



## Self-regulation and decision-making skills of student-athletes toward academic skills intervention program

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### Abstract

This study assessed the planning, monitoring, controlling, and reflecting skills of student-athletes as regards their self-regulation skills and positive decision-making environment, potential solutions, communication, and implementation as regards their decision-making skills. The study also tested the significant difference and relationship between self-regulation and decision-making skills using the respondents' profile. This research employed the descriptive-correlational design and was carried out in 20 universities and colleges in Jiangsu Province, China. Data gathering was guided by adopted questionnaires from Research Collaboration and MindTools. Findings reveal that the study was participated in by 1000 student-athlete with men as the majority, 17-22 years old, and are under Net-Separation Counterwork Events-Group. Student-athletes believed that their self-regulation skills are "Emerging" and their decision-making skills "Practiced" as attested by their composite mean. Results of significant difference disclosed that demographics don't affect their assessment of their self-regulation and decision-making skills except "sports affiliation" for self-regulation. Meanwhile, the test of significant relationship gave a result of an R-Value of .452, affirming a moderate positive correlation.

**Keywords:** self-regulation skills, decision-making environment, potential solutions, communication, implementation planning, monitoring, controlling, reflecting skills

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### Introduction

Imm (2021) <sup>[6]</sup> states that students have the opportunity to engage in a wide range of activities throughout their time spent studying in colleges and universities, including those that are academic, social, humanitarian, and athletic. College athletics is one of the most popular extracurricular activities because they give student-athletes the opportunity to compete, develop their leadership and time management skills, and improve their work ethic. Most of those who are involved here are student-athletes. A student-athlete is essentially a full-time or part-time student at a university or college who also participates in an organized and competitive sports program that is given by the institution. A student-athlete is expected to fulfill the responsibilities of both a student and a young athlete. In other words, they must be enrolled in and attend courses offered by the college while also participating in a competitive intercollegiate sport. As such, student-athletes typically have less free time than non-athletes in between classes, practices, and athletic competitions. In addition to attending classes, studying, and taking exams, student-athletes have responsibilities to their team that can include attending practice, maintaining a minimum grade-point average in order to remain eligible, practicing and training when classes are not in session, and representing the college with respectful behavior during games and competitions.

With all these responsibilities and concerns, Zócalo Public Square (2015) <sup>[15]</sup> believes that student-athletes have a greater propensity to enroll in simpler courses and get lower marks than their non-athletic peers. It has been shown that this phenomenon occurs not just at institutions that are members of strong conferences in high-stakes sports, but even at liberal arts colleges.

It's a popular public notion that student-athletes care only about their sport, and not about their schoolwork. However, one study reveals that when student-athletes were asked how much they care about athletics, they rated their interest a healthy 8.5. But, when questioned about the importance that they put on academics, the majority of respondents placed a figure that is more than 9. Meaning, a typical student-athlete is more concerned with his academic performance than with his athletic ability. One research suggests that student-athletes may not believe their teammates place the same importance on academics as they do, which is a fascinating and plausible explanation. Another study asked respondents to predict how much their teammates cared about sports, they came quite close, estimating an 8.8 out of 10. On the other hand, when those same athletes were asked to predict how much their teammates cared about academics, they only guessed a score of 7.8, which is much lower than the average score of 9+. All of this contributes to a cycle that is both upsetting and self-sustaining. Knowing that their routines are being watched by their teammates, close-knit student-athletes seek methods to fit into a culture that they regard as abandoning academics by defaulting into majors of doubtful worth and spending less time completing homework. When their colleagues see such routines, it strengthens the wrong idea that caring about academics is an undesirable anomaly that should be hidden as much as possible.

In this study, four phases are presented: planning, monitoring, evaluating, and reflecting. Planning marks the beginning of the process. One of the ways to do this is via improved planning. This may be accomplished via the use of SMART goals and competitive routines. SMART goal setting means Specific, Measurable, Action-focused, Realistic, and Time-frame. Due to the fact that the only thing an athlete can really control is themselves, competition routines are very vital. Self-monitoring is a more micro level monitoring in which an athlete is keenly aware of how they are going about a specific throw or run. While many athletes have a coach observing them, self-monitoring is a more macro level monitoring. Evaluation is analyzing the actions taken. Self-reflection is evaluating everything that has happened. Emotional management and control contribute to improvements in athletic performance. Athletes are prone to reacting in a variety of ways depending on their emotions.

