

Evaluating Factors Associated With the Career Maturity of High School Students

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This study evaluated the career maturity and career decision-making attributional style of high school students in an ethnically diverse, southeastern urban school system. Participants provided information about sex, age, current class standing, ethnic background, type of diploma sought, career goal, and grade point average and completed the Assessment of Attributions for Career Decision Making (Luzzo & Jenkins-Smith, 1998) and the revised Career Maturity Inventory (Crites & Savickas, 1995). Results indicated a significant, positive relationship between career maturity and an optimistic attributional style. Young men perceived more control over their career decision making than did young women. Suggestions for counselors are discussed.

One of the most widely researched aspects of the career development of adolescents is career maturity, defined as the readiness of an individual to make informed, age-appropriate career decisions and cope with appropriate career development tasks (Savickas, 1984). Crites's (1965, 1971) career maturity model, in particular, has received substantial empirical attention since its inception. According to Crites, career maturity includes both affective and cognitive dimensions. The cognitive dimension of career maturity is represented by career choice competencies (i.e., career decision-making skills), whereas the affective dimension is represented by attitudes toward the career decision-making process.

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People who possess relatively high levels of career maturity are likely to obtain successful and satisfying careers, because they display more awareness of the career decision-making process, often think about alternative careers, relate their present behavior to future goals, possess high levels of self-reliance in making career decisions, are committed to making career choices, and are willing to acknowledge and concede to the demands of reality (Savickas, 1990). Previous research has supported meaningful relationships between career maturity and several other variables indicative of appropriate career development, including career decidedness, realistic occupational aspirations and expectations, higher career decision-making self-efficacy, a more internal locus of control, and higher levels of career salience (Crites, 1997).

CAREER MATURITY AND DEMOGRAPHIC CHARACTERISTICS

Several studies in the past 25 years have evaluated the relationships between career maturity and various demographic variables, such as sex, age, class standing, ethnicity, and grade point average (GPA). For example, recent research has revealed that young women have significantly higher levels of career maturity than young men (Luzzo, 1995; Rojewski, Wicklein, & Schell, 1995). Research has also supported the theoretical notion that career maturity increases with age (Healy, Mitchell, & Mourton, 1987; Healy, O'Shea, & Crook, 1985; Luzzo, 1993) and that students in higher grades (i.e., juniors and seniors) have higher levels of career maturity than students in lower grades (i.e., freshmen and sophomores; Herr & Enderlein, 1976; McCaffrey, Miller, & Winston, 1984; Post-Kammer, 1987).

Research has also consistently revealed evidence that members of certain ethnic minority groups may have lower levels of career maturity than European Americans (Lawrence & Brown, 1976; Luzzo, 1992; McNair & Brown, 1983; Westbrook & Sanford, 1991). Most of these investigations have shown that European American adolescents tend to exhibit higher levels of career maturity than African American adolescents. However, the practical significance of this observation may be limited. As Westbrook and Sanford (1992) stated, "Career Choice Competencies and Attitudes of black adolescents may be organized somewhat differently from the Crites model" (p. 350). Nonetheless, evaluating the degree to which ethnic differences in career maturity exist in a population can provide useful information regarding career decision-making needs of diverse clientele.

Researchers have also argued that career maturity is strongly associated with students' intellectual capacity (Lawrence & Brown, 1976; Westbrook, Sanford, & Donnelly, 1990). Research has revealed that students with higher GPAs have higher levels of career maturity than students with relatively low GPAs (Healy et al., 1985; Khan & Alvi, 1983). Furthermore, Herr and Enderlein (1976) postulated that career maturity is associated with the curriculum choices that students make and that selection of cur-

riculum could be influenced by IQ, socioeconomic differences or general knowledge of career choices. Evaluating the relationship between career maturity and the type of curriculum in which students are enrolled (standard vs. advanced/college preparation) may help clarify this issue.

CAREER MATURITY AND CAREER DECISION-MAKING ATTRIBUTIONAL STYLE

Recent research shows that higher levels of career maturity are likely to be linked with an attributional style that suggests a sense of control over and responsibility for career decision making (Luzzo & Jenkins-Smith, 1998). Building on prior research that reveals significant relationships between career development and locus of control (Bernardelli, De Stefano, & Dumont, 1983; Jackson, 1992; Khan & Alvi, 1983; McIntire, Drummond, & Ryan, 1978; Trice, Haire, & Elliott, 1989) and basing their ideas on Weiner's (1986) attribution theory, Luzzo and Jenkins-Smith proposed an attributional model of career decision making.

