

College readiness as a multidimensional construct: Students' cognitive, academic, behavioral, and contextual preparedness for higher education

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ISSN: 2243-7703

Online ISSN: 2243-7711

OPEN ACCESS

Received: 4 August 2026

Available Online: 28 August 2026

Revised: 25 August 2026

DOI: 10.5861/ijrse.2026.26405

Accepted: 27 August 2026

Abstract

College readiness is a multidimensional construct encompassing the cognitive, academic, behavioral, and contextual competencies required for successful transition to higher education. This study examined the college readiness of 250 first-year students purposively selected from a higher education institution in Malabon City, Philippines, and determined whether readiness differed according to selected student profile variables. A descriptive research design with a qualitative component was employed. Data were collected using a validated and reliability-tested researcher-developed questionnaire and supplementary unstructured interviews. Descriptive statistics summarized college readiness, while the Kruskal–Wallis H test assessed differences across profile groups. The findings showed an overall favorable level of college readiness across the four dimensions. Cognitive strategies and contextual skills and awareness emerged as very high areas of readiness, particularly in attention to accuracy, openness to new perspectives, understanding higher education expectations, and recognition of professional relationships. However, comparatively lower readiness was observed in systematic problem-solving, applying advanced mathematical and scientific reasoning to real-world contexts, persistence during academic difficulties, effective study strategies, and navigating institutional support processes. No significant differences were found across the four dimensions when grouped according to gender, family income, and SHS GWA. The findings underscored the need to conceptualize college readiness as an integrated developmental capacity rather than academic preparation alone. An institution-wide approach that strengthens higher-order thinking, knowledge application, self-regulated learning, and institutional navigation may better support students' transition and persistence in higher education.

Keywords: college readiness, higher education, multidimensional construct, student preparedness, student readiness

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1. Introduction

The transition from senior high school to college represents a pivotal phase in students' educational trajectories. Successful transition extends beyond mastery of subject-specific knowledge, as it requires students to think critically, regulate their learning, sustain productive academic behaviors, and navigate complex institutional and social environments. College readiness therefore encompasses the knowledge, competencies, dispositions, and behaviors necessary to engage successfully in entry-level college coursework without requiring remedial support. Rather than being defined by a single measure of academic achievement, college readiness is a multidimensional construct encompassing cognitive strategies, academic knowledge and skills, academic behavior, and contextual skills and awareness. These dimensions provide a more comprehensive basis for understanding whether students possess the capabilities needed to enter and function effectively in higher education.

The importance of a multidimensional view of college readiness is evident in the possibility that students may demonstrate different levels of preparedness across cognitive, academic, behavioral, and contextual domains (Vugteveen et al., 2025). This perspective recognizes that students may enter higher education without the full range of knowledge, skills, dispositions, and behaviors necessary for postsecondary success. Evidence has likewise identified deficiencies in critical thinking, communication, creativity, socio-emotional competencies, perseverance, and community engagement among some incoming students (Karunaratne & Calma, 2024). Such evidence suggests that preparedness cannot be adequately inferred from academic attainment alone, as students may demonstrate strengths in some areas while experiencing substantial gaps in others (Bodiongan et al., 2026). Accordingly, examining college readiness across multiple dimensions provides a more nuanced understanding of the competencies that may facilitate or constrain students' transition to higher education.

This multidimensional concern is particularly relevant in the Philippine context, where the implementation of the K to 12 Basic Education Program has heightened expectations that senior high school graduates possess the competencies needed for higher education (Servas et al., 2026). However, persistent gaps in foundational competencies, particularly in mathematics and science, suggest that completion of secondary education does not necessarily ensure adequate preparation for college-level demands (Funa, 2026). Salmatin et al. (2025), for instance, found that incoming students demonstrated relatively strong psychological and behavioral readiness, including commitment, management skills, adaptability, and flexibility, but showed substantial weaknesses in standardized academic performance, particularly in mathematics, science, media communication, and information technology. The divergence between behavioral readiness and academic performance further demonstrates that preparedness may vary across domains, reinforcing the need to examine college readiness as an integrated construct rather than through academic achievement alone (Usman et al., 2026).

