This study examined antecedents related to low vocational identity in college freshmen. College students (N=360) completed the 35-item Low Vocational Identity Antecedents Scale (LVIAS) developed for this study, the Vocational Identity Scale (VIS), and other measures. Based on results from this sample, a 15-item LVIAS was developed that discriminated students with extremely low vocational identity from students with average and above scores on the VIS. Students with extremely low vocational identity tended to identify with negative experiences with at least one teacher in high school, self- and parental perceptions of students' lack of maturity, a tense home atmosphere during the grade school years, strict and overprotective parents during grade school years, homemaker mothers, special attention to grades early in school career, students living in a highly populated environment during grade school years, family annual income of under $40,000, a lack of higher educational attainment among both parents, a lower evaluation of one's grade schools, parental pressure to excel in junior high schools, a tendency to enjoy studying, and the experience of a death in the immediate family. Students who identify with at least 7 of the 15 LVIAS life history events may be at risk of extremely low vocational identity. More sampling is needed to further assess the reliability and sensitivity of this instrument. (NB)
Antecedents of Low Vocational Identity in College Students

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Antecedents of Low Vocational Identity in College Students

This study represents two years of research on the development of the
Low Vocational Identity Antecedents Scale (LVIAS), aimed at identifying
life history antecedents of persons arriving at college with extremely
low vocational identity. The paper will outline the scale's
development, its psychometric properties, and its utility for future
research. Also stressed will be the implications of the findings for
preventive and developmental interventions with primary and secondary
school students.
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Antecedents of Vocational Identity in College Students

Vocational identity and its effects on the career decision-making process is a fairly new research topic in the career development literature. According to Holland, Gottfredson, and Power (1980), vocational identity is "the possession of a clear and stable picture of one's goals, interests, and talents." Slaney (1986) also considers values, attitudes, and life history as identity issues, and from a vocational development point of view, vocational identity is most closely associated with the crystallization of occupational choices (Crites, 1969; Savickas, 1985).

The majority of research related to vocational identity has focused on career decidedness, especially career indecision. According to Graef, Wells, Hyland, and Muchinsky (1985), low vocational identity is a major interactive component of career indecision. Holland and Holland (1977) found that vocational indecisiveness correlated with low vocational identity, and that decided and undecided students differed in their sense of vocational identity.

While some previous research on career indecision has focused on differentiating decided and undecided student groups (Fuqua et. al, 1983; Osipow et. al, 1985; and Salomone, 1982), other research has focused on differentiating vocationally undecided students into categorical subtypes (Barak & Friedkes, 1981; Jones & Chenery, 1980). Holland et. al (1977) emphasized the importance of viewing the undecided student group as heterogeneous. Given this perspective, individuals possessing low vocational identity should be differentially diagnosed.
and treated in counseling instead of being classified into a single treatment group (Fuqua et. al, 1985).

Although the majority of current research in career indecision has concentrated on classifying and categorizing vocationally undecided and indecisive clients, some studies have taken the approach of investigating life history antecedents of career indecision in order to discover what psychological, behavioral, and life history patterns relate to career indecision (Glanakos et. al, 1986; Graef et. al, 1985; Lopez & Andrews, 1987; and Osipow, Carney, & Barak, 1976). Parallel research identifying sources of low vocational identity has been limited (Graef et al, 1985). Most of the research related specifically to vocational identity has focused on personality and achievement variables correlated with high or low vocational identity (Henkels, Spokane, & Hoffman, 1981; Holland et. al, 1980). As well, limited research has focused on specific career counseling interventions for clients with low vocational identity (Henkels et. al 1981; Heppner & Krieshok, 1983; and Krieshok, 1982).

With the emphasis on preventive and developmental interventions, it becomes important to identify precipitating events that might lead to low vocational identity in order to better understand the nature of the problem, to identify persons at risk, and to develop strategies that will aid clients in defining and applying their vocational self-concept to the myriad of occupational roles available to them. Life history patterns and characteristics typical of persons developing very low vocational identity could provide counseling practitioners and
researchers with vital knowledge useful in both the treatment and prevention of low vocational identity.

Method

The focus of the present study was to determine what antecedent behaviors, environments, attitudes, and events are related to very low vocational identity in college freshmen in hopes of uncovering patterns of behavior or experience which differentiate them from other students. The Low Vocational Identity Antecedents Scale (LVIAS) was developed to uncover such patterns.

The LVIAS was developed through several phases of research. First, each member of the participating research team identified a friend or acquaintance whom they considered, on the basis of our discussion of the vocational identity literature, someone who was believed to be very low in vocational identity, or to have been very low in vocational identity as college students. Those persons were then interviewed exhaustively by members of the team, in an attempt to discern their perceptions of precipitating events or situations which might have given rise to their very low vocational identity. From our discussion of those interviews, a structured open ended survey was designed to elicit data from the population of interest, college freshmen who scored very low high on the VIS.

