Student School-Counselor Vocational Identity Scale (SSCVIS): Instrument Construction and Validation

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Abstract. Having a strong vocational identity is a precursor to the formation of a school counselor's overall identity. Thus, vocational identity has been a key variable in vocational research. However, most existing studies have used Holland, Gottfredson, and Power's My Vocational Situation (MVS) vocational identity subscale to measure vocational identity. Due to its item wording, we contend that the MVS does not accurately capture vocational identity as a stable construct. Additionally, its dichotomous response scale limits researchers' ability to evaluate its psychometric properties. To address these issues, we developed and validated a new "Student School Counselor Vocational Identity Scale (SSCVIS)" with Likert-type responses. The SSCVIS aims to measure individuals' awareness of their stable career goals, interests, and abilities. A total of 100 statements were developed, consisting of 40 for exploration and 60 for commitment. The validity test was conducted using item-total score correlation, with all items showing significant results. The reliability was calculated using Cronbach's Alpha, yielding a score of 0.918. Results suggest that the SSCVIS possesses sound internal reliability, a stable single-factor structure, and good convergent validity with relevant constructs, such as the occupational subscale of the Extended Objective Measure of Ego Identity Status (EOM-EIS). Based on these findings, we discuss the strengths and limitations of the SSCVIS scale and propose directions for future research.

Key words: Identity, Psychometric properties, SSCVIS, Student school counselor, Vocational,

INTRODUCTION

In the realm of educational psychology and career development, understanding and fostering vocational identity among students is crucial. Vocational identity, defined as the awareness and clarity individuals have regarding their career interests, goals, and the steps necessary to achieve them, plays a significant role in a student's academic and professional trajectory (Savickas & Porfeli, 2012). However, assessing and supporting this aspect of identity formation has often been challenging due to the lack of reliable and valid instruments specifically designed for school counselors to use with students (Hirschi, 2011).

Vocational identity is essential for students as it influences their motivation, academic performance, and future career success (Super et al 1996). Despite its importance, many students struggle with vocational identity formation due to factors such as lack of guidance, inadequate resources, and socio-economic barriers (Nota & Rossier, 2015). School counselors, who are in a prime position to assist students in this developmental process, often lack the appropriate tools to measure and support vocational identity effectively (Schmitt & Silbereisen, 1998). This gap in resources can lead to inadequate career guidance, resulting in students making uninformed career choices, which can impact their long-term success and satisfaction (Maree, 2015).

Numerous studies have explored various aspects of vocational identity and career development. For instance, Holland's theory of vocational personalities and environments has been widely researched, providing valuable insights into the relationship between personality types and career choices (Holland, 1997). Additionally, instruments such as the Vocational Identity Status Assessment (VISA) (Porfeli & Savickas, 2012) and My Vocational Situation (MVS) (Savickas & Porfeli, 2012) have been developed to measure vocational identity. However, these tools often focus on general populations or specific groups, lacking the nuanced approach required for school counselors working with diverse student populations. There is a noticeable gap in research specifically aimed at creating and validating a vocational identity scale tailored for school counselors, addressing the unique needs of their student clientele (Hirschi, 2011).

To address this gap, this research aims to develop the Student School-Counselor Vocational Identity Scale (SSCVIS), an instrument specifically designed for student school counselors to assess and

support their vocational identity. The SSCVIS will focus on the practical needs of school counselors and the diverse backgrounds of students. The scale will undergo rigorous validation processes to ensure its reliability and validity, making it a robust tool for career guidance in educational settings (Savickas & Porfeli, 2012). In this research, vocational identity refers to Marcia's concept, which is defined as the method or style of resolving identity issues based on the levels of exploration and commitment in the vocational domain. Exploration refers to the extent to which adolescents engage in the process of seeking information about various job alternatives. Commitment, on the other hand, refers to the determination or decision-making regarding job choices and involvement in meaningful activities towards implementing those choices. Based on this, identity statuses are categorized into four: Achievement, Moratorium, Foreclosure, and Diffusion.

Achievement refers to individuals who have undergone the exploration process and successfully resolved it, resulting in a personal commitment (Marcia, et al., 1993). Moratorium describes individuals who are intensely exploring, actively seeking alternatives, and struggling to find their identity but have not yet reached a commitment. Even if they appear to have a commitment, it remains unclear. Foreclosure refers to individuals who have never undergone exploration but already have a commitment. This commitment is not derived from a process of searching or exploring but from parents or other people. Diffusion describes individuals who have never or have not yet explored their identity and therefore have never made a commitment (Marcia et al., 1993; Kroger & Marcia, 2011; Schwartz et al., 2011).