In addition to academic preparation, students' behavioral and self-regulatory capacities are central to how they respond to the demands of college. Tomas and Poroto (2023) argued that conventional academic indicators are insufficient for fully predicting students' ability to succeed during their first year of college because readiness also involves self-regulatory behaviors and the capacity to navigate new academic environments. Supporting this view, Musawar and Zulfiqar (2025) found that freshman readiness reflects the interaction of behavioral skills, positive academic dispositions, and practical knowledge of institutional expectations and processes. These findings indicated that students' ability to manage their time, sustain effort, regulate their learning, and respond adaptively to academic expectations is integral to translating their academic capabilities into successful college experiences.

Beyond students' individual capacities, college transition is also shaped by the institutional and social contexts in which learning occurs. Contextual readiness recognizes that students enter college with varying levels of access

to parental support, emotional resources, financial knowledge, and familiarity with institutional processes (Jabbar et al., 2022). Bora and Altun (2025) consequently emphasized the importance of learning, belonging, and socio-emotional conditions in supporting student persistence. Institutional mechanisms such as academic advising, tutoring, faculty mentoring, structured learning communities, and co-curricular activities can strengthen academic and social integration, while support for goal setting, resource navigation, and student–faculty engagement can contribute to improved completion outcomes (Enrique et al., 2026; Osman & Vaidya, 2025). At the same time, student agency remains important, as motivation and growth-oriented beliefs may influence students' ability to use available resources and persist through academic challenges (Torres Castro & Pineda-Báez, 2023). Thus, students' readiness is not exercised in isolation but develops through their interaction with the institutional structures, relationships, and resources available to them.

The influence of context extends further to the socioeconomic conditions that shape students' capacity to participate fully in higher education. Cruz et al. (2025) and Russel et al. (2025) emphasized the value of integrated institutional support addressing not only academic needs but also economic and social barriers, including transportation, nutrition, healthcare, and other conditions that may affect persistence. These conditions underscored the importance of aligning students' preparedness with institutional responsiveness, as even well-prepared students may encounter difficulties that limit their ability to participate and persist (Khatri et al., 2024). Conversely, institutions equipped to identify and address such challenges may be better positioned to convert students' existing capabilities into sustained academic engagement and progression.

Against this broader understanding of college readiness, these concerns are particularly relevant to the present research locale, where increasing freshman enrollment has been accompanied by challenges in students' transition to higher education. Faculty observations have indicated difficulties among some incoming students in study habits, motivation, emotional adjustment, and academic engagement. Such challenges may contribute to academic underperformance, course shifting, absenteeism, and student attrition, particularly when they are not identified early enough for appropriate intervention. Systematically assessing students across the four dimensions can therefore provide institution-specific evidence of both preparedness and areas of vulnerability. A multidimensional assessment can generate evidence for targeted institutional responses, including bridging programs, academic support services, proactive advising, transition initiatives, and student-development interventions. More importantly, identifying domain-specific needs can enable institutions to move beyond generalized assumptions about readiness and develop support mechanisms that are responsive to the actual characteristics of their incoming students.

In these considerations, the present study examined the college readiness of first-year students in a higher education institution in Malabon City, Philippines, in terms of cognitive strategies, academic knowledge and skills, academic behavior, and contextual skills and awareness. Specifically, the study sought to generate institution-specific evidence on students' preparedness for higher education and identify areas that warrant strengthened academic and developmental support. By examining these multidimensions within a specific institutional context, the study aimed to provide an empirical basis for evidence-informed transition and student-support initiatives that could strengthen students' capacity to engage, adapt, and persist in higher education.

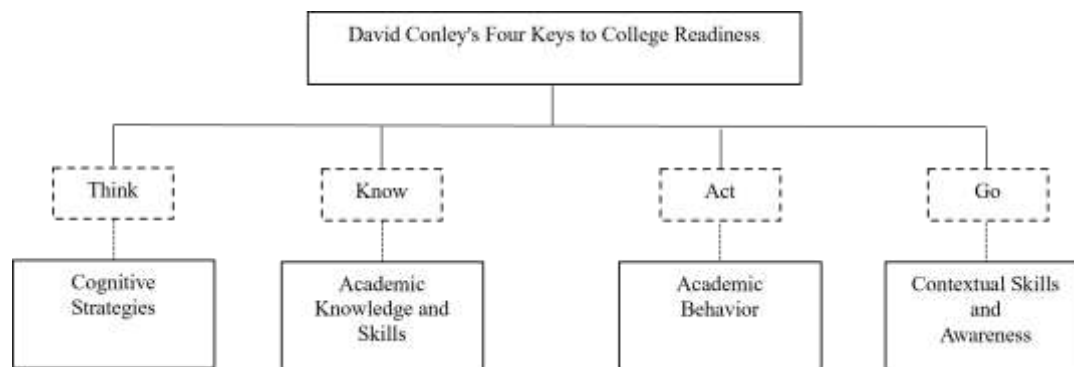
Theoretical Framework – The study was anchored in Conley's (2008) Four Keys to College Readiness, which conceptualizes college readiness as an integration of four interrelated dimensions: Think, Know, Act, and Go. The framework extends conventional measures of readiness beyond grades and standardized test scores by emphasizing the cognitive, academic, behavioral, and contextual capacities required for successful transition to higher education.