In the perspective of Chinese sports, Yongjun, S. et al (2011) <sup>[13]</sup> investigated on the perceived self-regulation of Chinese athletes competing at the highest levels. A grounded theory approach was used for the analysis of qualitative data from 14 different athletes. The thoughts and sentiments of Chinese top athletes whose attempts at self-regulation resulted in either success or failure were taken into consideration. A rhythmic disorder, tension, mental exhaustion, and loss of flow were reported by athletes as symptoms of failure in self-regulation, while good self-regulation was associated with a calm mental state, a smooth rhythm in performance, attention, and flow. According to the findings of the investigation, the primary characteristics that contributed to the preservation of control were a level head, rhythmic preparation, and a lack of external pressure. The lack of proper planning and consistency in one's preparation, as well as the effect of stress and mental exhaustion, did not promote good performance.

Hanson (n.d) conducted research on the decision-making processes of athletes and came to the conclusion that an athlete's decision-making abilities are directly proportional to

their behavior style, and that certain behavioral profiles are responsible for more crucial actions than others. In his research, he identifies four distinct behavioral styles shown by athletes: dominating, interactive, steady, and obedient types. Both dominant and interactive types have a natural tendency to make snap judgments. These two kinds make judgments based on quite distinct sets of considerations. Based on an instinctive feel for what is going on around them, interactive types come to choices quickly (and frequently change their minds just as rapidly again), which may be frustrating for others. They do not give facts and basic data the precise attention that they need. Both dominating styles and interactive styles have the potential to gain knowledge from one another by sharing the tendencies that they each possess.

Good decision-making is a skill that is essential to the success of an athlete, despite the fact that it can be difficult to instruct. This is because good decision-making can be applied to a variety of situations, such as deciding how to adequately prepare for a competition, how to implement a recovery plan, or how to avoid taking shortcuts. The Decision Education Foundation (2022), asserts that instructing athletes on how to make decisions is more productive than instructing them in what decisions they should make. It suggests that the first step toward "increasing their thoughtfulness when engaging their values, creativity, and critical thinking in making and following through on their personal choices" is to teach them how to understand how to make better decisions.

Studies conducted on Chinese athletes suggest that their ability to self-regulate their energy levels has decreased, which has a negative impact on their performances. In addition, distractions that make it difficult to concentrate also diminish one's capacity for self-regulation, which ultimately leads to poor performance. Both under stress and flow It has long been acknowledged that stress is a significant contributor to performance. However, athletes who are able to establish a successful self-regulating state of flow while competing report feeling in control of the situation and receiving constructive feedback. The fact that the athletes reported that they were able to successfully self-regulate showed that they were able to complete the activity in a manner that was adequately unaffected by stress. On the other hand, the athletes who reported feeling as if they lacked control were unable to successfully self-regulate their behavior. According to experts and researchers, there is evidence to support the hypothesis that an individual's level of self-regulation has a beneficial effect on their level of performance. Because they had trained both physiologically and mentally for the competition, they were in a position to provide their best performance. In addition, the type of preparation helped enable an ideal condition by improving decision-making abilities. This, together with a psychological state that was defined by optimum arousal to win and a high level of attention, would all lead to a high degree of competitiveness. As a consequence of this, good self-regulation and decision-making abilities need to include both the ability to cope with stress and the ability to sustain energy for performance.

This study is anchored in the concept of The Cycle of the Learning Process. Student-Athletes engage in a cycle of planning for a task, monitoring their own performance, and then reflecting on the results of their efforts as part of the process of self-regulated learning. They then utilize the reflection in order to make adjustments and be ready for the

subsequent job, which causes the cycle to continue. The procedure is not a one-size-fits-all solution; rather, it has to be adapted to the needs of individual students as well as the objectives of certain learning assignments (Zimmerman, 2002) <sup>[14]</sup>. The most important phases of the procedure are shown in the figure that can be found to the right. Student-athletes are responsible for carrying out these processes; however, teachers and coaches play an essential part in guiding and instructing these students as they go through each phase.

This study has been conceptualized to address some issues of student-athletes in some selected universities in China. This attempts to delve into the level of their self-regulation in terms of planning, monitoring, controlling, and reflecting. Also, this study looks into the decision-making skills of student-athletes in terms of establishing a positive decision-making environment, generating potential solutions, evaluating the solutions, deciding, checking decisions, and communicating and implementing. The significant difference and relationship will be tested for the self-regulation and decision-making skills of student-athletes. Then, the results of the study become the basis for the concept and design of a wellness program for student-athletes.

### Methodology

This chapter discusses the methods utilized and employed to produce the outcome of the present study. These methods are discussed in detail to give an idea of how the research would be conducted. Other elements of the study, like the research design, subjects and study sites, and research instrument used are also discussed.

