

St. Michael's College of Iligan, Inc. Aptitude Training Service Towards Student's Development on Criminology Cadets

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ABSTRACT: Self-concept and self-discipline among criminology students play a crucial role in student development specially in the Criminology department. The study aimed to identify the mediating role of self-discipline between the relationship of self-concept and student development. Further, it seeks to examine the moderating effect of sex, year level, and OLSAT results among the relationship of the variables among criminology students in one of the higher education institutions in Lanao del Norte. The study employed a mixed method approach under explanatory sequential research design. The respondents were the 124 students selected through purposive sampling. Data was collected using self-made and modified survey and interview questionnaires. The statistical tools used were Mean, Standard Deviation, Mediation and Conditional Mediation Analysis. Findings revealed high levels of self-discipline and student development across its subscales while moderate levels of self-concept were measured. Additionally, it revealed that self-discipline partially mediate the relationship of self-concept and student development. Furthermore, students' sex, year level, and Otis-Lennon School Ability Test (OLSAT) results moderates these mediated relationships. Lastly, the Aptitude Training Service Program helped in molding the self-concept and self-discipline of students. Promotion of self-concept and self-discipline strengthens criminology cadet's student development while sustaining the existence of ATS program in the campus. The study recommended the enhancement of the ATS program to further improve student development through self-concept and self-discipline.

KEYWORDS: Self-Concept, Self-Discipline, Student Development, Criminology Program, Aptitude Training Service

1. INTRODUCTION

Self-concept, a socio-cognitive construct which shapes a person's description of himself. It covers academic, social, emotional, and physical attributes that greatly influences psychological well-being and academic propensities (Crone et al., 2022; Kania & Juandi, 2023). Students manifesting a clear sense of self often shows higher levels of confidence and life satisfaction which can help them overcome difficult life obstacles (Xiang et al., 2023; Dala et al., 2023). A study of Cekiso (2024) emphasized that establishing a strong self-concept is critical in higher education by fueling intrinsic motivation and logic reasoning. Moreover, self-discipline offers an extra boost in goal achievement by remaining focused and limits procrastination in every action (Educational Tools, 2024). Self-discipline is directing your energy and purpose for the sake of improvement, achieve academic goals, and continuous self-development (Azis & Clefoto, 2024). Disciplined students tend to exhibit higher confidence and sound decision-making skills (Tekin, 2024). Integrally, self-concept and self-discipline enhances the student's capacity towards personal development.

Moreover, student development is critical in college life as it contributes to student's capacity to achieve goals and become resilient. It also plays an essential role in academic success as it determines student performance (Mappadang et al., 2022). Student development fosters a growth mindset that improves student's motivation leading to increased academic performance (Jaidumrong et al., 2023). Overall, cultivating student development in helps the educational institution improve capacity building and employability of students (Heymann et al., 2022).

Undertaking the Criminology Program in college not only requires intellectual strength but also physical and mental strength. In Saint Michael's College of Iligan Inc., the College of Criminology offers the Aptitude Training Service (ATS) course, an out-classroom course that teaches students discipline, respect, integrity, and leadership skills promoting student development in the aspect of behavior, emotion, and mental. Criminology cadets are molded to embody the necessary aptitudes to excel in their academics with high confidence and tact.

However, some cadets weren't still able to perform as expected and were unable to exert effort in studying and managing time for complying with the performance task given. This study is crucial especially to the College of Criminology since discipline and self-concept are essential to strive through the pressure of academic pursuit. Determining the level of self-discipline and self-

concept of criminology cadets and establishing its relationship towards student development are the initial steps to uncover the reasons behind academic success. Additionally, examining the moderating effect of age, sex, IQ score, and year level among these relationships. This also entails to assess the effectiveness of the ATS course in shaping the cadet's self-concept and self-discipline as a factor for a wholesome student development boost.

