Pedagogy Review | 2026, Vol. 9, No.1, 117 – 131 | ISSN Online: 3028-1040 | ISSN Print: 3028-1059
DOI: https://doi.org/10.62718/vmca.pr-ijetas.9.1.SC-0726-011

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Am I Ready to Face the World of Work? Career Readiness and Decision-Making among Graduating University Students

Article History:

Initial submission:	28 July 2026
First decision:	05 August 2026
Revision received:	08 November 2026
Accepted for publication:	18 November 2026
Online release:	26 November 2026

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Abstract

Graduating college students face important career decisions as they transition into the modern labor market. Despite earning academic qualifications, many encounter challenges in securing employment that matches their credentials, highlighting the need to examine their career preparedness. This study investigated the career readiness, development needs, and decision-making processes of graduating college students for Academic Year 2025-2026 using the Cognitive Information Processing (CIP) model. The study employed a convergent parallel mixed-methods design, combining quantitative and qualitative approaches. Quantitative and qualitative data were collected from 134 graduating students through the Career Self-Assessment Survey using convenience sampling. Qualitative data were gathered through open-ended responses. The study assessed five dimensions of career readiness: self-awareness, career awareness, goal setting, decision-making, and metacognitive skills. Findings revealed high levels of development in self-awareness and decision-making, while career awareness, goal setting, and metacognitive skills showed moderate levels of development. Participants reported that university career counselors provide career guidance and emotional support; however, a gap exists in active counselor engagement. Students expressed a need for greater counselor involvement in career development activities. They also identified career development workshops focusing on job search strategies and interview skills as the most valuable forms of support. Major barriers to effective career decision-making included self-doubt, career-related anxiety, and the tension between passion and practicality. To address these challenges, students relied on self-reflection, career exploration, and rational evaluation of opportunities. The findings underscore the need for institution-wide CIP-based interventions that address both the psychological and structural dimensions of career development.

Keywords: Cognitive Information Processing (CIP), career readiness, career decision-making, career counseling, mixed-methods design, graduating students.

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INTRODUCTION

Students graduating from college find themselves at a crucial point in their lives, facing Graduating students face significant decisions about their professional futures, requiring self-awareness, knowledge of career opportunities, realistic goal setting, and informed decision-making. However, transitioning from college to employment remains challenging, as approximately 51% of college graduates hold positions that do not require a degree (Fox, 2018). Despite the availability of university career services, student participation remains limited, with only about 15% attending beneficial activities such as career fairs (Despeaux et al., 2014). In the Philippine context, educational and labor-market mismatches, including overqualification and skills shortages, persist despite the increasing number of college graduates (Albert et al., 2023, as cited in Wapaño, 2026).

Career development counselors play an essential role in preparing students for these challenges by strengthening their adaptability, confidence, and career decision-making skills. Career development programs must also

respond to changing workforce demands (Feller, 1996).

In the Philippines, career counseling, resume preparation, interview training, internships, networking, and university-industry partnerships have been identified as valuable support services for graduates transitioning into employment (Colot, 2024).

To address these needs, the present study is anchored in Cognitive Information Processing (CIP) theory, which provides a framework for understanding students' career readiness and decision-making processes (Dozier et al., 2023). CIP aims to develop individuals as effective career problem-solvers and decision-makers through the Pyramid of Information Processing Domains, the CASVE cycle, career choice readiness, and differentiated service delivery (Osborn et al., 2023). These concepts emphasize self-awareness, career knowledge, decision-making, and metacognition in helping students move toward their desired career goals.

Despite growing research on graduate employability and employment outcomes, further attention is needed to understand how students develop career readiness before entering the workforce. In particular, limited emphasis has been placed on the cognitive and developmental processes involved in career awareness, goal setting, decision-making, and metacognition. Understanding these dimensions can help universities identify students' strengths and developmental needs and improve career counseling services. Thus, this study examines graduating students' career readiness and career development needs through the lens of CIP theory.

LITERATURE REVIEW

Skills such as critical thinking, problem-solving, creativity, emotional intelligence, decision-making, adaptability, and coordination, once considered soft skills, are now essential for succeeding in the future workplace. These competencies enable graduates not only to secure employment but also to contribute to society and the economy. However, developing these skills requires sustained efforts from universities, as insufficient preparation may reduce graduates' career readiness (Rahmat et al., 2019).

Moreover, career readiness extends beyond basic workplace skills to include disciplinary knowledge, transferable skills, adaptability, resilience, lifelong learning, and effective career decision-making (Wapaño, 2026). Thus, career readiness refers to students' ability to transition from higher education to employment by applying their knowledge, skills, and personal qualities, while employability focuses more broadly on obtaining, maintaining, and navigating employment.

Career Readiness. Career readiness refers to preparing students for campus life and the world of work by developing the competencies needed for employment (Rahmat et al., 2019). The National Association of Colleges and Employers (2019, as cited in Rahmat et al., 2019) recognizes career readiness as an important concern in higher education, the labor market, and public policy. It also addresses the skills gap between employers' expectations and graduates' actual competencies (Applied Education Systems, 2019, as cited in Rahmat et al., 2019).

In the Philippine context, educational and labor-market mismatches, including overeducation and skills shortages, persist despite the increasing number of college graduates (Albert et al., 2023, as cited in Wapaño, 2026). This highlights the importance of preparing students before graduation by assessing their competencies, exploring career opportunities, and establishing realistic career goals.

