

Career Readiness Profiles of Vocational Students: Predictive Roles of Vocational Identity and Future Time Perspective

Sunawan^a, Dian Ratna Sawitri^b, Ernest Ceti Septyanti^a, and Edwindha Prafitra Nugraheni^a

^aFaculty of Education and Psychology, Universitas Negeri Semarang, Semarang, Indonesia

^bFaculty of Psychology, Universitas Diponegoro, Semarang, Indonesia

Abstract

Vocational students in Indonesia enter a volatile labor market, so career readiness is critical for a successful school-to-work transition. In this study, we identified career-readiness profiles and tested whether future time perspective and vocational identity predicted profile membership. Participants were 690 vocational high school students (54.64% girls; mean = 16.31 years, standard deviation = 0.85). K-means clustering yielded two profiles: high career readiness (41.3%) and low career readiness (58.7%). Students in the high-career-readiness profile reported higher levels of career knowledge, career motivation, and career management activity. They also reported a stronger future-positive time perspective, a weaker future-negative time perspective, greater career exploration, and stronger career commitment. Logistic regression indicated that future-positive time perspective (odds ratio [OR] = 7.73) and career commitment (OR = 2.17) uniquely predicted membership in the high-career-readiness profile (area under the receiver operating characteristic curve = .84). The findings suggest that school counseling should strengthen future-positive time perspective and vocational commitment to support students' transition to work.

Introduction

The transition from school to work requires students to manage their goals, make choices, and navigate uncertainty rather than relying only on technical competence (Hirschi & Koen, 2021). Among vocational students, this challenge is acute because they are expected to secure employment soon after graduation. Career readiness can therefore be understood as a set of resources reflected in career knowledge, career motivation, and career management activity.

Students, however, do not develop these resources in the same way. Person-centered approaches are useful because they reveal meaningful subgroups whose patterns may be obscured in variable-centered analyses (Hofmans et al., 2020; Howard & Hoffman, 2018; Laursen & Hoff, 2006).

Two psychological resources are particularly relevant. First, future time perspective concerns how adolescents imagine and evaluate their future; a positive future orientation should support planning and goal-directed action (Lyu & Huang, 2016).

Second, vocational identity refers to exploration, commitment, and reconsideration in relation to career choices (Crocetti, 2017; Porfeli et al., 2011). A well-developed vocational identity has been linked to adaptive career functioning (Negru-Subtirica et al., 2015). This study, therefore, examined profiles of career readiness and the roles of future time perspective and vocational identity in distinguishing among them.

Method

Participants included 690 Indonesian vocational high school students (54.64% girls; mean = 16.31 years, standard deviation = 0.85). Data were collected using paper-and-pencil surveys administered in schools after students were informed about the study. Ethical approval was granted by the Research Ethics Committee of Universitas Diponegoro (No. 208/EA/KEPK-FKM/2025).

Career readiness was assessed with the Career Readiness Questionnaire–Adolescent Version in three domains: knowledge, motivation, and career management activity. Vocational identity was quantified with the Vocational Identity Status Assessment, which assesses exploration, commitment, and reconsideration (Porfeli et al., 2011). Future time perspective was quantified using the Future Time Perspective Scale for Adolescents, which includes future-positive and future-negative dimensions (Lyu & Huang, 2016). All instruments were adapted into Indonesian using translation and back-translation procedures.

After preliminary data screening, a k-means cluster analysis was used to identify profiles based on the three readiness indicators. Group comparisons and logistic regression were then conducted to test whether future time perspective and vocational identity

distinguished between profiles and predicted profile membership.

Results

As shown in Table 1, the cluster analysis yielded two interpretable profiles: high career readiness ($n = 285$, 41.3%) and low career readiness ($n = 405$, 58.7%). Students in the high-career-readiness profile scored higher than those in the low-career-readiness profile on knowledge, motivation, and career management activity, indicating a coordinated pattern of strengths rather than isolated advantages.

Compared with the low-career-readiness group, students in the high-career-readiness group reported a stronger future-positive time perspective, a weaker future-negative time perspective, greater career exploration, and stronger career commitment. Career reconsideration did not differ significantly between the groups (See Table 2).

Figure 1 presents the logistic regression results, which indicated that future-positive time perspective was the strongest unique predictor of membership in the high-career-readiness profile (odds ratio, $OR = 7.73$), followed by career commitment ($OR = 2.17$). The final model showed good discrimination accuracy (area under the curve = .84).

Discussion

The findings support a person-centered view of vocational development: students are not uniformly prepared for the transition from school to work. Most participants fell into the low-career-readiness profile. This finding highlights the need for early support in vocational schools. The strongest predictor was future-positive time perspective, suggesting that students act proactively when they can connect present effort with valued future outcomes (Lyu & Huang, 2016).