II. THEORETICAL AND EMPIRICAL BACKGROUND

To further understand the study from a theoretical standpoint, Cognitive-Behavioral Theory by Aaron T. Beck in 1993 and Self-Control Theory by Michael Gottfredson and Travis Hirschi in 1990 will be anchored to the study. Cognitive-behavioral theory argues that cognition, formed thoughts in our minds, will influence how we feel about ourselves and will dictate how we act or behave in a particular situation (Beck, 1993). Furthermore, a student's self-concept, or how a student perceives himself or herself in the school, will influence his academic behavior and student development. In addition, Self-control theory suggests that self-control is a crucial personal resource, a cognitive process for self-regulating behavior in pursuit of personal goals, that influences decision-making and behavior (Gottfredson & Hirschi, 1990). Self-control can be in a form of student's discipline in studying and managing own's time for subject compliance.

In summary, both theories suggest that students' self-concept and self-discipline in an academic setting influences their behavior and decisions towards school activities and responsibilities which defines their academic performance in total. A study of Şimşir and Dilmaç (2020) stated that self-discipline directly or indirectly affects academic achievement and career development of individuals. This is equivalent to self-control and willpower. A student having high self-discipline tends to have better mental health and lower levels of stress, anxiety, and depression (Nielsen & Bauer, 2020). Furthermore, self-concept is important since it is a barometer of a satisfactory physical, cognitive, behavioral, and social integration of the individual (Palenzuela-Luis et al., 2022).

III. STATEMENT OF THE PROBLEM

This study aimed to determine the level of self-discipline and self-concept of criminology cadets, establish relationships among these variables to student development and identify moderating and mediating factors of these relationships. Specifically, this study answered the following: (1) What are the levels of self-discipline, self-concept and student development of the respondents? (2) How do the respondent's level of self-discipline, self-concept, and student development relate with one another individually? (3) Does the profile of the respondents moderate the relationship between self-discipline, self-concept, and student development? (4) How does the Aptitude Training Service Program help the respondents build their self-concept and self-discipline as a student?

With this, establishing the relationships between the variables presented plays a significant role in the enhancement of the ATS program and creation of college and institutional programs that can further improve student's development inside the classroom and during the board exam preparations.

IV. METHODOLOGY

The researchers used a mixed method approach under explanatory sequential research design to examine the mediating effect of self-discipline between the relationships of self-concept and student development of criminology cadets, identify the moderating effect of sex, year level and OLSAT results in the mentioned relationships, and explore the role of the ATS program in shaping self-control and self-discipline among criminology cadets in one of the higher education institutions in Lanao del Norte. To answer the research questions, the researcher used a modified Academic Self-Discipline Questionnaire (Pacursa et al., 2021) to determine the level of self-discipline of criminology cadets, a modified Robson's Self Concept Questionnaire (Robson, 1989) to determine their level of self-concept and a self-made College Student Development Questionnaire to determine their level of student development during their stay in college. Further, the Aptitude Training Service Program Questionnaire was utilized to explore the role of the ATS program in shaping self-concept and self-discipline. Questionnaires were distributed through Facebook Messenger in a Google Forms format for easy and convenient dissemination and accessibility.

Additionally, the researcher utilized a purposive sampling procedure targeting all bonafide criminology cadets of the same higher educational institution in the 2nd Semester of S.Y. 2024-2025. After all the needed data has been gathered, data were analyzed statistically to identify the correlation of the variables and provide conclusion and answers to the research questions. This paper was submitted to the ethics committee of the funding institution for ethical review. The researcher made sure that the respondents were informed about the study and participation were highly encouraged yet voluntary. In addition, respondents were provided with an informed consent form for the respondents to fill out. The data gathered were kept confidential and were used only for the purpose of the study.

V. RESULTS AND DISCUSSION

Table 1: Criminology Student's Levels of Self-Discipline, Self-Concept and Student Development

Variables	Mean	SD	Qualitative Interpretation
Level of Student's Self-Discipline	3.69	.749	High
Level of Student's Self-Concept	3.34	.420	Moderate
<i>Level of Criminology Student's Student Development</i>			
1.1 Behavioral Development	4.08	.725	High
1.2 Mental Development	3.84	.749	High
1.3 Intellectual Development	3.88	.769	High
1.4 Social Development	3.94	.849	High

Scale: 4.21-5.0 (Very High); 3.41-4.20 (High); 2.61-3.40 (Moderate); 1.81-2.60 (Low); 1.0-1.80 (Very Low).