Higher education institutions also emphasize developing disciplinary knowledge, transferable skills, digital literacy, critical thinking, and ethical problem-solving to prepare graduates for changing workplace demands (Scott, 2024). Technological advancements have transformed employment structures and skill requirements

(Perez, 2003, as cited in Scott, 2024), making digital literacy essential for effective communication, collaboration, and innovation (Thompson et al., 2014, as cited in Scott, 2024). Furthermore, critical thinking and ethical problem-solving enable students to evaluate online information and produce responsible digital content (Greenstein, 2012, as cited in Scott, 2024). These competencies strengthen workplace performance and provide graduates with career advantages (Scott, 2024).

Beyond technical and transferable skills, career readiness also requires students to understand their abilities and make appropriate career decisions. Philippine tracer studies show that although many graduates find employment related to their specialization, others experience mismatches between their academic preparation and industry requirements. These findings highlight the importance of practical experience, skills development, and career planning (Colot, 2024). Therefore, career readiness is a multidimensional concept encompassing self-awareness, career awareness, realistic goal setting, decision-making, and metacognitive monitoring. These dimensions are particularly important for graduating students as they transition from higher education to employment.

Decision-making. Individualized career counseling strengthens students' self-management and informed career decision-making by providing psychological support and practical guidance in resume writing, interview preparation, communication, and labor market awareness (Azhenov et al., 2024). In the Philippines, career counseling, internships, networking, and university-industry partnerships are also recognized as valuable support for students transitioning into employment (Colot, 2024).

Career decision-making involves identifying, evaluating, and selecting suitable career options, making it a significant decision affecting individuals' personal and professional well-being (Gati & Kulcsár, 2021). Bimrose and Mulvey (2015), Gati and Tal (2008), Lent and Brown (2020), and Hartung (2011), as cited in Gati and Kulcsár (2021), emphasized the importance of thoughtful career choices because of their social, economic, and emotional implications.

To address career decision-making difficulties, Cognitive Information Processing (CIP) provides an approach that develops skills for making informed career choices (Ilori, 2021). It emphasizes self-knowledge, career knowledge, decision-making, and executive processing through the Pyramid of Information Processing Domains (Sampson et al., 2000, as cited in Ilori, 2021). CIP also supports the development of career counseling services for individuals and groups (Sampson, 2008, as cited in Ilori, 2021), integrating other career development concepts (Sampson, 2004, as cited in Ilori, 2021).

Theoretical Framework. The Cognitive Information Processing (CIP) Theory (Peterson et al., 1991; Sampson et al., 2004, 2020, 2023, as cited in Dozier et al., 2023) explains career decision-making as a process of bridging the gap between an individual's current and desired career state. It integrates theory, research, and practice to improve vocational behavior and career interventions (Osborn et al., 2023). The desired career state refers to an individual's envisioned career goals, while career readiness represents the knowledge, skills, and self-awareness needed to achieve them.

This study applies CIP Theory to understand graduating students' career readiness and decision-making. Rather than focusing solely on workplace competencies, the theory emphasizes self-knowledge, knowledge of career options, decision-making skills, and the ability to monitor and regulate one's thinking during career planning.

CIP Theory is anchored on four core constructs:

1. ***Pyramid of Information Processing Domains.*** Covers self-knowledge, knowledge of career options, decision-making skills, and metacognition (Sampson et al., 2020;

Sampson et al., 2023, as cited in Dozier et al., 2023).

2. ***CASVE Cycle.*** Describes the five stages of career decision-making: communication, analysis, synthesis, valuing, and execution (Dozier et al., 2023).

3. ***Executive Processing.*** Involves metacognitive skills such as self-awareness, self-talk, and monitoring one's thinking processes (Peterson et al., 1996, as cited in Wu, 2018).

4. ***Career Readiness and Intervention Assumptions.*** Emphasizes that affective, cognitive, and behavioral factors jointly influence career decisions and the effectiveness of career interventions (Peterson et al., 1991; Sampson & Reardon, 1998; Sampson et al., 2000, 2004, 2008, 2013, as cited in Dozier et al., 2023).

For this study, the Pyramid of Information Processing Domains under the Cognitive Information Processing (CIP) model serves as the foundation for examining students' career readiness. The Knowledge Domain encompasses self-awareness and career awareness, the Decision-Making Domain involves applying decision-making skills through the CASVE cycle, and the Executive Processing Domain focuses on metacognition. Goal setting is included as a supporting dimension that guides students toward their desired career outcomes (Wu, 2018).

These domains provide the framework for assessing the five dimensions of career readiness: self-awareness, career awareness, decision-making, goal setting, and metacognition. The CIP model also guides the identification of students' career development needs and the career support services they have received, prefer, and require. Rather than examining causal or correlational relationships, the study uses CIP to assess students' development and identify areas for improving career counseling and institutional support.



Figure 1
Pyramid of Information Processing Model. Reprinted from Wu (2018), who adapted from Sampson et al. (1992)

The Current Study. Building on the Cognitive Information Processing (CIP) framework, this study examines graduating students' career readiness and development needs in making informed career decisions. CIP views career problems as gaps between individuals' current situations and desired career goals. Career readiness therefore reflects students' preparedness and confidence in making appropriate career choices.

The study focuses on five dimensions: self-awareness, career awareness, decision-making, metacognition, and goal setting. Self-awareness and career awareness fall under the Knowledge Domain, decision-making is guided by the CASVE cycle, and metacognition relates to Executive Processing. Goal setting serves as a supporting dimension that directs students toward their desired career outcomes.

