illegible]	hi=more import.
WKSUCCS 3	.6[illegible]	3-12	3-12	[illegible]	[illegible]	[illegible]	hi=more import.
SOCSUCC 5	.6[illegible]	4-16	4-16	[illegible]	[illegible]	[illegible]	hi=more import.
KNOWL 10	.93	10-50	10-50	[illegible]	35.[illegible]	[illegible]	hi=more info
Psych.Vars							
SPS 3	.69	3-15	3-15	9.0	[illegible]	[illegible]	hi=more syst.
AIPS 5	.45	5-25	5-25	15.[illegible]	14.2	3.43	hi=more avoid.
LOC 6	.[illegible]	6-30	[illegible]-30	[illegible]	[illegible]	[illegible]	hi=more internl
SE 10	.[illegible]	10-40	[illegible]-40	25.0	[illegible]	4.7[illegible]	hi=high esteem
POSPS 7	.79	7-42	[illegible]-42	24.5	[illegible]	[illegible]	hi=more positiv
PHYWB 7	.65	7-42	[illegible]-36	24.5	24.[illegible]	[illegible]	hi=more healthy
NEGPS(8)	.[illegible]	8-48	8-46	28.0	20.[illegible]	[illegible]	hi=more negativ
Ratings by Others							
ERS 30	.9[illegible]	30-270	[illegible]-265	150.0	[illegible]	[illegible]	hi=more positiv
att 17	.94	17-153	47-153	85.0	10[illegible]	[illegible]	hi=more positiv
beh 4	.9[illegible]	4-36	5-36	20.0	30.[illegible]	[illegible]	hi=more positiv
con 2	.[illegible]	2-1[illegible]	5-1[illegible]	10.0	15.[illegible]	[illegible]	hi=more positiv
adp(4)	.81	4-36	9-36	20.0	[illegible]	[illegible]	hi=more positiv
app 2	.86	2-18	2-18	10.0	15.[illegible]	[illegible]	hi=more positiv
BRS 25	.93	25-125	62-125	125.0	149.9	32.09	hi=more positiv

Note:

SCHEMP	Info from school/emp.agency	POSPS	Positive psychological states
BPEOTV	Info from books/TV/people	PHYWB	Physical health
FAMFRND	Info from family/friends	NEGPS	Negative psychological states
GENSEC	General job security	ERS	Employer ratings (total score
JOBAUT	Job autonomy meaning	att	ERS (student attitudes)
WORKCON	Work conditions	beh	ERS (student behavior)
WKSUCCS	Work success	adp	ERS (student adaptation)
SOCSUCC	Social success	app	ERS (student appearance
KNOWL	Work knowledge	BRS	Behavior ratings by teachers (total)
SPS	Systematic/planned problem-solving		
AIPS(5)	Avoidant/ineffective problem-solving		
LOC(6)	Locus of control		
SE(10)	Self-esteem		

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up appropriate items (e.g., employer ratings). The reliability results are presented in Table 4. The Cronbach alphas ranged from .45 to .93. Given the small number of items in some scales, all reliability coefficients are considered satisfactory.

Gender, Ethnic, and School Differences

Patterns by demographic variables were examined. Gender groups significantly differed on only two self-reported vocational variables. Male students claimed they were getting a greater amount of work-related information from their families and friends than females (t=1.98, p< .05). In addition, males rated the importance of social success in their lives (items such as: importance of having strong friendships; being a leader in the community) higher than their female colleagues (t=2.08, p< .05). Gender groups were differently perceived by their employers and teachers. A comparison of ERS total score across gender groups approached statistical significance with female students being perceived more favorably by their supervisors than males (t=-1.92, p< .06). Females were in addition rated as better adapted to the work environment than males (t=-2.14, p< .038). Teachers also perceived female students more favorably than males (t=-2.47, p< .15). No ethnic differences were detected regarding self-reported vocational variables nor ratings of students by employers and teachers.

Inspection of scores on vocational variables across school sites revealed several significant differences.

Students from both sites B and C reported they had obtained more work-related information from their families and friends than subjects from site A (F=7.99, p< .001). Students from site B rated the importance of job autonomy and meaningfulness higher than respondents from site A (F=4.18, p< .01). Respondents from site B rated the importance of social success higher than subjects from sites A and C (F=13.93, p< .001).

Employers rated site B students as more adapted to the work environment than subjects from site C (F=4.06, p< .02). Teacher perception of students did not significantly differ across school sites.

Crosstabulation of Vocational Constructs and Psychological Variables

In order to determine some characteristics of students scoring differentially on vocational readiness variables, these measures were crosstabulated with psychological variables and other relevant constructs using median split. Some interesting results will be described. The crosstabs are shown in Appendix C (Table 42 through Table 60).

All obtained results are in the predicted direction. Almost 2/3 (65%) of subjects who claimed low amount of work-related information obtained from books, other people or TV reported an external locus of control. Approximately 3/4 of students (74%) who reported high amount of information about work from books, other people or TV were rated as well

adapted to work environment by their employers. 4/5 of adolescents (78%) who scored low on systematic/planned problem-solving reported low amount of work-related information gathered from their families or friends. 4/5 (79%) of highly anxious and depressed youngsters claimed low amount of work-related information obtained from their families and friends. More than 2/3 (69%) of subjects that had a low valuation of the importance of social success scored low on systematic/planned problem-solving and 63% of them reported low self-esteem.

Students who reported a low level of general work-related knowledge were likely to reveal some unfavorable characteristics. For example, 70% of them scored low on systematic/planned problem-solving; 64% reported external locus of control; 64% described themselves as having low self-esteem; and 62% reported scored low on positive psychological states. Students that were avoidant/ ineffective when solving problems tended to report low amount of work-related information obtained from different resources: from school/employment agencies (56%); from books, other people or TV (60%); and from family and friends (77%). Subjects who had a low valuation of general job security and work success were likely to be more avoidant/ineffective when solving problems (67% and 66% respectively). Almost 4/5 of adolescents (78%) who scored low on systematic/planned problem-solving were perceived

unfavorably by the employers regarding their personal appearance.

Intercorrelations Among Study Variables

Pearson correlations among study variables were computed. These results are presented in Tables 5 through 8. Intercorrelations among vocational readiness variables are shown in Appendix C (Table 61).

Table 5 displays intercorrelation among self-reported vocational variables and psychological and mental health variables. Most correlations are low to moderate. Systematic/planned problem-solving was positively associated with work-related information obtained from different resources, as well as with some work values and work-related knowledge. The more systematic students were when solving problems, the more likely they were to obtain work-related information from different resources. In addition, systematic problem solvers tended to value highly the importance of autonomy in their work as well as work conditions. They were also likely to demonstrate greater knowledge about the world of work.

Higher self-esteem and positive psychological states were also positively associated with information resources, work knowledge and some work values. Anxious and depressed students, on the other hand, were unlikely to acquire work-related information from their families and friends.

Vocational variables were further correlated with perceptions of students by their employers and teachers.

Table 5

Pearson Correlations Between Work Questionnaire Variables and Mental Health and Psychological Variables (N=293) (pretest)

	SPS	AIPS	I/E	SE	POSPS	PHYHL	NEGPS
SCHEMP	.135*	.083	.027	.041	.123*	.053	-.062
BPEOTV	.184***	.133*	.034	.079	.103	-.010	-.035
FAMFRND	.145**	.128*	-.013	.106*	.222***	.095	-.189***
GENSEC	.073	.055	.134*	.117*	.011	-.043	-.003
JOBAUT	.232***	.112	.129*	.131*	.089	-.034	.043
WORKCON	.178**	.166**	.082	.054	.086	-.083	.067
WKSUCCS	.079	-.008	.094	.110	.095	-.023	.050
SOCSUCC	.252***	.050	.073	.129*	.155**	-.003	-.072
KNOWL	.236***	-.033	.086	.204***	.135*	.050	-.071

*** p<.001; ** p<.01; * p<.05;

Scoring: higher score = more of a construct except for AIPS

Note:

SCHEMP	Info About Future Job From School/Emp. Agencies
BPEOTV	Info About Future Job From Books/TV/People
FAMFRND	Info About Future Job From Family/Friends
GENSEC	Importance of General Job Security for Future Job
JOBAUT	Importance of Job Autonomy/Meaning for Future Job
WORKCON	Importance of Work Conditions for Future Job
WKSUCCS	Importance of Work Success in Life
SOCSUCC	Importance of Social Success in Life
KNOWL	Work Knowledge
SPS	Systematic/Planned Problem Solving
AIPS	Avoidant/Ineffective Problem Solving
I/E	Locus of Control
SE	Self-esteem
POSPS	Positive Psychological States
PHYHL	Physical Health
NEGPS	Negative Psychological States

These results are shown in Tables 6 and 7. Employers rated favorably students' attitudes toward work and contact with others in the work environment for subjects who placed a high value on general job security. Adolescents who reported a greater amount of work-related information from books, other people or TV were perceived as well adapted. Interestingly, students who placed a high value on work success were perceived negatively by their employers.

The Behavior Rating Scale (BRS) was submitted to factor analysis. The total score and 5 obtained factors were then correlated with student self-reported vocational readiness. These results are shown in Table 7. Factor analysis of the BRS is described in Appendix C (Table 62).

Table 7 indicates that students who were perceived by their teachers as socially withdrawn tended to have less work-related information from different resources; placed less value on job autonomy/meaningfulness, work success, and social success; and demonstrated a lack of knowledge regarding their future jobs. Students who were seen as depressed were likely to have less work-related information from various sources and tended to give a lower value in evaluating a job to the importance of work conditions and social success.

Table 8 presents associations between self-reported psychological and mental health variables and ratings of students by their employers and teachers. Teacher overall rating of students (total score) were associated with self-

Table 6

Pearson Correlations Between Employer Ratings of Students and Self-Reported Vocational Variables (N=45) (pretest)

	EMPTOT	ATT	BEH	CON	ADP	APP
SCHEMP	-.045	-.087	.052	-.060	-.055	-.150
BPEOTV	.150	.111	.149	.170	.302*	.038
FAMFRND	-.143	-.156	-.001	-.217	-.063	-.078
GENSEC	.202	.286*	.187	.440**	.045	-.006
JOBAUT	.107	.071	.105	.245	.206	-.182
WORKCON	-.151	-.116	-.112	.102	.049	-.242
WKSUCCS	-.356*	-.214	-.227	-.078	-.145	-.212
SOCSUCC	-.016	-.064	.063	.055	.049	-.029
KNOWL	-.025	-.045	.034	-.177	.053	.037

* p<.05; ** p<.01; *** p<.001

Note:

EMPTOT	Employer Ratings (ER) Total Score
ATT	ER - Student attitude toward job/coworkers
BEH	ER - Student overt behavior at work
CON	ER - Student contact with others at work
ADP	ER - Student adaptiveness to work environment
APP	ER - Student appearance at work
SCHEMP	Info About Future Job From School/Emp. Agencies
BPEOTV	Info About Future Job From Books/TV/People
FAMFRND	Info About Future Job From Family/Friends
GENSEC	Importance of General Job Security for Future Job
JOBAUT	Importance of Job Autonomy/Meaning for Future Job
WORKCON	Importance of Work Conditions for Future Job
WKSUCCS	Importance of Work Success in Life
SOCSUCC	Importance of Social Success in Life
KNOWL	Work Knowledge

Table 7

Pearson Correlations Between Behavior Rating Scale (BRS) Constructs and Work Variables (N = 85)

	BRSTOT	CHEER	AGGRESS	WITHDR	CARING	DEPRESS
SCHEMP	.187*	.041	.039	-.315**	.006	-.172+
BPEOTV	.016	.123	.009	-.005	-.254*	-.147+
FAMFRND	-.149+	-.186*	.158+	-.215*	-.171+	-.202*
GENSEC	.014	.015	-.076	.010	-.092	-.019
JOBAUT	.149+	-.042	-.106	-.205*	.092	-.018
WORKCON	.066	.068	.031	-.102	-.082	-.160+
WKSUCCS	.177+	.120	-.028	-.196*	-.068	.043
SOCSUCC	.114	-.032	.044	-.242*	.075	-.184*
KNOWL	-.070	-.141	.060	-.184*	-.067	.015

** p<.01; * p<.05; + p<.1

Note:

SCHEMP Info About Future Job From School/Emp. Agencies
BPEOTV Info About Future Job From Books/TV/People
FAMFRND Info About Future Job From Family/Friends
GENSEC Importance of General Job Security for Future Job
JOBAUT Importance of Job Autonomy/Meaning for Future Job
WORKCON Importance of Work Conditions for Future Job
WKSUCCS Importance of Work Success in Life
SOCSUCC Importance of Social Success in Life
KNOWL Work Knowledge
BRSTOT BRS - Total Score
CHEER BRS Cheerful/Energetic/Striving/Hardy
AGGRESS BRS Aggressive/Inattentive/Immature
WITHDR BRS - Withdrawn
CARING BRS - Caring/Just
DEPRESS BRS - Depressed

Table 8

Pearson Correlations Between Employer Ratings and Teacher Ratings of Students and Student Self-Reported Mental Health and Psychological Variables (N=[illegible]
pretest

	EMPTOT	ATT	BEH	CON	ADP	APP	BRSTOT
SPS	-.[illegible]	-.[illegible]*	-.[illegible]	-.[illegible]	.[illegible]	-.[illegible]	-.[illegible]
AIPS	-.[illegible]*	-.[illegible]	-.[illegible]**	-.[illegible]	-.[illegible]	-.[illegible]	-.[illegible]**
I E	-.[illegible]	.[illegible]	-.[illegible]	.[illegible]	-.[illegible]*	-.[illegible]	.[illegible]***
SE	.[illegible]	.[illegible]	.[illegible]	.057	.052	-.[illegible]	.[illegible]**
POSPS	-.[illegible]	-.[illegible]	-.[illegible]	-.[illegible]	-.[illegible]	-.[illegible]	.[illegible]**
PHYHL	.[illegible]	.[illegible]	.[illegible]	.[illegible]	.[illegible]	-.[illegible]	.[illegible]
NEGPS	.[illegible]	.[illegible]	.[illegible]	.[illegible]	.[illegible]	.[illegible]	-.[illegible]

* p<.10; ** p<.01 *** p< .001

Note:

Scoring: higher score = more positive construct except for AIPS & NEGPS

EMPTOT Employer Ratings (EP) Total Score
ATT ER - Student attitude toward job/coworkers
BEH ER - Student overt behavior at work
CON ER - Student contact with others at work
ADP ER - Student adaptiveness to work environment
APP ER - Student appearance at work
BRS Teacher Ratings (Total Score)
SPS Systematic Problem Solving
AIPS Avoidant/Ineffective Problem Solving (hi=neg)
I/E Locus of Control (hi=more internal)
SE Self-esteem
POSPS Positive Psychological States
PHYHL Physical Health
NEGPS Negative Psychological States (hi=negative

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reported data in the predicted direction. Teachers were likely to rate favorably students who described themselves as less avoidant when dealing with problems, as having more internal locus of control, higher self-esteem and more positive psychological states. Employers' overall perception of students as well as their rating of student behavior at work were unfavorable for subjects who reported avoidance and ineffectiveness when solving problems. Some associations between employer perceptions of students and subject self-described characteristics were unpredicted and interesting. For example, students who described themselves as systematic in dealing with problems were likely to be perceived negatively regarding their attitudes toward work. In addition, subjects with more internal locus of control were rated as less adapted to the work environment.