As illustrated in Figure 1, Think corresponds to Cognitive Strategies (Thinking Like a Scholar) and encompasses critical thinking, reasoning, problem-solving, and strategic learning. Know corresponds to Academic Knowledge and Skills (Mastering the Content) and reflects the knowledge, conceptual understanding, and academic competencies required for college-level coursework. Act represents Academic Behavior (Managing the World) and includes self-management, persistence, engagement, collaboration, and effective learning behaviors.

Go corresponds to Contextual Skills and Awareness (Navigating the System) and involves understanding college expectations, institutional processes, available resources, professional relationships, and career-related contexts. These four dimensions constitute the theoretical basis for examining college readiness in the present study.

Figure 1

Theoretical Framework of College Readiness Based on Conley's Four Keys to College Readiness Framework



The framework provided the theoretical basis for examining the four dimensions of college readiness assessed in the present study. Specifically, the study adapted Conley's view that preparedness for higher education extends beyond academic achievement to include how students think, what they know, how they manage academic demands, and how effectively they navigate the college environment. The alignment of the four theoretical dimensions with the study's key dimensions enabled a comprehensive assessment of students' preparedness for higher education while providing a basis for identifying both strengths and areas requiring further development. Thus, the framework illustrated the theoretical alignment between Conley's Four Keys—Think, Know, Act, and Go—and the study's four dimensions of college readiness, establishing a coherent foundation for interpreting students' readiness for the academic, behavioral, cognitive, and contextual demands of higher education.

Research Objectives - The primary purpose of the study was to examine college readiness as a multidimensional construct among first-year students in a selected higher educational institution in Malabon City, Philippines. Specifically, this study sought to:

1. Assess the level of students' college readiness across four dimensions: cognitive strategies, academic knowledge and skills, academic behavior, and contextual skills and awareness.
2. Determine whether a significant difference exists in students' college readiness across the four dimensions when grouped according to their profile variables.

Significance of the Study - This study is significant to students by providing insights into their strengths and areas for improvement in cognitive strategies, academic knowledge and skills, academic behavior, and contextual skills and awareness, supporting greater college readiness and independence. For teachers, the findings provide a basis for strengthening learning experiences that develop problem-solving, knowledge application, study habits, persistence, and self-regulated learning. For practitioners, the findings inform orientation, advising, mentoring, and student-support initiatives responsive to identified needs. For administrators and schools, the findings provide evidence for developing coordinated college-readiness and transition programs addressing students' academic, behavioral, cognitive, and contextual needs. Finally, future researchers may use the findings as a reference for further studies on multidimensional college readiness, intervention programs, and factors influencing students' transition and success in higher education.

2. Methods

Research Design – This study employed a descriptive research design with a qualitative component to examine college readiness as a multidimensional construct among first-year students in a selected higher education institution in Malabon City, Philippines. The design was appropriate for determining students' level of preparedness for higher education and examining differences in college readiness across selected profile variables. The qualitative component complemented the quantitative findings by providing deeper insights into participants' perceptions and experiences of college readiness.

Participants – The participants were students enrolled during the second semester of Academic Year 2025-2026 in a selected higher education institution in Malabon City, Philippines. Purposive sampling was employed to identify participants who met the study's inclusion criteria, particularly first-year students enrolled in the identified programs. The sample comprised 250 participants, with 50 students from each program, including the College of Teacher Education, with majors in Mathematics and Social Studies; the College of Criminal Justice Education; and the College of Business Administration, with majors in Financial Management and Marketing Management.

Research Instrument – The study utilized a researcher-developed survey questionnaire and an unstructured interview guide that were validated by experts and subjected to reliability testing. The questionnaire measured students' self-reported college readiness across four domains: cognitive strategies, academic knowledge and skills, academic behavior, and contextual skills and awareness. The researchers used a four-point Likert scale ranging from 4, being the highest, to 1, being the lowest, with corresponding descriptive interpretations and numerical ranges to determine the respondents' level of college readiness. Moreover, unstructured interviews were conducted with selected participants to obtain supplementary qualitative information regarding their perceptions and experiences of college readiness based on multidimensional constructs.