Table 1 portrayed the respondents' high level of self-discipline ($M=3.69$, $SD=0.75$). Specifically, students often submit all their requirements before the deadline ($M=4.17$, $SD=0.98$) and submits all their assignments on time ($M=4.13$, $SD=0.94$). However, students have moderate levels of avoiding the use of social media during weekdays ($M=3.11$, $SD=1.24$) and avoiding playing mobile games at home ($M=3.19$, $SD=1.23$) making students read their books and assignments sometimes ($M=3.28$, $SD=1.06$).

Criminology students' disciplined habits and self-regulation skills enables them to excel academically however distractions from social media and mobile games hinders in-depth studying habits like reading books, potentially reduce comprehension of complex concepts and critical thinking, affecting student's academic performance. Institutional rules and policies enhance student's discipline, resulting to increased student academic development (Gacinya & Nduwayezu, 2025; Khalisa, 2025; Basha & Lena, 2024). Opposingly, weekdays social media use ensued lesser academic performance (Backer & Awad, 2025; Kumar et al., 2023). Additionally, online gaming negatively correlates with academic performance (Kuo et al., 2025; Tarannum et al., 2024; Pasayat et al., 2024).

Complementing this, the qualitative data from student narratives about the ATS program reveal that the structured, high-expectation environment of ATS plays a critical role in reinforcing time management, focus, and behavioral control. Students noted that ATS taught them how to stay committed even during difficult moments, manage their time effectively, and internalized discipline as a personal value. As one student stated, "ATS taught me discipline, time management, and mental fit" (P1), while another emphasized, "Dili ka Makabuhat sa gusto nimo anytime kay naa kay sense of responsibility na" (P4). These insights suggest that while students struggle with external distractions, programs like ATS can mitigate these challenges by instilling consistent routines and reinforcing values like humility, perseverance, and self-regulation.

Ultimately, ATS fosters holistic development across academic, emotional, physical, and ethical domains. The self-discipline and self-concept students build through the program influence their academic performance, social behavior, and ethical decision-making. In this way, ATS becomes a platform for shaping well-rounded, purpose-driven individuals prepared for the demands of life beyond school.

Furthermore, the table illustrated the moderate level of students' self-concept ($M=3.34$, $SD=0.42$). Specifically, students were highly glad of who they are ($M=4.10$, $SD=1.04$) and likes themselves even when others don't ($M=3.93$, $SD=1.07$). However, the students are concerned about what other people are thinking about them ($M=2.59$, $SD=1.03$). This means that criminology students have a balanced self-view, neither strongly positive nor negative, just moderately. Furthermore, students feel good and proud about their identity, maintain a positive regard of self even when others dislike them. Even so, students have reserves on what others might think of them indicating a fear of being judged. Students' self-esteem and sense of purpose significantly correlate to academic performance indicating its importance in the complex curriculum of Criminology program (Masnan et al., 2024; Christner & Bosacki, 2024). Additionally, self-efficacy provides and indirect role of motivation in academic performance (Affuso et al., 2024). Opposingly, student's fear of judgment results in the decline of their academic engagement and performance (Rehmat et al., 2025; Martins & Nascimento, 2024).

The qualitative data supports and contextualizes these results, particularly through the emerging Professional identity. Student narratives illustrate how the ATS program serves as a development space where they not only envision themselves as future law enforcers but also build confidence, clarity, and self-awareness. As one participant noted, "...give you tools to become more confident, capable, and prepared" (P11), while another emphasized that ATS "meets you where you are and gives you tools to become more confident....to understand yourself better" (P11). These testimonies suggest that while students may initially experience internal doubts or sensitivity to external judgement, the ATS program actively mediates these concerns by reinforcing purpose, professional identity, and personal growth.