This research employed the descriptive-correlational design. According to Best Kahn (2006), descriptive research makes use of quantitative methodologies to describe what is, which includes describing, documenting, evaluating, and interpreting circumstances that already exist. It entails doing some kind of comparison or contrast and attempting to identify links between existing variables that have not been changed in any way. Its primary focus is on the now and now, but it will often take into account things that happened in the past and how they influenced situations in the here and now. Researchers that employ a comparative design frequently formulate hypotheses regarding the differences in variables between or among two or more units. A comparative study is a method of determining and quantifying correlations between two or more variables by studying various groups that are subjected to different treatments, either by choice or by circumstance. By comparing two or more similar groups, persons, or situations, comparative research is conducted. Descriptive Comparison tries to describe and maybe also explain the invariances of the items. Its goal is not to cause changes in the objects; in fact, it frequently strives to prevent them. The study investigated personal information, student-athletes self-regulation and decision-making skills.

This research was carried out in 20 universities and colleges in Jiangsu Province, China. The survey object of this study are the student-athletes of selected universities and colleges of Jiangsu Province in China. This research adopts purposive sampling with the following criteria: (1) They should be student-athletes. (2.) They compete locally or internationally in their respective sports discipline. (3.) They should be student-athletes for at least 2 years.

The questionnaire of this study is adopted from Research Collaboration and Mind Tools.

And since they are standardized questionnaires, they don't have to undergo experts' validation and reliability test

This research uses the literature method to conduct an inductive analysis of related research on self-regulation and decision-making skills. All letters will be written and approvals will be sought from concerned schools before the conduct of the survey. Respondents will be identified through purposive sampling and will be briefed about the survey and the purpose of the study. Then, questionnaires will be distributed after the Informed Consent is filled out by each respondent. After which, results will be gathered to be subjected to analysis and interpretation with the help of the following statistical treatment:

### T-test

It is a parametric test that examines the difference between the means of two groups of values. Specifically, as this study made use of dependent data obtained from only one group of respondents, the independent t-tests used are utilized when scores or values are associated or have some connection (Nieswiadomy, 2007). This test is used to determine the fourth hypothesis of the study whether accepted or rejected. It used to determine whether or not there is a significant difference in the level of self-regulation and decision-making skills.

### Ethical Considerations

This study will use the first-hand data obtained by the researcher personally. References and citations are compiled by the researcher after reviewing the literature to ensure that all citations and data are true and reliable. The conclusions of this study will be culled based on factual data, comprehensive data collection will be carried out during the investigation process, and preconceived views are eliminated during the entire process of collecting data and processing data to reach a conclusion. There is no purposeful processing or collection of data nor deliberate avoidance of data contrary to assumptions. This study respects the hard work of previous researchers in the research process and clearly marks the citing of other people's views during the research process. There is no deliberate devaluation or ignorance of other people's views or research results in the process of argumentation. All opinions and conclusions of this research are based on the data obtained from real investigations. This research is based on data. Any opinions are not based solely on the judgment of others. The thesis process is serious and not opportunistic. During the research process of this study, the data provided by the respondents are kept strictly confidential, and all questionnaires were filled out anonymously. Questionnaires were distributed and recycled without the hands of others, to ensure that the respondents' comments on their own environment, leadership, and other related issues are based on their true feelings, to ensure that the respondents' answers to the survey questions will not be leaked because of their own answers. As a result, their own lives are affected.

### Results and Discussion

This part contains the information acquired for the survey and interviews with respondents. It has been evaluated and interpreted with the assistance of certain literature that is relevant to the results. This section of the study also includes a summary of the results, conclusions, and suggestions.

### 1. Profile of the Respondents

**Table 1:** Summary on the Assessment of the Dimension of Self-Regulation of the Student-Athletes

| Indicators          | Mean        | SD          | Interpretation  | Rank |
|---------------------|-------------|-------------|-----------------|------|
| 1. Planning         | 3.19        | 1.06        | Emerging        | 2    |
| 2. Monitoring       | 3.16        | 1.05        | Emerging        | 4    |
| 3. Controlling      | 3.17        | 1.03        | Emerging        | 3    |
| 4. Reflecting       | 3.32        | 1.02        | Emerging        | 1    |
| <b>Overall Mean</b> | <b>3.21</b> | <b>1.04</b> | <b>Emerging</b> |      |

Legend: Advanced (5) =4.51-5.0); Proficient (4) =3.51-4.50); Emerging (3) =2.51-3.50); Beginning (2) = 1.51-2.50); Not Observed (1) =1.0-1.50)