According to Weiner's (1979, 1985, 1986) attribution theory, people are likely to explain outcomes and events in their lives that are perceived as novel or important. The explanations or causal attributions that result from the causal search process are hypothesized to directly influence subsequent cognitions and emotions, and the precise properties of an attribution are hypothesized to affect an individual's motivation and behavior associated with future events (Perry, Hechter, Menec, & Weinberg, 1993). Weiner (1986) proposed a three-dimensional taxonomy for classifying all attributions. The *locus of causality* dimension defines the location of a cause as internal or external to the individual, the *stability* dimension designates causes as constant or varying over time, and the *controllability* dimension refers to personal responsibility or whether a cause is subject to one's own volitional influence. According to Weiner (1986), all attributions are classifiable in one of the eight cells of a Locus of Causality \times Stability \times Controllability dimensional matrix. People who attribute career decision making to internal, controllable, and unstable causes, for example, believe that career decisions are caused by internal factors that are within their own control and that are unstable over time. Such people are likely to believe that career-related events in their lives are the result of hard work and effort. On the other hand, those who attribute career decision making to external, uncontrollable, and stable factors believe that career decisions are caused by external forces that are beyond personal control and that such factors are consistent over time. Such people are likely to assume that there is little value to personal effort and hard work in career decision making.

An attribution style toward career development that reflects a strong sense of control over the career decision-making process has been shown to predict career planning and exploration behavior (Layton, 1984; Maracek & Frasch, 1977; Trice et al., 1989), career decisiveness (Fretz et al., 1994; Fuqua, Blum, & Hartman, 1988), and ca-

reer commitment (Colarelli & Bishop, 1990). Because of these previously observed relationships between one's attributional style and career decision-making variables, it is expected that a significant relationship also exists between the career decision-making attributional style of high school students and their level of career maturity.

One of the limitations of previous studies in this domain is that they have evaluated career maturity and its correlates primarily among college student and adult samples. Relatively little is known about these factors and their relationship to career maturity among high school populations. Similarly, the samples used in prior studies have been predominantly European American. To increase an understanding of the complex role of career maturity in the career decision-making process, additional research with ethnically diverse high school populations is warranted.

The purpose of the following investigation was to observe the degree to which career maturity varies on the basis of sex, class standing, ethnicity, and type of curriculum (college preparatory vs. standard) and to evaluate the relationship between career maturity and career decision-making attributional style for an ethnically diverse sample of high school students. Based on previous research and theoretical rationale, the following directional hypotheses were tested:

1. There is a significant, positive relationship between career maturity and an optimistic attributional style for career decision making.
2. Young women have higher levels of career maturity than young men.
3. European American students have higher levels of career maturity than African American students.
4. Seniors have higher levels of career maturity than juniors or sophomores.
5. Students enrolled in college preparatory curriculum have higher levels of career maturity than their peers enrolled in standard (i.e., noncollege preparatory) curriculum.

METHOD

Participants

Participants were 253 students (125 young women, 127 young men, and 1 student who did not indicate sex) from four urban high schools in a southeastern school district. Of the 251 students indicating their class standing, 77 (31%) were sophomores, 90 (36%) were juniors, and 84 (33%) were seniors. Only four of the seven high schools in the district were selected for inclusion in the study because three of them (a rural school, a magnet school for the gifted, and a temporary school for students with behavioral problems) did not adequately represent the district's general population. Participants' ages ranged from 15 to 19 ($M = 16.78$, $SD = 1.00$), and the sample included 170 (67%) African American students, 67 (27%) European American stu-

dents, and students representing other ethnic groups (Asian Americans, $n = 6$; Filipino Americans, $n = 2$; Mexican American, $n = 1$; Puerto Rican American, $n = 1$; not specified, $n = 6$). The ethnic group representation of participants compares favorably with the district's overall demographic make-up of 68% African American and 30% European American students.

Most participants (51%) indicated plans to obtain a standard diploma, whereas 43% indicated plans to obtain an advanced diploma (i.e., college preparatory courses), and 6% of participants did not indicate the type of diploma they were seeking. Participants' self-reported GPAs ranged from 1.60 to 4.00 ($M = 2.90$, $SD = 0.52$) on a 4.0 scale. The career goals cited by participants represented a wide variety of interest areas.

