JKI (Jurnal Konseling Indonesia)
12 (1): 55-66, 2026
http://ejournal.unikama.ac.id/index.php/JKI

Career Decision-Making Self-Efficacy of Students with Sensory Disabilities and Implications for Career Counseling

Putri Angelina Ginting*[1a], Henny Indreswari[1b], Nur Hidayah[1c], M. Ramli[1d], Adi Atmoko[1e], Arbin Janu Setiyowati[1f], Khairul Bariyyah[1g], Nining Maizura[1h], Syekha Aulia Mutia Zahra[1i], Ekel Sembiring[2j]

[1]Universitas Negeri Malang, Jl. Cakrawala No.5, Sumbersari, Kec. Lowokwaru, Kota Malang, Jawa Timur 65145
[2]PT HM Sampoerna, Indonesia
e-mail: [a]putriangelinagtg.fip@um.ac.id, [b]henny.indreswari.fip@um.ac.id, [c]nur.hidayah.fip@um.ac.id, [d]m.ramli.fip@um.ac.id , [e]adi.atmoko.fip@um.ac.id, [f]arbin.janu.fip@um.ac.id, [g]khairul.bariyyah.fip@um.ac.id, [h]nining.maizura.fip@um.ac.id ,[i]syekhaauliamz.fip@um.ac.id, [j]ekelsembiring488@gmail.com

Corresponding Author: putriangelinagtg.fip@um.ac.id

Received: 02 January 2026; Revised: 03 June 2026; Accepted: 10 October 2026

Abstract: This study aimed to describe the career decision-making self-efficacy (CDMSE) of university students with sensory disabilities in Indonesia and to examine whether it differed by gender, assistive technology use, disability severity, and experience of disability-specific career training, using Social Cognitive Career Theory as the theoretical framework. A quantitative descriptive survey was conducted with 15 purposively selected undergraduates, 13 of whom were deaf or hard of hearing and 2 of whom were visually impaired. Data were collected online with a 42-item CDMSE instrument covering seven aspects and were analyzed with descriptive statistics, the Friedman test, the Mann-Whitney U test, the Kruskal-Wallis test, and Spearman correlation. The total CDMSE score was in the moderate category (M = 3.35, SD = 0.34), with 12 students in the moderate category and 3 in the high category. Mean aspect scores ranged from 3.19 for goal selection and planning to 3.58 for use of support and did not differ significantly. The lowest-scoring item concerned difficulty finding career information because many sources are inaccessible. Students who had received disability-specific career training scored lower than those who had not (U = 3.00, p = .031, r = .56), whereas gender, assistive technology use, and disability severity showed no significant differences. Confidence in choosing an occupation correlated strongly with self-appraisal and with persistence in facing obstacles. These results indicate that the CDMSE of students with sensory disabilities is adequate but not yet secure, and that access to career information and the quality of career training need attention.
Keywords: career counseling; career decision-making self-efficacy; inclusive higher education; sensory disability; Social Cognitive Career Theory

Abstrak: Penelitian ini bertujuan mendeskripsikan efikasi diri pengambilan keputusan karier (career decision-making self-efficacy/CDMSE) mahasiswa penyandang disabilitas sensorik di Indonesia serta menguji perbedaannya menurut jenis kelamin, penggunaan teknologi bantu, tingkat disabilitas, dan pengalaman mengikuti pelatihan karier khusus disabilitas, dengan Social Cognitive Career Theory sebagai kerangka teori. Penelitian survei deskriptif kuantitatif dilakukan pada 15 mahasiswa yang dipilih secara purposif, terdiri atas 13 mahasiswa tunarungu atau kurang dengar dan 2 mahasiswa tunanetra. Data dikumpulkan secara daring dengan instrumen CDMSE 42 butir yang mencakup tujuh aspek, lalu dianalisis dengan statistik deskriptif, uji Friedman, uji Mann-Whitney U, uji Kruskal-Wallis, dan korelasi Spearman. Skor total CDMSE berada pada kategori sedang (M = 3,35; SD = 0,34), dengan 12 mahasiswa pada kategori sedang dan 3 mahasiswa pada kategori tinggi. Rerata aspek berkisar dari 3,19 pada pemilihan tujuan dan perencanaan sampai 3,58 pada pemanfaatan dukungan dan tidak berbeda signifikan. Butir dengan skor terendah berkaitan dengan kesulitan menemukan

This is an open access article under the CC–BY license.

https://doi.org/10.21067/jki.v12i1.14359

JKI (Jurnal Konseling Indonesia)
12 (1): 55-66, 2026
http://ejournal.unikama.ac.id/index.php/JKI

informasi karier karena banyak sumber yang tidak aksesibel. Mahasiswa yang pernah mengikuti pelatihan karier khusus disabilitas memiliki skor lebih rendah daripada yang belum pernah (U = 3,00; p = 0,031; r = 0,56), sedangkan jenis kelamin, penggunaan teknologi bantu, dan tingkat disabilitas tidak menunjukkan perbedaan signifikan. Keyakinan memilih pekerjaan berkorelasi kuat dengan penilaian diri dan dengan ketekunan menghadapi hambatan. Hasil ini menunjukkan bahwa CDMSE mahasiswa disabilitas sensorik sudah memadai tetapi belum kokoh, serta akses informasi karier dan mutu pelatihan karier perlu mendapat perhatian.