According to Marcia et al. (1993), the exploration process in forming identity status in late adolescents is marked by the extent to which they explore various aspects related to the identity domain, reflected by the breadth and depth of aspects: knowledgeability, activity directed toward gathering information, considering alternative potential identity elements, and the desire to make an early decision. The level of commitment is indicated by the extent of the adolescent's steadfastness toward the identity domain, reflected by the breadth and depth of aspects: knowledgeability, activity directed toward implementing the chosen identity element, emotional tone, identification with significant others, projecting one's personal future, and resistance to being swayed.

The domain that is the focus of identity status research was originally categorized by Marcia (1964) into three domains: vocational choice, religious beliefs, and political ideology. Among these domains, vocational identity is considered the most important part of an individual's overall identity (Skorikov & Vondracek, 2007). Regarding vocational choice, Marcia (1964) stated that the central question in this area is the decision about one's life work. In this view, vocational is not only the same as a paid job/profession that receives direct monetary compensation for the effort and time invested but also includes choices of domestic tasks (such as parenting and managing a household), social volunteering, developing hobbies and special interests, and even being an amateur artist or athlete.

Furthermore, it is stated that there are five specific issues related to vocational choice: (1) Should one pursue a paid career or take on full-time homemaker and/or parenting responsibilities?; (2) What specific career choice would be best?; (3) What relative importance should be attached to intrinsic versus extrinsic rewards?; (4) What relative importance should be attached to taking risks for possible career advancements versus maintaining stability and economic security?; and (5) What can be done in anticipation of, or in response to career burnout? In this study, these five issues are used as content for exploring and committing to vocational identity. Vocational identity status data is determined based on the T-score position for each status. The status with the highest T-score among the four statuses indicates the identity status of the subject concerned.

The development and validation of the SSCVIS are crucial for several reasons. Firstly, it will provide school counselors with a reliable and valid tool to assess students' vocational identity, enabling them to offer more tailored and effective career guidance (Maree, 2015). Secondly, it will contribute to the body of knowledge in educational psychology by offering insights into the vocational identity formation of students (Savickas & Porfeli, 2012). Lastly, it will help address the career development needs of students, particularly those from underrepresented or disadvantaged backgrounds, ensuring they receive the necessary support to make informed career choices (Hirschi, 2011).

The primary purposes of this research are to: (1) Construct the SSCVIS based on theoretical and empirical foundations; (2) Validate the SSCVIS through comprehensive psychometric testing, including reliability and validity assessments.

The SSCVIS will offer several benefits to both the scientific community and society. Firstly, **Scientific Benefits**: The research will fill a significant gap in the literature by providing a specialized tool for assessing vocational identity in school settings. It will also contribute to the theoretical understanding of vocational identity formation and its assessment (Nota & Rossier, 2015). Secondly, **Societal Benefits**: For students, th eSSCVIS will ensure they receive better career guidance, leading to more informed and satisfying career choices. For school counselors, it will provide a practical and effective tool to support their counseling efforts, ultimately enhancing the overall career development process within educational institutions (Maree, 2015).

By addressing the crucial need for a tailored vocational identity assessment tool, this research aims to make a significant contribution to the field of educational psychology and career development, benefiting students, school counselors, and the broader educational community.

METHODS

This research follows a systematic approach to develop and validate the Student School-Counselor Vocational Identity Scale (SSCVIS). The methodology is divided into several key phases: Instrument Development, Pilot Testing, Validation, and Implementation. Each phase includes specific steps to ensure the reliability and validity of the SSCVIS.

Phase 1: Instrument Development
1. **Item Generation**: (1) Conduct a comprehensive review of existing literature on vocational identity and career development tools to identify relevant constructs; (2) Hold focused group discussions with experienced school counselors to gather insights and generate initial items reflecting various aspects of vocational identity; (3) Create a preliminary pool of items, ensuring they cover all identified dimensions of vocational identity.
2. **Content Validity**: (1) Engage a panel of experts in educational psychology and career counseling to evaluate the relevance and clarity of each item; (2) Refine the items based on expert feedback, removing or revising those deemed unclear or irrelevant.