Finally, objective ratings of students by their employers and teachers were compared. These results are shown in Table 9. Despite a very small sample size (N=18) several statistically significant associations were obtained. The trend of overall agreement among teachers and employers is evident. The more cheerful students were perceived by their teachers, the more favorable ratings they got from the employers regarding contact with others at work. Adolescents who were seen as depressed by teachers were likely to be perceived unfavorably by the employers with the exception of their appearance at work.

Table 9

Pearson Correlations Between Employer Ratings and Teacher Ratings of Students (N=18)

	EMPTOT	ATT	BEH	CON	ADP	APP
BRSTOT	.158	.222	-.180	.192	.220	.038
CHEER	.216	.240	-.047	.388*	.301	-.172
AGGRESS	-.049	-.097	.123	.055	-.138	.029
WITHDR	-.001	-.058	.093	-.091	.301	-.268
CARING	-.150	-.141	-.136	-.337	.070	.124
DEPRESS	-.241	-.209	-.174	-.069	-.317+	.391*

* p<.05; + p<.07

Note:

Scoring: hi = more of a construct

EMPTOT	Employer Ratings (ER) Total Score
ATT	ER - Student attitude toward job/coworkers
BEH	ER - Student overt behavior at work
CON	ER - Student contact with others at work
ADP	ER - Student adaptiveness to work environment
APP	ER - Student appearance at work
BRSTOT	Teacher Ratings (BRS) Total Score
CHEER	BRS Cheerful/Energetic/Striving/Hardy
AGGRESS	BRS Aggressive/Inattentive/Immature
WITHDR	BRS Withdrawn
CARING	Caring/Just
DEPRESS	Depressed

Effects of Training on Student Work Readiness

Effects of training on student vocational readiness were estimated in several ways. First, pre-post differences were examined. Second, vocational posttest scores were correlated with measures of student exposure to training. Third, work readiness variables were correlated with student self-reported psychological and mental health variables that were shown to be positively affected by the intervention in another report of this project (see Zhang, 1991). Fourth, change scores of vocational variables were correlated with training exposure measures and with student self-reported characteristics. Finally, Multiple Regression was employed to predict vocational scores and employer ratings of students from the set of independent variables involving subjects' self-reported characteristics and measures of the exposure to training.

Pre-post Comparisons

In order to demonstrate the impact of training on student work readiness, comparisons of pretest and posttest scores on the vocational variables were made for a sample of 85 students. The results of a paired T-test are shown in Table 10.

Inspection of Table 10 suggests a trend of slight improvement regarding reported amount of work-related information received from school or employment agencies. Also, students' overall knowledge of work-related issues improved. Scores pertaining to student work values

Table 10

Pretest and Posttest Means and Standard Deviations for Work Questionnaire Variables (N = 85)

	Pretest Mean	Posttest Mean	t	df	sig t
SCHEMP	13.6 (4.40)	14.3 (4.02)	-.94	65	.176
BPEOTV	9.9 (2.97)	10.1 (3.37)	-.51	71	.308
FAMFRND	7.7 (2.01)	7.8 (2.22)	-.50	81	.308
GENSEC	10.7 (1.44)	10.0 (1.83)	3.12	74	.002
JOBAUT	16.7 (2.52)	16.1 (3.09)	1.45	66	.077
WORKCON	12.7 (2.32)	12.1 (2.87)	1.49	69	.071
WKSUCCS	10.8 (1.64)	10.2 (2.07)	2.61	76	.006
SOCSUCC	10.9 (2.51)	11.1 (3.06)	-.72	73	.237
KNOWL	36.5 (9.36)	38.2 (9.05)	-1.26	67	.106

Note:

Scoring: higher score = more of a construct

SCHEMP	Info About Future Job From School/Emp. Agencies
EPEOTV	Info About Future Job From Books/TV/People
FAMFRND	Info About Future Job From Family/Friends
GENSEC	Importance of General Job Security for Future Job
JOBAUT	Importance of Job Autonomy/Meaning for Future Job
WORKCON	Importance of Work Conditions for Future Job
WKSUCCS	Importance of Work Success in Life
SOCSUCC	Importance of Social Success in Life
KNOWL	Work Knowledge

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significantly declined. However, after being exposed to the interventions, students were likely to place a lower value on the importance of general job security, job autonomy/ meaningfulness and work conditions than prior to training.

In order to examine change overtime across gender groups, ethnic groups and school sites, a Manova pre-post analysis was performed. No differences were found among either gender groups or ethnic groups. However, a significant difference was detected among school sites regarding student ratings of importance of general job security (Figure 1). When evaluating future jobs, subjects in all three schools scored lower on this variable at the posttest compared to pretest.. Site B scores obviously contributed the most to this effect given a large discrepancy between pretest and posttest for this school.

Correlations Between Vocational Variables and Training Exposure Measures

Five different indicators of student exposure to the intervention were examined: students' subjective assessment of how much they had learned cooperative learning during the past year; students' subjective assessment of how much they have learned conflict resolution during the past year; trainer ratings of teacher expertise in implementing the interventions; teacher self-report regarding the percentage of time they have used cooperative learning in their classes; and a measure of student exposure to the conflict resolution training. Student self-reported assessment of

how much they have learned cooperative learning and conflict resolution and teacher self-report regarding the percentage of time they have used cooperative learning in their classes were employed in further analyses since these measures demonstrated sufficient consistency. Intercorrelations of the exposure measures are presented in Table 11. Pearson correlations between training exposure measures and the posttest scores on vocational variables are shown in Table 12.

Results from Table 11 reveal positive correlation between the two subjective assessment measures (how much they have learned cooperative learning and conflict resolution). No significant associations were found among student self-reported learning and teacher assessment of the percentage of time they have implemented cooperative learning in their classrooms.

Inspection of Table 12 reveals statistically significant associations between self-reported increased learning of conflict resolution and cooperative learning skills and variables describing work readiness after the exposure to interventions. The obtained correlations were generally in the predicted direction. Increased learning was positively associated with all three areas of vocational readiness: information resources regarding future jobs, work values and work-related knowledge. Teacher self-reported percentage of time they have used cooperative learning was positively associated with student work values for School B.

Table 11

Intercorrelations Among Measures of Student Exposure to Interventions

		1	2	3
1				
Learned CL	(All)			
	(A)			
	(B)			
	(C)			
2				
Learned CR	(All)	.399*		
	(A)	.364***		
	(B)	.311***		
	(C)	.452***		
3				
Teacher Self-Rep. % Time Used CL	(All)	.078	.048	
	(A)			
	(B)	.039	.047	
	(C)	.108	.011	

Note:

* p< .05; ** p< .01; *** p< .001

Intercorrelations were computed for schools that have received a particular intervention.

Table 10

Pearson Correlations Between Posttest Vocat. Variables and Measures of Student Exposure to Training

		Learned [illegible]	Learned [illegible]	Teacher Self-Report % of Time Used CL
SCHEMP	[illegible]	.[illegible]*	.[illegible]*	-.[illegible]
	[illegible]	.[illegible]	.[illegible]	
	[illegible]	.[illegible]	.[illegible]	
	[illegible]	.[illegible]*	.[illegible]*	-.[illegible]
	[illegible]	.[illegible]*	.[illegible]*	.[illegible]
[illegible]		.[illegible]	.[illegible]	-.[illegible]
	[illegible]	.[illegible]	.[illegible]	
	[illegible]	.[illegible]	.[illegible]	
	[illegible]	.[illegible]	.[illegible]*	.[illegible]
	[illegible]	.[illegible]*	.[illegible]*	.[illegible]
[illegible]		.[illegible]***	.[illegible]*	.[illegible]
	[illegible]	.[illegible]	-.[illegible]	
	[illegible]	.[illegible]	-.[illegible]	.[illegible]
	[illegible]	.300**	.[illegible]*	.[illegible]
GENSEC		.[illegible]*	.[illegible]*	.[illegible]
	[illegible]	.[illegible]*	.[illegible]*	
	[illegible]	.[illegible]	.[illegible]	.[illegible]***
	[illegible]	.[illegible]**	.[illegible]*	.[illegible]
JOBAUT		.[illegible]**	.[illegible]**	.[illegible]
	[illegible]	.[illegible]*	.[illegible]*	
	[illegible]	.[illegible]	.[illegible]*	.[illegible]***
	[illegible]	.[illegible]*	.[illegible]*	-.[illegible]
[illegible]		.[illegible]**	.[illegible]*	-.[illegible]
	[illegible]	.[illegible]*	.[illegible]	
	[illegible]	.[illegible]	.[illegible]	.[illegible]**
	[illegible]	.[illegible]**	.[illegible]	-.[illegible]
[illegible]		.[illegible]*	.[illegible]**	-.[illegible]
	[illegible]	.[illegible]	.[illegible]	
	[illegible]	.[illegible]	.[illegible]***	.[illegible]
	[illegible]	.[illegible]*	.[illegible]*	-.[illegible]
SOCSUCC		.[illegible]*	.[illegible]**	-.[illegible]
	[illegible]	.[illegible]**	.[illegible]	
	[illegible]	-.[illegible]	.[illegible]*	.[illegible]
	[illegible]	.[illegible]	.[illegible]	.[illegible]
WKKWL		.[illegible]***	.[illegible]**	.[illegible]
	[illegible]	.[illegible]	.[illegible]	
	[illegible]	.[illegible]	.[illegible]	-.[illegible]
	[illegible]	.[illegible]**	.[illegible]**	.[illegible]

Note: p<.05; ** p<.01; *** p<.00

Scoring: High = more of a construct

SCHEMP Info From School/Emp. Agencies
INFOTV Info From Books/TV/People
FAMFRND Info From Family/Friends
GENSEC Importance of General Job Security
WKKWL Work Knowledge
WCRYCON Importance of Work Conditions
WKSUCCS Importance of Work Success
JOBAUT Importance of Job Autonomy
SOCSUCC Importance of Social Success

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Students in this school were likely to place higher value on the importance of general job security, job autonomy and work conditions when they were in classes of those teachers that claimed they have used more often cooperative learning.

Correlations Between Vocational Variables and Variables That Showed Improvement Due to Intervention

Posttest scores on vocational readiness were further correlated with variables that have demonstrated improvement due to training (see Lisrel analyses presented in Zhang, 1991. Table 13 displays associations between work readiness constructs with psychological variables, mental health variables, and social support construct. Meaningful associations of student vocational readiness and variables that demonstrated an improvement due to training suggest indirect effects of the training upon student vocational readiness.