Kata Kunci: efikasi diri pengambilan keputusan karier; konseling karier; mahasiswa disabilitas sensorik; pendidikan tinggi inklusif; Social Cognitive Career Theory

How to Cite: Ginting, P. A., Indreswari, H., Hidayah, N., Ramli, M., Atmoko, A., Setiyowati, A. J., Bariyyah, K., Maizura, N., Zahra, S. A. M., & Sembiring, E. (2026). Career Decision-making Self-efficacy of Students with Sensory Disabilities and Implications for Career Counseling. *Jurnal Konseling Indonesia, 12*(1), 55–66. https://doi.org/10.21067/jki.v12i1.14359

Copyright © 2026 (Ginting et al.)

Introduction

The world of work that university graduates now enter is often described as volatile, uncertain, complex, and ambiguous (VUCA). Each of these conditions creates a different kind of threat to planning and performance (Bennett & Lemoine, 2014). Career advisers have begun to treat VUCA as the normal setting of career development because the stability assumed by traditional career-matching models no longer holds (Shaffer & Zalewski, 2024). Technological change also reshapes occupations and skill demands, so that students must keep revising their career information and plans (Hirschi, 2018). These demands fall more heavily on students with disabilities, whose long-term employment outcomes depend strongly on the career development they receive during the transition from school to work (Lindstrom et al., 2011) and who still face barriers in higher education that their peers do not (Hong, 2015).

Meeting these demands requires more than career information. It also requires confidence in one's ability to use that information to make decisions. This confidence is known as career decision-making self-efficacy (CDMSE), defined as a person's belief in his or her ability to complete the tasks involved in career decision-making, namely self-appraisal, gathering occupational information, selecting goals, making plans, and solving problems (Taylor & Betz, 1983). Students with higher CDMSE explore careers more actively (Blustein, 1989), become more decided about their career choices (Betz & Voyten, 1997), and experience fewer career decision-making difficulties (Gati et al., 1996). A meta-analysis has confirmed that CDMSE is closely related to a range of personal and contextual variables that shape career development (Choi et al., 2012).

For students with sensory disabilities, building CDMSE faces a particular obstacle (Sari et al., 2021). Much career information is delivered in visual or spoken formats that are not designed for deaf or visually impaired users, while campus career services often overlook students with disabilities (Kwon et al., 2023). Inclusive higher education still struggles to translate policy into practice (Moriña, 2017), and students with disabilities continue to negotiate their identities within institutions that frame disability in different ways (Riddell & Weedon, 2014). In Indonesia, CDMSE instruments for students have been developed (Rubiyanti et al., 2023) and Social Cognitive Career Theory has been introduced to counseling practitioners (Zola et al., 2022), but empirical evidence on the CDMSE of university students with sensory disabilities is still lacking. This is the main problem addressed in this study. Without such evidence, counselors cannot tell which aspects of career decision-making these students find most difficult or whether existing career training helps them.

Based on this problem, the research question of this study is: what is the profile of career decision-

This is an open access article under the CC–BY license.

https://doi.org/10.21067/jki.v12i1.14359

JKI (Jurnal Konseling Indonesia)
12 (1): 55-66, 2026
http://ejournal.unikama.ac.id/index.php/JKI

making self-efficacy among university students with sensory disabilities in Indonesia? In line with this question, the study aims to describe the level of CDMSE across its aspects, the relationships among those aspects, and the differences in CDMSE by gender, assistive technology use, disability severity, and experience of disability-specific career training. Theoretically, the study tests the extent to which Social Cognitive Career Theory explains the CDMSE of students with sensory disabilities in an Indonesian higher education setting. Practically, the findings can guide school and university counselors, disability service units, and career centers in designing career counseling that suits the needs of these students.

The need for such a profile is supported by previous studies. Chao et al. (2022) found that disability identity, social support, perceived barriers, and demographic factors together explained 30.1% of the variance in CDMSE among 312 college students with disabilities. Karaca et al. (2026) reported that the career future perceptions of university students with disabilities differed by the type and severity of their disability. A scoping review of 48 studies identified self-efficacy beliefs, learning experiences, and contextual influences as the main themes in the career development of college students with disabilities (Liu et al., 2024), and a survey of 349 college students with disabilities showed that academic and career self-efficacy were the strongest predictors of goal persistence (Wu et al., 2024). Qualitative studies add that highly achieving women with physical and sensory disabilities drew on both self-belief and support from others (Noonan et al., 2004), and that the study choices of graduates with disabilities were shaped by personal factors as well as by family, friends, and teachers (Biagiotti & Moriña, 2025). At the intervention level, career choice interventions are effective, particularly when they involve a counselor (Whiston et al., 2017). However, none of these studies examined students with sensory disabilities in Indonesia, and few looked at CDMSE aspects together with students' experience of career training.

To address this gap, the study is guided by the following conceptual framework. Disability is treated as a personal input that shapes the learning experiences students obtain, including access to career information and participation in career training. These learning experiences form self-efficacy for each career decision task. Throughout the process, contextual supports and barriers, such as accessible facilities and the help of family, lecturers, and disability services, influence whether self-efficacy develops. Following this framework, CDMSE was expected to be lower in aspects that depend on accessible information and higher in aspects that rest on self-knowledge and support (Putri Angelina Ginting et al., 2024).