Using CIP as its framework, the study assesses students' development across these dimensions, identifies their strengths and areas for improvement, and examines the career support they currently receive, prefer, and require, as well as the challenges they encounter. Rather than establishing causal or correlational relationships, the findings aim to provide insights that can help career counselors and higher education institutions strengthen career guidance and support programs for students transitioning from education to employment.

Research Questions. This study aimed to examine students' career readiness and career development needs. Specifically, it sought to:

1. Assess the perceived level of career readiness, including:
   1.1 Self-awareness
   1.2 Career awareness
   1.3 Goal setting
   1.4 Decision-making
   1.5 Metacognitive skills

2. Determine the types of career-related support students are receiving from their Career Development Counselors.

3. Identify the types of career-related support and services that students prefer to receive from their Career Development Counselors.

4. Explore the challenges and barriers students encounter in the career decision-making process.

5. Examine the strategies, resources, and support systems that students utilize to overcome career-related challenges and facilitate informed career decision-making.

METHOD

Research Design. The study employed a mixed-methods research design, combining quantitative and qualitative approaches to provide a comprehensive understanding of the research problem (Creswell et al., 2007). The quantitative component used the 25-item Career Self-Assessment Survey to assess students' perceived career readiness across five dimensions: self-awareness, career awareness, goal setting, decision-making, and metacognition. The qualitative component gathered responses to open-ended questions about career support received and preferred, challenges encountered, and strategies and resources used in career decision-making.

Both data sets were collected simultaneously and analyzed separately using statistical analysis and thematic coding, respectively. The findings were then compared and integrated, giving equal importance to both approaches. Qualitative themes provided additional context and explanations for the quantitative results, offering a more comprehensive understanding of students' career readiness and development needs.

Participants. Participants were recruited through the university's official communication channels, including emails, online bulletin boards, and social media platforms. Professors and counselors assisted only in distributing study invitations and did not select participants or access survey responses. The invitations included the study overview, eligibility criteria, and informed consent form, emphasizing voluntary participation and the right to withdraw without academic or personal consequences.

The study involved graduating college students enrolled in AY 2025–2026, using non-probability convenience sampling based on availability and willingness to participate. A total of 134 eligible students completed the survey and constituted the final quantitative sample. Since the total number of students who received the invitation was unknown, a formal response rate could not be determined.

The survey also included voluntary open-ended questions; therefore, the number of qualitative responses varied across questions and did not necessarily represent all 134 participants. Eligible participants were students confirmed to graduate in AY 2025–2026, while those not expected to graduate within the academic year were excluded.

Participation was entirely voluntary, and students could withdraw at any time without consequences. All recruitment and data collection procedures followed university ethical and data privacy standards and were conducted after approval from the University Research Ethics Committee.

Instrument. The Career Self-Assessment Survey was used as an instrument to collect the necessary research data. However, consistent with the participants' section, the survey was designed to gather comprehensive feedback from eligible graduating students who voluntarily participated in the study and provided informed consent for the use of their responses in this research. The survey was created by researchers under the guidance of the university's Career Development Counselor Coordinator.

Career Self-Assessment Survey. The Career Self-Assessment Survey is a researcher-made instrument based on the Cognitive Information Processing (CIP) Theory. It measures students' perceived career readiness across five dimensions: self-awareness, career awareness, goal setting, decision-making, and metacognition. The survey contains 25 items, with five questions per dimension, using a four-point Likert scale. Individual dimension scores and the overall career readiness score are computed by averaging the corresponding responses. As a self-assessment tool, the results reflect students' perceived rather than objectively measured career readiness.

Self-Awareness refers to students' understanding of their interests, values, strengths, abilities, and personal characteristics. The five items assess their perceived knowledge of themselves as a foundation for career planning.
Career Awareness refers to students' knowledge of career options, occupational requirements, career pathways, and labor market opportunities. The five items assess their awareness of possible career directions.

Goal Setting refers to students' ability to establish clear, realistic, and achievable career goals. The five items measure their perceived career direction, commitment, and preparedness to pursue their desired outcomes.

Decision-Making refers to students' ability to evaluate career alternatives, consider consequences, and make informed career choices. The five items assess their confidence and perceived ability to make career-related decisions.

Metacognition refers to students' ability to monitor, evaluate, and regulate their thinking during career planning and decision-making. The five items assess their capacity for reflection, self-evaluation, and adjustment of career strategies.

The five measured areas represent the researchers' adaptation of the CIP framework rather than five independent core domains. Self-awareness corresponds to self-knowledge, career awareness to options knowledge, decision-making to the CASVE cycle, and metacognition to executive processing. Goal setting was included as an applied career-development dimension associated with students' desired career outcomes. These five areas form the basis of the researcher-developed 25-item survey. The survey consists of five sections: (1) Privacy Notice, explaining the protection of participants' information; (2) Consent Confirmation, indicating their agreement to participate; (3) Personal Information, gathering names, degree programs, and expected graduation years; (4) Survey Questions, assessing the five career-readiness dimensions through reflective statements; and (5) Open-Ended Questions, exploring students' preferred career support, decision-making challenges, and strategies for addressing these challenges.

Instrument Development and Content Validation. The instrument was developed by the researchers under the guidance of the university's Career Development Counselor Coordinator. Item development was guided by the study's research questions and the CIP framework. The researchers translated the five measured areas into self-assessment statements intended to reflect students' perceived career readiness. The items were reviewed for clarity, relevance, appropriateness to graduating students, and alignment with the intended dimension before pilot testing. The

researcher-made instrument was also subjected to content validation by subject-matter experts in counseling and education. The reviewers evaluated the items in terms of their relevance to the intended construct, clarity of wording, appropriateness for the target population, and alignment with the CIP framework and the objectives of the study. Participants rated each item using a four-point Likert scale, where 1 = Strongly Disagree, 2 = Disagree, 3 = Agree, and 4 = Strongly Agree.