All associations presented in Table 13 were in the predicted direction. Students who demonstrated systematic/ planned problem-solving approach were likely to gain more relevant work-related information from various resources. They also tended to value high job autonomy/meaningfulness, work conditions, work success, and social success. In addition, systematic problem solving was associated with increase in work-related knowledge. Adolescents who reported more avoidant problem-solving were likely to gain less work-related information from different resources. Acquisition of internal locus of control was associated with

Table 13

Pearson Correlations Between Work Readiness Variables and Variables That Improved Due to the Intervention (N = [illegible]) (posttest)

	SPS	AIPS	I/E	SE	POSPS	PHYHL	NEGPS	SUPPORT
SCHEMP	[illegible]**	[illegible]*	.149*	.187	[illegible]***	.350***	-.083	.170*
BPBOTV	.201*	-.150*	.024	.007	[illegible]**	.171*	-.011	-.075
FAMFRND	.250**	[illegible]*	.130	[illegible]*	[illegible]***	[illegible]***	-.184*	.293**
GENSEC	.107	-.050	.005*	.204**	.005	.201*	-.207**	-.101
JOBAUT	.197*	-.011	.249**	.259**	.113	.042	-.114	.043
WORKCON	.199*	-.078	.227*	.314**	.244**	.191**	-.203*	.065
WKSUCCS	.171*	-.115	.071	.342**	.197*	.134	-.186*	.178*
SOCSUCC	.267**	.040	.143	.236*	.157*	.150*	-.115	.161*
KNOWL	.296**	.051	.221*	.333**	.381***	.137	-.021	.275**

Note:

** p<.01; * p<.05; + p<.07

Scoring:

Vocational variables - hi = more positive
Other variables - hi = more of a construct

SCHEMP Info About Future Job From School/Emp. Agencies
BPBOTV Info About Future Job From Books/TV/People
FAMFRND Info About Future Job From Family/Friends
GENSEC Importance of General Job Security for Future Job
JOBAUT Importance of Job Autonomy/Meaning for Future Job
WORKCON Importance of Work Conditions for Future Job
WKSUCCS Importance of Work Success in Life
SOCSUCC Importance of Social Success in Life
KNOWL Work Knowledge
SPS Systematic/Planned Problem Solving
AIPS Avoidant/Ineffective Problem Solving
I/E Locus of Control
SE Self-esteem
POSPS Positive Psychological States
PHYHL Physical Health
NEGPS Negative Psychological States
SUPPORT Social Support (family; school; work)

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greater amount of work-related information from school and employment agencies. In addition, internals were likely to value high general job security, job autonomy, and work conditions. They also demonstrated greater overall knowledge of the world of work. Subjects with high self-esteem were able to obtain more information about future jobs from their families and friends. They also demonstrated positive work values and greater job-related knowledge. High scores on positive psychological states and physical health were associated with increased amount of work-related information obtained from various resources. More favorable positive well-being and physical health was in addition linked with positive work values. Positive psychological states were associated with enhanced work knowledge. Lower scores on anxiety and depression were associated with more positive work values. Students who claimed greater social support tended to demonstrate more work-related information from their schools or employment agencies and from their families and friends. They were also likely to value high work success and social success and to gain more knowledge relevant for their future jobs.

Meaningful associations between adolescent vocational readiness reported at the posttest and variables that were positively affected by training suggest positive effects of the conflict resolution and cooperative learning interventions upon adolescent vocational readiness.

Change Score Results

Change scores were computed for vocational readiness variables where the trend of change was detected and correlated with training exposure measures, as well as with psychological and mental health variables. These results are displayed in Tables 14 and 15.

Results from Table 14 suggest a positive association between an increase in amount of work-related information obtained from the school and employment agencies and exposure to training. More work-relevant information was acquired by Site C students, more likely they were to believe their conflict resolution skills had improved.

The increase in the amount of work-related knowledge for students in Site C was positively correlated with exposure to training. More knowledge subjects gained, more they were exposed to the interventions.

Decreased scores on work value variables were associated with mesures of student exposure to training. Higher decrease in importance of general job security for Site B students was associated with lower % of time their teachers claimed they used cooperative learning in their classes. Greater decrement in importance of work conditions was associated with greater teacher-reported % of time they implemented cooperative learning. Site C subjects whose scores regarding rating of the importance of work success decreased were likely to report lesser learning of cooperative learning and conflict resolution.

Table 15 presents correlations between vocational change scores and psychological and mental health variables. An increase in the amount of work-related information obtained from school and employment agencies for Site C students was positively associated with student locus of control. Students with more internal orientation were likely to acquire more information. Augmented knowledge about the world of work was associated with more systematic problem-solving, more internal locus of control, higher self-esteem, and more positive psychological states for subjects from School C.

Decrease in importance of general job security for Site B students was associated with more avoidant/ineffective problem-solving and lower self-esteem. Decrement in importance of job autonomy/meaningfulness for Site B students was associated with more external locus of control orientation. Greater decline in importance of work conditions was generally associated with more avoidant/ineffective problem-solving, more external locus of control, lower self-esteem, less favorable physical well-being, and higher anxiety and depression. Higher decrease in importance of work success for Site B students was associated with more external locus of control orientation.

Table 14

Pearson Correlations Between Change Scores on Vocational Readiness Variables and Training Exposure Measures (posttest) (N=35)

		Learned Cooperative Learning	Learned Conflict Resolution	Teacher Self-Report of % of Time Used Cooperative Learning
CSCHEMP	(All)	.07[illegible]	-.0[illegible]	[illegible]
	(B)	.048	-.1[illegible]+	.155
	(C)	.140	.369	.147
CGENSEC	(All)	.061	.036	[illegible]***
	(B)	-.051	.0[illegible]	.031
	(C)	.113	.113	.000
CJOBAUT	(All)	-.022	.071	-.020
	(B)	-.135	-.008	.244
	(C)	.104	.154	.008
CWORKCON	(All)	.134+	.073	-.308*
	(B)	.160	.010	.1[illegible]
	(C)	.135	.135	-.334**
CWKSUCCS	(All)	.110	.025	.013
	(B)	-.018	-.027	.246
	(C)	.421**	.421*	-.037
CKNOWL	(All)	.151	.146	-.152
	(B)	.007	-.076	-.167
	(C)	.566***	.566***	-.102

Note: + p< .10; * p<.05; ** p<.01; *** p< .001

School A is not represented because of small sample size

Change Scores

CSCHEMP	Info About Future Job From School/Emp. Agencies
CBPEOTV	Info About Future Job From Books/TV/People
CFAMFRND	Info About Future Job From Family/Friends
CGENSEC	Importance of General Job Security for Future Job
CJOBAUT	Importance of Job Autonomy/Meaning for Future Job
CWORKCON	Importance of Work Conditions for Future Job
CWKSUCCS	Importance of Work Success in Life
CSOCSUCC	Importance of Social Success in Life
CKNOWL	Work Knowledge

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Table 15

Pearson Correlations Between Change Scores on Vocational Readiness Variables and Posttest Scores of Psychological and Mental Health Variables (N=[illegible])

		SPS	AIPS	LOC	SE	POSPS	PHYHP	NEGPS
INSCHEMP	All	[illegible]	.112	[illegible]	[illegible]	[illegible]	.054	.114
	B	.151	-.052	.153	.100	-.013	.070	.100
	C	.240	.060	.409*	.149	.230	.176	-.075
INBOOTV	All	-.170	-.210*	.120	.155	-.050	.035	-.034
	B	-.037	-.442*	.308*	.352*	.031	.075	-.275
	C	-.126	-.131	.050	.149	[illegible]	-.142	.013
IJOBAUT	All	-.070	.080	.141	.153	.014	-.003	-.071
	B	-.229	.154	.326*	.043	.248	-.039	-.299
	C	[illegible]	.151	.133	.270	-.154	-.096	.050
IWORKCON	All	-.043	-.213*	.264*	.373**	[illegible]	.214*	-.231*
	B	-.133	-.470*	.501**	.451*	-.049	.135	-.115
	C	.008	-.149	.192	.440**	.273*	.300*	-.261*
IWKSUCCS	All	-.163	.127	-.075	.057	-.111	-.149	-.034
	B	-.107	-.143	.501**	.171	.160	-.172	-.132
	C	-.031	-.027	-.220	-.007	-.318*	-.205	-.009
WKNOWL	All	.201*	.113	.077	.206*	.196	-.157	-.031
	B	.186	.295	-.047	.237	.021	-.256*	.052
	C	.342*	.003	.399*	.316*	.433**	.072	-.096

Note:

* p<.05; ** p<.01

School A is not represented because of small sample size

Change Scores = posttest minus pretest

INSCHEMP	Info From School/Emp. Agencies	SPS	Systematic Problem-solving
INBOOTV	Info From Books/TV/People	AIPS	Avoidant Problem-solving
INFAMFRND	Info From Family/Friends	LOC	Locus of Control
IGENJSEC	Import.of General Job Security	SE	Self-Esteem
IJOBAUT	Import. of Job Autonomy	POSPS	Positive Psychol. States
IWORKCON	Import. of Work Conditions	PHYHP	Physical Health
IWKSUCCS	Import. of Work Success	NEGPS	Negative Psychol. States
ISOCSUCC	Import. of Social Success		
WKNOWL	Work Knowledge		

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Multiple Regression Results

The effects of interventions upon student vocational readiness were further estimated using Multiple regression (MR) analyses. Constructs describing student work readiness and employers' perceptions of students were used as dependent variables. Variance in the outcome measures was explained using a set of predictors composed of student self-reported psychological and mental health variables and teacher self-reported percentage of time they have used cooperative learning in their classrooms as an indicator of student exposure to training. The MR results are presented in Tables 16 through 19.

Tables 16 and 17 describe the structure of explained variance for work readiness variables for Campuses B and C since cooperative learning intervention was employed in those two schools. Work constructs pertaining to the amount of information students obtain from various resources were significantly associated with two predictors: systematic problem-solving and positive psychological states. Systematic problem-solvers and students with favorable well-being were likely to obtain more work-relevant information from their schools, employers, families and friends than adolescents with unfavorable scores on these variables.

Results demonstrated in Table 17 suggest student self-esteem as a single significant predictor of their work values (importance of general job security, and work success). Adolescents with high self-esteem were

Table 16

Individual Structural Equations for the Prediction of Work Variables From the Psychological Variables, Mental Health Variables and Exposure to Training (Teacher Self-Report of % of Time Using CL) for Campuses B and C (posttest)

Dependent Variable/ Predictor Variables	R^2	F	ß	t	sig t
Info from school & employer/					
SPS			.22	2.00	.0489
AIPS			-.10	- .92	.3621
I/E			.10	.83	.4085
SE			-.08	- .63	.5308
POSPS			.37	2.77	.0070
PHYHL			.00	.03	.9780
NEGPS			.20	1.49	.1414
SEXP	.20	2.51*	-.06	- .60	.5489
Info from family & friends/					
SPS			.20	1.84	.0695
AIPS			.05	.50	.6198
I/E			-.05	- .49	.6270
SE			.00	.08	.9390
POSPS			.30	2.23	.0283
PHYHL			.07	.49	.6226
NEGPS			.10	.72	.4722
SEXP	.16	2.012*	.04	.35	.7265

Note:

* $p < .05$

SPS = Systematic/Planned Problem-solving
AIPS = Avoidant/Ineffective Problem-solving
I/E = Locus of Control
SE = Self-Esteem
POSPS = Positive Psychological States
PHYHP = Physical Health
NEGPS = Negative Psychological States
SEXP = Teacher Self-Reported Use of CL (% of time)

Table 17

Individual Structural Equations for the Prediction of Work Variables From the Psychological Variables, Mental Health Variables and Exposure to Training (Teacher Self-Report of % of Time Using CL) for Campuses B and C (posttest)

Dependent Variable/ Predictor Variables	R^2	F	β	t	sig t
Importance of general job security/					
SPS			.09	.87	.3868
AIPS			-.03	- .29	.7725
I/E			.11	.96	.3423
SE			.31	2.44	.0168
POSPS			-.21	-1.64	.1044
PHYHL			.14	.98	.3284
NEGPS			-.03	- .20	.8425
SEXP	.18	2.462*	.10	1.05	.2981
Importance of work success/					
SPS			.03	.23	.8194
AIPS			.02	.21	.8326
I/E			.05	.38	.7059
SE			.40	3.03	.0033
POSPS			-.06	- .45	.6556
PHYHL			-.18	-1.22	.2270
NEGPS			-.15	-1.11	.2725
SEXP	.16	1.984*	-.06	- .58	.5618
Work Knowledge/					
SPS			.07	.62	.5371
AIPS			.11	.97	.3332
I/E			.11	.84	.4055
SE			.03	.22	.8236
POSPS			.34	2.43	.0176
PHYHL			.03	.21	.8351
NEGPS			.07	.50	.6177
SEXP	.17	2.013*	.06	.59	.5578

Note:

* p< .05

SPS = Systematic/Planned Problem-solving
AIPS = Avoidant/Ineffective Problem-solving
I/E = Locus of Control
SE = Self-Esteem
POSPS = Positive Psychological States
PHYHP = Physical Health
NEGPS = Negative Psychological States
SEXP = Teacher Self-Reported Use of CL (% of time)

likely to assign high value to the importance of general job security and work success. A significant predictor of student work-related knowledge was their score on positive psychological states. Favorable psychological states suggest greater work-related knowledge. No Multiple Regression equation revealed significant associations between training exposure measure and student work readiness scores when Campuses B and C were analyzed as one group. However, differential results were obtained when school was controlled for in the analysis. These results are shown in Table 18. Work values of adolescents in Campus B were significantly associated with teacher report of their use of cooperative learning. Students that placed a high value on the importance of general job security and job autonomy were likely to be in classes of those teachers that reported greater use of cooperative learning. The same associations for Campus C were not significant (see Appendix C Table 63).

Finally, MR analysis was employed to predict employer perceptions of students using self-reported psychological variables, mental health variables and the training exposure measure as set of predictors. Given the small sample size, no training exposure measure could be included in MR equation. The results of this analysis are presented in Table 19. Self-esteem was a single significant predictor of employers' perception of student behavior. Adolescents with high self-esteem were likely to be rated favorably by their supervisors.