A sample of 112 students participating in an undergraduate career development course were administered the VIS, and nine scoring very low (0, 1, or 2 out of a possible 18) were given the open ended survey and a structured follow up interview. This procedure identified 65 possible
experiences or situation which, when examined across a broad sample, were thought could possibly differentiate very low scorers from the rest of the population.

In the Fall semester of 1987, the 65 item true-false questionnaire was administered to several groups of college freshmen (n=412), along with the VIS. Persons scoring very low (0-2) on the VIS (n=30) were selected as the criterion group and response percentage differences between them and the portion of the 400 who scored above the mean (n=209) were examined for each of the 65 items. In all, 35 items met the cutoff of a 15% difference in endorsement percentage, and those items then became the Low Vocational Identity Antecedents Scale (LVIAS).

A final sample of 360 students were administered the 35-item LVIAS, the VIS, and other measures. These students were recruited from an undergraduate career development course during the Fall of 1987, the Fall of 1988 and the Spring of 1989. Based on the results of this sample, a 15-item LVIAS was developed. These 15 items were identified as life history antecedents that significantly discriminated the students with extremely low vocational identity from the students with average (x=10) and above scores on the VIS in this final sample. See Table 1 for a listing of the 15 items in the final LVIAS and Table 2 for a listing of the significant life history antecedent patterns evident for participants with extremely low vocational identity.

Using two separate samples, the sum of the 15 items on the LVIAS were submitted to a four week and fourteen week test retest reliability check, and were correlated with several measures frequently utilized in
career development research and practice. The 4 week test-retest reliability coefficient was .7140 (n=122) for the Fall semester 1988 sample. The 14 week test-retest reliability coefficient was .5954 (n=128) for the Spring semester 1989 sample.

LVIAS scores were correlated with other descriptive career development variables to provide a clearer picture of how these precursors of low vocational identity status would be related to self-esteem, vocational identity, career decidedness, vocational information seeking ability, and career maturity. In the final sample (n=660), each item of the LVIAS and the total scores on the 15-item LVIAS (TOTSCORE) were correlated with the Rosenberg Self-Esteem Scale (Rosenberg, 1965), the VIS, the Career Decision Scale (Osipow, et. al, 1976), the Vocational Information Seeking Ability Scale (VISA; Krieshok, 1982), and the Career Planning scale from the Career Development Inventory (Super, Thompson, Linseman, Jordaan, & Myers, 1981). See Table 3 for a listing of these reliability coefficients.

The LVIAS was developed to predict students' susceptibility to extremely low vocational identity based on their endorsement of the life history events and experiences found to be significant for those who possessed extremely low vocational identity in this study. A cutoff score of seven was determined to yield the best combination of sensitivity and specificity in differentiating very low scorers from the rest of the sample. Thus, a person endorsing seven or more of the fifteen life history antecedents would be predicted arrive at college with extremely low vocational identity.
Using this cutoff score, the sensitivity and specificity estimates of the instrument were calculated using freshmen students (n=100) from the final sample. Sensitivity refers to the probability that extremely low vocational identity will be present when a person scores a seven or higher on the LVIAS. The sensitivity estimate for the 15-item LVIAS was .73. Thus, of 100 college freshmen who actually have extremely low vocational identity, 73 of them would be identified by our cutoff of seven. Conversely, with a specificity of .61, of 100 freshmen who did not have extremely low vocational identity, 61 would score below the cutoff of seven. Said another way, the true positive rate is .73 and the false positive rate is .39.

Additional correlational analyses were performed. Participants' total scores on the LVIAS were coded according to the cutoff of seven used to determine the sensitivity and specificity of the measure. Persons scoring at or above the cutoff were coded into one group; persons scoring below the cutoff were coded into another group. Participants' group identification (GROUP) was correlated with the career development variables mentioned previously. No significant correlations were evident. See Table 3 for a listing of these reliability coefficients.

Discussion

The main focus of this study was to uncover life history antecedents of college freshmen possessing extremely low vocational identity. The Low Vocational Identity Antecedent Scale (LVIAS) is a 15-item, true-false measure developed to assess family, education, and work background.
patterns typical of students with extremely low vocational identity. In this study, students with extremely low vocational identity tended to identify with the following life history characteristics or events: negative experiences with at least one teacher in high school (Item 1), self- and parental perceptions of students' lack of maturity (Items 2 and 4), a tense home atmosphere during the grade school years (Item 3), strict and overprotective parents during the grade school years (Item 9), mothers tended to be homemakers (Item 5), special attention was given to students' grades early on (Item 6), students lived in a highly populated environment during their grade school years (population of 200,000 or more; Items 7 and 8), family's annual income was less than 40,000 dollars (Item 10), a lack of higher educational attainment among both parents (Item 11), a lower evaluation of one's grade school (Item 12), parental pressure to excel in junior high school (Item 14), students' tendency to enjoy studying (Item 15), and the experience of a death in the immediate family (Item 13).