This framework draws on the theory reviewed below. Bandura's self-efficacy theory states that people's beliefs about their capabilities determine which activities they choose, how much effort they invest, and how long they persist when facing obstacles. These beliefs are formed through four sources: mastery experiences, vicarious experiences, verbal persuasion, and physiological and emotional states (Bandura, 1977). Social Cognitive Career Theory applies this idea to career development by positioning self-efficacy, outcome expectations, and personal goals as the mechanisms that shape career interests, choices, and performance (Lent et al., 1994). The theory also states that contextual supports and barriers influence career choices both directly and through self-efficacy (Lent et al., 2000), and its career self-management model extends the role of self-efficacy to decision-making and adaptive career behavior across the life span (Lent & Brown, 2013).

Within this theoretical frame, the CDMSE construct of Taylor and Betz (Taylor & Betz, 1983) provides the decision tasks to be measured. The instrument used in this study retains these tasks and adds aspects that are especially relevant to students with disabilities in a VUCA setting, namely confidence in choosing an occupation, persistence in facing obstacles, career plan adaptation, and use of support. The addition of adaptation follows the life-design view that career intervention must prepare people to adjust their plans continually in a changing world of work (Savickas, 2012). Together, these theories provide the basis for describing and interpreting the CDMSE of university students with sensory disabilities in this study.

This is an open access article under the CC–BY license.

https://doi.org/10.21067/jki.v12i1.14359

JKI (Jurnal Konseling Indonesia)
12 (1): 55-66, 2026
http://ejournal.unikama.ac.id/index.php/JKI

Method

Approach and Method

This study used a quantitative approach with a descriptive survey method. The method was chosen because the study aimed to describe the CDMSE profile of university students with sensory disabilities without manipulating any variable. Because the sample was small, comparisons and correlations were tested with nonparametric statistics.

Data Type and Data Sources

The data were primary data obtained from university students with sensory disabilities. Participants were selected through purposive sampling with three criteria: active undergraduate status, a sensory disability (deaf or hard of hearing, or visual impairment), and willingness to complete the questionnaire. Sixteen students responded. One respondent reported an intellectual disability (slow learner) and was excluded because this condition does not meet the sensory disability criterion, leaving 15 participants for analysis. The participants were aged 19–24 years (M = 20.53, SD = 1.25). Most were deaf or hard of hearing, used assistive technology, named their family as their main source of career support, and had never received disability-specific career training. The characteristics of the participants are presented in Table 1.

Table 1. Participant Characteristics (n = 15)

Characteristic	Category	n	%
Gender	Female	9	60.0
	Male	6	40.0
Type of disability	Deaf or hard of hearing	13	86.7
	Visual impairment	2	13.3
Disability severity	Mild	2	13.3
	Moderate	8	53.3
	Severe	4	26.7
	Totally blind	1	6.7
Assistive technology	Uses assistive technology	11	73.3
	Does not use assistive technology	4	26.7
Main source of career support	Family	10	66.7
	Friends	4	26.7
	Institution	1	6.7
Disability-specific career training	Received	3	20.0
	Not received	12	80.0

Source: research data (2025)

Data Collection Technique

Data were collected through an online questionnaire (Google Form) between 19 and 26 November 2025. The questionnaire was written in simple language and consisted of a section on participant characteristics and the CDMSE instrument for students with sensory disabilities. The instrument contains 42 items divided into seven aspects. Each aspect consists of three positively worded and three negatively worded items, answered on a five-point scale from strongly disagree (1) to strongly agree (5). The blueprint and example items are presented in Table 2.

This is an open access article under the CC–BY license.

https://doi.org/10.21067/jki.v12i1.14359

JKI (Jurnal Konseling Indonesia)
12 (1): 55-66, 2026
http://ejournal.unikama.ac.id/index.php/JKI

Table 2. Blueprint of the CDMSE Instrument

Aspect	Items	Example of positive item	Example of negative item
1. Self-appraisal	1–6	I am able to match my abilities with the career choice I want.	I am often confused about choosing a career because I do not yet understand my interests and talents.
2. Career information	7–12	I look for job opportunities related to my major.	I find it difficult to find career information because many sources are not accessible to me.
3. Goal selection and planning	13–18	I am able to compare the advantages and disadvantages of each career option before making a decision.	I rely more on luck than on planning when making career decisions.
4. Confidence in choosing an occupation	19–24	I am confident that I can choose a job that matches my abilities.	My confidence in my career future decreases when I face obstacles due to my disability.
5. Persistence in facing obstacles	25–30	I remain motivated to pursue a career despite my limitations.	I tend to give up when facing obstacles in my education.
6. Career plan adaptation	31–36	I am able to adjust my career plans when circumstances change from what I expected.	I worry that I will not be able to adapt to the work environment because of my disability.
7. Use of support	37–42	I ask the university (lecturers, assistants, disability services) for help when I need career support.	I do not make use of university support for my career needs.

Source: research instrument

Before analysis, the 21 negatively worded items were reverse-scored so that a higher score always indicated higher CDMSE. Participants' names were replaced with codes. One missing response was replaced with the rounded mean of the same participant's other five items in that aspect. Internal consistency was estimated with Cronbach's alpha for the total score and for each aspect (Tavakol & Dennick, 2011).