Table 1. One-way analysis of variance results for differences between the two clusters

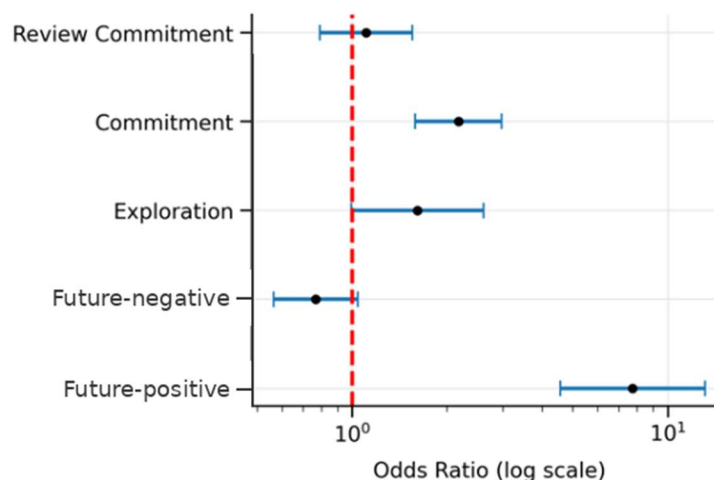
Dimension		Cluster				<i>F</i> (1,688)	<i>p</i>	η^2
		High Career Readiness		Low Career Readiness				
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
	Knowledge	4.01	0.46	3.15	0.37	753.13	< .001	0.52
	Motivation	4.53	0.34	3.84	0.46	469.17	< .001	0.41
	Activities	4.14	0.45	3.18	0.43	798.11	< .001	0.54
Cluster	N	285		405				
Member	%	41.3		58.7				

Table 2. Descriptive statistics by career readiness cluster

Variables	Cluster				<i>t</i>	<i>df</i>	<i>p</i>
	HCR		LCR				
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
Future-Positive	4.20	0.47	3.65	0.43	15.47	579.40	<.001
Future-Negative	2.45	0.89	2.66	0.64	-3.44	484.36	<.001
Career Exploration	4.12	0.54	3.58	0.52	13.18	591.02	<.001
Career Commitment	3.72	0.76	3.06	0.67	11.86	559.16	<.001
Career Reconsideration	3.23	0.86	3.12	0.57	1.95	455.32	>.05

Note. HCR = High career readiness; LCR = Low career readiness. M and SD are reported on the original response scales.

Predictors of High Career Readiness (Binary/Ordinal Logit)

**Figure 1.** ORs with 95% confidence intervals (log scale)

Career commitment was also associated commitments help organize goals and with profile membership, consistent with sustain action (Crocetti, 2017; Negru-identity theory, according to which clear Subtirica et al., 2015). The nonsignificant

result for reconsideration suggests that reevaluating options may be developmentally normal rather than purely maladaptive.

In practice, schools should complement information-based guidance with counseling that helps students imagine realistic futures, connect current learning to long-term goals, and strengthen commitment through structured exploration. Such interventions may be especially important for students with low motivation and limited career management activity. Overall, future-positive orientation and vocational commitment appear to be central indicators for identifying and supporting students who are less ready for the transition to work.

associations between career adaptability and vocational identity: A three-wave longitudinal study with adolescents. *Journal of Vocational Behavior*, 88, 131–142.

<https://doi.org/10.1016/j.jvb.2015.03.004>

Porfeli, E. J., Lee, B., Vondracek, F. W., & Weigold, I. K. (2011). A multi-dimensional measure of vocational identity status. *Journal of Adolescence*, 34(5), 853–871.

<https://doi.org/10.1016/j.adolescence.2011.02.001>

References

Crocetti, E. (2017). Identity formation in adolescence: The dynamic of forming and consolidating identity commitments. *Child Development Perspectives*, 11(2), 145–150.

<https://doi.org/10.1111/cdep.12226>

Hirschi, A., & Koen, J. (2021). Contemporary career orientations and career self-management: A review and integration. *Journal of Vocational Behavior*, 126, Article 103505.

<https://doi.org/10.1016/j.jvb.2020.103505>

Hofmans, J., Wille, B., & Schreurs, B. (2020). Person-centered methods in vocational research. *Journal of Vocational Behavior*, 118, Article 103398.

<https://doi.org/10.1016/j.jvb.2020.103398>

Howard, M. C., & Hoffman, M. E. (2018). Variable-centered, person-centered, and person-specific approaches: Where theory meets the method. *Organizational Research Methods*, 21(4), 846–876.

<https://doi.org/10.1177/1094428117744021>

Laursen, B., & Hoff, E. (2006). Person-centered and variable-centered approaches to longitudinal data. *Merrill-Palmer Quarterly*, 52(3), 377–389.

<https://doi.org/10.1353/mpq.2006.0029>

Lyu, H., & Huang, X. (2016). Development and validation of Future Time Perspective Scale for Adolescents and Young Adults. *Time & Society*, 25(3), 533–551.

<https://doi.org/10.1177/0961463X16662669>

Negru-Subtirica, O., Pop, E. I., & Crocetti, E. (2015). Developmental trajectories and reciprocal