Pilot Testing and Reliability. Before the main data collection, the researcher-designed instrument was pilot-tested with 22 graduating college students who were excluded from the main study. Three doctoral-level experts (two licensed psychologists and one Dean of Education) reviewed the instrument for content validity, clarity, relevance, and cultural appropriateness. Based on their feedback, several items were revised to improve clarity and alignment with the five CIP dimensions. However, a formal Content Validity Index (CVI) was not computed, which is acknowledged as a limitation.

The reliability analysis showed Cronbach's Alpha values ranging from 0.61 to 0.93. Self-Awareness (0.87), Career Awareness (0.83), and Metacognition (0.87) demonstrated good reliability, while Decision-Making (0.71) met the acceptable threshold. Goal Setting (0.61) was slightly below the conventional 0.70 threshold but considered acceptable for exploratory research given the limited number of items (Nunnally & Bernstein, 1994; Hair et al., 2010). Overall, the 25-item instrument achieved an excellent Cronbach's Alpha of 0.93, indicating strong internal consistency.

Data Collection. The researchers first secured approval from the university's Research Ethics Review Board before conducting recruitment and data collection. Eligible graduating students were invited through official university communication channels, including emails, online bulletin boards, and social media. Professors and counselors assisted only in distributing invitations and had no access to individual responses.

Data were collected through an online survey platform, such as Google Forms, using university email addresses for access. Before answering, participants were required to provide informed consent after being informed of the study's purpose, confidentiality measures, voluntary participation, and right to withdraw without consequences.

The survey remained accessible for a designated period. Personal information, including names, degree programs, and expected graduation years, was collected for demographic purposes; therefore, responses were treated as confidential rather than anonymous. Identifying information was removed before analysis, securely stored, and excluded from the reported findings. Only voluntarily submitted and consented responses were included in the final analysis.

Data Analysis. In the quantitative phase, descriptive statistics were used to analyze participants' responses, including mean scores, frequency distributions, percentages, standard deviations, and rankings. These measures described students' perceived development across the five Cognitive Information Processing (CIP) dimensions: Self-Awareness, Career Awareness, Goal Setting, Decision-Making, and Metacognitive Skills. Mean scores were interpreted as follows: 1.00–1.75 (little to no development), 1.76–2.50 (low development), 2.51–3.25 (moderate development), and 3.26–4.00 (high development).

For the qualitative phase, a hybrid coding approach was employed using both deductive and inductive methods. Initial codes were based on the five CIP dimensions, while additional themes were identified from participants' responses. The researchers reviewed and categorized the responses according to the CIP component that best represented each theme. Coding discrepancies were discussed and resolved through consensus. Since a single response could contain multiple ideas, it could receive more than one code. The totals (N = 103,

91, 125, and 124) represent the coded responses for each qualitative question, and percentages were calculated based on the total responses per question.

Finally, the quantitative and qualitative findings were integrated to provide a comprehensive understanding of students' career readiness and decision-making. The quantitative results identified overall patterns and trends, while the qualitative findings provided deeper insights into students' experiences, challenges, and support needs.

Ethical Considerations. The study adhered to ethical research standards to protect participants' rights and welfare. Informed consent was obtained before data collection, ensuring that participants understood the study's purpose, voluntary nature, and confidentiality measures. They were also informed of their right to withdraw at any time without penalties or effects on their academic standing or access to university services.

Although names, degree programs, and expected graduation years were collected, all personal information was treated confidentially and de-identified before analysis. Data were stored in password-protected files accessible only to authorized researchers. Only aggregated findings were presented, ensuring that no participant could be identified in the final report. Furthermore, data collection commenced only after approval was secured from the university's ethical review committee.

RESULTS AND DISCUSSION

This section examines students' perceived career readiness and decision-making based on the available data. Using a descriptive quantitative approach, survey responses were analyzed through frequencies, percentages, standard deviations, mean scores, and rankings. These measures assessed students' self-awareness, career exploration, goal setting, and decision-making. The following sections present and interpret the findings in relation to students' career development.

The Perceived Level Development in Key Areas of Career Readiness, Specifically Self-awareness, Career awareness, Goal setting, Decision-making and Metacognitive skills. Table 1 presents the overall weighted mean, standard deviation, hierarchical rankings, and interpretations of the five major components of career readiness. Based on the above data, the participants show high development in self-awareness and decision-making while their development is moderate in career awareness, goal setting, and metacognition. Their means fluctuate narrowly within the range of 3.12 and 3.28. These statistical results indicate that students reported moderate to high levels of perceived career readiness across the five measured dimensions, with self-awareness and decision-making receiving the highest mean scores, while career awareness, goal setting, and metacognition were rated at a moderate level.

Table 1
Summary of Students' Development in Key Areas of Career Readiness (N =134)

Career Information Processing Domain	Mean	SD	Rank	Verbal Interpretation
Self-Awareness	3.28	0.52	1	High Development
Career Awareness	3.12	0.51	5	Moderate Development
Goal Setting	3.17	0.53	4	Moderate Development
Decision Making	3.28	0.55	1	High Development
Metacognition	3.25	0.49	3	Moderate Development

Self-Awareness and Decision-Making (Tie-Rank 1st): Both dimensions received the maximum mean score of 3.28. It indicates that students are highly assured of their self-evaluation abilities (including self-knowledge of one's personality characteristics and interest areas) as well as decision-making skills. Yet, Decision Making scored the highest standard deviation (SD = 0.55), indicating great variations of assurance among students in determining specific career paths.