Data Gathering Procedure – Prior to data collection, the researchers secured approval from the university administration and coordinated with the concerned academic units to facilitate participant recruitment and questionnaire distribution. The eligible first-year students were informed of the study's purpose, procedures, voluntary nature of participation, confidentiality of responses, and their right to withdraw at any time. Informed consent was obtained from the participants before they answered the questionnaire. Following consent, the questionnaire was administered through electronic forms. Selected participants were subsequently invited to participate in unstructured interviews to provide additional insights into their experiences and perceptions of college readiness.

Data Analysis and Statistical Treatment – The quantitative data were analyzed employing descriptive and inferential statistics. The mean and rank were used to summarize and compare students' college readiness in a multidimensional construct. Moreover, the Kruskal–Wallis H test was employed to determine whether significant differences existed in students' college readiness when grouped according to profile variables. The statistical significance was evaluated at the .05 level. The qualitative interview responses were analyzed to complement the quantitative findings.

3. Results and Discussion

A. College Readiness as a Multidimensional Construct

Table 1 presents the respondents' assessment of their college readiness in terms of cognitive strategies, with an overall mean of 3.28, interpreted as "very high." This finding indicated that the respondents generally possessed a strong foundation for cognitive engagement in college-level learning. Their readiness was particularly evident in their attention to accuracy and openness to new perspectives. The highest-rated indicator, which focused on valuing precision and checking work for accuracy before submission, suggests that the respondents demonstrated care, responsibility, and self-monitoring in completing academic tasks. This finding is supported by Al Harrasi (2025) and Punzalan et al. (2026), whose found that self-monitoring positively influences students' strategy use

and academic performance, emphasizing its role in helping learners regulate and evaluate their own learning. Such cognitive dispositions are important in higher education, where students are expected to take greater responsibility for the quality and accuracy of their academic outputs.

Table 1

College Readiness as a Multidimensional Construct in Terms of Cognitive Strategies

Cognitive Strategies	Students		
	Mean	Interpretation	Rank
The students can analyze complex information and build a logical argument to support my ideas.	3.22	High	3.5
The students are intellectually curious and open to new perspectives even if they challenge their own.	3.38	Very High	2
The students use a systematic approach to simplify intricate problems and find actionable solutions.	3.15	High	5
The students value precision and check their work for accuracy before submitting it.	3.44	Very High	1
The students tackle complex challenges by deconstructing them into manageable components.	3.22	High	3.5
Overall	3.28	Very High	

The respondents likewise demonstrated very high readiness in being open to perspectives that challenged their existing views, indicating intellectual curiosity, flexibility, and willingness to reconsider established assumptions. This disposition may support deeper engagement with academic content, particularly in learning environments that expose students to diverse ideas and require critical examination of information. Similarly, Nurhayati et al. (2025) identified open-mindedness as an important disposition associated with critical thinking, as it encourages students to consider alternative perspectives and evaluate information beyond their initial assumptions. Meanwhile, their ability to analyze complex information, construct logical arguments, and deconstruct challenging tasks was also generally strong, although these competencies were comparatively less developed than accuracy and openness to new perspectives. The results therefore suggested that the respondents were not only receptive to learning but also possessed foundational higher-order thinking skills necessary for navigating the intellectual demands of college.

However, the comparatively lower rating for systematic problem-solving indicated an area that warrants further development. Although the respondents appeared willing to engage with challenging academic tasks, the qualitative findings revealed that some respondents experienced difficulty determining appropriate steps when faced with unfamiliar or complex problems. They described relying on trial-and-error approaches, seeking assistance from peers or instructors, and feeling less confident when problems required several stages of analysis. These responses suggested that students may benefit from structured opportunities to practice problem decomposition, logical sequencing, evaluation of possible solutions, and reflection on the effectiveness of the strategies they used. This suggested a gap between their willingness to engage cognitively and their ability to consistently organize information, break complex tasks into manageable components, and develop structured solutions. Overall, the findings indicated that the respondents were cognitively well prepared for college, but their readiness could be further strengthened through learning experiences that deliberately develop systematic problem-solving, analytical reasoning, and the practical application of structured thinking to complex academic tasks.