Data Analysis Technique

Scores were expressed as mean item scores on the 1–5 scale for the total instrument and for each aspect. Categories were set from the hypothetical mean (3.00) and standard deviation (0.67) of the scale: low for scores below 2.33, moderate for scores from 2.33 to below 3.67, and high for scores of 3.67 or above (Hanson et al., 2005). Differences among the seven aspects were tested with the Friedman test. Differences by gender, assistive technology use, and career training experience were tested with the Mann-Whitney U test, with effect size calculated as $r = |z|/\sqrt{N}$ (Fritz et al., 2012). Differences by disability severity were tested with the Kruskal-Wallis test. Relationships among aspects were examined with Spearman's rank-order correlation, which suits ordinal data and small samples that may not meet the assumptions of Pearson's correlation (Schober et al., 2018). Because each aspect is part of the total score, the relationship between each aspect and the total was calculated against the total of the remaining six aspects. All analyses were conducted in Python with SciPy at a significance level of .05.

Results

Instrument Reliability

Cronbach's alpha for the total score was .83. At the aspect level, alpha ranged from .25 to .72. The highest values were found for persistence in facing obstacles (.72) and goal selection and planning (.68), while career information and career plan adaptation had the lowest values (.25 each).

This is an open access article under the CC–BY license.

https://doi.org/10.21067/jki.v12i1.14359

JKI (Jurnal Konseling Indonesia)
12 (1): 55-66, 2026
http://ejournal.unikama.ac.id/index.php/JKI

Level of CDMSE

Total CDMSE scores ranged from 2.69 to 3.90, with a mean of 3.35 (SD = 0.34, Mdn = 3.38). Twelve participants (80.0%) were in the moderate category and three (20.0%) were in the high category, while none were in the low category. Descriptive statistics for each aspect are presented in Table 3 and Figure 1.

Table 3. Descriptive Statistics and Reliability by Aspect (n = 15)

Aspect	M	SD	Min	Max	High (n)	α
1. Self-appraisal	3.31	0.47	2.67	4.17	3	.51
2. Career information	3.32	0.43	2.67	4.17	3	.25
3. Goal selection and planning	3.19	0.59	2.17	4.17	3	.68
4. Confidence in choosing an occupation	3.32	0.55	2.67	4.33	5	.53
5. Persistence in facing obstacles	3.47	0.67	2.17	4.33	9	.72
6. Career plan adaptation	3.29	0.40	2.67	4.00	6	.25
7. Use of support	3.58	0.53	2.33	4.50	8	.47
Total CDMSE	**3.35**	**0.34**	**2.69**	**3.90**	**3**	**.83**

Source: results of data analysis (2025). High (n) = number of participants with a mean item score of 3.67 or above.

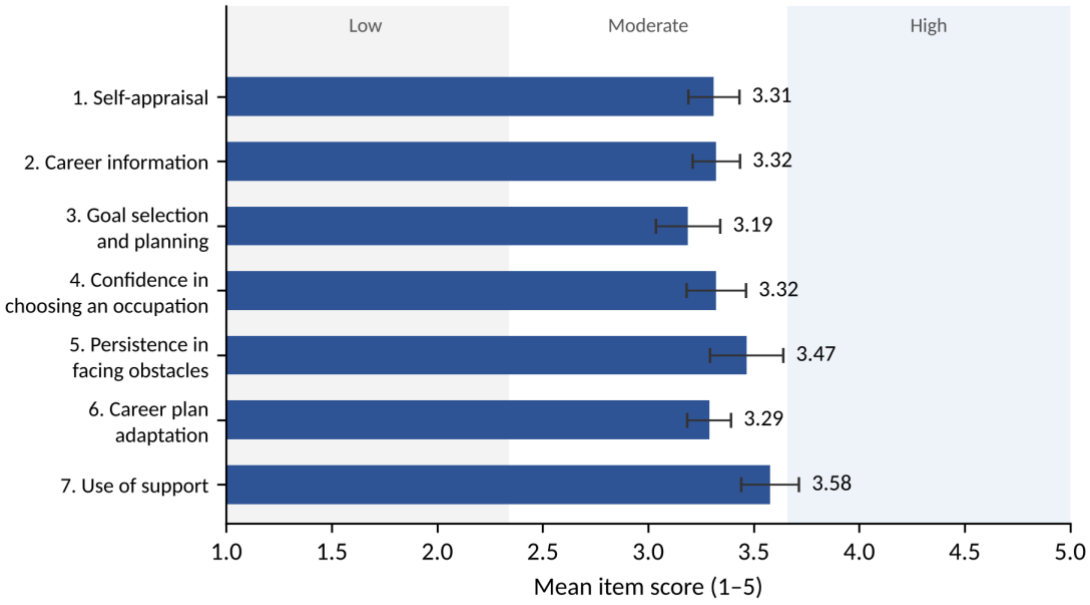


Figure 1. Mean Scores of the Seven CDMSE Aspects (n = 15). Error bars show the standard error of the mean.

All aspect means were in the moderate category, ranging from 3.19 for goal selection and planning to 3.58 for use of support. The differences among aspects were not significant ($\chi^2(6) = 8.59$, $p = .198$, Kendall's $W = .10$). Use of support and persistence in facing obstacles had the largest number of participants in the high category (eight and nine participants, respectively). At the item level, the lowest scores were found on negatively worded items. The item "I find it difficult to find career information because many sources are not accessible to me" had the lowest mean (M = 2.00), and 73.3% of participants agreed with it. It was followed by "I am often confused about choosing a career because I do not yet understand my interests and talents" (M = 2.13), "I do not look for disability-specific job training that could support my future career" (M = 2.33), and "I am often unsure of my condition when

This is an open access article under the CC–BY license.

https://doi.org/10.21067/jki.v12i1.14359

JKI (Jurnal Konseling Indonesia)
12 (1): 55-66, 2026
http://ejournal.unikama.ac.id/index.php/JKI

choosing a future job" (M = 2.33). The highest scores were found for "I feel able to set career goals even though I have a disability" (M = 4.33), "I ask the university for help when I need career support" (M = 4.27), and "I use my time to take part in activities that support my career development" (M = 4.27).