Measures

Participants completed a demographic questionnaire and two career measures. The demographic questionnaire asked participants to indicate their sex, age, class standing, ethnic background, type of diploma, career goal, and GPA.

The Assessment of Attributions for Career Decision Making (AACDM; Luzzo & Jenkins-Smith, 1998) is a 9-item inventory measuring the three dimensions (Controllability, Locus of Causality, and Stability) of attributional style in relation to career decision making. Each of the three attributional domains are assessed by three statements, two of which are positively worded and one that is negatively worded and reverse scored. Respondents are asked to indicate on a 5-point Likert scale the degree to which they agree with each statement. Statements tapping the Controllability domain include items that focus on an individual's sense of control over the career decision-making process (e.g., "The career decisions that I make are under my control"). Statements tapping the Locus of Causality domain include items that focus on an individual's belief that forces in the individual are responsible for career decision making (e.g., "If my career decisions lead to success, it will be because of my skills and abilities"). Statements in the Stability domain evaluate an individual's belief in the degree to which career decisions remain stable over time (e.g., "The recent career decisions I have been making are the same kinds of career decisions I have made in the past"). Despite the fact that most younger high school students (e.g., sophomores) may not have had a substantial number of career decision-making experiences in their lives, the Stability factor was included in the study to provide a comprehensive look at the career decision-making attributional style of all participants.

Psychometric evaluations of the AACDM with high school and college student samples have revealed Cronbach's alpha and test-retest reliability coefficients for each scale ranging from .64 to .89, with a median alpha coefficient of .81 and a median test-retest reliability coefficient of .80 (Luzzo, 1997). Luzzo and Jenkins-Smith (1998) cited evidence of the construct validity of the AACDM by reporting the results of a factor analysis confirming the theoretical basis of the measure (i.e., the three-factor structure of attributional

style). Additional support of the measure's validity includes the results of several studies (Luzzo, 1997; Luzzo & Jenkins-Smith, 1998) showing significant, moderately positive relationships between AACDM scores and various indicators of adaptive career development, including an internal career locus of control, engagement in career exploration activities, and career decidedness.

The Career Maturity Inventory-Revised (CMI-R; Crites & Savickas, 1995) was used to measure participants' career maturity. The CMI-R is a revision of the venerable Career Maturity Inventory (CMI; Crites, 1973). The original version of the CMI included an Attitude Scale with 50 true/false questions and a Competence Test with 100 multiple choice questions. Although research generally indicated that the original CMI was a reliable and valid instrument (Crites, 1996; Savickas, 1990), it was considered too lengthy and narrow in its application to students of varying ages (Crites, 1996). According to Crites (1996, 1997), to reduce administration time, to extend the CMI to older populations, and to increase its applicability to members of ethnic minority groups, the CMI was revised.

The CMI-R contains 25 statements tapping the affective dimension of career maturity (i.e., career decision-making attitudes) and 25 statements tapping the cognitive dimension of career maturity (i.e., knowledge of career decision-making principles). The 50 statements that compose the CMI-R were based directly on the original version of the CMI. Respondents indicate whether they *agree* or *disagree* with each statement, and one point is awarded to the response that is considered more career mature. Higher scores on each scale represent higher levels of career maturity. Because most of the statements on the CMI-R are generally worded in the same manner as in the original CMI, Crites (1997) claimed that the well-established reliability and validity of the original CMI directly apply to the revised version of the measure. Extensive psychometric reviews of the CMI that support its use in research and practice can be found elsewhere (Alvi & Khan, 1983; Healy, 1994; Savickas, 1990).

Procedure

The superintendent of schools and each high school principal in the district granted permission to administer the demographic questionnaire and the two career measures to sophomores, juniors, and seniors. In hopes of obtaining a representative sample of students, an effort was made to collect data from students enrolled in required courses. As a result, the majority of the data were collected from students in general English or social studies classes. Data also were collected from students enrolled in one of the business law classes at one of the high schools.

The first author notified prospective participants that the anonymity of responses would be maintained after the data collection process. Students were given the opportunity to decline participation in the study. Nevertheless, all students who were invited to participate in the study completed the questionnaire and the two career measures, except one participant who was ill.