Table 18

Individual Structural Equations for the Prediction of Work Variables From the Psychological Variables, Mental Health Variables and Exposure to Training (Teacher Self-Report of % of Time Using CL) for Campus B (posttest)

Dependent Variable/ Predictor Variables	R^2	F	β	t	sig t
Importance of general job security/					
SPS			-.07	- .46	.6460
AIPS			-.12	- .78	.4446
I/E			-.05	- .31	.7606
SE			.35	2.01	.0540
POSPS			-.05	- .27	.7880
PHYHL			.19	.99	.3299
NEGPS			.10	.50	.6211
SEXP	.41	2.47*	.41	2.81	.0088
Importance of job autonomy/meaningfulness/					
SPS			-.31	-1.96	.0609
AIPS			-.07	- .42	.6763
I/E			.32	1.75	.0921
SE			.14	.79	.4375
POSPS			.06	.31	.7613
PHYHL			-.06	- .32	.7520
NEGPS			.10	.52	.6114
SEXP	.46	2.65*	.39	2.55	.0172

Note:

* $\rho < .05$

SPS = Systematic/Planned Problem-solving
AIPS = Avoidant/Ineffective Problem-solving
I/E = Locus of Control
SE = Self-Esteem
POSPS = Positive Psychological States
PHYHP = Physical Health
NEGPS = Negative Psychological States
SEXP = Teacher Self-Reported Use of CL (% of time)

Table 19

Individual Structural Equations for the Prediction of Employer Ratings (posttest; N = 45)

Dependent Variable/ Predictor Variables	R^2	F	ß	t	sig t
Behavior/					
SPS			-.04	.41	.6834
AIPS			-.03	.19	.8508
I/E			.21	1.13	.2691
SE			.49	2.56	.0154
POSPS			-.31	-1.57	.1274
PHYHL			.04	.21	.8383
NEGPS	.33	1.87*	.08	.41	.6834

Note:

SPS = Systematic/Planned Problem-solving
AIPS = Avoidant/Ineffective Problem-solving
I/E = Locus of Control
SE = Self-Esteem
POSPS = Positive Psychological States
PHYHP = Physical Health
NEGPS = Negative Psychological States

Behavior = student behavior at work as perceived by the supervisor (e.g., manipulates people; is suspicious; is impolite; focuses only on own interests; etc.).

* $p < .1$

DISCUSSION

This section begins with a summary of the study findings. A review of methodological issues is followed by the discussion of the theoretical and practical implications of the results. Directions for future research are outlined.

Summary of Findings

The purpose of this study was to examine the effects of the educational interventions of cooperative learning and conflict resolution upon adolescent vocational readiness. It was proposed that, due to the exposure to training students will demonstrate an increased amount of work-related information obtained from different resources; more positive work values; and increased work-related knowledge. Greater vocational readiness was expected to be associated with higher self-esteem, more internal locus of control and favorable general well-being. It was also hypothesized that employers will rate positively students who demonstrate greater work readiness. The results provide general support for the proposed hypotheses. Major study results and a summary of findings related to the hypotheses are presented below.

Examination of subjects' work readineass prior to the intervention revealed that students aspire to hold a variety of jobs in the future ranging from professional positions to skilled worker jobs. However, they demonstrated a sparse

knowledge about the world of work and often provided inaccurate information regarding requirements for their future careers.

Differential impact of gender and the school site was found with respect to vocational variables and the perception of students by their employers and teachers. Male subjects reported greater amount of work-related information obtained from their families and friends than females. Males also rated the importance of social success in their lives higher than females. Both employers and teachers perceived female students more favorably than males. Students from Campuses B and C demonstrated greater amount of work-related information obtained from their families and friends than subjects from Campus A. Campus B students placed a higher value on the importance of job autonomy than subjects from Campus A. They also valued social success higher than students from Campuses A and C. In addition, Campus B students were perceived by their employers as more adapted to the work environment than subjects from Campus C.

Intercorrelations among study variables as well as the crosstabulation of scores using median split revealed several significant associations. These associations were generally in the predicted direction. Greater amount of work-related information from various resources, more positive work values and greater work-related knowledge were

associated with higher self-esteem, more internal locus of control and favorable general well-being.

Supervisors and teachers perceived positively students who claimed greater amount of work-related information acquired from various sources, more positive work values and greater work-relevant knowledge. Interestingly, employers were likely to rate negatively those students who placed a high value on the importance of work success in evaluating their future jobs. In addition, employers rated negatively students' attitudes toward work and their adaptation to work environment for those subjects who described themselves as systematic problem solvers and as having more internal locus of control. Teachers rated favorably adolescents with higher self-esteem, more internal locus of control and with more positive psychological states. Both teachers and supervisors rated high those adolescents who claimed they were less avoidant/ineffective when solving problems.

Pre-post comparisons of vocational scores were made in order to detect effects of the intervention. The results revealed a trend of increase in the amount of work-related information obtained from various resources, an increase in work-related knowledge, and decrease in scores pertaining to work values. After being exposed to cooperative learning and conflict resolution training students were likely to place lower value on general job security, job autonomy/meaningfulness, work conditions and work success than prior to training.

In addition to pre-post comparisons, training effects were examined by inspecting the associations between the posttest scores on vocational readiness variables and variables indicating student exposure to training. Self-reported improvement in cooperative learning and conflict resolution skills was associated with increased amount of work-relevant information acquired from different sources, with more positive work values, and with greater knowledge of the world of work.

Student work values were positively correlated with teacher self-reported percentage of time they have used cooperative learning at Campus B. The more time subjects were exposed to cooperative learning, the more likely they were to place a higher value on the importance of general job security, job autonomy/meaningfulness, work conditions and work success.

Posttest scores on vocational readiness variables were correlated with self-reported psychological and mental health variables for which a favorable change due to training was detected in the Lisrel analyses (see Zhang, 1991). Favorable work readiness scores were associated with more systematic and less avoidant problem-solving, with more internal locus of control, higher self-esteem, favorable general well-being, and with greater social support from one's family, school and work.

Change scores on vocational variables (posttest minus pretest) were correlated with training exposure measures and

with student psychological and mental health variables. Increase in the amount of work-related information was positively associated with student self-perceived improvement regarding conflict resolution skills for Campus C subjects. Increment in the amount of work-related knowledge for Campus C students was positively associated with self-perceived improvement in cooperative learning and conflict resolution skills.

Decreased work values scores were also associated with training exposure measures. For example, decrement in student ratings of the importance of general job security was associated with lower % of time teachers reported they have used cooperative learning in their classrooms.

Increase in work-related information was associated with more internal locus of control orientation. Augmented work-relevant knowledge was associated with more systematic problem-solving, more internal locus of control, higher self-esteem, and more positive psychological states for site C students. Decrement in work value scores was associated with more avoidant/ineffective problem-solving, lower self-esteem, more external locus of control, and less favorable psychological and physical well-being.

Multiple Regression results supported the predicted relationships among the study variables. Constructs pertaining to work readiness and employer perceptions of students were used as dependent variables. Systematic problem-solving and favorable well-being were significant

predictors of the amount of work-related information adolescents acquired from various resources. Students' self-esteem scores were significant predictors of their work values and of employer ratings of student behavior at work. Subjects' scores on positive psychological states were significant predictor of their work-related knowledge.

Teachers' self-report regarding the percentage of time they have used cooperative learning in their classrooms as an indicator of student exposure to training was a significant predictor of work values for subjects at Campus B. Subjects who assigned a higher value to the importance of general job security and the job autonomy/meaningfulness were likely to be in the classrooms of those teachers that reported greater use of cooperative learning.

Methodological Issues

Prior to discussion of the theoretical and practical implications of the study results, there are a number of methodological issues that need to be considered. They involve the sample, measures, and the study design.

Sample. Even though the study of inner-city alternative high school students does entail a great deal of complexity, it also restricts generalization. The participation of a limited number of New York City high school students raises the question of the external validity of the findings. While three Campuses were represented, the possibility of bias related to student initial selection, varying dropout rates or selection regarding participation

in work internship assignments exists. Therefore, various insights and implications derived from this study should be accepted as tentative rather than conclusive. Generalizations of the findings must await confirmation through additional studies involving a variety of adolescent samples in different settings.

Measures. Psychometric properties of the measures were examined. Even though some items describing student vocational readiness had somewhat limited variance, overall variance of the scales used in this study was sufficient for the intended analyses. The internal consistency of the scales, though in some cases not high, was acceptable.

Validity of the self-report nature of the study measures could be called into question. Conscious distortion and response artifacts are always a concern. For example, the measure of adolescent work readiness asks questions about jobs students would like to have in the future. Therefore, work values demonstrated in this study apply to the hypothetical situations. This method may disguise variability in values and beliefs held by adolescents at the time of an actual employment.

Even though it has been shown that assurance of anonimity increases reporting of sensitive information (U.S. Department of Health, Education, and Welfare, 1977), this problem needs to be offset if possible. Self-report data in this study were for that reason contrasted with independent ratings of students by their employers and teachers.

Confidence in the veracity of students' responses was strengthened by the meaningful associations between self-perceptions and ratings by supervisors and teachers.

Study Design. The main goal of this study was to detect the effects of cooperative learning and conflict resolution training on students' vocational readiness. A control group could not be timely designated and used to attain that goal. Several different analyses were thus performed in order to demonstrate training effects. It is assumed that the inclusion of a number of evidence attesting to the influence of intervention on student work readiness is sufficiently suggestive of training effects. However, it is important to note that the use of the control group would strengthen these findings.

Theoretical Implications

Although this research has its limitations, some interesting and significant results were obtained. Findings support the conclusion that occupational information, work values and knowledge of the world of work are important aspects of vocational maturity in adolescence. Results in addition suggest that these dimensions of adolescent vocational readiness could be bolstered by introducing conflict resolution and cooperative learning training.

A review of student aspirations regarding their future preferred jobs suggests that most of these goals are probably unrealistic. In addition, it is likely that these career goals are discrepant with the student's level of

ability and thus might be difficult if not impossible to implement. The outcome may be premature closure of job search, or a termination of exploration at a time when options should be kept open. This finding is in accord with previous research. It has been shown that many youngsters up to the age of 25 often do not have a definite ideas about their future careers (Jordaan & Heyde, 1979). It appears that in specifying their occupational preference, young people pay more attention to the kind of person they would like to be than to the kind of person they presently perceive themselves to be. Despite the pervasiveness of this phenomenon, this result does warrant attention. Given the age of subjects in this sample (mean of 19) and their socioeconomic status, it is likely that majority of them will seek an employment immediately after high school. In order to facilitate the forthcoming job search and subsequent work performance, adequate interventions are needed to timely equip youngsters with social and vocational skills necessary to obtain and preserve the job.

Occupational information demonstrated by students was sparse and superficial. One reason why high school students know so little about the occupations they are considering may be that they have not sought out, taken advantage of, or been effectively helped to make good use of appropriate sources of information. Another problem may be that adolescents do not know what aspects of occupations and of their own behavior they should inquire into and how they

might proceed to do so. The random and poorly conceived changes of jobs which characterize the work histories of youths between the ages of 18 and 25 suggest that many students lack insight into world of work and into themselves (Jordaan & Heyde, 1979). A clearer understanding of what they need to know about the world of work and about themselves before embarking on their first job, coupled with better knowledge and use of appropriate sources of information would help to reduce floundering both in high school and in the post-high school years.

The finding that students cannot be differentiated with regard to most vocational concepts on the basis of their gender also corroborates previous research (Gribbons & Lohnes, 1964; Thompson, 1966). Overall, male and female adolescents seem to possess comparable amount of work-related information, hold similar work values and are alike with respect to their knowledge about the world of work.

Gender groups did differ regarding the amount of vocational information they have obtained from their families and friends and regarding the importance of social success in their lives (items describing social success were: having strong friendships; being a leader in the community; getting away from this area of the country; and working to correct social and economic inequalities). Male students acquired more information about the world of work from their families and friends and were likely to rate higher the importance of social success than females.

The interpretation of these results may concern the differential meaning of work in the context of other differences in the socialization of males and females. For males, taking on a job at an early age might be consistent with social expectations and with socialization for adulthood. For females, entering the labor force may represent, in some respects, a departure from the expectations placed on them by significant others. Thus, due to a stronger social pressure, male adolescents may be more eager to acquire occupational information and may place more value on their future success than females. In addition, given differential social expectations for males and females, the families and friends could be more interested to assist males regarding their occupational goals than females.

The hypothesis about positive association between favorable personal attributes (higher self-esteem, more internal locus of control, favorable well-being, more systematic and less avoidant problem-solving) and greater work readiness (greater amount of occupational information, more positive work values and greater knowledge about world of work) was confirmed. Students that described themselves as having desirable psychological characteristics and skills and those that demonstrated greater vocational readiness were in addition perceived more positively by their employers. This result accentuates the significance of educational interventions devised to buttress adolescent

psychological characteristics, as well as their skills and behaviors that are relevant for occupational success. Given the positive impact of conflict resolution and cooperative learning training on these variables, it is clear that such intervention represents an important asset that could be used to enhance adolescent work readiness. School based research of this type might be valuable in testing and improving such educational interventions.

Decrease in students' scores from pretest to posttest on variables that describe work values is an intriguing finding. It is possible that having had actual work experience, and perhaps having accepted a limited amount of responsibility, the individual student might be able to make a more realistic appraisal of work-related values. For example, adolescent estimate of the value of job autonomy may be overinflated when it concerns hypothetical situations. Actual work experience, characterized by frequent interactions with others and necessity of cooperation in order to carry out successfully majority of tasks, might help clarify the real meaning of job autonomy. Having a real work experience may in addition prompt students to revise their appraisal of the importance of work success and social success. Flamboyant expectations are likely to become more realistic after direct exposure to the work environment with all its complexities and imperfections. Therefore, actual work involvement could have induced decreased scores on work value variables by

making certain aspect of world of work more salient and real to adolescents.