Meta-cognition (Ranked 3rd) had the second-highest average score (3.25) with the smallest standard deviation (SD = 0.49), so it is evident that students are generally uniform regarding their ability to assess the effectiveness of how they engage in cognitive activities while attempting to solve problems.

Goal Setting (Rank 4th). With an average score of 3.17 (SD = 0.53), it is clear that this is relatively moderately developed. Although students indicated some moderate confidence in decision-making process, the low rank of the goal setting component shows that how career preferences and choices are implemented into plans is still in a process of development. Within the framework of career information processing theory (CIP), goal setting could be seen as application of self-knowledge and information about the professions in establishing objectives in one's career direction. Therefore, an average rating reveals the fact that knowing about oneself and making decisions does not guarantee that one has a comprehensive plan about executing those decisions.

Career Awareness (Rank 5th). Career Awareness has the lowest mean score compared to the five dimensions at 3.12 (SD = 0.51), denoting a score that remains in the middle-development area. The key importance of this finding lies in the fact that the student perception of career opportunities, career information, and career paths is less developed than their perception of self-awareness and decision-making processes. From a CIP viewpoint, career options awareness is a vital source of information in their generation and evaluation of alternatives. Thus, the relatively low Career Awareness score indicates the students' confidence is possibly more pronounced in their self and decision-making rather than having sufficient knowledge about the general employment context in which the decisions will be made.

In the framework of Cognitive Information Processing (CIP) Theory, the disparity between a student's moderate level of cognitive processing and the lack of an occupational knowledge base indicates that interventions or structures (e.g., career counseling at an institution, and other career related activities) should be utilized by the student to help them connect their self-awareness to the actual work environment.

Career-related Support Students Receive from their Career Development Counselors. Table 2 presents the career-related support students receive from their Career Development Counselors. Career Exploration and Information was the most frequently reported theme (f = 22, 21.36%), followed by Limited Counselor Interaction (f = 18, 17.48%) and Strengths, Skills, and Interests Recognition (f = 15, 14.56%). These findings indicate that students receive support primarily through career information and self-exploration, although some report limited or no counselor engagement.

Table 2

Types of Career-Related Support Students Receive from Their Career Development Counselors

CIP Component/Category	Emerging Themes	f	%	Representative Quote
Self-Awareness	Strengths, Skills, and Interests Recognition	15	14.56	"Personally, I receive help through career options by helping me explore and realize my skills, strengths, and interests, they have given me valuable insights that I myself didn't realize before."
	Emotional Support and Confidence	11	10.68	"I receive check-ups from my counselor as well as a relaxing and open space to open up during our sessions on my career development plan and goals."
Career Awareness	Career Exploration and Information	22	21.36	"They support us by having career orientation where we are able to gain insights that can help us find a better job to apply to."
	Career Opportunities Exposure	12	11.65	"Currently, I'm getting help with refining my resume to highlight my programming and design skills. My counselor's also guiding me on how to network with professionals in the UI/UX field and preparing me for potential internship interviews."
Goal Setting	Career Planning	9	8.74	"I consistently had 1-on-1 sessions with my counselor, where we discussed the possible paths I could take after college."
Decision Making	Career Decision Support	10	9.71	"I have received assistance on how to introspectively and retrospectively evaluate my career objectives before making important decisions."
Meta-cognitive Skills	Reflection and Self-Evaluation	6	5.83	"It supports me to fulfill my goals and to be more professional and be kind to others and have stronger communication skills."
Emergent/Cross-Cutting Category	Limited Counselor Interaction	18	17.48	"I have not met my career development counselor nor had I asked them yet."

Note. Total coded responses = 103.

Other forms of support included Career Opportunities Exposure (f = 12, 11.65%), Emotional Support and Confidence (f = 11, 10.68%), Career Decision Support (f = 10, 9.71%), Career Planning (f = 9, 8.74%), and Reflection and Self-Evaluation (f = 6, 5.83%). These findings suggest that while counseling addresses several CIP dimensions, opportunities to

strengthen structured career planning, decision-making, and metacognitive reflection remain.

Limited Counselor Interaction is presented as an emergent category because it describes students' access to and experiences with counseling rather than a specific CIP component. Overall, the findings highlight the need for more accessible and consistent counseling services that integrate career exploration, emotional support, and structured decision-making guidance.

Career-related Support and Services Students Prefer to Receive from their Career Development Counselors. Table 3 presents the career-related support and services students prefer to receive from their Career Development Counselors. The most frequently identified preferences were Job Search Preparation (f = 9, 9.89%), Interview and Communication Skills (f = 8, 8.79%), and Career Workshops (f = 8, 8.79%). These are classified as cross-cutting career preparation and employment support rather than formal CIP components because they focus on practical workforce preparation. Professional Networking (f = 7, 7.69%) and Career Planning Resources (f = 4, 4.40%) further highlight students' need for industry connections and accessible career resources.

Under Self-Awareness, students expressed interest in Career Identity Exploration (f = 7, 7.69%) and Emotional Support (f = 4, 4.40%), indicating a need for personalized guidance in addressing career uncertainty and confidence.

Under Career Awareness, Career Path Exploration (f = 8, 8.79%) was the most frequently mentioned preference, emphasizing the importance of broader career information and employment opportunities. For Goal Setting, Career Planning (f = 5, 5.49%) reflects students' desire for guidance in translating career aspirations into achievable plans.