Table 1 houses the summary on the Assessment of the Dimension of Self-Regulation of the Student-Athletes. The table reveals that all indicators got a mean that has adjectival

interpretation of “emerging”, giving the impression that these indicators are not yet fully developed among student-athletes and that they have not yet realized the importance of self-regulation. Self-regulation connects with feeling good about oneself. It is the capacity to bounce back from adversity, whereas self-control is the aptitude to manage one's emotions and actions in order to realise one's objectives. The capacity to self-regulate take on considerable significance, particularly among middle- and late-career athletes, and are frequently decisive in whether or not an amateur career develops into a professional one (Gupta & Sudhesh, 2019) [5]. Athletes' health and success depend, in large part, on their ability to self-regulate. Improved competition readiness, endurance performance, decision making, and motor learning are just some of the benefits associated with self-regulation, which has also been related to reduced somatic and cognitive anxiety (Balk and Englert, 2020) [3].

### 2. Significant Differences in the Level of Self-Regulation of the Student-Athletes when the Profile Variables are considered as the Test Factor

**Table 2:** Summary Assessment on the Level of Decision-Making Skills of Student-Athletes

| Indicators   | Mean        | SD        | Interpretation   |
|--|-------------|-----------|------------------|
| 1. Establishing a positive decision-making environment | 3.44        | 84        | Sometimes        |
| 2. Generating potential solutions                      | 3.52        | 83        | Often            |
| 3. Evaluating the solutions                            | 3.26        | 79        | Sometimes        |
| 4. Deciding  | 3.40        | 84        | Sometimes        |
| 5. Checking your decision                              | 3.47        | 83        | Sometimes        |
| 6. Communicating and implementing                      | 3.56        | 86        | Often            |
| <b>Overall Mean</b>                                    | <b>3.44</b> | <b>83</b> | <b>Sometimes</b> |

Legend: Very Often (5) =4.51-5.0); Often (4) =3.51-4.50); Sometimes (3) =2.51-3.50); Rarely (2) =1.51-2.50); Not At All (1) =1.0-1.50)

Table 2 highlights the summary assessment of the Level of Decision-Making Skills of Student-Athletes. As shown, “Generating potential solutions” and “Communicating and implementing” only got the highest mean which is interpreted as “often” implying that these skills are always practiced and exercised. Meanwhile, the rest of the variables got the means that imply that these skills are seldom practiced and exercised. Thus, these variables need to be attended to in the process of training student-athletes’ decision making skills. True Sport (2019) affirms that good decision-making is difficult to teach. This is a skill that all student-athletes must possess because it is essential in their academic performance

and athletic accomplishment. Whether it be choosing a course or properly preparing for a competition, practicing a recovery plan, or avoiding shortcuts, they need to practice effective decision-making abilities through curriculum and courses in decision quality. It's critical to get knowledge about the decision-making process since doing so will enable them to better influence how they make decisions both on the field and in everyday life. Specifically, sports provide a unique opportunity for the study of decision-making for a number of reasons. This affords the opportunity to examine a number of intriguing decision-making structures and tactics in sports (Kaya, 2014) [8].

### 3. Significant Difference in the Level of Decision-Making Skills of the Student-Athletes when they are grouped According to Profile

**Table 3:** Significant Differences in the Level of Decision-Making Skills of the student-Athletes as to Sex

| Indicators   | Sex           | Mean        | SD         | T-Value    | SIG Value  | Decision on HO  | Interpretation         |
|--|---------------|-------------|------------|------------|------------|-----------------|------------------------|
| 1. Establishing a positive decision-making environment | Male          | 3.51        | .58        | .10        | .75        | Accepted        | Not Significant        |
|  | Female        | 3.39        | .56        |            |            |                 |                        |
| 2. Generating potential solutions                      | Male          | 3.60        | .66        | 3.33       | .07        | Accepted        | Not Significant        |
|  | Female        | 3.47        | .60        |            |            |                 |                        |
| 3. Evaluating the solutions                            | Male          | 3.31        | .52        | .19        | .66        | Accepted        | Not Significant        |
|  | Female        | 3.23        | .52        |            |            |                 |                        |
| 4. Deciding  | Male          | 3.45        | .65        | 2.60       | .11        | Accepted        | Not Significant        |
|  | Female        | 3.36        | .62        |            |            |                 |                        |
| 5. Checking your decision                              | Male          | 3.54        | .71        | 2.90       | .09        | Accepted        | Not Significant        |
|  | Female        | 3.43        | .66        |            |            |                 |                        |
| 6. Communicating and implementing                      | Male          | 3.62        | .66        | .69        | .41        | Accepted        | Not Significant        |
|  | Female        | 3.52        | .69        |            |            |                 |                        |
| <b>Overall</b>   | <b>Male</b>   | <b>3.51</b> | <b>.52</b> | <b>.71</b> | <b>.40</b> | <b>Accepted</b> | <b>Not Significant</b> |
|  | <b>Female</b> | <b>3.40</b> | <b>.50</b> |            |            |                 |                        |