Another possible explanation of the decrement in work values pertains to the nature of jobs usually performed by adolescents. Given that youngsters are often expected to perform meager and insignificant tasks, it would not be surprising that their appraisal of work values decreases after being disappointed with actual work experience. Employers' negative perceptions of students that described themselves as systematic problem-solvers, as having an internal locus of control orientation, and of those that placed a high value on their future work success might be indicative of meaningless tasks performed by students and of their powerlesness in the workplace. If youngsters are just expected to complete their tasks with no involvement in the decision making process, it is plausible to believe that supervisors with such expectations would not be appreciative of behaviors characteristic of adolescents with high aspirations, with internal locus of control orientation and those that approach problems systematically and in a planned manner. Such adolescents tend to be more demanding and may thus require more sincere involvement on the part of employers.

Finally, it is important to note that decreased scores on variables describing work values were associated with lower exposure to the intervention. It is possible that adolescents who lack appropriate interpersonal skills and

the ability to work well with others, once in an actual work setting, tend to depreciate values such as job autonomy or work success since their experience proved to be frustrating and disappointing.

Practical Implications

Adolescence is a period of continuing exploration in which diverse and newly recognized occupational possibilities are considered and screened (Jordaan & Heyde, 1979). Pervasiveness of unrealistic aspirations regarding their future jobs and insufficient knowledge of the world of work, suggest that high school years should be mostly an exploratory period regarding adolescents' career plans. Teachers and counselors could help youngsters assess the educational and vocational significance of work experiences, asist them in building necessary job-related skills, as well as in planning a continuing sequence of vocationally relevant experiences. In addition to helping students with current difficulties, practitioners should be equipped with skills and knowledge that would enable them to anticipate, circumvent, and possibly forestall difficulties that may arise in the future.

Attempts at prevention and remediation are most likely to be successful when practitioners have a clearly formulated and theoretically sound rationale for what they are attempting to do. They need to know which skills and behaviors are crucial for vocational success, how vocational decisions are made and how they should be made. They also

need to know the directions in which vocational development proceeds during the critically important high school years. Conflict resolution and cooperative learning training could help practitioners to better facilitate student transition from school to work. If practitioners undertake such training and acquire constructive conflict management skills as well as skills of working better with others, they would be able to transmit these skills the youngsters.

Adolescents should be encouraged to think carefully about their hopes and desires and to develop realistic goals (Kidd, 1984). Reinforced fantasies about self and work may lead to inappropriate job choices. One of the most important developmental tasks of adolescence is the achievement of a successful integration between fantasy and reality. If integration is not achieved, the transition from school to work is fraught with problems and youngsters often fail to adjust fully to the world of work.

Career information of most students is very limited (Super & Nevill, 1984). Subjects in this study demonstrated a sparse knowledge about the training and educational requirements of their preferred occupations. It is plausible to believe that students' knowledge about psychological requirements of such occupations is even more hollow. Research evidence has shown that adolescents with some awareness of their own personal characteristics are most likely to have inquired into the psychological and other characteristics of the occupation they wish to intend

to enter (Jordaan & Heyde, 1979). This suggests that self-awareness regarding skills relevant to vocational success may be even more important than occupational knowledge. The ability to estimate accurately one's own interests, aptitudes, and work values is crucial to making satisfactory vocational decisions. Adolescents should thus be directed to explore and acquire vocationally relevant skills. They should be aware of external factors such as job opportunities and training requirements and of the internal factors of an individual's interests, capacities, and values. Conflict resolution and cooperative learning training enables students to recognize, acquire and test the skills and behaviors that are necessary for obtaining and preserving the job.

Students who have not sufficiently inquired into themselves or the world of work should generate rather than test hypotheses about their vocational choices. On the other hand, adolescents who are reasonably informed about themselves and the world of work, who have some idea of the kind of work and the level of work they are quaalified for by virtue of their interests, abilities, values, and personality, would need more focused exploration.

A number of studies involving inner-city students has shown that vocational readiness can be increased by guided exploration. These studies suggest that focus during the high school years should be on promoting, facilitating, planning, and guiding exploration. The emphasis should be

on helping students develop the attitudes, knowledge, and skills that will enable them to crystalize, specify, and, eventually, implement a vocational preference.

Students who embark on work experiences without a clear idea of what they are trying to find out are not likely to gain much from that experience. Entering the world of work should thus be perceeded by training that would raise adolescents' awareness about job requirements and equip them with skills and knowledge necessary in work settings. Vocational readiness is most likely to be increased when the process of preparing students for the world of work is planned and goal-directed. Such training should seek to achieve several outcomes: greater competence in basic academic skills; awareness of continuing education opportunities; competence in making career choices; meaningful work values; incorporation of work values into personal values; constructive conflict resolution skills; ability to work well with others; good working habits; employment-seeking skills; and successful job placement.

Without empirical verification, it was frequently assumed that working fosters social cooperation and the attainment of important job skills (e.g., Steinberg & Greenberger, 1980). However, all jobs do not provide youngsters with identical experiences and as such are not likely to be equally facilitative of adolescents' development and socialization (Greenberger, Steinberg & Ruggiero, 1982). For example, a failure of work experience

to increase social responsibility might be a consequence of the limited responsibility given to adolescents in the kinds of jobs they are able to take while enrolled in school and of the limited contacts with adults those jobs provide (Greenberger & Steinberg, 1981; Greenberger et al., 1982).

Ways to generate meaningful work experience for students in school need to be expanded. New efforts in school/industry cooperation and sharing of facilities, personnel, and information need to be developed. If the workplace is to become a truly vital context for adolescent socialization, it needs to be designed more deliberately with various aims in mind such as: personal responsibility taking, task interdependence, intergenerational contact, etc.(Greenberger & Steinberg, 1981). For example, although about one-third of young workers report that they have sometimes talked with an adult supervisor about personal or social issues, only a vary small proportion of time is actually spent in such interaction. In addition, youngsters usually receive very little formal instruction from adults at work, perhaps because what most young people do at work for pay is an extention of activities they already have learned and performed in other settings.

In spite of great technological advances, individuals will not inherit a quick, simple, and effective method for selecting and maintaining fulfilling careers (Kinnier & Krumboltz, 1984). They will have to struggle with tentative self-assessment estimates, vast amounts of information,

continually changing alternatives, and frequent conflicts and frictions in the workplace. Successful career decision making and management will require lifelong self-exploration and ongoing career education and planning. Training will be needed to continually educate adolescents on the basic components of self-appraisal, information seeking, conflict resolution, cooperation with others, decision making, values clarification, and job-seeking strategies.

Results of this study cast doubt on the relevance of work internship experience for high school adolescents. Observations of interns in the work environment and interviews conducted with the school staff have attested to such a doubt. The value of the internship experience may be brought into question in terms of enhancing adolescent vocational maturity. Observations of students at the internship sites and work-related discussions during the training sessions suggest that most jobs were tedious and did not provide a meaningful focus of adolescents' lives. Most students have worked in unskilled positions with fairly routinized tasks and little formal instruction. The effects of work experience obviously vary as a function of what that experience is; given the character of these internship positions, it is difficult to see how work under these conditions could contribute very much to youngsters' growth. Perhaps schools could compensate for this by increasingly bringing outside-school life experiences into classroom discussion. In addition, employers and interns should be

trained how to enrich the internship experience. They should be helped to identify issues of common concern and equipped with skiils that would enable them to interact effectively. Work environments that are intended to serve as contexts for the socialization of youth will have to be carefully selected and the relevant social and task arrangements accurately engineered.

Research suggests that early work experience does not substantially improve the long-term employment prospects of young people who eventually graduate from high school. The fact that school completion is a far better predictor of future employment success than is early work experience reaffirms the importance of schooling over working in determining individual occupational futures. As the labor force continues to shift toward requiring more highly skilled and professional workers, basic academic competency can only become more important.

Despite the documented importance of conflict resolution and cooperative skills for occupational success, the vast majority of secondary education programs still lack services in these areas. Since generalization of these skills is difficult to achieve, instructional activities should include practice and feedback in target settings such as work environment.

The findings of this study can be used (1) to assess a high school student's skills, behaviors, and personal characteristics relevant to their work readiness; (2) to

build on or remedy vocationally relevant assets and deficits; (3) to determine what kinds of work experiences students need in order to obtain a clearer picture of themselves and the world of work. These results thus provide a means of tailoring career education to student individual needs.

Directions for Future Research

There are many avenues for future research. For example, this study could be replicated with various samples. The influence of other constructs that might be relevant to adolescent vocational readiness needs to be examined. Also, causal models should be developed with work readiness as an outcome measure. Future studies should enhance measurement and employ longitudinal designs. Research investigating adolescent work readiness must in addition account for the environmental context in which the work performance occurs, the individual developmental level, the prior work history, and the actual work behavior.

Even though this study has supported the importance of occupational information, work values and work-relevant knowledge as aspects of vocational maturity, further clarification of the concept of adolescent work readiness is necessary. Researchers need to specify adolescent work readiness beyond the three dimensions proposed in this study. For example, vocational readiness could be conceptualized at two levels. At the first, work readiness may be assumed to have some general features that are

consistent across a variety of work settings. At the second, vocational readiness may be assumed to be consistent under similar circumstances but possibly vary as features of the work environment change.

Variables warranting further research are agreement between ability and preference and actual work experience. Investigations should be conducted of the factors which facilitate vocational maturity, including counseling, occupational information, role-playing, simulation games, programmed instruction, visits to business and industry, etc.

Work readiness should be in addition determined by an interaction of personal attributes and the work environment. Personal attributes include skills, behaviors, and psychological traits; environmental factors pertain to current labor market conditions.

Even though the assumption that treatments will have similar effects despite differences between the groups of adolescents exposed to those treatments may well be unwarranted, it may be productive in career interventions to take account of personality characteristics. The fact that adolescents vary greatly with regard to both their personal attributes and their vocational maturity suggest that educators need data on these characteristics when planning curricula, and researchers need means of assessing these characteristics when designing and evaluating training programs.

Our knowledge about congruence between adolescent actual and self-reported behvior would be enhanced by further constraining the common method variance. This goal could be achieved by validating adolescent behavior against ratings by others (e.g., peers, coworkers, parents) or by using other forms of measurement such as observation instruments and interviews. Observational and interviewing procedure are less susceptible to selective recall and hallo biases of self-report instruments. Future research should thus focus on the relationship of self-reported indices of work readiness and measures obtained from other perspectives.

Research regarding the skills needed for success in the work arena and in the daily living must extend beyond the school walls. The efficacy of specific interventions, such as instruction in interpersonal and job-related academic skills, must be scrutinized closely. Researchers must evaluate not only the short-term effects of these interventions, such as mastery of discrete instructional objectives, but also long-term effects, including the use and relevance of newly acquired skills and behaviors in employment and postsecondary settings. The area of interagency linkages needs to be investigated, including barriers to effective cooperation and policy concerns. Finally, longitudinal research is necessary to determine the relationship between job-related academic, interpersonal, and specific vocational skill instruction and the adult

adjustment of individuals. Future studies could utilize larger samples and follow-up procedures which would observe employees in the real world of work.

Increased attention need to be paid to the impacts of work on adolescent development. Initial work experience represents a major ecological transition and, as such, promises to reveal much about adolescent development in general. Work is among the most important activities in adulthood, and knowledge of how entry into work affects adolescents should provide useful information about adult role formation. Research should examine impacts of work experience in other settings, such as home and school and it should seek the impacts over time. Research should also look for interactions among the backgrounds and qualities of different adolescents and the characteristics of various work experiences.

It is hoped that this study will stimulate further thinking and research on adolescent vocational readiness and evaluation of various educational interventions aimed at the enhancement of this construct. Despite its limitations, this study represents a step forward in explaining work readiness and its amenability to improvement due to conflict resolution and cooperative learning training.

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Appendix A: Description of Students' Vocational Experience Consent Form

Vocational Experience at the Inner-City High Schools

Students in the inner-city alternative high school where research was conducted are required to take career education classes and undertake work internship for one or two ten weeks cycles in order to graduate. Most of the students entering this school have either dropped out or requested transfers from other high schools and thus may have already fulfilled these requirements.

Required career education courses are: Working Citizen (teaches students about workplace in general; how to get job; application process; resume writing; how to use various resources to find job; how to choose career); and Personal Finance Management (how to handle one's resources; how to make decisions. set goals, manage one's time, make a budget).

Work internship program has been established to provide students with vocational experiences and assistance in locating employment after leaving school. The program is intended to foster social skills and work habits, and to provide practical employment experience. The internship is monitored by school staff (paraprofessionals at two schools and a teacher at third site). In order to start an internship students are supposed to be academically in good standing and have a satisfactory attendance record.

Most internships were organized by the schools and took place at three worksites. Students performed a variety of part-time jobs ranging from involvement in intergenerational

program and city businesses to building basic vocational skills. In addition to these positions , some students got work experience through other independent school contacts or through their own arrangements. Students were paid for their work.

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INTERNATIONAL CENTER FOR COOPERATION
AND CONFLICT RESOLUTION
BOX 53
(212) 678-3402

Dear Satellite Student:

This questionnaire has been approved and authorized by Satellite Academy, as part of a research project being conducted by Teachers College. While you are not required to answer the questions, your cooperation is needed to make the results of this questionnaire accurate and comprehensive.

There is no penalty for not answering all or any part of this questionnaire.