Additionally, the participants shared that ATS helped redefine their self-perception—from ordinary learners to confident cadets, aspiring leaders, and future professionals. For instance, one student remarked, "I was able to become a role model to everyone as an officer" (P5), While another said, "it helps me to grow....by realizing that I can do a lot of things that I didn't think I could" (P4). These experiences reflect the ATS program's role in bridging the gap between students' internal uncertainties and the external confidence needed for professional growth. Despite their initial fear of judgement, students gradually gained self-assurance through

the responsibilities, leadership roles, and reflective experiences provided by ATS, indicating a powerful shift in identity and self-belief.

Furthermore, the qualitative findings also support the development of resilience and mental toughness among students. Many acknowledge that ATS pushed them through discomfort, fatigue, and internal doubt, helping them to stay calm under pressure and persist through challenges. Students reported that, although the program was difficult, it strengthened their discipline, patience, and emotional endurance. They also recognized that ATS help them integrate physical and academic growth, allowing them to achieve a holistic balance between mental and physical development. Students cited experience in leadership, physical drills, and public speaking as instrumental in helping them their inner strength. Moreover, the program contributed significantly to students' mental discipline and emotional regulation. Finally, students reflected deeply on their personal transformation during the ATS journey.

Moreover, the table also shows that the level of students' behavioral development is high ($M=4.08$, $SD=0.73$). Specifically, the students always follow classroom rules and policies set by the teacher ($M=4.29$, $SD=0.89$) while maintaining a positive student-teacher relationship with all their instructors ($M=4.28$, $SD=0.85$). Furthermore, students are always motivated to meet the deadline of their activities ($M=4.23$, $SD=0.89$). Criminology students embody a strong positive behavior demonstrating attitudes and actions that contribute to effective learning and enhance academic engagement. Emphasizing strict obedience to policies and a harmonious and supportive school environment where students and teachers interact very well. Strong behavioral development promotes higher academic success through fostering effective learning behaviors (Hidayati & Thompson, 2025; Wang et al., 2025).

Additionally, it illustrates that the students' mental development is high ($M=3.84$, $SD=0.75$). Specifically, students regularly analyze multiple perspectives before forming conclusions on complex topics ($M=3.98$, $SD=0.91$), feels confident in their abilities to achieve long-term academic and career goals ($M=3.94$, $SD=0.89$), and can resolve interpersonal conflicts constructively and maintain positive relationships with peers ($M=3.92$, $SD=0.83$). Criminology students show a high mental development indicating cognitive and emotional growth. Furthermore, students embody openness to diverse viewpoints and strong critical thinking skills enabling them to become confident in achieving long-term goals. Also, they possess a strong mental capability to resolve conflicts among their peers while maintaining positive relationships. Mental development plays a role in the student's academic performance (Aladin, 2025; Lu, 2025). Consequently, studies revealed that existence of mental health issues such as depression and anxiety reduces students' academic performance (Arthur et al., 2025; Otieno, 2024; Hamdam et al., 2025).

Also, it portrays a high level of students' intellectual development ($M=3.88$, $SD=0.77$). Specifically, students prefer using a combination of logical reasoning and creative thinking when solving a problem ($M=3.94$, $SD=0.87$) and reflect on past experiences that helps me identify areas where I need improvement in my learning process ($M=3.93$, $SD=0.94$). Criminology students possess high intellect with emphasis on the use of logic as well as creativity in solving a problem. Additionally, students also do self-assessment for learning improvement. Logic and creativity play an essential part of learning especially in social science. It allows the students to comprehend and synthesize concepts and explore initiatives that enhances their academic achievement (Feher et al., 2023; Almulla, 2023; Li, 2023).

Likewise, it illustrates that the students possess a high level of social development ($M=3.92$, $SD=0.75$). Specifically, students often help their peers with their academic tasks when needed ($M=4.04$, $SD=0.91$) and is able to manage conflicts effectively by listening to all perspectives before responding appropriately ($M=4.02$, $SD=0.81$). Criminology students embody high social skills, expressing cooperative behavior and peer support. Furthermore, students manage conflicts effectively by knowing the different sides of the story. Students with better social skills tends to perform better academically (Alkan & Cavusoglu, 2025; Abid et al., 2022). Additionally, social skills mediate the relationship between cognitive abilities and academic achievement (Khine et al., 2024).