Meanwhile, Career Decision Guidance (f = 4, 4.40%) and Counselor Support (f = 5, 5.49%) highlight the need for accessible assistance in evaluating career options.

Table 3

Types of Career-Related Support and Services Preferred by Students

CIP Component/Category	Emerging Themes	f	%	Representative Quote
Self-Awareness	Career Identity Exploration	7	7.69	"More resources (or chances to ask alumni) for me to figure out what career is suited for me/that I would like to pursue someday."
	Career Uncertainty Management	3	3.30	"How to deal with not finding work" "Other further recommendations that align with my interests"
	Emotional Support	4	4.40	"I want their moral support" "Mental health guidance"
	Individual Counseling	2	2.20	"Cuz I'm really unsure if I'll even stay in this profession once I graduate or try to find a job not relating to Com Sci. Maybe like how to adjust when you're unsure of what you want to do?"
Career Awareness	Career Path Exploration	8	8.79	"Maybe more information support on alternative careers I'm considering, not just my main career (like maybe also give me more information to better understand if my plan b or c is feasible and where I can find more information on them instead of just focusing on honing plan a because unexpected things can happen that can change the trajectory or focus of my career development)"
	Employment Opportunities	5	5.49	"Possible certifications to undertake"
	Networking Opportunities	3	3.30	"Potential list of connections to be provided to the graduating student based on their career."
	Specialized Career Information	2	2.20	"I think most of the careers that were briefed to us were related to the industry. As someone with a more theoretical field, workshops or seminars focusing on the path towards the academe would be helpful."
Goal Setting	Career Planning	5	5.49	"To guide me with what I need and where I can learn to do better"
	Career Motivation	2	2.20	"More motivations and learnings regarding my career so I can further incorporate it into my future endeavors"
	Career Development Activities	2	2.20	"Immersive activities on top of career orientations"
	Strength Application	1	1.10	"How we apply the existing actions, capabilities, and qualities that we have in the real life."
Decision-Making	Career Decision Guidance	4	4.40	"I would like additional career support focused on deepening my skills in answering possible interview questions, especially those commonly asked by HR during the hiring process. This kind of guidance would help me feel more prepared and confident as I apply for jobs soon."
	Counselor Support	5	5.49	"Easy access to reach out for career counseling"
Cross-Cutting Career Preparation and Employment Support	Job Search Preparation	9	9.89	"I would like to be guided with the process of applying for careers."
	Interview and Communication Skills	8	8.79	"I think being more critical is a way better than sugarcoating how people talk in interviews, be more honest on how they see the applicants if they were actually reviewers."
	Career Workshops	8	8.79	"I would like them to provide more seminars or event to support us."
	Professional Networking	7	7.69	"I think it would be great if there was a far more personalized career path assessment, additionally it would be great to see more alumni networking events and/or mentoring programs"
	Career Planning Resources	4	4.40	"Possibly connection in the same field as I am."
Emergent Category	No Additional Needs	2	2.20	"I can't think of as of the moment"

Note. Total coded responses= 91.

Challenges and Barriers Students Encounter in the Career Decision-making Process. Table 4 presents the challenges and barriers students encounter in career decision-making. Under Self-Awareness, the most common concerns were Self-Doubt and Confidence Issues (f = 15, 12%), Unclear Interests and Strengths (f = 9, 7.2%), and Career Anxiety and Fear of Failure (f = 7, 5.6%). These findings indicate that low confidence and uncertainty can hinder career decisions despite students' high perceived self-awareness (M = 3.28, SD = 0.52). This supports Dozier et al. (2023) and Osborn et al. (2023), who emphasize the importance of self-knowledge in the CIP framework.

Under Career Awareness, Limited Career Knowledge (f = 10, 8%) and Employment Opportunities Concerns (f = 8, 6.4%) highlight students' need for better information about career pathways and employment opportunities. This corresponds with Career Awareness having the lowest quantitative mean (M = 3.12, SD = 0.51), emphasizing the need for greater career exploration.

For Goal Setting, Unclear Career Direction (f = 9, 7.2%) and Goal-Career Alignment (f = 5, 4%) indicate difficulties in establishing realistic career objectives and aligning personal aspirations with available opportunities. These findings highlight the need for guidance in developing achievable career plans.

Under Decision-Making, Career Indecision (f = 12, 9.6%) and Passion-Practicality Conflict (f = 10, 8%) reveal difficulties in balancing personal interests, financial considerations, and external expectations. Despite the high perceived development in Decision-Making (M = 3.28, SD = 0.55), students continue to encounter complex career choices. These findings are consistent with Gati and Kulcsár (2021), Azhenov et al. (2024), and Ilori (2021), who emphasize the emotional and practical challenges of career decision-making.

Metacognitive Skills did not emerge as a distinct category in the reported challenges. Although students identified job-search difficulties, competitiveness, financial constraints, and career adaptability, these primarily reflect practical and contextual barriers rather than metacognitive processes such as self-monitoring and regulating one's thinking. This does not necessarily indicate an absence of metacognitive difficulties; rather, students did not explicitly identify these processes as distinct challenges.