Table 2

College Readiness as a Multidimensional Construct in Terms of Academic Knowledge and Skills

Academic Knowledge and Skills	Students		
	Mean	Interpretation	Rank
The students have a strong foundation in core subjects like English, math, science, and social studies.	3.01	High	3.5
The students understand the "big ideas" and specific ways of thinking within different academic disciplines.	3.20	High	1
The students can write clearly and effectively for different purposes (e.g., lab reports vs. literary essays).	3.01	High	3.5
The students can use advanced mathematical and scientific reasoning to explain real-world phenomena.	2.68	High	5
The students get the core concepts and unique mindsets used in different courses.	3.09	High	2
Overall	3.00	High	

Table 2 presents the respondents' assessment of their college readiness in terms of academic knowledge and skills, with an overall mean of 3.00, interpreted as "high." This finding indicated that the respondents generally perceived themselves as adequately prepared to meet the academic demands of higher education. Their readiness was most evident in their understanding of key ideas and the distinctive ways of thinking across academic disciplines, suggesting that they possessed a reasonable conceptual foundation for engaging with college-level learning. This finding is supported by Martinez et al. (2026) and Sahito et al. (2025), whose showed that active learning approaches significantly improve students' academic achievement compared with traditional lecture-based instruction, emphasizing the importance of engaging students in applying and processing disciplinary knowledge rather than merely acquiring information. Such disciplinary awareness is important as students transition to higher education, where learning requires not only knowledge acquisition but also an understanding of how concepts and perspectives are examined within specific fields.

The respondents also reported a relatively strong ability to understand core concepts and disciplinary ways of thinking across their courses. This suggested that they had sufficient conceptual familiarity to participate in subject-specific learning. However, their foundational knowledge in core subjects and their ability to communicate effectively for different academic purposes were comparatively less developed, although still within a generally adequate level of readiness. These findings indicated that while the respondents possessed the essential academic foundation for college, continued development of subject-matter knowledge and academic communication skills may be necessary as they encounter increasingly specialized and demanding coursework.

The lowest-rated indicator involved applying advanced mathematical and scientific reasoning to explain real-world phenomena. The qualitative findings reinforced this result, as some respondents acknowledged that they could understand mathematical and scientific concepts when presented in familiar classroom examples but experienced difficulty when these concepts had to be applied to unfamiliar or real-life situations. They described challenges in identifying which concepts or formulas were appropriate, interpreting complex information, and connecting theoretical knowledge to practical problems. Some respondents further indicated that limited mastery of foundational concepts made them hesitant to solve application-based tasks independently, leading them to seek assistance or rely on familiar solution patterns. This finding is consistent with studies by Espinosa and Caisip (2023), Majares et al. (2026), and Yucel and Blackie (2025) which emphasized that scientific and mathematical proficiency requires students to apply knowledge and practices to authentic problems and unfamiliar contexts, rather than simply recall learned concepts. This suggested that the challenge was not simply understanding mathematical and scientific concepts but transferring and applying them to unfamiliar, practical, and authentic situations. Overall, the findings indicated that the respondents had a favorable foundation in academic knowledge and skills, but their readiness could be strengthened through authentic problem-solving, interdisciplinary learning, and application-based tasks that connect foundational concepts with complex real-world situations and promote the effective transfer of knowledge.

Table 3
College Readiness as a Multidimensional Construct in Terms of Academic Behavior

Academic Behavior	Students		
	Mean	Interpretation	Rank
The students can manage their own schedule and prioritize tasks without constant reminders.	3.21	High	3
The students have effective study habits (e.g., note-taking, active listening) and know when to use them.	3.16	High	4
The students show persistence and "grit" when schoolwork becomes frustrating or difficult.	3.08	High	5
The students work well in teams and can collaborate with peers to achieve a common goal.	3.23	High	2
The students are proficient with the technology and digital tools required for my coursework.	3.24	High	1
Overall	3.18	High	

Table 3 presents the respondents' assessment of their college readiness in terms of academic behavior, with

an overall mean of 3.18, interpreted as “high.” This indicated that the respondents generally demonstrated favorable academic behaviors that could support their adjustment to higher education. Their strongest area was proficiency with technology and digital tools required for coursework, suggesting that they were generally comfortable navigating digital resources and technology-mediated academic activities. This finding is supported by research studies which emphasized systematic review identified digital technologies as increasingly integrated into higher education and highlighted students’ digital competence as important for accessing learning resources, participating in academic activities, and supporting engagement (Al Yakin et al., 2026; Muthmainnah et al., 2026; & Pan & Zhu, 2025). This competency is particularly relevant in higher education, where students are expected to independently use learning platforms, access digital materials, complete online requirements, and communicate and collaborate through technology-enabled environments (Ningsih & Espinosa, 2026).