Finally, it shows that the students' overall student development are high ($M=3.94$, $SD=0.77$), with behavioral ($M=4.08$, $SD=0.73$) and social development ($M=3.94$, $SD=0.85$) as the highest. Student development is integral to academic success through the enhancement of self-efficacy, resilience and socio-emotional skills allowing the students to navigate their academic journey with ability and confidence (Lourenco & Olimpia, 2025).

Table 2: Decomposed Effects of Self-Control on Student Development Through Academic Self-Discipline

Type	Effect	Estimate	SE	β	p-value
Indirect	Self-Control $\Rightarrow$ Academic Self Discipline $\Rightarrow$ Student Development	.256	.091	.152	.005**
Component	Self-Control $\Rightarrow$ Academic Self Discipline	.462	.155	.259	.003**
	Academic Self Discipline $\Rightarrow$ Student Development	.556	.067	.59	<.001**
Direct	Self-Control $\Rightarrow$ Student Development	.273	.119	.163	.021*
Total	Self-Control $\Rightarrow$ Student Development	.531	.144	.315	<.001**

Note: SC – Self-Control; ASD – Academic Self-Discipline; SD – Student Development ** $p<.01$; * $p<.05$

Table 2 revealed that self-control significantly predicts student development both directly and indirectly through academic self-discipline. The indirect effect ($\beta = .152, p < .01$) confirms the existence of a highly significant mediation pathway, with both components, self-control to academic self-discipline ($\beta = .259, p < .01$) and academic self-discipline to student development ($\beta = .59, p < .01$) being highly significant. In addition to the indirect mediated pathway, the direct effect of self-concept on student development remained significant ($\beta = .163, p < .05$). With these considerations, academic self-discipline partially mediates the relationship between self-control and student development. The total effect of self-control on student development was also highly significant ($\beta = .315, p < .01$), suggesting that the combined direct and indirect effects of self-control contribute meaningfully to the developmental outcomes of the students.

These findings underscore the importance of academic self-discipline as a key mechanism through which self-control translates into a positive developmental factor, while also affirming that self-control exerts a unique and independent influence. This supports a partially mediated model, consistent with the recommendations of Baron and Kenny (1986) and contemporary perspectives on mediation analysis (Hayes, 2013). Qualitative findings from the narrative thematic analysis of the ATS Program provide rich contextual support for mediating relationship. Students constantly describe how self-control enable them to adhere to routines, manage time, and regulate their behavior despite challenges-behavior central to academic self-discipline, ultimately leading to student development. Across multiple responses, students described how ATS helped shape their identities, strengthen their mental toughness, and prepare them not only for a career in criminology, but for life.

Table 3: Conditional Mediation Effects of Self-Control on Student Development Through Academic Self-Discipline Across Sex

Moderator Levels	Type	Effect	Estimate	SE	β	p-value
Male	Indirect Component	SC $\Rightarrow$ ASD $\Rightarrow$ SD	.158	.104	.094	.130
		SC $\Rightarrow$ ASD	.291	.189	.163	.123
		ASD $\Rightarrow$ SD	.542	.067	.577	< .001**
	Direct	SC $\Rightarrow$ SD	.187	.141	.112	.185
	Total	SC $\Rightarrow$ SD	.345	.175	.205	.049*
Female	Indirect Component	SC $\Rightarrow$ ASD $\Rightarrow$ SD	.447	.158	.263	.005**
		SC $\Rightarrow$ ASD	.788	.262	.442	.003**
		ASD $\Rightarrow$ SD	.567	.067	.596	< .001**
	Direct	SC $\Rightarrow$ SD	.439	.201	.258	.029*
	Total	SC $\Rightarrow$ SD	.886	.243	.527	< .001**

Note: SC – Self-Control; ASD – Academic Self-Discipline; SD – Student Development. ** $p < .01$; * $p < .05$

Table 3 illustrates the conditional mediation analysis which examined whether indirect effect of self-control (SC) on student development (SD) through academic self-discipline varied by sex. Results indicate a meaningful difference between male and female groups.