Differences by Participant Characteristics

The results of the group comparisons are presented in Table 4 and Figure 2. A significant difference was found only for career training experience. The three participants who had received disability-specific career training had a lower total CDMSE score (M = 2.94) than the twelve participants who had not (M = 3.46), with a large effect size. When the aspects were compared separately, the only significant difference between these two groups was in use of support (M = 2.89 vs. 3.75, U = 2.00, p = .018). No significant differences were found by gender, assistive technology use, or disability severity. The comparison by type of disability was not tested because only two participants had a visual impairment; their mean total score (M = 3.30) was close to that of deaf or hard-of-hearing participants (M = 3.36).

Table 4. Differences in Total CDMSE by Participant Characteristics (n = 15)

Characteristic	Group (n)	M	SD	Test statistic	p	r
Gender	Female (9)	3.40	0.35	U = 19.00	.388	.24
	Male (6)	3.29	0.34			
Assistive technology	Uses (11)	3.34	0.36	U = 20.00	.851	.07
	Does not use (4)	3.40	0.31			
Career training	Received (3)	2.94	0.22	U = 3.00	.031	.56
	Not received (12)	3.46	0.28			
Disability severity	Mild (2)	3.27	0.02	H(3) = 5.19	.159	–
	Moderate (8)	3.21	0.35			
	Severe (4)	3.54	0.18			
	Totally blind (1)	3.90	–			

Source: results of data analysis (2025). U = Mann-Whitney U (exact p); H = Kruskal-Wallis H.

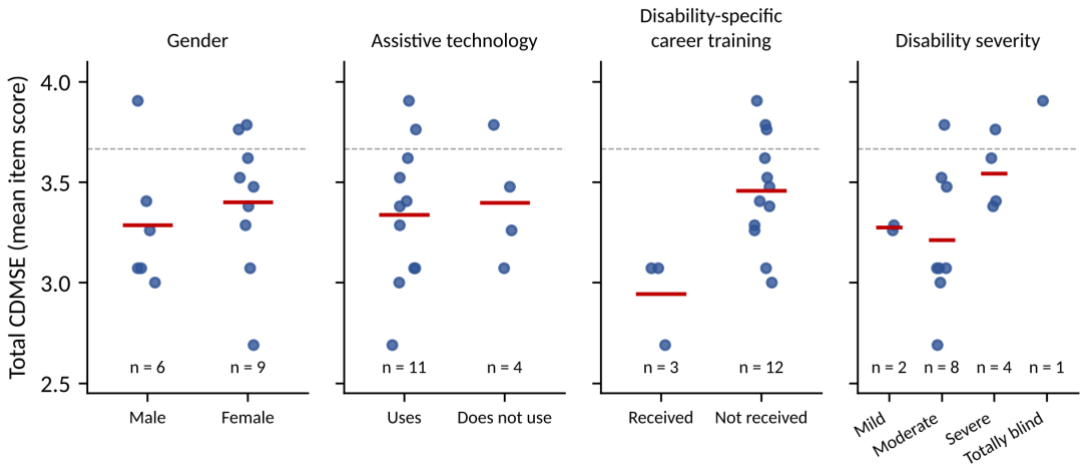


Figure 2. Total CDMSE Scores by Participant Characteristics. Dots show individual participants, red lines show group means, and the dashed line marks the lower limit of the high category.

This is an open access article under the CC–BY license.

https://doi.org/10.21067/jki.v12i1.14359

JKI (Jurnal Konseling Indonesia)
12 (1): 55-66, 2026
http://ejournal.unikama.ac.id/index.php/JKI

Relationships among CDMSE Aspects

Spearman correlations among the aspects are presented in Table 5. Three correlations were significant, all of them positive: confidence in choosing an occupation with self-appraisal (ρ = .74, p = .002), confidence in choosing an occupation with persistence in facing obstacles (ρ = .69, p = .004), and persistence in facing obstacles with career plan adaptation (ρ = .64, p = .011). Career information and goal selection and planning had weak and nonsignificant correlations with every other aspect (ρ between −.13 and .35). Against the total of the remaining aspects, the strongest correlations were found for confidence in choosing an occupation (ρ = .75, p = .001), persistence in facing obstacles (ρ = .61, p = .015), self-appraisal (ρ = .54, p = .038), and use of support (ρ = .53, p = .041), whereas career information (ρ = .32, p = .237), goal selection and planning (ρ = .35, p = .206), and career plan adaptation (ρ = .45, p = .089) were not significant.

Table 5. Spearman Correlations among CDMSE Aspects (n = 15)

Aspect	1	2	3	4	5	6	Rest of scale
1. Self-appraisal	–						.54*
2. Career information	.35	–					.32
3. Goal selection and planning	.26	.29	–				.35
4. Confidence in choosing an occupation	.74**	.28	.33	–			.75**
5. Persistence in facing obstacles	.31	.21	.13	.69**	–		.61*
6. Career plan adaptation	.41	−.13	−.12	.50	.64*	–	.45
7. Use of support	.23	.19	.28	.32	.35	.32	.53*

Source: results of data analysis (2025). *p < .05,* *p < .01. Rest of scale = correlation with the mean of the other six aspects.