Based on the cutoff of seven established for this measure, students who identify with at least seven of the fifteen life history events may be at risk of extremely low vocational identity. A person would be a prime target for early career development interventions.

In reviewing the reliability and validity of the LVIAS, it appears as though this measure is moderately reliable over time (at 4 week and 14 week time intervals). In addition, the LVIAS seems to be a moderately sensitive measure in identifying students at risk of extremely low vocational identity. However, more sampling is needed to
further assess the reliability and sensitivity of this instrument.

The LViAS did not significantly correlate with most of the descriptive career development variables incorporated in this study. Although these results were unexpected, they do not of themselves invalidate the measure. It is possible that the phenomena leading to extremely low vocational identity do not relate in a linear fashion to established career constructs. If indeed the measure proves (in future research) to predict low vocational identity in persons who go to college, its validity will be established.

Certainly the complex experience of low vocational identity could never be fully predicted by simple historical events. It is likely a state reached through a complex interaction of such events with a person's cognitive construct system and personality variables, all beyond the scope of this study. We set out to answer the question "Can we identify simple historical experiences common to many persons with an almost pathological level of vocational identity?" Our best answer to that question is -- not very well. But until a longitudinal cross validation is attempted, we will not abandon this line of research.

This study was limited to University of Kansas students who participated in one of three activities: an introductory course in psychology, an introductory course in career development, or a residence hall meeting on career development. These students volunteered their time to participate in this study. Given the non-random selection and nature of this sample, results should be interpreted with caution.

Overall, the LViAS identified significant life history antecedents
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of students possessing extremely low vocational identity. The LVIAS could be utilized to identify junior high and high school students who might be at risk of extremely low vocational identity in their college years. Our intention is to utilize the LVIAS as a screening for career intervention in the school setting.

Research on differential diagnosis and treatment of students possessing a low vocational identity is needed in order to develop and implement effective, preventive career interventions with this population. Life history antecedents of low vocational identity need to be uncovered in order to better understand the nature of low vocational identity, to identify individuals with this maladaptive career development behavior, and to define specific career interventions that could be helpful in alleviating symptoms (antecedent and concurrent influences) of low vocational identity for the individual with this target behavior.
References


Krieshok, T. *Verbal Information Seeking Ability Questionnaire*, Department of Counseling Psychology, The University of Kansas.


**Vocational Antecedents 15**

**Table 1**

**SIGNIFICANT LIFE HISTORY ANTECEDENTS OF LOW VOCATIONAL IDENTITY**

(15-ITEM LVIA)

1. I can remember one teacher in high school who made me feel pretty badly about myself (True).
2. In high school, I thought I was much more mature than my peers (False).
3. My home atmosphere was pretty tense when I was in grade school (True).
4. In high school, my parents saw me as considerably more mature than my peers (False).
5. My family encouraged my mom to stay home and take care of us kids (True).
6. In grade school, my parents paid a great deal of attention to my grades (True).
7. My grade school was located in a city with a population over 200,000 (True).
8. My grade school was located in a city with a population under 30,000 (False).
9. My parents were strict and over-protective when I was in grade school (True).
10. Last year, my family's income was less than 40,000 (True).
11. Both my parents received college degrees (False).
12. My grade school was considered the best grade school in the community (False).
13. I have experienced a death in my immediate family (True).
14. I remember feeling tremendous pressure from my family to excel in junior high (True).
15. In high school, I thought studying was for the birds (False).
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<thead>
<tr>
<th>Negative experiences evident with at least one teacher in high school (1)</th>
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<td>Self- and parental perceptions of student's lack of maturity (2, 4)</td>
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<tr>
<td>Tense home atmosphere; strict, overprotective parents (3, 9)</td>
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<tr>
<td>Students' mothers tend to be homemakers (5)</td>
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<tr>
<td>Special attention given to students' grades early on (6)</td>
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<tr>
<td>Grade school was located in a city (population 200,000 or more; 7, 8)</td>
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<tr>
<td>Family's annual income less than 40,000 dollars (10)</td>
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<td>Lack of higher educational attainment among both parents (11)</td>
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<td>Lower evaluation of one's grade school (12)</td>
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<td>Students experienced a death in the immediate family (13)</td>
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<tr>
<td>Parental pressure to excel in junior high school (14)</td>
</tr>
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<td>Students tended to enjoy studying (15)</td>
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### Table 3

**LOW VOCATIONAL IDENTITY ANTECEDENT SCALE (LVIAS)**

CORRELATIONS WITH CAREER DEVELOPMENT VARIABLES

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<th>Item</th>
<th>Self-Esteem (n=360)</th>
<th>Career Maturity (n=362)</th>
<th>VISA (n=361)</th>
<th>VIS (n=660)</th>
<th>Career Decidedness (n=126)</th>
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