Among female students, the indirect effect was highly significant ($\beta = .263, p < .01$), suggesting that academic self-discipline (ASD) mediates the relationship between self-control (SC) and student development (SD). The components paths were also statistically significant, with self-control (SC) positively predicting academic self-discipline (ASD) ($\beta = .442, p < .01$), and academic self-discipline (ASD) in turn predicting student development (SD) ($\beta = .596, p < .001$), highlighting that self-control has both direct and indirect influences on student development in this group.

In contrast, for male students, the indirect effect was statistically significant ($\beta = .094, p = .130$), suggesting that academic self-discipline (ASD) does not significantly mediate the effect of self-control (SC) on student development (SD). While the path from academic self-discipline (ASD) to student development (SD) was significant ($\beta = .577, p < .001$), the effect of self-control (SC) on academic self-discipline (ASD) was not significant ($\beta = .163, p = .123$), indicating a potential break in the mediation chain. The direct effect of self-control (SC) on student development (SD) was also not significant ($\beta = .112, p = .185$), but the total effect was marginally significant ($\beta = .205, p = .049$), suggesting direct contribution in this group.

These findings imply that academic self-discipline serves as a key mediating mechanism for females, but not for males, in the relationship between self-control and student development. The results support the presence of a sex-based moderated mediation, where the strength and presence of the mediation pathway is contingent upon the student's sex.

Table 4: Conditional Mediation Effects of Self-Control on Student Development Through Academic Self-Discipline Across Year Level

Moderator Levels	Type	Effect	Estimate	SE	β	p-value
First Year	Indirect Component	SC $\Rightarrow$ ASD $\Rightarrow$ SD	-.467	.443	-.257	.291
		SC $\Rightarrow$ ASD	-.678	.639	-.380	.289
		ASD $\Rightarrow$ SD	.689	.067	.677	< .001**
	Direct	SC $\Rightarrow$ SD	.810	.471	.446	.086
	Total	SC $\Rightarrow$ SD	.237	.591	.141	.688
Second Year	Indirect Component	SC $\Rightarrow$ ASD $\Rightarrow$ SD	.235	.230	.142	.307
		SC $\Rightarrow$ ASD	.436	.423	.244	.303
		ASD $\Rightarrow$ SD	.539	.067	.581	< .001**
	Direct	SC $\Rightarrow$ SD	.032	.315	.019	.919
	Total	SC $\Rightarrow$ SD	.441	.387	.262	.254
Third Year	Indirect Component	SC $\Rightarrow$ ASD $\Rightarrow$ SD	.353	.128	.209	.006**
		SC $\Rightarrow$ ASD	.617	.211	.346	.004**
		ASD $\Rightarrow$ SD	.573	.067	.606	< .001**
	Direct	SC $\Rightarrow$ SD	.230	.163	.136	.159
	Total	SC $\Rightarrow$ SD	.581	.201	.345	.004**
Fourth Year	Indirect Component	SC $\Rightarrow$ ASD $\Rightarrow$ SD	.142	.165	.085	.390
		SC $\Rightarrow$ ASD	.254	.294	.142	.388
		ASD $\Rightarrow$ SD	.559	.067	.596	< .001**
	Direct	SC $\Rightarrow$ SD	.369	.219	.220	.092
	Total	SC $\Rightarrow$ SD	.544	.271	.323	.045*

Note: SC – Self-Control; ASD – Academic Self-Discipline; SD – Student Development. ** $p < .01$; * $p < .05$;

Table 4 shows the analysis which explored whether the mediating role of academic self-discipline (ASD) in the relationship between self-control (SC) and student development (SD) varied across year levels, from first to fourth year. The results showed a distinct pattern, with mediation effects strengthening in the higher year levels.

For first year students, neither the indirect ($\beta = -.257$, $p = .291$) nor direct ($\beta = .446$, $p = .086$) effects were statistically insignificant. While the path from ASD to SD was strong and significant ($\beta = .677$, $p < .001$), the path from SC to ASD ($\beta = -.303$, $p = .289$) was not, suggesting a disruption in the mediation chain at the early stage of college. The total effect ($\beta = .114$, $p = .688$) was also non-significant, indicating a weak influence of self-control on student development in this cohort.