The results of this questionnaire and others like it, will help us to evaluate educational programs of Cooperative Learning and Conflict Resolution, which will be introduced to your school during the next two years. With your help, we will be able to determine whether our programs of Cooperative Learning and Conflict Resolution are worthwhile and useful for high school students like yourselves. **YOUR FEELINGS, OPINIONS AND IDEAS, AS WELL AS YOUR QUESTIONNAIRE RESPONSES ARE IMPORTANT TO US.**

Your questionnaires will be identified by a code number. The Teachers College Research Team will be the ONLY people to see your questionnaire. **QUESTIONNAIRES WILL NOT BE SEEN BY SATELLITE STAFF OR TEACHERS.**

PLEASE SIGN YOUR NAME ON THE LINE BELOW IF YOU AGREE TO COOPERATE WITH THIS RESEARCH PROJECT BY FILLING OUT THE QUESTIONNAIRE.

_____

Student Signature

Appendix B: Instrumentation

Appendix C: Other Study Results

Table 20

Work Values

How important is each of the following factors in deciding what kind of job you plan to have? (N=558)

	% very important	% important	% somewhat or not important
Knowing can get job	70	23	7
Knowing will make lot of money	59	32	9
Having security w/ perman. job	67	25	8
Important job (othrs/society)	45	34	21
Interesting work	74	23	3
Freedom to make own decisions	57	32	10
Opportunity to be creative	49	38	11
Socializing with people	40	40	20(17/3)
Good location/surroundings	51	34	15(13/2)
Looked up by others	42	33	25(21/4)
Avoiding high pressure jobs	32	32	36(29/7)
Opportunities for promotion	59	32	9(7/2)

Other factors important in deciding what kind of job students plan to have: benefits, job satisfaction, flexible hours, having authority, personal growth, feedback, opportunities to travel, EEO, fame and success, and union membership.

Table 21 **Job Information** (subjective assessment)

How much information do you already have about the job you would like to have in the future? (N=558)

	% very much and much	% some	% very little or little
The education/training required	59	27	14
Where to get additional info	57	28	15
Time it will take to get additional training/education	59	26	15
The cost of additional training/education	49	26	25
Usual tasks you will perform	63	26	11
Kind of people will be working with	58	22	20
Hours a week for this job	51	22	27
Promotions available	50	23	27
Average salary range	58	22	20
How to go about getting job	60	21	19

Table 22

Work Knowledge (Subjective Assessment)

How much formal training/education would you need in order to get the job you mentioned ? (N = 365)

1. None	4%
2. HS and post HS	25%
3. 2 yrs college and B.A.	40%
4. Graduate degree	19%
5. Do not know	12%

Table 23

Job Information (subjective assessment)

Approximately how many hours a week would you expect to work in order to keep desired job ? (N=129)

Students' responses to question **how many hours a week they expect to work in order to keep the desired job** (N = 129) varied between 10 hours or less per week (10%) to 36 hours a week or more (43%). Mean was 26 - 30 hours a week; mode = 36 hours a week or more; median = 31 to 35 hours a week.

Table 24

Job Information (subjective assessment)

What is the average annual salary that you would expect to make during your first year on the desired job ? (N=429)

	%
1. $8,000 & less	24
2. $8,000 to $15,000	20
3. $15,000 to $20,000	13
4. $20,000 to $25,000	23
5. $25,000 & more	20

Table 25

Job Information (subjective assessment)

What is the average length of time you would expect to wait for your first promotion ? (N=129)

	%
1. 3 months or less	25
2. between 3 & 6 months	25
3. between 6 & 9 months	10
4. between 9 mon & 1 yr	40

Table 26

Work Values

How important is each of the following in your life? (N=558)

	% very important	% important	% somewhat or not important
Being successful in job	85	13	2
Having lots of money	60	32	8(7/1)
Strong friendships	42	32	26(20/6)
Being able to find steady work	74	21	5(3/2)
Being leader in community	26	28	46(29/17)
Living close to parents/family	27	25	48(30/18)
Getting away from this area	24	17	59(31/28)
Correct soc./econ. inequal.	31	32	37(25/12)

Note: percentages in parentheses pertain to somewhat important and not important respectively.

Table 27

Work Information Sources (subjective assessment)

How would you rate the amount of information you get from the sources listed below ? (N=558)

	% very much or much	% some	% very little or little
My family	65	21	14
My friends	42	36	22
Counselor or advisor	54	29	17
Teachers/Satellite staff	58	24	18
Employment agencies	43	26	31
Books/magazines/newspapers	49	29	22
People already working	67	19	14
OCCED classes	56	22	22
TV or radio advertisements	30	31	39

Table 28

When asked about their plans after leaving Satellite, 21% of students responded they would get a job; 52% thought they would go to college; 10% would take some time off; 11% would enlist in military; 4% would pursue technical school; 1% is planning to be a homemaker; and 2% did not have plans.

Mean Differences Between Students That Plan to Get a Job After Leaving Satellite and Those that Plan to Go to College Regarding Some Work-Related and Psychological Variables (pretest)

	Get a Job (N=128)	Go to College (N=321)	t	p
WORKCON	13.4 (1.98)	12.9 (2.35)	1.89	.06
AIPS	14.7 (3.16)	14.1 (3.46)	2.09	.037
I/E	21.3 (3.62)	22.0 (3.53)	-2.27	.024
POSWB	28.6 (6.79)	29.7 (6.67)	-1.79	.075
PHYWB	24.0 (5.30)	24.9 (5.00)	-1.93	.055

Note:

WORKCON	Work Conditions (location, pressure, promotion)
AIPS	Avoidant/Ineffective Problem Solving
I/E	Locus of Control
POSWB	Positive Psychological States
PHYWB	Physical Health

scoring:hi=more favorable except for AIPS (hi=more avoidant)

Students that plan to get a job after leaving Satellite compared with their colleagues that plan to go to college value work conditions higher; are more avoidant/ineffective in solving problems; have more external locus of control; have less favorable positive psychological states and less favorable physical well-being.

Table 29

Students were asked if they participated in hobby clubs (e.g., photography, electronics, computers, model building, crafts, hot rods) either in or out of school. 36% (390) of respondents reported participation in such clubs while 64% (222) did not participate.

Mean Differences Between Students that Reported Participation in Hobby Clubs and Those That Did Not Participate (pretest)

	No hobby (N=222)	Hobby (N=390)	t	p
BPEOTV	10.0 (2.74)	10.7 (2.86)	-1.98	.049
SOCSUCC	10.7 (2.75)	11.5 (2.65)	-2.74	.007
SPS	10.8 (2.43)	11.5 (2.22)	-3.10	.002

Note:

BPEOTV Work-related info from books/TV/people
SOCSUCC Importance of Social Success
SPS Systematic/Planned Problem Solving

scoring: hi = more positive

Students that reported participation in different hobby activities as compared with students that did not report such participation acquired more work-related information through books, other people or TV; valued social success more highly; and approached problems in a more systematic/ planned manner.

Table 30

Students were asked to describe their present or most recent job. For example, they were asked if their job was the place where people goof off. 29% (123) of students thought that people goof off at their job while 71% (301) did not think that was the case.

Mean Differences Between Students That Described Their Job as a Place Where People Goof off and Those That Did Not (pretest)

	Goof off	Do Not Goof off	t	p
AIPS	8.4 (2.81)	7.6 (2.56)	2.52	.012
I/E	21.1 (3.48)	22.0 (3.60)	-2.30	.022

Note:

AIPS Avoidant/Ineffective Problem Solving (hi=more avoidant/ineffective)
I/E Locus of Control (hi=more internal)

Students that think their present or most recent job is a place where people goof off compared to students who do not think that is the case are more avoidant/ineffective in solving problems and have more external locus of control.

Table 31

Students were further asked to describe their present or most recent job. Specifically, they were asked if their job was something they do just for money. 66% (304) of students responded they did their job just for money. 34% (154) did not think they were doing their job just for money.

Mean Differences Between Students That Described Their Job as Something They Do Just for Money and Students That Did Not Agree With Such Statement (pretest)

	Just Money	Not Just Money	t	p
WORKCON	13.2 (2.30)	12.6 (2.45)	1.79	.076
WKSUCC	11.1 (1.32)	10.8 (1.40)	1.66	.099
AIPS	8.0 (2.64)	7.4 (2.61)	2.02	.044
APPEAR	15.0 (3.60)	16.6 (2.14)	-.1.86	.071

Note:

AIPS Avoidant/Ineffective Problem Solving (hi=more avoidant/ineffective)
APPEAR Employer Rating of Student Appearance (hi = more favorable)

Students that described their job as something they do just for money compared with students that did not agree with such statement valued higher work conditions and social success; were more avoidant/ineffective when dealing with problems; and, in addition, they were rated less favorably by their employers regarding their appearance at work.

Table 32

Students were asked to further describe their present or most recent job. Specifically, they were asked if their job was more enjoyable than their school. 36% (148) of students thought their job was more enjoyable than their school while 64% (304) did not think so.

Mean Differences Between Students That Described Their Job as More Enjoyable Than Their School and Students That Did Not Agree With Such Statement (pretest)

	More Enjoyable Than School	Not More Enjoyable Than School	t	p
SPS	11.3 (2.20)	10.8 (2.45)	2.13	.034
APPEAR	17.1 (1.38)	14.7 (3.71)	2.88	.007

Note :

SPS Systematic/Planned Problem Solving (hi=more systematic)
APPEAR Employer Rating of Student Appearance (hi=more favorable)

Students that think their job is more enjoyable than their school compared with respondents that did not think so were more systematic in solving problems; and were rated more favorably by the employer regarding their appearance at work.

Table 33

Students were asked if their present or more recent job encourages good work habits and skills. 67% (295) of respondents agreed that their job encourages good work habits and skills; 33% (145) did not think so.

Mean Differences Between Students That Think Their Job Encourages Good Work Habits and Skills and Those That Do Not Think So (pretest)

	Encourages Habits/Skills	Does Not Encourage Habits/Skills	t	p
SCHEMP	14.2 (3.57)	12.7 (4.50)	2.50	.014
SOCSUCC	11.3 (2.64)	10.3 (2.97)	2.47	.015
SPS	11.2 (2.28)	10.6 (2.47)	2.58	.011
AIPS	7.6 (2.60)	8.2 (2.74)	-2.08	.039
I/E	22.0 (3.60)	21.3 (3.47)	1.89	.060
POSPS	29.8 (7.03)	28.4 (6.82)	1.95	.052
NEGPS	22.9 (9.31)	24.7 (8.99)	-1.86	.064

Note :

SCHEMP	Work-related info from school/employer
SOCSUCC	Importance of social success
SPS	Systematic/Planned Problem Solving
AIPS	Avoidant/Ineffective Problem Solving
I/E	Locus of Control
POSWB	Positive Psychological States
NEGPS	Negative Psychological States

Students that think their job encourages good work habits and skills compared with students that do not think so obtain more work-related information from their school and employer; value higher social success; are more systematic when solving problems; are less avoidant when solving problems; tend to have more internal locus of control; report more favorable positive well-being; and are less anxious and depressed.

Table 34

Students were asked if their present or more recent job interferes with their school work. 28% (119) thought their job did interfere with their school work; 72% (306) did not think their job interfered with school.

Mean Differences Between Students That Think Their Job Interferes With Their School Work and Those That Do Not Think So (pretest)

	Job Interferes w/ School	Job Does Not Interfere w/School	t	p
SCHEMP	14.9 (3.88)	13.2 (3.90)	2.78	.007
BPEOTV	10.8 (2.78)	9.9 (2.74)	1.96	.053
JOBAUT	17.6 (2.28)	16.8 (2.74)	2.20	.030
WORKCON	13.6 (2.18)	12.8 (2.40)	2.54	.013
POSPS	28.3 (6.55)	29.7 (7.02)	-1.84	.067
PHYWB	23.9 (4.71)	25.0 (5.27)	-1.95	.053
NEGPS	25.8 (9.63)	22.7 (8.98)	2.99	.003

Note :
SCHEMP Work-related info from school/employer
BPEOTV Work-related info from books/people/TV
JOBAUT Job autonomy/meaningfulness
WORKCON Importance of work conditions
POSWB Positive Psychological States
PHYWB Physical Well-being
NEGPS Negative Psychological States

scoring: hi=more positive except NEGPS (hi=more negative)

Students that think their job interferes with their school work obtained more work-related information from school/ employer and from books/people/TV; they valued higher job autonomy/meaningfulness and work conditions; they reported less favorable positive psychological states and less favorable physical health; and were more anxious and depressed.

Table 35

Students were asked if they had a physical condition that limits the kind or amount of work they can do or a job. Students that had such a limit were then compared with those that did not. 10% (55) of students reported such a physical condition while 90% (530) did not.

Mean Differences Between Students That Have Physical Condition That Limits Their Work and Those That Do Not (pretest)

	Limits	No Limits	t	p
POSPS	27.0 (6.18)	29.5 (6.70)	-2.68	.010
PHYWB	22.5 (5.18)	24.9 (5.12)	-3.16	.002
NEGPS	26.2 (9.89)	23.3 (9.16)	1.99	.052

Note :

POSWB Positive Psychological States
PHYWB Physical Well-being
NEGPS Negative Psychological States

scoring: hi=more positive except NEGPS (hi=more negative)

Students that had physical condition that limits the kind or amount of work they can do on a job as compared with students that did not have such condition have less favorable positive psychological states, less favorable physical health, and are more anxious and depressed.

Table 36

Students were asked if they have ever participated either actively but not as a leader or as a leader in Student Government or Core group. **Oneway ANOVA** was then performed in order to compare groups of students that have and that have not participated.