The respondents also demonstrated favorable abilities in collaboration, time and priority management, and other behaviors associated with independent academic responsibility. These findings suggest that they generally possessed the interpersonal and self-management skills needed to function effectively in college learning environments that require both individual accountability and teamwork. However, the comparatively lower positioning of study habits indicates that, although students generally perceived themselves as having effective study practices, these strategies may not always have been applied consistently or appropriately across different learning demands. This is important because college students are expected to exercise greater autonomy in determining how and when to study and in selecting strategies that best support their learning.

The lowest-rated aspect was persistence when schoolwork became frustrating or difficult, although it remained within the high level. The qualitative findings further indicated that some respondents described difficulty maintaining concentration and effort when academic tasks became lengthy, demanding, or unfamiliar. They reported tendencies to postpone difficult requirements, become discouraged when they could not immediately understand a lesson, or shift their attention to easier tasks when experiencing academic pressure. Other respondents indicated that they were able to persist when they received encouragement from peers, instructors, or family members, suggesting that external support could help sustain their engagement during challenging academic situations. This finding is consistent with the study by Thiel and Hanssen (2025), which found that study habits, skills, and attitudes are significant predictors of college academic performance, demonstrating that effective learning behaviors contribute substantially to students’ success in higher education. Overall, the findings indicated that the respondents had a favorable level of academic behavioral readiness, particularly in digital proficiency, collaboration, and self-management, but their readiness could be enhanced by developing persistence, resilience, and consistent strategic study behaviors. These competencies are essential for sustaining engagement and effectively managing the increasing independence, workload, and academic pressure associated with college learning.

Table 4
College Readiness as a Multidimensional Construct in Terms of Contextual Skills and Awareness

Contextual Skills and Awareness	Students		
	Mean	Interpretation	Rank
The students understand the difference between high school and college-level expectations.	3.51	Very High	1
The students know how to navigate the college admission process and how to apply for financial aid.	3.16	High	4
The students are aware of how to use campus resources such as tutoring centers or faculty office hours.	3.10	High	5
The students have a general plan for how my current education aligns with their future career goals.	3.22	High	3
The students recognize the importance of building professional relationships with mentors and industry professionals within their fields.	3.38	Very High	2
Overall	3.27	Very High	

Table 4 presents the respondents’ assessment of their college readiness in terms of contextual skills and awareness, with an overall mean of 3.27, interpreted as “very high.” This indicated that the respondents generally possessed strong awareness of the academic, institutional, and career-related contexts associated with higher

education. Their strongest area was their understanding of the differences between high school and college-level expectations, suggesting that they were aware of the greater independence, responsibility, and academic demands required in college. This finding is supported by Naik et al. (2025) who emphasized that college readiness involves not only content knowledge but also an understanding of the cognitive and behavioral demands, expectations, and norms of postsecondary education. The qualitative findings supported this result, as respondents described college as requiring greater independence, stricter time management, heavier academic workloads, and more personal responsibility than senior high school. They also expressed awareness that instructors would expect them to participate more actively in learning and take greater initiative in completing academic requirements. Several respondents indicated that recognizing these differences helped them anticipate the adjustments they would need to make and prepared them to become more independent learners.

The respondents also demonstrated very high appreciation of the importance of building professional relationships with mentors and industry professionals, reflecting an understanding that college development extends beyond classroom learning. Such awareness suggests that they recognized the potential contribution of professional networks to academic growth, career exploration, and future employability. Similarly, Espinosa and Mangali (2021) and Li and Xue (2023) highlighted the importance of students' engagement with faculty, peers, and other educationally purposeful experiences in supporting learning, personal development, and successful outcomes in higher education. The respondents likewise showed a reasonably developed understanding of the relationship between their education and future career goals, although this was comparatively less pronounced. This suggested that while they had begun developing career-oriented perspectives, further opportunities may be needed to translate these aspirations into more concrete educational and professional plans. Qualitative responses further indicated that respondents viewed mentors, instructors, and industry professionals as valuable sources of guidance regarding academic decisions, career options, and professional expectations. Some students expressed interest in developing connections with professionals to gain practical insights into their chosen fields, while others recognized that such relationships could provide opportunities for career exploration, internships, and future employment.