In the second year, the mediation chain was still non-existent. The indirect ($\beta = .142$, $p = .307$) and direct ($\beta = .019$, $p = .919$) effects were also statistically insignificant. While the path from ASD to SD was strong and significant ($\beta = .581$, $p < .001$), the path from SC to ASD ($\beta = .244$, $p = .303$) was insignificant. This breaks the potential mediation pathway from SC to SD through ASD. The total effect ($\beta = .262$, $p = .254$) was also non-significant, indicating a lack of influence of self-control on student development.

By the third year, a clearer mediation pathway emerged. The indirect effect was highly significant ($\beta = .209$, $p < .01$), indicating that academic self-discipline (ASD) effectively mediated the relationship between self-control (SC) and student development (SD). Both component paths were highly significant (SC $\rightarrow$ ASD: $\beta = .346$, $p < .01$; ASD $\rightarrow$ SD: $\beta = .606$, $p < .001$), confirming a robust mediation structure. However, the direct effect of self-control (SC) on student development (SD) was not significant ($\beta = .136$, $p = .159$), suggesting a full mediation pathway at this stage. The total effect was highly significant ($\beta = .345$, $p = .004$), highlighting the strong combined influence of self-control and academic self-discipline on student development.

For fourth year students, the mediation pathway appeared to weaken. While the ASD $\rightarrow$ SD path remained significant ($\beta = .596$, $p < .001$), the SC $\rightarrow$ ASD path ($\beta = .142$, $p = .388$) and indirect effect ($\beta = .080$, $p = .494$) were not. Interestingly, the direct effect of Self-Control on Student Development became marginally significant ($\beta = .202$, $p = .092$), and the total effect was statistically significant ($\beta = .323$, $p = .045$). This pattern suggests a shift from a mediated pathway to a more direct influence of Self-Control in later stages of academic development.

The findings suggest a developmental trajectory in the mediation effect. The mediating role of academic self-discipline is absent in the lower years, becomes apparent in the third year, and diminishes in the fourth year as self-control increasingly influences student development directly. These pattern throughout the years highlight the dynamic interaction between self-regulation and academic outcomes across different stages of the college experience.

Table 5: Conditional Mediation Effects of Self-Control on Student Development Through Academic Self-Discipline Across Stanine Level

Moderator Levels	Type	Effect	Estimate	SE	β	p-value
Stanine 2	Indirect	SC $\Rightarrow$ ASD $\Rightarrow$ SD	-.011	.042	-.006	.791
		Component				
		SC $\Rightarrow$ ASD	.237	.835	.133	.777
		ASD $\Rightarrow$ SD	-.047	.064	-.049	.463
	Direct	SC $\Rightarrow$ SD	-.715	.595	-.413	.230
Stanine 3	Total	SC $\Rightarrow$ SD	-.726	.774	-.432	.348
	Indirect	SC $\Rightarrow$ ASD $\Rightarrow$ SD	.223	.118	.135	.059
		Component				
		SC $\Rightarrow$ ASD	.424	.219	.237	.053
		ASD $\Rightarrow$ SD	.526	.064	.571	< .001**
Stanine 4	Direct	SC $\Rightarrow$ SD	.224	.158	.136	.157
	Total	SC $\Rightarrow$ SD	.446	.203	.265	.028*
	Indirect	SC $\Rightarrow$ ASD $\Rightarrow$ SD	.424	.279	.224	.045*
		Component				
		SC $\Rightarrow$ ASD	.571	.372	.320	.014*
Stanine 5		ASD $\Rightarrow$ SD	.742	.064	.620	< .001**
	Direct	SC $\Rightarrow$ SD	.531	.268	.143	.358
	Total	SC $\Rightarrow$ SD	.954	.345	.300	.012*
	Indirect	SC $\Rightarrow$ ASD $\Rightarrow$ SD	.544	.202	.313	.007**
		Component				
Stanine 5		SC $\Rightarrow$ ASD	.877	.313	.491	.005**
		ASD $\Rightarrow$ SD	.620	.064	.638	< .001**
	Direct	SC $\Rightarrow$ SD	.039	.230	.022	.865
	Total	SC $\Rightarrow$ SD	.583	.290	.347	.044*

Note: SC – Self-Control; ASD – Academic Self-Discipline; SD – Student Development. ** $p < .01$; * $p < .05$;

Table 5 presents a conditional mediation analysis of the effect of self-control (SC) on student development (SD) via academic self-discipline (ASD) across different stanine levels of student ability. The strength and significance of mediation effects vary notably with the cognitive performance groups.