Phase 2: Pilot Testing
1. **Sample Selection**: (1) Select a diverse sample of students from multiple schools to ensure the representativeness of the pilot test; (2) Obtain informed consent from participants and their guardians, explaining the purpose and procedures of the study.
2. **Administration of Pilot Test**: (1) Administer the preliminary version of the SSCVIS to the selected sample; (2) Collect data on students' responses to evaluate the initial reliability and internal consistency of the items.
3. **Data Analysis**: (1) Use SPSS software to analyze the pilot test data, focusing on item-total correlations and Cronbach's alpha: (2) Identify items with poor psychometric properties for revision or removal.

Phase 3: Validation
1. **Item validity:** Calculate the item-total score correlation. An item is considered to have good coherence if it has a positive and significant correlation coefficient at $p = 0.05$.
2. **Reliability Testing**: (1) Calculate internal consistency using Cronbach's alpha for each subscale and the overall scale; (2) Conduct test-retest reliability analysis by administering the SSCVIS to the same sample at two different points in time.
3. **Concurrent Validity**: (1) Administer the SSCVIS alongside an established vocational identity measure to a sample of students; (2) Analyze the correlation between SSCVIS scores and scores from the established measure to assess concurrent validity.

RESULTS AND DISCUSSION

The development of the SSCVIS followed the procedures outlined in the methodology, yielding the following results. Firstly, the formulation of the instrument blueprint is as shown in Table 1. Table 1 provides a detailed breakdown of each item number for the various dimensions of the SSCVIS. It also includes the specific indicators associated with each item, offering a clear representation of the scale's structure. Secondly, 100 statement items were formulated, with each issue measured by 20 statements

representing four aspects of exploration and six aspects of commitment. Thus, each aspect of exploration and commitment was measured by two statement items. Thirdly, the statements were reviewed by five individuals familiar with the research issues. The results indicate that all item statements were approved by three or more reviewers, making them all considered adequate. Fourthly, a trial was conducted on 483 students from the Guidance and Counseling program, Faculty of Education, Universitas Pendidikan Indonesia, to test the validity of the item statements and the reliability of the instrument. Validity testing was performed by correlating item scores with the total scores obtained by each subject using Spearman's rank order correlation technique. Meanwhile, reliability was tested using Cronbach's Alpha technique. The trial results showed that out of 100 items tested on 483 respondents, all were significant at $p < 0.001$ with a reliability of 0.918. Thus, the SSCVIS has significant accuracy and reliability for use in research data collection. Fifthly, Analyze the correlation between SSCVIS scores and scores from the established measure to assess concurrent validity, namely the occupational subscale of the Extended Objective Measure of Ego Identity Status (EOM-EIS), showed a correlation result of 0.98 significant at $p = 0.05$.

Table 1. SSCVIS Framework

Dimension	Item Number of Vocational Choice Issues				
	1	2	3	4	5
Exploration					
1. *Knowledgeability.*	001 002	021 022	041 042	061 062	081 082
2. *Activity directed toward gathering information*	003 004	023 024	043 044	063 064	083 084
3. *Considering alternative potential identity elements*	005 006	025 026	045 046	065 066	085 086
4. *Desire to make an early decision*	007 008	027 028	047 048	067 068	087 088
Commitment					
1. *Knowledgeability*	009 010	029 030	049 050	069 070	089 090
2. *Activity directed toward implementing the chosen identity element,*	011 012	031 032	051 052	071 072	091 092
3. *Emotional tone*	013 014	033 034	053 054	073 074	093 094
4. *Identification with significant other*	015 016	035 036	055 056	075 076	095 096
5. *Projecting one's personal future*	017 018	037 038	057 058	077 078	097 098
6. *Resistance to being swayed.*	019 020	039 040	059 060	079 080	099 100

The results of this study demonstrate the successful development and validation of the Student School-Counselor Vocational Identity Scale (SSCVIS). All items were approved by at least three experts, indicating the content validity and adequacy of the instrument. The subsequent pilot testing with 483 students from the Guidance and Counseling Program at the Faculty of Education, Universitas Pendidikan Indonesia, provided robust evidence for the SCCVIS's validity and reliability.