Discussion

The results contain three main findings. First, the CDMSE of students with sensory disabilities is in the moderate category, with no significant differences among aspects but with the lowest item scores on inaccessible career information and unclear self-understanding. Second, confidence in choosing an occupation is closely linked with self-appraisal and persistence, while career information and goal planning stand apart from the other aspects. Third, students who had received disability-specific career training had lower CDMSE, particularly in their use of support. These findings are discussed using Social Cognitive Career Theory (Lent et al., 1994, 2000) as the main framework, supported by self-efficacy theory (Bandura, 1977).

The moderate level of CDMSE shows that these students have a basic confidence in making career decisions but that this confidence is not yet secure. According to self-efficacy theory, beliefs that are not yet strong are easily weakened when people meet obstacles (Bandura, 1977). In a VUCA world of work, where career information changes quickly and plans must often be revised (Hirschi, 2018; Shaffer & Zalewski, 2024), a moderate level of CDMSE may not be enough to sustain career exploration. The absence of a single weak aspect also suggests that the students' difficulty is general rather than limited to one decision task (br Ginting et al., 2024). This pattern differs from the expectation of the conceptual framework that aspects relying on information would be clearly lower, and it shows that the information problem appears more clearly at the item level than at the aspect level.

The item-level results support this reading. The lowest item concerns career information that is not accessible, and almost three-quarters of the students agreed with it. Social Cognitive Career Theory holds that contextual barriers can limit career choice directly and through self-efficacy (Lent et al., 2000). Inaccessible information is such a barrier, because it reduces the mastery experiences students can gain when they search for and use career information on their own (Bandura, 1977). The finding is also

This is an open access article under the CC–BY license.

https://doi.org/10.21067/jki.v12i1.14359

JKI (Jurnal Konseling Indonesia)
12 (1): 55-66, 2026
http://ejournal.unikama.ac.id/index.php/JKI

consistent with reports that students with disabilities face barriers in higher education that their peers do not (Hong, 2015), that inclusive higher education has not yet been fully implemented (Moriña, 2017), and that campus career services often overlook students with disabilities (Kwon et al., 2023). The low score on the item about not understanding one's interests and talents adds that the problem lies not only in access to external information but also in the information students have about themselves.

The second finding explains how the aspects are connected. Confidence in choosing an occupation was most strongly related to self-appraisal and to persistence, and persistence was in turn related to career plan adaptation. In Social Cognitive Career Theory, self-efficacy develops from learning experiences and drives persistent career behavior (Lent et al., 1994), and the career self-management model links self-efficacy with adaptive behavior when circumstances change (Lent & Brown, 2013). The pattern found here fits this sequence: students who know their abilities feel more confident about choosing an occupation, and this confidence goes together with the persistence and flexibility needed in a changing world of work (Savickas, 2012). Career information and goal planning, by contrast, were not related to the other aspects. One explanation is that these two aspects depend more on contextual conditions, such as accessible sources and guidance, than on students' personal beliefs. The low reliability of the career information aspect, however, also limits the correlations that this aspect could show.

The third finding requires careful interpretation. Students who had received disability-specific career training had lower CDMSE than those who had not, and the difference was clearest in their use of support. This result is contrary to the expectation of Social Cognitive Career Theory that career training increases self-efficacy through mastery experiences and verbal persuasion (Bandura, 1977; Lent et al., 1994). Because the design was cross-sectional and only three students had received training, the result cannot be read as an effect of training. One explanation is self-selection: students who already feel less confident may be more likely to join or be referred to such programs. Another is that the training they received focused on limitations and accommodations rather than on strengths, which could make barriers more salient. Studies of highly achieving women with physical and sensory disabilities show that support which affirms ability helps career development (Noonan et al., 2004), whereas career interventions work best when they are guided by a counselor and tailored to the client (Whiston et al., 2017). Both explanations point to the need to examine the content and delivery of disability-specific career training, not only its availability.

Measurement aspects should also be considered when interpreting these results. The reliability of the total score was good, but several aspects had low reliability, and the lowest item scores were all found on negatively worded items. Such a pattern may partly reflect reversed item bias, a tendency to respond to negatively worded items in a way that is not consistent with responses to positive items (Weijters et al., 2013). For deaf students, negated sentences in written language may also be understood differently from the intention of the instrument developers. The aspect-level results should therefore be treated as an initial description rather than a final profile.

Based on these findings and on Social Cognitive Career Theory, this study proposes three priorities for career counseling with students with sensory disabilities. The first is to start from self-appraisal and confidence in choosing an occupation. Since these two aspects are closely related, counselors can use strengths-based self-assessment and the setting of achievable career tasks to build mastery experiences step by step. The second is to make career information accessible. Career centers and disability service units can provide information in sign language, captioned video, text that is compatible with screen readers, and plain language, and can combine this with group counseling so that students also learn from peers with similar experiences. The third is to review disability-specific career training so that it emphasizes ability and opportunity rather than limitation, and to strengthen the preparation of counselors, given that gaps related to diversity and social justice are still found in career counselor training (Holladay et al., 2025). In Indonesia, these priorities can be carried out through guidance and

This is an open access article under the CC–BY license.

https://doi.org/10.21067/jki.v12i1.14359

counseling services and disability service units, in line with the national regulation on reasonable accommodation for students with disabilities.