However, the comparatively lower assessments of college admission and financial aid processes and familiarity with campus resources, particularly tutoring services and faculty office hours, indicate that practical institutional navigation was a less developed aspect of contextual readiness. The qualitative findings revealed that some respondents were unfamiliar with specific institutional procedures and were uncertain about where to obtain assistance for academic, financial, or administrative concerns. Some also indicated that although they were aware that support services existed, they were not fully familiar with how to access tutoring, consult faculty during office hours, or inquire about financial aid opportunities. These responses implied that students' awareness of the broader expectations of college was stronger than their practical knowledge of the institutional mechanisms and resources available to support their transition and academic success. This distinction is important because recognizing college expectations does not necessarily mean that students know how to access the institutional structures and support services available to help them succeed. Overall, the findings indicated that the respondents demonstrated very high contextual readiness, particularly in understanding the transition to college and valuing professional relationships, but would benefit from stronger orientation and support concerning institutional processes, financial aid, campus resources, and career planning to promote more independent and informed navigation of higher education.

B. College readiness across the four dimensions based on student profile variables

Figure 2

Comparison of Students' College Readiness Across Four Dimensions by Selected Profile Variables

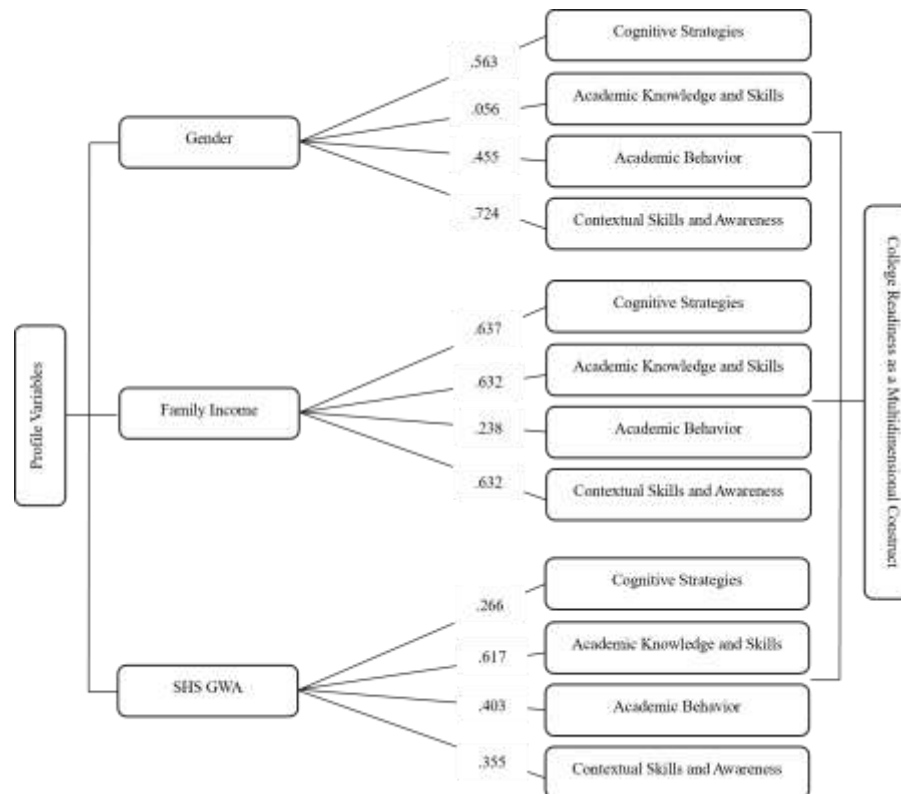


Figure 2 presents the comparison of college readiness across four dimensions based on cognitive strategies, academic knowledge and skills, academic behavior, and contextual skills and awareness when grouped according to gender, family income, and senior high school (SHS) general weighted average (GWA). The results showed that none of the 12 comparisons reached statistical significance at the .05 level, with p -values ranging from .056 to .724. Although the gender comparison for academic knowledge and skills yielded the closest value to the significance threshold, $p = .056$ remained above .05; thus, the corresponding null hypothesis was accepted.