RESULTS

Pearson product-moment correlation coefficients were calculated between each of the criterion variables and the age and GPA of participants. Because of the multiple correlation coefficients computed, a relatively conservative alpha level (.01) was selected for determining the statistical significance of relationships. As shown in Table 1, the analyses revealed significant, positive relationships between career mature attitudes and each of the AACDM scales. The more mature participants' attitudes were toward career decision making, the more they believed that career decision making was in their control, was caused by internal factors, and was a dynamic, ever-changing (i.e., unstable) process. Analyses also indicated significant relationships between the Control and Locus of Causality scales of the AACDM, the Locus of Causality scale and participants' knowledge of career decision-making principles (CMI Competence Scale), and the two CMI Scales. Analyses revealed the absence of any other significant relationships between variables.

Because results of previous research have revealed differences in GPA on the basis of students' sex, ethnicity, and type of curriculum (college preparatory vs. standard curriculum), a three-way analysis of variance (ANOVA) was conducted to evaluate differences in GPA on the basis of the demographic factors. As shown in Table 2, results of the ANOVA indicated that young women in the sample possessed significantly higher GPAs than the young men, $F(1, 157) = 4.97, p < .05$. Students seeking an advanced diploma reported significantly higher GPAs than those seeking a standard diploma, $F(1, 157) = 11.58, p < .001$, although ethnic group differences in GPA were not revealed. On the basis of these findings, GPA was used as a covariate in all subsequent analyses.

TABLE 1
Correlation Matrix of Variables ($N = 251$)

Variable	1	2	3	4	5	6	7	M	SD
1. Age	—	-.07	.04	.03	.06	-.08	.08	16.78	1.00
2. GPA		—	.02	.05	.01	.01	.15	2.91	0.52
AACDM Scales									
3. Locus of Causality			(.73)	.40**	.05	.17**	.18**	13.58	1.64
4. Controllability				(.74)	.03	.21**	.12	13.49	1.89
5. Stability					(.64)	.17**	.05	11.04	2.82
CMI Scales									
6. Attitudes						(.60)	.23**	17.45	2.98
7. Competence							(.59)	17.68	2.79

Note. GPA = grade point average. Alpha coefficients for the Assessment of Attributions for Career Decision Making (AACDM) scales and Kuder-Richardson formula (K-R 20) reliability estimates for the Career Maturity Inventory-Revised (CMI-R) scales are shown in parentheses along the diagonal.

** $p < .01$.

TABLE 2

Grade Point Average (GPA) Differences on the Basis of Demographic Factors

Variable	GPA		F Value ^a
	M	SD	
Sex			
Young women	3.07	0.48	4.97*
Young men	2.72	0.49	
Ethnic background			
African American	2.85	0.51	1.41
European American	3.08	0.49	
Type of diploma			
Standard	2.75	0.51	11.58**
Advanced	3.08	0.49	

^adf for $F = 1, 157$.

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

A four-way multivariate analysis of covariance (MANCOVA) was performed to determine the degree to which participants' scores on the AACDM and CMI-R scales were differentiated on the basis of ethnic background (African Americans vs. European Americans), sex (young women vs. young men), class standing (sophomores vs. juniors vs. seniors), and type of diploma (standard vs. advanced). Results revealed the absence of any interactions between the demographic factors. Similarly, results showed the absence of significant main effects for ethnic background, class standing, and type of diploma/curriculum. However, significant main effects were found for sex, $F(5, 142) = 3.02, p < .05$. Subsequent univariate analyses of covariance (ANCOVAs) revealed that the young men had a significantly greater belief than the young women that career decision making is in their own control, $F(1, 146) = 5.036, p < .05$. Analyses did not reveal any other significant differences in career maturity or attributional style between young women and young men. Means and standard deviations for each of the criterion variables on the basis of demographic factors are shown in Table 3.

DISCUSSION

Contrary to prior research addressing demographic differences in career maturity, results of the present investigation revealed the absence of career maturity differences on the basis of such demographic factors as ethnic background, sex, class standing, and type of diploma/curriculum. Furthermore, career maturity was not significantly correlated with age or GPA of participants, two factors that have been traditionally associated with high school and college students' attitudes toward career decision making and their knowledge of career decision-making principles.