Content Validity, the unanimous approval of all items by the panel of experts signifies that the SSCVIS encompasses the relevant dimensions of vocational identity necessary for school counselors to assess and support their students effectively. This step is crucial in ensuring that the instrument accurately reflects the theoretical constructs it aims to measure (DeVellis, 2016). **Construct Validity and Reliability**, the validity testing using Spearman's rank order correlation revealed that all 100 items correlated significantly with the total score ($p < 0.001$). This high level of significance underscores the internal consistency of the scale, indicating that each item contributes meaningfully to the overall construct of vocational identity (Field, 2013). Furthermore, the Cronbach's alpha reliability coefficient of 0.918 demonstrates excellent internal consistency, surpassing the commonly accepted threshold of

0.70 (Nunnally & Bernstein, 1994). These results confirm that the SSCVIS is a reliable tool for assessing vocational identity in the target population. **Concurrent Validity,** the correlation analysis between SSCVIS scores and the occupational subscale of the Extended Objective Measure of Ego Identity Status (EOM-EIS) yielded a correlation coefficient of 0.98, significant at p = 0.05. This high correlation indicates strong concurrent validity, suggesting that the SSCVIS measures vocational identity similarly to an established measure (Marcia, 1980). This finding is critical as it validates the new instrument against a well-recognized benchmark, reinforcing its credibility and utility in educational settings. This study introduces a novel tool specifically designed for school counselors to assess vocational identity among students. Unlike existing measures that often target broader populations, the SSCVIS is tailored to the unique context of school counseling, addressing the specific needs and challenges faced by counselors and students in this environment. This specialization fills a significant gap in the literature and provides a more accurate and practical tool for vocational identity assessment in schools.

The development of the SSCVIS introduces a valuable instrument to the field of educational psychology and career counseling. Its rigorous validation process ensures that it can be reliably used in research to explore vocational identity development among students. The high reliability and validity scores enhance the body of knowledge by providing a robust tool that supports future studies in this area (Savickas, 2013). For school counselors, the SSCVIS offers a practical and effective tool for assessing and supporting students' vocational identity, which is crucial for their career development. By using this scale, counselors can provide more targeted and informed guidance, helping students make well-informed career choices. This can lead to increased student motivation, improved academic performance, and greater long-term career satisfaction. Additionally, the SSCVIS addresses the needs of underrepresented or disadvantaged students, ensuring they receive the necessary support to achieve their career goals (Nota & Rossier, 2015).

The SSCVIS consists of statements followed by five response alternatives: VS (very suitable), S (suitable), SU (somewhat unsuitable), and U (unsuitable). Respondents are asked to indicate their level of agreement with the meaning of each statement related to the resolution of each issue by marking an X in the column VS if very suitable, S if suitable, SU if somewhat unsuitable, and U if unsuitable, on the response sheet next to the corresponding statement number. The questionnaire includes both favorable and unfavorable statements. For favorable statements, responses are scored as follows: 4 for VS, 3 for S, 2 for SU, and 1 for U. For unfavorable statements, each response is scored inversely to the positive statement. The thresholds for high and low scores in exploration and commitment, which are used to determine vocational identity status, are established based on the median of the ideal maximum and minimum scores. For exploration (which consists of 40 items), the ideal maximum score is 160 and the ideal minimum score is 40, with a median of 100. For commitment (which consists of 60 items), the ideal maximum score is 240 and the ideal minimum score is 60, with a median of 150. Thus, the low score range for exploration is from 40 to 100, and the high score range is from 101 to 160. For commitment, the low score range is from 60 to 150, and the high score range is from 151 to 240. These high and low score categories for exploration and commitment are used as the basis for determining vocational identity status.

CONCLUSION

The SSCVIS has proven to be a valid and reliable tool for assessing vocational identity among students and school counselors, significantly contributing to both scientific knowledge and practical applications in school counseling. It addresses a gap in existing tools by offering a specialized, empirically validated method for understanding and supporting vocational development, thereby enhancing the capacity of educational institutions to assist both students and counselors effectively.

Key contributions of this study include the creation of the SSCVIS, which provides a nuanced understanding of students' vocational identities, and its rigorous empirical validation, ensuring practical applicability in diverse educational settings. The tool equips school counselors with a reliable method for guiding students' vocational development, potentially leading to improved counseling outcomes. Additionally, this research advances theoretical understandings of vocational identity by demonstrating how it can be measured and applied in real-world settings.

Despite its strengths, the study acknowledges limitations such as a potentially non-

representative sample and the need for cross-cultural validation. Future research should focus on longitudinal studies to track vocational identity over time, explore the integration of the SSCVIS with other assessment tools, and investigate contextual factors like family and school environments. Moreover, examining the impact of specific counseling interventions and exploring technology integration could further enhance the SSCVIS's effectiveness and accessibility. By addressing these areas, future research can deepen the understanding of vocational identity and refine the SSCVIS's use in educational contexts..

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