This study contributes in three ways. First, it provides an initial profile of CDMSE among university students with sensory disabilities in Indonesia, a group that has rarely been studied in career counseling research. Second, it shows how the aspects of CDMSE are connected, with confidence in choosing an occupation linking self-appraisal and persistence while career information remains separate, which points to where counseling should begin. Third, it raises a question about the content of existing disability-specific career training, which future studies can test directly.

Conclusion

The CDMSE of university students with sensory disabilities in this study was in the moderate category. The seven aspects did not differ significantly, but the lowest item scores concerned inaccessible career information and unclear understanding of personal interests and talents. Confidence in choosing an occupation was closely related to self-appraisal and persistence, and students who had received disability-specific career training scored lower than those who had not.

These results imply that career counseling for students with sensory disabilities should build on their self-appraisal, provide career information in accessible formats, and review the content of existing disability-specific career training. Universities can support these efforts through cooperation between career centers, disability service units, and counselors.

The results should be read with caution because the sample was small and dominated by deaf students, several aspects had low reliability, only three students had received career training, and the design was cross-sectional. Future research should involve a larger and more balanced sample, test the factor structure of the instrument, and use longitudinal or experimental designs to examine how career training affects CDMSE.

References

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, *84*(2), 191–215. https://doi.org/10.1037/0033-295X.84.2.191

Bennett, N., & Lemoine, G. J. (2014). What a difference a word makes: Understanding threats to performance in a VUCA world. *Business Horizons*, *57*(3), 311–317. https://doi.org/10.1016/j.bushor.2014.01.001

Betz, N. E., & Voyten, K. K. (1997). Efficacy and outcome expectations influence career exploration and decidedness. *The Career Development Quarterly*, *46*(2), 179–189. https://doi.org/10.1002/j.2161-0045.1997.tb01004.x

Biagiotti, G., & Moriña, A. (2025). Why, where and what to study? Exploring the university choices of Italian and Spanish graduates with disabilities. *British Journal of Special Education*, *52*(1), 49–57. https://doi.org/10.1111/1467-8578.12573

Blustein, D. L. (1989). The role of goal instability and career self-efficacy in the career exploration process. *Journal of Vocational Behavior*, *35*(2), 194–203. https://doi.org/10.1016/0001-8791(89)90040-7

br Ginting, P. A., Taufiq, A., & Supriatna, M. (2024). Career Guidance Based on Krumboltz's Social Learning Theory to Develop Students' Career Decisions. *Bisma The Journal of Counseling*, *8*(1), 49–55.

Chao, S.-Y., Chen, R. K., Grizzell, S. T., Wilson, K. B., & Lewis, T. A. (2022). Factors influencing the career decision self-efficacy and outcome expectations of college students with disabilities. *Rehabilitation Research, Policy, and Education*, *36*(3), 197–212. https://doi.org/10.1891/RE-21-30

Choi, B. Y., Park, H., Yang, E., Lee, S. K., Lee, Y., & Lee, S. M. (2012). Understanding career decision self-efficacy: A meta-analytic approach. *Journal of Career Development*, *39*(5), 443–460. https://doi.org/10.1177/0894845311398042

Fritz, C. O., Morris, P. E., & Richler, J. J. (2012). Effect size estimates: Current use, calculations, and interpretation.

This is an open access article under the CC–BY license.

https://doi.org/10.21067/jki.v12i1.14359

Journal of Experimental Psychology: General, *141*(1), 2–18. https://doi.org/10.1037/a0024338

Gati, I., Krausz, M., & Osipow, S. H. (1996). A taxonomy of difficulties in career decision making. *Journal of Counseling Psychology*, *43*(4), 510–526. https://doi.org/10.1037/0022-0167.43.4.510

Hanson, W. E., Plano Clark, V. L., Petska, K. S., Creswell, J. W., & Creswell, J. D. (2005). Mixed methods research designs in counseling psychology. *Journal of Counseling Psychology*, *52*(2), 224–235. https://doi.org/10.1037/0022-0167.52.2.224

Hirschi, A. (2018). The fourth industrial revolution: Issues and implications for career research and practice. *The Career Development Quarterly*, *66*(3), 192–204. https://doi.org/10.1002/cdq.12142

Holladay, K. R., Cortés, R. D., Chen, C.-C., & Sanders, C. (2025). Closing the gap in career counselor development with inclusive teaching strategies. *Journal of Employment Counseling*, *62*(4), 194–207. https://doi.org/10.1002/joec.12250

Hong, B. S. S. (2015). Qualitative analysis of the barriers college students with disabilities experience in higher education. *Journal of College Student Development*, *56*(3), 209–226. https://doi.org/10.1353/csd.2015.0032

Karaca, E., Baykara Mat, S. T., & Bastarcan, C. (2026). Career future perceptions of university students with disabilities: A cross-sectional study in Türkiye. *Frontiers in Education*, *10*, 1711779. https://doi.org/10.3389/feduc.2025.1711779

Kwon, C. K., Guadalupe, S. S., Archer, M., & Groomes, D. A. (2023). Understanding career development pathways of college students with disabilities using crip theory and the theory of whole self. *Journal of Diversity in Higher Education*, *16*(4), 520–525. https://doi.org/10.1037/dhe0000464