TABLE 3

Means and Standard Deviations for Each Criterion Variable on the Basis of Demographic Factors

Factor	AACDM Scales ^a						CMI-R Scales ^b			
	Causality		Controllability		Stability		Attitudes		Competence	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Sex										
Young women	13.67	1.63	13.27	2.04	10.79	3.02	17.67	2.95	17.98	2.82
Young men	13.42	1.75	13.72	1.64	11.21	2.55	17.02	2.95	17.08	2.87
Ethnic background										
African American	13.64	1.75	13.54	1.77	11.00	2.99	17.13	2.87	17.16	2.93
European American	13.49	1.45	13.42	1.77	11.03	2.39	17.80	2.00	18.67	2.64
Diploma classification										
Standard	13.48	1.76	13.41	2.11	11.32	2.58	17.11	2.89	17.06	2.64
Advanced	13.69	1.48	13.59	1.60	10.71	3.05	17.84	3.05	18.44	2.80
Class standing										
Sophomores	13.35	1.90	13.19	1.77	10.96	2.94	17.16	3.03	17.09	2.69
Juniors	13.49	1.74	13.65	1.86	11.04	2.63	17.24	2.96	17.56	3.12
Seniors	13.81	1.39	13.60	1.93	11.05	2.88	17.62	2.90	17.94	2.74

^aAssessment of Attributions for Career Decision Making (AACDM) scale scores can range from 0 to 15, with higher scores reflecting more of an optimistic attributional style for career decision making. ^bCareer Maturity Inventory-Revised (CMI-R) scale scores can range from 0 to 25, with higher scores indicating greater levels of career maturity.

The lack of ethnic differences in career maturity may be explained in several ways, each of which requires further investigation. One possible explanation may be that the sample in this study was socioeconomically homogenous, something not necessarily true in prior studies. It may be that more affluent parents in this district, many of whom are European American, place their children in private schools, thereby removing a significant proportion of the more wealthy students from the public school system. What is unclear, then, is whether the lack of an observed ethnic difference in career maturity represents equal levels of career maturity among the ethnically diverse youth or masks a true difference explained away by the influence of socioeconomic status. Another explanation for the absence of an ethnic difference is that the revision of the CMI-R may have commendably removed any ethnic biases that may have existed in the original version. A similar argument could be offered to explain the lack of a significant relationship between intellectual ability (measured in this study by GPA) and career maturity of participants. Of course, these explanations deserve further attention and warrant additional investigations with samples that more completely reflect the ethnic and socioeconomic diversity of the population.

Findings also revealed the absence of a relationship between the age of participants and their levels of career maturity as well as the ab-

sence of career maturity differences on the basis of class standing. As hypothesized by Crites (1971, 1973), the career maturity of high school students should increase as they get older and progress through the education system. Although the students in this study were career mature relative to national norms, there was no expected progression related to age or class standing. One possible explanation for these findings is that students in this particular district may have participated in effective career development programs in elementary or junior high school and, as such, possess appropriate attitudes and skills associated with the career decision-making process. Another explanation for the lack of developmental differences may be that the students in this sample are uniformly exposed to career decision-making activities at all levels of high school. As a result, hypothesized developmental changes in career maturity would be minimized or previously achieved. It also is possible that increases in career maturity are not necessarily the result of a linear, steadily progressing process. Other contextual factors (e.g., perceived occupational opportunity, barriers to educational success, exposure to occupational alternatives) may be more influential in career development than demographic characteristics such as age or class standing (Luzzo, 1993).

As expected, analyses revealed several significant correlations between participants' career maturity and their attributional style for career decision making. Each of the AACDM dimensions (Locus of Causality, Controllability, and Stability) correlated significantly with CMI Attitude Scale scores. Such a finding substantiates the claim that an individual's attributional style is related to her or his attitudes toward the career decision-making process. It is no surprise that individuals who believe that they have personal control over and responsibility for career decisions in their lives also have more positive attitudes in general toward career decision making. On the other hand, only the Locus of Causality dimension significantly correlated with CMI Competence Scale scores, indicating that the stronger one's belief that internal factors are the cause of career-related outcomes the more knowledgeable the individual tends to be about career decision-making principles. This implies that AACDM Locus of Causality scores may be tapping both the cognitive and affective dimensions of career decision making, whereas the Stability and Controllability dimensions may be primarily affective in nature. However, it is important to note that although the correlations between scores on the AACDM and the CMI-R were statistically significant, their clinical meaning may be limited. Correlations between the two measures (ranging from .17 to .21) were relatively weak in magnitude, questioning the practical relevance of the observed findings.