Table 4

Challenges and Barriers Encountered by Students in the Career Decision-Making Process

CIP Component/Category	Emerging Themes	f	%	Representative Quote
Self-Awareness	Self-Doubt and Confidence Issues	15	12	"One of the main challenges I faced in making career decisions was self-doubt, which often made me hesitant and indecisive. I also experienced pressure from my own expectations about how my future should look, which sometimes added to the uncertainty in choosing the right path."
	Unclear Interests and Strengths	9	7.2	"The challenges I have faced include uncertainty about my strengths and interests, fear of making the wrong decision, and limited knowledge about different career options."
	Career Anxiety and Fear of Failure	7	5.6	"I worry about making the wrong decision and limiting my future choices. A lack of real-world experience also makes decisions more difficult. A bit anxious for future. Not having more self-confidence when the true adult world comes."
	Motivation and Self-Belief	2	1.6	"I feel like the mental struggle of leaving the student life and fully transitioning to the career life scares me."
Career Awareness	Limited Career Knowledge	10	8	"It was difficult to seek other options since we are locked in idea that we can pursue only one career in our program."
	Employment Opportunities Concerns	8	6.4	"It is challenging to find an entry level job that is aligned with my degree. As I am currently doing job hunting, I have noticed that most of the industries here in the Philippines are business and tech related, which are not exactly related to international relations and diplomacy."
	Career Alternatives Exploration	3	2.4	"It questions me if civil engineering is still the right career for me when my first choice was architecture."
Goal Setting	Unclear Career Direction	9	7.2	"Uncertainty about career direction and limited work experience."
	Goal-Career Alignment	5	4	"Opportunity cost (e.g. law school takes four years + bar exam review)"
	Career Commitment	3	2.4	"Choosing a career to commit time in" "Indecision on what role I should undertake."
Decision-Making	Career Indecision	12	9.6	"I think it would be the number of options, I find it hard to pinpoint what I really want since I am bombarded with paths that can be taken by my field, additionally I find I sometimes feel I lack the skills compared to my peers."
	Passion-Practicality Conflict	10	8	"I find it difficult to pick whether to go with a job that gives better pay or a job that I genuinely have interest in but is more difficult financially."
	External Career Pressures	5	4	"People saying will it really help you earn money? What happens if you don't achieve your career"
	Major Career Transitions	3	2.4	"It would be having to choose between staying in my home country to pursue a career while being close to family or moving abroad to pursue a career that would distance me from what I am familiar with."
Cross-Cutting Practical and Contextual Barriers	Job Search Challenges	10	8	"Lack of companies that accept voluntary OJT in my field of interest, so it makes it hard to apply for jobs that require many experiences,"
	Skills and Competitiveness	6	4.8	"I think I mostly struggle with making myself more marketable, since the technology field seems more competitive."
	Financial Constraints	6	4.8	"Financial concerns (my dad's medical bills are piling up so that makes me consider a different career path than planned so I can contribute to his bills).
	Career Adaptability	2	1.6	"I feel like the mental struggle of leaving the student life and fully transitioning to the career life scares me."

Note. Total coded responses= 125.

Overall, the findings show that students' career decision-making challenges involve personal uncertainty, limited career information, unclear goals, competing priorities, and practical barriers. These highlight the need for integrated career counseling that combines emotional support, career exploration, goal-setting guidance, and practical employment preparation.

Strategies, Resources, and Support Systems that Students Utilize to Overcome Career-Related Challenges and Facilitate Informed Career Decision-making. Table 5 presents the strategies students use to overcome career-related challenges and make informed career decisions.

Under Self-Awareness, Strengths and Interests Identification (f = 10, 8.06%), Self-Confidence (f = 8, 6.45%), and Values and Purpose (f = 7, 5.65%) highlight the role of self-knowledge and motivation in career decisions. These findings complement the quantitative result (M = 3.28, SD = 0.52) and emphasize the importance of confidence-building (Fox, 2018).

Under Career Awareness, Career Exploration (f = 15, 12.10%), Guidance and Networking (f = 12, 9.68%), and Employment Opportunities (f = 4, 3.23%) reflect students' efforts to gain career information through certifications, career fairs, counseling, and professional connections. These findings emphasize the importance of career information and skill development (Rahmat et al., 2019; Scott, 2024).

For Goal Setting, Career Planning (f = 12, 9.68%) and Goal Persistence (f = 9, 7.26%) demonstrate students' efforts to establish career directions and remain committed to their objectives.

Under Decision-Making, Evaluating Career Options (f = 15, 12.10%) and Adaptability and Compromise (f = 9, 7.26%) demonstrate students' ability to assess alternatives and adjust their choices based on personal and practical considerations. These strategies reflect informed decision-making within the CIP framework (Dozier et al., 2023).

Table 5

Strategies, Resources, and Support Systems Utilized by Students to Overcome Career-Related Challenges

CIP Component/ Category	Emerging Themes	f	%	Representative Quote
Self-Awareness	Strengths and Interests Identification	10	8.06	"I overcame it by getting to know myself more, by knowing what I really want and what career would make myself enjoy while doing it."
	Self-Confidence	8	6.45	"Being confident about myself and have proper guidance from people I trust and are in great positions in life."
	Values and Purpose	7	5.65	"To overcome my confusion, I reflect on where my heart truly is, which is serving others especially those who are vulnerable and marginalized. I also turn to prayer, asking God for guidance so that I can pursue a career aligned with His plan and will."
Career Awareness	Career Exploration	15	12.10	"Recently I've been trying to improve my skills through certifications as well as joining fairs and engaging in networking to help me gain insight to my chosen field."
	Guidance and Networking	12	9.68	"I overcame, and continue to overcome, these challenges by seeking guidance from my Career Development Counselor and being open to learning and self-improvement. I also work on building my confidence through preparation, reflection, and practice, especially in understanding my strengths and preparing for interviews.
	Employment Opportunities	4	3.23	"Not really about the money but more on the job itself and to find something similar to that job."
Goal Setting	Career Planning	12	9.68	"I overcome it by keep focusing in my goal."
	Goal Persistence	9	7.26	"Keep on doing what is best to survive and succeed."
Decision-Making	Evaluating Career Options	15	12.10	"Being both reflective and logical in my decision-making. Weighing the pros and cons, assessing outcomes, and looking inward for what I desire for myself all help me make up my mind in making the said 'right choices'".
	Adaptability and Compromise	9	7.26	"I looked for a middle ground and settled."
Meta-cognitive Skills	Reflection and Evaluation	13	10.48	"I've overcome them through isolating myself, and talking to myself, and giving myself a break from things that make me lose my hope."
	Self-Regulation and Improvement	10	8.06	"I overcame the challenges by staying patient, seeking guidance from others, and reflecting on my experiences to improve my actions. When difficulties arose, I viewed them as opportunities to learn and grow. Moving forward, I plan to overcome challenges by preparing more thoroughly, managing my time wisely, and maintaining a positive mindset while continuously improving my skills."