Students that **participated in Student Government or Core group** either actively but not as a leader or as a leader tend to have more internal **locus of control** than students that did not participate (F (2,569) = 6.82, $p < .001$); and reported more **positive psychological well-being** (F (2,533) = 6.47, $p < .001$). Students that actively participated but not as a leader compared to those that did not participate tend to have more favorable **physical well-being** (F (2,528) = 4.30, $p < .05$); and were less **anxious and depressed** (F (2,533) = 3.02, $p < .05$).
In addition, students that participated in Student Government or Core group either actively but not as a leader or as a leader compared to those that did not participate were likely to obtain more favorable **ratings from their teachers** (F (2, 126) = 7.29. $p < .001$).

Table 37

Students were asked if they ever worked with a group of classmates on a project with little adult supervision (range: never; once; few times; often). Oneway ANOVA was then performed comparing students with varied amount of experience regarding working with groups.

Students that never worked with a group of classmates on a project with little adult supervision compared to students that worked in such a way few times were less systematic when solving problems (F (3,590) = 4.11, $p < .01$). Students who reported that they often worked on a project with little adult supervision compared to students that never worked in such a way scored higher on positive well-being (F (3, 548) = 4.28, $p < .01$).

Table 38

WORK QUESTIONNAIRE: Factor Analysis: (N=558-pretest scores)

How important is each of the following factors in deciding what kind of job you plan to have ?

Range 1-4 :(very important; important; somewhat important; not important)

Item Loadings	Fac1	Fac2	Fac3
Having opportunities to be original and creative	**.819**	.068	.123
Having e freedom to make my own decisions	**.721**	.129	.147
Having work that is interesting to me	**.544**	.107	.477
Meeting and socializing with people	**.535**	.525	.044
Having a job where I can help others and that is important to society	**.451**	.297	.148
Avoiding high-pressure jobs	.038	**.708**	.078
Having a job where I'll be looked up by others	.203	**.691**	.140
Having a good location and surroundings	.337	**.624**	.197
Having opportunities for promotion	-.018	**.501**	.466
Having security with a permanent job	.127	.114	**.770**
Knowing that I'll make lots of money	.084	.234	**.614**
Knowing that I can get this job	.295	.032	**.687**

Note: All items were scored in the same direction higher score = less important
Three factors 52.8% of variance explained
Factor 1: Job autonomy/meaningfullness
Factor 2: Work conditions
Factor 3: General job security

Table 39

WORK QUESTIONNAIRE: Factor Analysis: (N=558-pretest scores)

How much information do you already have about the job you would like to have in the future ?

Range 1-5 :(very much; much; some; little; very little)

Item Loadings	Factor 1
What kinds of promotions might be available in this job	.797
The time it will take to get additional training/education	.783
The cost of additional training and/or education	.783
Where to get additional education or training	.777
The usual tasks you will perform on this job	.757
The education and/or training required for my job	.743
The kind of people you would be working with	.731
How many hours a week you will need to work to have this job	.725
How to go about getting this job	.644
The average salary range	.577

Note: All items were scored in the same direction
higher score = less information

One factor - Work Knowledge (58.7% of variance explained)

Table 40

WORK QUESTIONNAIRE: Factor Analysis: (N=558-pretest scores)

How important is each of the following to you in your life ?

Range 1-4 :(very important; important; somewhat important; not important)

Item Loadings	Factor 1	Factor 2
Being able to find steady work	**.821**	.024
Being successful in my work	**.801**	.057
Having lots of money	**.646**	.188
Having strong friendships	.328	**.459**
Working to correct social and economic inequalities	.077	**.719**
Being a leader in the community	.006	**.694**
Getting away from this area	-.083	**.628**

Note: All items were scored in the same direction higher score=less important

Two factors 50.7% of variance explained

Total scale (Á.65)

Factor 1: Work success (Á=.67)

Factor 2: Social success (Á=.53)

Table 41

WORK QUESTIONNAIRE: Factor Analysis: (N=558-pretest scores)

How would you rate the amount of information you get from the sources listed below ?

Range 1-5 :(very much; much; some; little; very little)

Item Loadings	Fac1	Fac2	Fac3
Counselor or advisor	**.834**	.006	.179
Teachers or Satellite staff	**.831**	.033	.195
Occupational education classes	**.586**	.361	.206
Employment agencies	**.596**	.492	.127
Books, magazines, newspapers	.130	**.788**	.102
TV or radio advertisements	-.098	**.715**	.407
People already working	.443	**.583**	-.140
My friends	.186	.197	**.811**
My family	.232	.047	**.793**

Note: All items were scored in the same direction
higher score = less information

Three factors 65.5% of variance explained

Total scale

Factor 1: Amount of Work-related Info From School/Employer

Factor 2: Amount of Work-related Info From Books/TV/People

Factor 3: Amount of Work-related Info From Family/Friends

Table 42

Crosstabulation: Info About Work From School/Employment Agencies x Systematic/Planned Problem Solving (pretest)

MSCHEMP
By PPS

PPS-> MSCHEMP	Count / Row Pct / Col Pct / Residual	Lo 1.00	Hi 2.00	Row Total
Lo	1.00	96 63.6% 55.8% 7.4	55 36.4% 45.5% -7.4	151 51.5%
Hi	2.00	76 53.5% 44.2% -7.4	66 46.5% 54.5% 7.4	142 48.5%
	Column Total	172 58.7%	121 41.3%	293 100.0%

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F.< 5
2.05138	1	.1035	58.642	None

Note:

MSCHEMP Info About Work From School/Employment Agencies
PPS Systematic/Planned Problem Solving

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Table 43

Crosstabulation: Info About Work From School/Employment Agencies x Avoidant/Ineffective Problem Solving (pretest)

MSCHEMP
By AIPS

AIPS-> / MSCHEMP	Count / Row Pct / Col Pct / Residual	Lo 1.00	Hi 2.00	Row Total
Lo	1.00	75 56.0% 56.0% 8.5	59 44.0% 43.4% -8.5	134 49.6%
Hi	2.00	59 43.4% 44.0% -8.5	77 56.6% 56.6% 8.5	136 50.4%
	Column Total	134 49.6%	136 50.4%	270 100.0%

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F.< 5
3.78950	1	.0516	66.504	None

Note:

MSCHEMP Info About Work From School/Employment Agencies
AIPS Avoidant/Ineffective Problem Solving

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Table 44

Crosstabulation: Info About Work From School/Employment Agencies x Positive Psychological States (pretest)

MSCHEMP
By POS

MSCHEMP	Count / Row Pct / Col Pct / Residual	Lo 1.00	Hi 2.00	Row Total
Lo	1.00	81 57.9% 55.9% 7.2	59 42.1% 45.4% -7.2	140 50.9%
Hi	2.00	64 47.4% 44.1% -7.2	71 52.6% 54.6% 7.2	135 49.1%
	Column Total	145 52.7%	130 47.3%	275 100.0%

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F.< 5
2.60624	1	.1064	63.818	None

Note:

MSCHEMP Info About Work From School/Employment Agencies
POS Positive Psychological States

Table 45

Crosstabulation: Info About Work From Books/People/TV X Avoidant/Ineffective Problem Solving (pretest)

MBPEOTV
By AIPS

AIPS-> / MBPEOTV	Count / Row Pct / Col Pct / Residual	Lo 1.00	Hi 2.00	Row Total
Lo	1.00	103 64.8% 59.9% 7.0	56 35.2% 49.6% -7.0	159 55.8%
Hi	2.00	69 54.8% 40.1% -7.0	57 45.2% 50.4% 7.0	126 44.2%
	Column Total	172 60.4%	113 39.6%	285 100.0%

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F.< 5
2.54446	1	.1107	49.958	None

Note:

MBPEOTV Info About Work From Books/People/TV
AIPS Avoidant/Ineffective Problem Solving

Table 46

Crosstabulation: Info About Work From Books/People/TV X Locus of Control (pretest)

MBPEOTV
By LOC

LOC-> / MBPEOTV	Count / Row Pct / Col Pct / Residual	Ext 1.00	Int 2.00	Row Total
Lo	1.00	106 64.6% 60.9% 8.6	58 35.4% 48.7% -8.6	164 56.0%
Hi	2.00	68 52.7% 39.1% -8.6	61 47.3% 51.3% 8.6	129 44.0%
	Column Total	174 59.4%	119 40.6%	293 100.0%

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F.< 5
3.77440	1	.0520	52.392	None

Note:

MBPEOTV Info About Work From Books/People/TV
LOC Locus of Control

Table 47

Crosstabulation: Info About Work From Books/People/TV X Student Adaptation to Work Environment Rated by Employers (pretest)

MDPEOTV
By MADAPT

MADAPT-> / MDPEOTV	Count / Row Pct / Col Pct / Residual	Lo 1.00	Hi 2.00	Row Total
Lo	1.00	15 57.7% 75.0% 3.4	11 42.3% 44.0% -3.4	26 57.8%
Hi	2.00	5 26.3% 25.0% -3.4	14 73.7% 56.0% 3.4	19 42.2%
	Column Total	20 44.4%	25 55.6%	45 100.0%

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F.< 5
3.19851	1	.0737	8.444	None

Note:

MDPEOTV Info About Work From Books/People/TV
MADAPT Student Adaptation to Work Environment Rated by Employers

Table 48

Crosstabulation: Info About Work From Family/Friends x Systematic/Planned Problem Solving (pretest)

MFAMFRND
by SPS

SPS-> MFAMFRND	Count / Row Pct / Col Pct / Residual	Lo 1.00	Hi 2.00	Row Total
Lo	1.00	148 63.8% 77.5% 8.7	84 36.2% 66.1% -8.7	232 73.0%
Hi	2.00	43 50.0% 22.5% -8.7	43 50.0% 33.9% 8.7	86 27.0%
	Column Total	191 60.1%	127 39.9%	318 100.0%

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F.< 5
4.41703	1	.0356	34.346	None

Note:

MFAMFRND Info About Work From Family/Friends
SPS Systematic/Planned Problem Solving

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Table 49

Crosstabulation: Info About Work From Family/Friends x Avoidant/Ineffective Problem Solving (pretest)

MFAMFRND
By AIPS

AIPS->	Count / Row Pct / Col Pct / Residual	Lo 1.00	Hi 2.00	Row Total
MFAMFRND				
Lo	1.00	111 52.6% 77.1% 6.9	100 47.4% 67.6% -6.9	211 72.3%
Hi	2.00	33 40.7% 22.9% -6.9	48 59.3% 32.4% 6.9	81 27.7%
	Column Total	144 49.3%	148 50.7%	292 100.0%

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F.< 5
2.83043	1	.0920	39.945	None

Note:

MFAMFRND Info About Work From Family/Friends
AIPS Avoidant/Ineffective Problem Solving

Table 50

Crosstabulation: Info About Work From Family/Friends x Negative Psychological States (pretest)

MFAMFRND
By NEG

NEG-> / MFAMFRND	Count / Row Pct / Col Pct / Residual	Lo 1.00	Hi 2.00	Row Total
Lo	1.00	104 46.6% 69.3% -7.1	119 53.4% 78.8% 7.1	223 74.1%
Hi	2.00	46 59.0% 30.7% 7.1	32 41.0% 21.2% -7.1	78 25.9%
	Column Total	150 49.8%	151 50.2%	301 100.0%

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F. < 5
3.04230	1	.0811	38.870	None

Note:

MFAMFRND Info About Work From Family/Friends
NEG Negative Psychological States

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Table 51

Crosstabulation: Importance of General Job Security x Avoidant/Ineffective Problem Solving (pretest)

MGENSEC
By AIPS

MGENSEC	Count / Row Pct / Col Pct / Residual	Lo 1.00	Hi 2.00	Row Total
Lo	1.00	110 66.7% 62.1% 11.7	55 33.3% 45.8% -11.7	165 55.6%
Hi	2.00	67 50.8% 37.9% -11.7	65 49.2% 54.2% 11.7	132 44.4%
	Column Total	177 59.6%	120 40.4%	297 100.0%

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F.< 5
7.06162	1	.0079	53.333	None

Note:

MGENSEC Importance of General Job Security
AIPS Avoidant/Ineffective Problem Solving

Table 52

Crosstabulation: Importance of Work Success x Avoidant/Ineffective Problem Solving (pretest)

MWKSUCCS
By AIPS

AIPS-> / MWKSUCCS	Count / Row Pct / Col Pct / Residual	Lo 1.00	Hi 2.00	Row Total
Lo	1.00	101 66.0% 56.4% 8.5	52 34.0% 44.4% -8.5	153 51.7%
Hi	2.00	78 54.5% 43.6% -8.5	65 45.5% 55.6% 8.5	143 48.3%
	Column Total	179 60.5%	117 39.5%	296 100.0%

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F.< 5
3.60095	1	.0577	56.524	None

Note:

MWKSUCCS Importance of Work Success
AIPS Avoidant/Ineffective Problem Solving

Table 53

Crosstabulation: Importance of Work Success x Systematic/Planned Problem Solving (pretest)

MSOCSUCC
By SPS

SPS->	Count / Row Pct / Col Pct / Residual	Lo 1.00	Hi 2.00	Row Total
MSOCSUCC				
Lo	1.00	126 68.5% 68.9% 15.2	58 31.5% 47.9% -15.2	184 60.5%
Hi	2.00	57 47.5% 31.1% -15.2	63 52.5% 52.1% 15.2	120 39.5%
	Column Total	183 60.2%	121 39.8%	304 100.0%

Chi Square	D.F.	Significance	Min E.F.	Cells with E.F.< 5
10.47941	1	.0004	47.763	None

Note:

MSOCSUCC Importance of Work Success
SPS Systematic/Planned Problem Solving

Table 54

Crosstabulation: Importance of Work Success x Self-esteem (pretest)