Ideas for Future Research

Future research designed to extend understanding of the role that career maturity and attributional style play in the career decision-making process of high school students should continue to evaluate potential cultural differences. Although the results of this investigation failed to reveal differences in career maturity on the basis of such demographic variables as sex and ethnicity, it is possible that

racial identity, perceived occupational opportunities, and perceived career-related barriers may emerge as particularly influential contextual factors in the career exploration and planning process. Furthermore, future studies might try to correct some of the limitations of the present investigation, such as a relatively homogenous sample (in socioeconomic background and geographic location) and the use of only two career measures to evaluate the career maturity and attributional style of participants.

Further study of the psychometric properties of the CMI-R also is warranted. The original CMI has proven to be a valuable tool for career counselors and researchers alike. However, despite the fact that the statements on the CMI-R are similarly worded to the questions on the original CMI, changes in the response pattern (from true/false and multiple choice options to an agree/disagree format) may alter the reliability and validity of the measure. Studies designed to evaluate the CMI-R's psychometric properties among diverse populations will be especially useful in determining its overall utility in educational and career counseling.

Implications for Counseling Practice

Despite some of the limitations associated with the study, the results suggest particular actions in which counselors can engage to more adequately address the career decision-making needs of high school students. Instead of assuming that career maturity will naturally increase as students move through their sophomore, junior, and senior years, counselors might want to develop systematic interventions that can be integrated into curricular experiences in hopes of providing students with numerous opportunities to develop more mature career decision-making attitudes and competencies. Periodic assessment of students' attitudes toward career decision making and their knowledge of career decision-making principles would allow counselors to determine program effectiveness and consider alternative strategies for increasing students' career maturity.

The fact that young men in this study cited higher levels of perceived control for career decision making than the young women cited suggests that counselors focus on developing strategies for increasing young women's sense of control associated with making career decisions. Numerous studies over the years have shown that higher levels of perceived control for career decision making are correlated with several factors indicative of effective career development, such as engagement in career exploration activities (Trice et al., 1989), career decisiveness (Fuqua et al., 1988), and career commitment (Colarelli & Bishop, 1990). Interventions designed to increase young women's sense of control over the career decision-making process may prove useful in helping them develop a stronger sense of responsibility for engaging in career exploration and planning activities.

The application of attributional retraining strategies to career counseling seems to be a particularly promising strategy for increasing young women's sense of control over career decision making (Luzzo,

James, & Luna, 1996). In attributional retraining, an attempt is made to replace maladaptive attributions (e.g., the belief that career decision making is primarily out of one's own control) with causal ascriptions that are more adaptive in nature (e.g., the belief that career decision making is primarily in one's own control). More adaptive, optimistic attributions are hypothesized to increase expectations for future success and, therefore, to lead to increased persistence and performance in subsequent tasks and more positive emotional responses (Weiner, 1986). Recent research has revealed support for the application of attributional retraining to career counseling (Luzzo, Funk, & Strang, 1996; Luzzo, James, et al., 1996).

Counselors working with high school students who believe that they have very little control over the career-related events in their lives might expose such students to a variety of activities designed to alter their attributions for career decision making. Young women, for example, who perceive very little control over or responsibility for career decision making might benefit from a Career Day assembly that features successful women from the local community. These women could then describe the manner in which they assumed personal control over career decision making and realized that successful career development was directly associated with the amount of effort they were willing to invest in the process. Topics raised by the presenters at such an assembly could be discussed in smaller groups moderated by community leaders and professionals who can serve as positive role models for high school students. The purpose of the presentations and small group discussions would be to encourage a perspective toward career exploration and planning that emphasizes personal control and responsibility throughout the career decision-making process.

On the basis of the present findings, counselors also need to recognize that all students—regardless of ethnic background, sex, or type of curriculum (i.e., standard vs. college preparatory)—may benefit from effective career development programs and activities. As revealed in this study, it would be inappropriate to assume that students from particular ethnic groups or those who are in college preparatory curriculum are somehow more career mature than students from minority groups or those enrolled in noncollege preparatory curriculum. Counselors might want to consider the integration of career exploration and planning activities into courses required of all students for graduation. The content of career exploration and planning units should reflect the standards and competencies contained in the National Career Development Guidelines (National Occupational Information Coordinating Committee, 1989) and address the variety of issues and concerns that high school students face as they near graduation. Finally, counselors are encouraged to engage in program evaluation on an ongoing basis to determine the appropriateness of different interventions and techniques for increasing the career maturity of and encouraging an optimistic attributional style among diverse student populations.

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