Lent, R. W., & Brown, S. D. (2013). Social cognitive model of career self-management: Toward a unifying view of adaptive career behavior across the life span. *Journal of Counseling Psychology*, *60*(4), 557–568. https://doi.org/10.1037/a0033446

Lent, R. W., Brown, S. D., & Hackett, G. (1994). Toward a unifying social cognitive theory of career and academic interest, choice, and performance. *Journal of Vocational Behavior*, *45*(1), 79–122. https://doi.org/10.1006/jvbe.1994.1027

Lent, R. W., Brown, S. D., & Hackett, G. (2000). Contextual supports and barriers to career choice: A social cognitive analysis. *Journal of Counseling Psychology*, *47*(1), 36–49. https://doi.org/10.1037/0022-0167.47.1.36

Lindstrom, L., Doren, B., & Miesch, J. (2011). Waging a living: Career development and long-term employment outcomes for young adults with disabilities. *Exceptional Children*, *77*(4), 423–434. https://doi.org/10.1177/001440291107700403

Liu, Y., Chiu, Y.-C. J., Guennouni, N., & Conyers, L. M. (2024). Career development of college students with disabilities: A scoping review. *Journal of Career Development*, *51*(2), 254–298. https://doi.org/10.1177/08948453241236114

Moriña, A. (2017). Inclusive education in higher education: Challenges and opportunities. *European Journal of Special Needs Education*, *32*(1), 3–17. https://doi.org/10.1080/08856257.2016.1254964

Noonan, B. M., Gallor, S. M., Hensler-McGinnis, N. F., Fassinger, R. E., Wang, S., & Goodman, J. (2004). Challenge and success: A qualitative study of the career development of highly achieving women with physical and sensory disabilities. *Journal of Counseling Psychology*, *51*(1), 68–80. https://doi.org/10.1037/0022-0167.51.1.68

Putri Angelina Ginting, Taufiq, A., & Supriatna, M. (2024). The Existence of Career Guidance and Counseling In The Era Of The Fourth Industrial Revolution 4.0. *G-Couns: Jurnal Bimbingan Dan Konseling*, *9*(2), 887–899. https://doi.org/10.31316/g-couns.v9i2.6192

Riddell, S., & Weedon, E. (2014). Disabled students in higher education: Discourses of disability and the negotiation of identity. *International Journal of Educational Research*, *63*, 38–46. https://doi.org/10.1016/j.ijer.2013.02.008

Rubiyanti, Y., Jatnika, R., Siswadi, A. G. P., & Agustiani, H. (2023). Development of career decision making self efficacy tools in Indonesian language. *JHSS (Journal of Humanities and Social Studies)*, *7*(2), 547–549.

This is an open access article under the CC–BY license.

https://doi.org/10.21067/jki.v12i1.14359

https://doi.org/10.33751/jhss.v7i2.7538

Sari, A. K., Yusuf, A., Megaiswari, & Afdhal. (2021). Analisis Teori krumbotz. *Jurnal Ilmiah Bimbingan Konseling Undikhsa*, *12*(1), 116–121. https://doi.org/10.23887/XXXXXX-XX-0000-00

Savickas, M. L. (2012). Life design: A paradigm for career intervention in the 21st century. *Journal of Counseling & Development*, *90*(1), 13–19. https://doi.org/10.1111/j.1556-6676.2012.00002.x

Schober, P., Boer, C., & Schwarte, L. A. (2018). Correlation coefficients: Appropriate use and interpretation. *Anesthesia & Analgesia*, *126*(5), 1763–1768. https://doi.org/10.1213/ANE.0000000000002864

Shaffer, L. S., & Zalewski, J. M. (2024). Career advising in a VUCA environment. *NACADA Journal*, *44*(2), 149–159. https://doi.org/10.12930/NACADA-24-99

Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. *International Journal of Medical Education*, *2*, 53–55. https://doi.org/10.5116/ijme.4dfb.8dfd

Taylor, K. M., & Betz, N. E. (1983). Applications of self-efficacy theory to the understanding and treatment of career indecision. *Journal of Vocational Behavior*, *22*(1), 63–81. https://doi.org/10.1016/0001-8791(83)90006-4

Weijters, B., Baumgartner, H., & Schillewaert, N. (2013). Reversed item bias: An integrative model. *Psychological Methods*, *18*(3), 320–334. https://doi.org/10.1037/a0032121

Whiston, S. C., Li, Y., Goodrich Mitts, N., & Wright, L. (2017). Effectiveness of career choice interventions: A meta-analytic replication and extension. *Journal of Vocational Behavior*, *100*, 175–184. https://doi.org/10.1016/j.jvb.2017.03.010

Wu, J. R., Kundu, M., Iwanaga, K., Chan, F., Chen, X., Rumrill, P., & Wehman, P. (2024). Social cognitive career theory predictors of goal persistence in African American college students with disabilities. *Rehabilitation Counseling Bulletin*, *67*(2), 83–93. https://doi.org/10.1177/00343552221108407

Zola, N., Yusuf, A. M., & Firman, F. (2022). Konsep social cognitive career theory [The concept of social cognitive career theory]. *JRTI (Jurnal Riset Tindakan Indonesia)*, *7*(1), 24–28. https://doi.org/10.29210/30031454000

This is an open access article under the CC–BY license.

https://doi.org/10.21067/jki.v12i1.14359