The consistency of the nonsignificant findings suggests that college-readiness development may require an inclusive, institution-wide approach rather than interventions targeted solely according to students' profiles. Supporting this perspective, Shomotova and Ibrahim (2025) emphasized that student success in higher education is influenced by the quality of educational practices and students' engagement in learning experiences, highlighting the importance of institutional conditions that support students broadly rather than relying exclusively on individual characteristics. Accordingly, higher education institutions may strengthen college transition through comprehensive programs addressing academic skills, self-regulated learning, productive academic behaviors, and contextual awareness for all first-year students.

Thus, the study indicated that there were no statistically significant differences in students' college readiness across the four dimensions when grouped according to gender, family income, and SHS GWA. The findings further imply that college-readiness initiatives may be more appropriately designed as universal developmental support, while still allowing institutions to provide targeted assistance based on students' demonstrated needs rather than demographic or academic profile alone.

4. Conclusions

The findings established that the respondents demonstrated an overall favorable level of college readiness across the four dimensions examined, although the degree of preparedness varied across specific competencies. Cognitive strategies emerged as a very high area of readiness, particularly in students' attention to accuracy and openness to new perspectives. However, the comparatively lower rating for systematic problem-solving indicated that readiness for higher education involves not only willingness to engage with complex tasks but also the capacity to approach such tasks through structured analysis, logical organization, and solution development. This finding highlighted the need to further strengthen the practical application of higher-order thinking skills as students transition to increasingly complex academic demands.

The respondents likewise demonstrated high readiness in academic knowledge and skills, with greater strength in understanding disciplinary "big ideas" and ways of thinking. Nevertheless, the comparatively lower assessment of applying advanced mathematical and scientific reasoning to real-world phenomena suggested a gap between conceptual understanding and knowledge application. In academic behavior, students demonstrated strengths in digital proficiency, collaboration, and task management, but persistence in the face of academic difficulty and the consistent use of effective study strategies were comparatively less developed. These findings collectively indicated that successful transition to higher education requires not only adequate academic knowledge but also the capacity to transfer knowledge, regulate learning, and sustain effort when confronted with challenging academic tasks.

Contextual skills and awareness represented another area of very high readiness, particularly in students' understanding of the differences between secondary and higher education and their recognition of the value of professional relationships. However, comparatively lower readiness in navigating admission and financial-aid processes and accessing campus support services indicated that awareness of college expectations does not necessarily translate into practical institutional navigation. Hence, the findings indicated that college readiness should be understood as a multidimensional capacity encompassing cognitive, academic, behavioral, and contextual competencies rather than as academic preparation alone.

Importantly, none of the four dimensions of college readiness differed significantly when respondents were grouped according to gender, family income, and SHS GWA. This consistency implied that the observed developmental needs were not concentrated within particular profile groups. Accordingly, the findings supported an inclusive, institution-wide approach to college-readiness development, wherein interventions are designed to strengthen identified competencies among first-year students as a whole rather than being primarily differentiated according to demographic or academic-profile characteristics.

Recommendations - In light of the findings, the following recommendations were proposed:

The university should institutionalize a comprehensive, institution-wide first-year college-readiness program that addresses cognitive, academic, behavioral, and contextual competencies as interconnected components of students' transition to higher education. The program should extend beyond admission and orientation activities and incorporate diagnostic assessment, targeted developmental interventions, academic support, and periodic monitoring. Given the absence of significant difference in college readiness across gender, family income, and SHS GWA, such interventions should be provided universally while remaining responsive to individual students' developmental needs.

Academic programs and faculty members should strengthen higher-order thinking, knowledge application, and self-regulated learning through authentic and challenging learning experiences. Classroom activities should provide sustained opportunities for systematic problem-solving, analysis of complex information, evidence-based reasoning, interdisciplinary application of mathematical and scientific concepts, and transfer of learning to real-world contexts. Faculty members should likewise integrate strategies that promote effective study habits, goal setting, persistence, reflection, and adaptive responses to academic difficulties.

Student-support units should enhance students' capacity to navigate institutional processes and effectively utilize available resources. First-year orientation and advising should include practical and accessible guidance on admission requirements, financial-aid procedures, academic-support services, faculty consultation, and other campus resources. Faculty advising, peer mentoring, and centralized student-support information may further help students translate their awareness of higher-education expectations into effective institutional engagement.

The university should strengthen career development, mentoring, and professional engagement opportunities for first-year students. Since respondents already demonstrated strong recognition of the value of professional relationships, structured mentoring, career exploration, professional networking, and program-to-career activities should be integrated into student-development initiatives. These opportunities may help students connect their academic preparation with future professional pathways while sustaining the contextual awareness necessary for long-term educational and employability outcomes.

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