Note. Total coded responses= 124.

Lastly, Metacognitive Skills are reflected in Reflection and Evaluation (f = 13, 10.48%) and Self-Regulation and Improvement (f = 10, 8.06%). These themes demonstrate students' ability to monitor, evaluate, and regulate their thinking and actions when addressing career challenges. Consistent with the executive processing dimension of CIP, these findings complement the quantitative result for Metacognition (M = 3.25, SD = 0.49). Ilori (2021) and Azhenov et al. (2024) likewise emphasize reflection and self-regulation in career development.

Overall, the findings show that students use self-awareness, career exploration, goal planning, decision-making, and self-regulation to manage career challenges. These results support the relevance of the CIP framework and highlight the need for integrated career counseling that strengthens students' cognitive skills and practical career preparation.

Conclusion. Graduating students reported stronger perceived development in Self-Awareness and Decision-Making, while Career Awareness, Goal Setting, and Metacognition showed moderate development.

The integrated quantitative and qualitative findings revealed that students demonstrate self-reflection, career exploration, planning, and persistence but still experience uncertainty, self-doubt, and practical barriers to career decision-making. These findings suggest that career readiness involves interconnected cognitive, emotional, and practical factors rather than a linear process.

Therefore, career counseling should integrate self-exploration, emotional support, career information, decision-making guidance, goal setting, and practical employment preparation. Overall, the findings support the CIP framework in understanding students' perceived career readiness and highlight the need for strengthened institutional career support.

Recommendations. Career development programs should strengthen the integration of the Cognitive Information Processing (CIP) framework by addressing students' cognitive, emotional, and practical needs. Career counselors should provide individualized guidance, career mapping, and reflective activities to help students clarify their goals and make informed decisions. Institutions should also expand workshops, internships, mentoring, networking, and job-search preparation to develop students' employability skills and confidence. Emotional and psychological support should be integrated into counseling to help students manage uncertainty, anxiety, and self-doubt. Furthermore, universities should improve the accessibility of career services through proactive counselor engagement, digital platforms, peer mentoring, and career fairs. Reflective activities, such as self-evaluation and goal reviews, should also be encouraged to strengthen students' metacognitive skills and adaptive decision-making. Overall, holistic career development programs should integrate self-awareness, career exploration, decision-making, goal setting, and metacognitive reflection to better prepare students for employment.

Future researchers are encouraged to replicate the study across different academic disciplines, universities, and geographical locations to examine whether similar career readiness patterns emerge. Further validation of the research instrument is also recommended through larger samples, confirmatory factor analysis, and additional reliability and validity testing. Probability sampling methods may be employed to improve representativeness and generalizability. Longitudinal studies are likewise recommended to examine the development of career readiness and decision-making from graduation to employment. Finally, future research may explore the relationship between perceived career readiness and actual employment outcomes, including job attainment, employment stability, job satisfaction, and career progression.

DISCLOSURES

Author contributions. Remy Rose L. Poblete and Maria Cristina M. Firmante contributed equally to conceptualization, data curation, formal analysis, investigation, methodology, project administration, resources, supervision, validation, visualization, writing of the original draft, and review and editing of the manuscript. Both authors have read and approved the final version of the manuscript.

Conflict of interest. The researchers declared that there were no personal or financial conflicts of interest that could threaten the integrity of the preparation, analysis, or

dissemination of the findings. The researchers also declared that they had no financial, professional, or personal interests that could have influenced the recruitment of participants, data collection, analysis, interpretation, or reporting of the findings. Any such conflicts, should they have arisen during the course of the research, would have been immediately disclosed to the appropriate ethics board. Any actual or potential conflict that arose during the study would have been disclosed to the appropriate ethics board and managed in accordance with the university's research ethics policies. As part of maintaining transparency standards, researchers found to have conflicts of interest refrained from participating in the decision-making process. The researchers maintain transparency and objectivity throughout the research process and did not allow any actual or potential conflict of interest to influence the conduct or reporting of the study.

Funding source. This research received no external funding.

Artificial intelligence use. AI-assisted language editing was performed using Grammarly and Co-pilot; authors reviewed and approved all content.

Ethics approval statement. Ethics approval was obtained from the De La Salle University Research Ethics Review Committee, with reference code 2025-245.

Data availability statement. Due to ethical restrictions, the data are not publicly available but may obtained from the corresponding author upon reasonable request.

Acknowledgement. (Not available)

Publisher's disclaimer. The views expressed in this article are those of the authors and do not necessarily reflect the views of the publisher. The publisher disclaims any responsibility for errors or omissions.

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