For students in Stanine 2 (low cognitive ability), none of the pathways were statistically significant. The indirect effect was negligible ($\beta = -.006$, $p = .791$), and the direct effect of self-control (SC) on student development (SD) was negative and non-significant ($\beta = -.432$, $p = .348$). This suggests that for this group, neither direct nor indirect mechanisms meaningfully link self-control to developmental outcomes, potentially due to limited self-regulatory capacity or external factors overriding internal traits.

In Stanine 3, the mediation model begins to take shape. While the indirect effect approached significance ($\beta = .053$, $p = .059$), it did not reach the conventional threshold. However, both component paths were significant: SC significantly predicted ASD ($\beta = .237$, $p < .05$), and ASD significantly predicted SD ($\beta = .531$, $p < .001$). The total effect was statistically significant ($\beta = .226$, $p = .028$), despite a non-significant direct effect. This pattern implies the emergence of mediation even though the full indirect effect was not yet statistically established.

By Stanine 4, the mediation pathway was statistically supported. The indirect effect was significant ($\beta = .224$, $p < .05$), indicating that ASD partially mediated the relationship between SC and SD. The two component paths were significant: SC $\rightarrow$ ASD ($\beta = .361$, $p = .014$), and ASD $\rightarrow$ SD ($\beta = .620$, $p < .001$). Although the direct effect remained non-significant ($\beta = .143$, $p = .358$), the total effect was significant ($\beta = .300$, $p = .012$), suggesting a primarily mediated influence of self-control for this group.

For students in Stanine 5 (highest cognitive group), the mediation effect was strongest. The indirect effect was substantial and significant ($\beta = .347$, $p = .001$), with large and significant component paths: SC $\rightarrow$ ASD ($\beta = .431$, $p = .003$) and ASD $\rightarrow$ SD ($\beta = .638$, $p < .001$). Additionally, the direct effect was significant ($\beta = .216$, $p = .045$), indicating a partial mediation structure. The total effect was large and highly significant ($\beta = .347$, $p = .002$), confirming that Self-Control contributes to Student Development both directly and through its influence on Academic Self-Discipline.

The results indicate a clear developmental trend across cognitive levels. Mediation is absent among lower-ability students (Stanine 2), begins to emerge in Stanine 3, and becomes fully evident and statistically significant in Stanines 4 and 5, particularly among the highest-performing students. These findings suggest that the mediating role of Academic Self-Discipline strengthens with increasing cognitive ability, underscoring the interaction between self-regulatory traits and academic capability in fostering student development.

VI. CONCLUSION

The study concludes that criminology students embody high levels of academic self-discipline and student development while having moderate levels of self-concept. Furthermore, self-concept positively predicts student development, and the academic discipline of criminology students mediates this relationship, increasing the effect of self-concept on student development. Moreover, student's sex, year level and OLSAT results moderate the mediating effect of academic self-discipline in the relationship of self-concept on student development. Finally, the Aptitude Training Service program help in the formation of self-concept and academic self-discipline of criminology cadets.

VII. RECOMMENDATIONS

Higher educational institution administrators and the college faculty of College of Criminology shall reinforce the Aptitude Training Service program that promotes the formation and enhancement of self-concept and academic self-discipline to foster student development. Comprehensive programs on the enrichment of self-concept shall be implemented and the further improvement of the modules of the ATS program to intensify the students' academic self-discipline, and eventually student development. Future research should explore additional factors influencing student development of criminology cadets to amplify undergraduate academic performance and board exam preparedness.

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