MSOCSUCC
By MEST

MEST-> / MSOCSUCC	Count / Row Pct / Col Pct / Residual	Lo 1.00	Hi 2.00	Row Total
Lo	1.00	111 63.1% 65.7% 8.1	65 36.9% 54.2% -8.1	176 60.9%
Hi	2.00	58 51.3% 34.3% -8.1	55 48.7% 45.8% 8.1	113 39.1%
	Column Total	169 58.5%	120 41.5%	289 100.0%

Chi Square	D.F.	Significance	Min E.F.	Cells with E.F.< 5
3.43815	1	.0637	46.920	None

Note:

MSOCSUCC Importance of Work Success
MEST Self-esteem

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Table 55

Crosstabulation: Work Knowledge x Systematic/Planned Problem Solving (pretest)

MINFO
By SPS

SPS-> / MINFO	Count / Row Pct / Col Pct / Residual	Lo 1.00	Hi 2.00	Row Total
Lo	1.00	115 70.1% 65.7% 17.4	49 29.9% 41.2% -17.4	164 55.8%
Hi	2.00	60 46.2% 34.3% -17.4	70 53.8% 58.8% 17.4	130 44.2%
	Column Total	175 59.5%	119 40.5%	294 100.0%

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F.< 5
16.31036	1	.0001	52.619	None

Note:

MINFO Work Knowledge
SPS Systematic/Planned Problem Solving

Table 56

Crosstabulation: Work Knowledge : Locus of Control (pretest)

MINFO
By LOC

MINFO	Count / Row Pct / Col Pct / Residual	Lo 1.00	Hi 2.00	Row Total
Lo	1.00	104 64.2% 61.9% 9.5	58 35.8% 48.3% -9.5	162 50.3%
Hi	2.00	64 50.8% 38.1% -9.5	62 49.2% 51.7% 9.5	126 43.8%
	Column Total	168 58.3%	120 41.7%	288 100.0%

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F.< 5
4.70204	1	.0301	52.500	None

Note:

MINFO Work Knowledge
LOC Locus of Control

Table 57

Crosstabulation: Work Knowledge x Self-esteem (pretest)

MINFO
By MEST

MINFO / MEST->	Count / Row Pct / Col Pct / Residual	Lo 1.00	Hi 2.00	Row Total
Lo	1.00	100 63.7% 62.1% 9.7	57 36.3% 47.9% -9.7	157 56.1%
Hi	2.00	61 49.6% 37.9% -9.7	62 50.4% 52.1% 9.7	123 43.9%
	Column Total	161 57.5%	119 42.5%	280 100.0%

Chi Square	D.F.	Significance	Min E.F.	Cells with E.F.< 5
5.04928	1	.0246	52.275	None

Note:

MINFO Work Knowledge
MEST Self-esteem

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Table 58

Crosstabulation: Work Knowledge x Positive Psychological States (pretest)

MINFO
By POS

POS-> / MINFO	Count / Row Pct / Col Pct / Residual	Lo 1.00	Hi 2.00	Row Total
Lo	1.00	97 61.8% 63.8% 10.8	60 38.2% 48.0% -10.8	157 56.7%
Hi	2.00	55 45.8% 36.2% -10.8	65 54.2% 52.0% 10.8	120 43.3%
	Column Total	152 54.9%	125 45.1%	277 100.0%

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F.< 5
6.35842	1	.0117	54.152	None

Note:

MINFO Work Knowledge
POS Positive Psychological States

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Table 59

Crosstabulation: Student Appearance at Work as Rated by Employers x Systematic/Planned Problem Solving

MAPP
By SPS

SPS-> / MAPP	Count / Row Pct / Col Pct / Residual	Lo 1.00	Hi 2.00	Row Total
Lo	1.00	25 78.1% 64.1% 3.5	7 21.9% 36.8% -3.5	32 55.2%
Hi	2.00	14 53.8% 35.9% -3.5	12 46.2% 63.2% 3.5	26 44.8%
	Column Total	39 67.2%	19 32.8%	58 100.0%

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F.< 5
2.81565	1	.0933	8.517	None

Note:

MAPP Student Appearance at Work as Rated by Employers
SPS Systematic/Planned Problem Solving

Table 60

Crosstabulation: Student Behavior Ratings by Teachers x Avoidant/Ineffective Problem Solving (pretest)

MBRS
By AIPS

MBRS \ AIPS->	Count / Row Pct / Col Pct / Residual	Lo 1.00	Hi 2.00	Row Total
Lo	1.00	25 42.4% 41.7% -5.3	34 57.6% 59.6% 5.3	59 50.4%
Hi	2.00	35 60.3% 58.3% 5.3	23 39.7% 40.4% -5.3	58 49.6%
	Column Total	60 51.3%	57 48.7%	117 100.0%

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F.< 5
3.09607	1	.0785	28.250	None

Note:

MBRS Student Behavior Ratings by Teachers
AIPS Avoidant/Ineffective Problem Solving

Table 61

Intercorrelations Among Work Questionnaire Variables (N=558)

	1	2	3	4	5	6	7	8	9
1 SCHEMP		.485*	.423*	.178*	.289*	.285*	.195*	.402*	.350*
2 BPEOTV			.353*	.182*	.252*	.250*	.185*	.335*	.249*
3 FAMFRND				.047	.112**	.159*	.048	.330*	.235*
4 GENSEC					.465*	.427*	.474*	.181*	.100**
5 JOBAUT						.519*	.342*	.411*	.208*
6 WORKCON							.354*	.402*	.163*
7 WKSUCCS								.303*	.153*
8 SOCSUCC									.272*
9 KNOWL									

* p<.001; ** p<.05

Note:

SCHEMP	Info About Future Job From School/Emp. Agencies
BPEOTV	Info About Future Job From Books/TV/People
FAMFRND	Info About Future Job From Family/Friends
GENSEC	Importance of General Job Security for Future Job
JOBAUT	Importance of Job Autonomy/Meaning for Future Job
WORKCON	Importance of Work Conditions for Future Job
WKSUCCS	Importance of Work Success in Life
SOCSUCC	Importance of Social Success in Life
KNOWL	Work Knowledge

Table 62

Factor Analysis: BEHAVIOR RATING SCALE: (N = 211)

How characteristic of the student are the listed traits... Range 1-9 :(1 - not at all or never characteristic; 2; 3 - a little or infrequently characteristic; 4; 5 - somewhat or occasionally characteristic; 6; 7 - much or often characteristic; 8; 9 - very much or very often characteristic)

Item Loadings	F1	F2	F3	F4	F5
Striving	**.874**	.157	.035	-.001	.093
Hardiness	**.808**	.077	.199	.028	.235
Planfulness	**.803**	.173	.063	.064	.195
Effectiveness	**.792**	.280	.172	.038	.156
Creativity	**.676**	.007	.126	.076	-.308
Cooperativeness	**.673**	.096	.206	.456	-.103
Self-Esteem	**.671**	.190	.369	.076	.234
Leadership	**.662**	.221	.436	.153	-.111
Cheerfulness	**.575**	.004	.535	.250	.229
Caring	**.563**	.067	.259	.550	-.118
Energetic	**.557**	-.205	.582	-.062	.174
Socially Poised	**.501**	.492	.199	.103	.152
Immature	.269	**.772**	.138	.102	.005
Hyperactive/nervous	-.008	**.767**	.037	.231	.209
Aggressive	.067	**.674**	-.082	.448	.052
Inattentive	.463	**.640**	.250	-.127	.018
Strangeness/Bizarreness	.078	**.605**	.294	-.037	.255
Social Withdrawal	.339	.080	**.786**	-.006	.093
Unpopular	.104	.391	**.609**	.202	.247
Overanxious	.095	.305	**.568**	.024	.142
Just	.458	.053	-.070	**.717**	.067
Competitiveness	-.209	.330	.121	**.680**	.013
Psychosomatic problems	.004	.177	.177	-.070	**.782**
Depressed	.189	.123	.440	.015	**.675**
Delinquent	.248	.305	.011	.317	**.462**

Note: All items were scored in the same direction
Higher score = more positive trait
Five factors 67.1% of variance explained

BRS Total		(Á = .93)
F1	Cheerful/Energetic/Striving/Hardy	(Á = .93)
F2	Aggressive/Inattentive/Immature	(Á = .81)
F3	Withdrawn	(Á = .70)
F4	Caring/Just	(Á = .63)
F5	Depressed	(Á = .63)

Table 63

Individual Structural Equations for the Prediction of Work Variables From the Psychological Variables, Mental Health Variables and Exposure to Training (Teacher Self-Report of % of Time Using CL) for School C (posttest; N=50)

Dependent Variable/ Predictor Variables	R^2	F	β	t	sig t
Info from school & employer/					
SPS			.30	2.07	.0445
AIPS			-.08	- .60	.5492
I/E			.06	.35	.7250
SE			-.11	- .60	.5514
POSPS			.44	2.44	.0192
PHYHL			.00	.04	.9697
NEGPS			.19	1.07	.2906
SEXP	.29	2.17*	.00	.05	.9606
Work Knowledge/					
SPS			.06	.40	.6889
AIPS			.11	.85	.3995
I/E			.31	2.06	.0457
SE			-.13	- .79	.4336
POSPS			.31	1.82	.0756
PHYHL			.36	1.71	.0936
NEGPS			.30	1.79	.0809
SEXP	.33	2.71*	.10	.86	.3958

Note:
* $p < .05$

SPS = Systematic/Planned Problem-solving
AIPS = Avoidant/Ineffective Problem-solving
I/E = Locus of Control
SE = Self-Esteem
POSPS = Positive Psychological States
PHYHP = Physical Health
SEXP = Teacher Self-Reported Use of CL (% of time)
SEXP = Teacher Self-Reported Use of CL (% of time)
NEGPS = Negative Psychological States

ERIC

Student Pre-Post Ratings of General Job Security Across School Sites

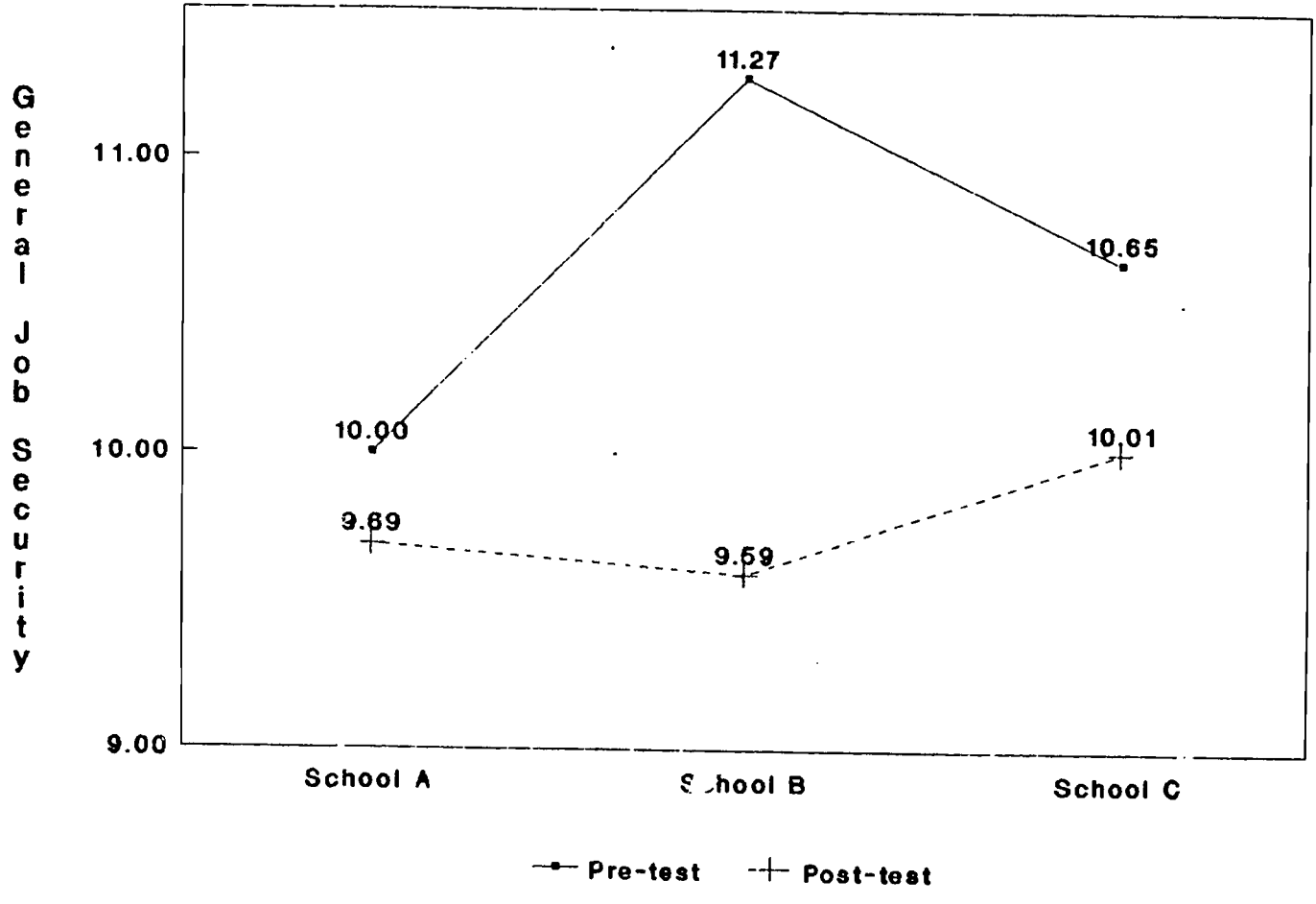

Figure 1. Pre-post ratings of general job security across campuses