@.05 Level of significance

Table 3 presents the results of the test of significance in the Assessment Level of Student-Athletes of their decision-making as to Sex. It can be seen that Establishing a positive decision-making environment, Generating potential solutions, Evaluating the solutions, Deciding, Checking your decision, and Communicating and implementing are all accepted, which means that the null hypothesis was accepted implying that there is no significant difference in the assessment of the student-athletes when they were grouped according to sex. This is an attestation that in terms of decision-making skills both male and female have the same mindset on the nature and importance of this skill. Both sexes understand that decision-making is important. Both sexes have the same perception as to variables identified in this study.

This is somehow contradictory with the perception of Therese Huston, a cognitive psychologist from Seattle University, who says that women are frequently perceived as

less decisive and therefore less capable of making the “tough” decisions than men. She continues by stating that women have less confidence in their decision-making abilities. Her study indicates that women consider more elements while making decisions. In addition, they are more likely to solicit information from others as part of their intelligence collection efforts. But no matter what the case may be, despite the common misconceptions, women's leadership role in decision-making is no less significant than the role of men. Sometimes women can make better decisions than men because of the difference between making or taking the decisions. As women take decisions, they adopt the decision-making approach, get assured of the decision validity, and analyze the pros and cons before taking any. On the other hand, men can take faster but less analyzed decisions; driven by their reactions to the surrounding circumstances (London Premiere Center, 2022).

**Table 4:** Significant Differences in the Level of Decision-Making Skills of the student-Athletes as to Age

| Indicators   | Age   | Mean | SD  | F-Value | SIG Value | Decision on HO  | Interpretation         |
|--|-------|------|-----|---------|-----------|-----------------|------------------------|
| 1. Establishing a positive decision-making environment | 17-19 | 3.43 | .58 | .99     | .40       | Accepted        | Not Significant        |
|  | 20-22 | 3.46 | .55 |         |           |                 |                        |
|  | 23-25 | 3.36 | .61 |         |           |                 |                        |
|  | 26 -  | 3.50 | .74 |         |           |                 |                        |
|  | Total | 3.44 | .57 |         |           |                 |                        |
| 2. Generating potential solutions                      | 17-19 | 3.53 | .64 | 1.81    | .14       | Accepted        | Not Significant        |
|  | 20-22 | 3.54 | .62 |         |           |                 |                        |
|  | 23-25 | 3.41 | .67 |         |           |                 |                        |
|  | 26-   | 3.39 | .36 |         |           |                 |                        |
|  | Total | 3.52 | .63 |         |           |                 |                        |
| 3. Evaluating the solutions                            | 17-19 | 3.20 | .51 | 2.01    | .11       | Accepted        | Not Significant        |
|  | 20-22 | 3.29 | .52 |         |           |                 |                        |
|  | 23-25 | 3.26 | .53 |         |           |                 |                        |
|  | 26 -  | 3.21 | .48 |         |           |                 |                        |
|  | Total | 3.26 | .52 |         |           |                 |                        |
| 4. Deciding  | 17-19 | 3.38 | .63 | .29     | .83       | Accepted        | Not Significant        |
|  | 20-22 | 3.41 | .63 |         |           |                 |                        |
|  | 23-25 | 3.36 | .64 |         |           |                 |                        |
|  | 26-   | 3.42 | .62 |         |           |                 |                        |
|  | Total | 3.40 | .63 |         |           |                 |                        |
| 5. Checking your decision                              | 17-19 | 3.48 | .69 | 1.05    | .37       | Accepted        | Not Significant        |
|  | 20-22 | 3.49 | .67 |         |           |                 |                        |
|  | 23-25 | 3.37 | .73 |         |           |                 |                        |
|  | 26-   | 3.55 | .65 |         |           |                 |                        |
|  | Total | 3.47 | .68 |         |           |                 |                        |
| 6. Communicating and implementing                      | 17-19 | 3.54 | .69 | 1.51    | .21       | Accepted        | Not Significant        |
|  | 20-22 | 3.59 | .67 |         |           |                 |                        |
|  | 23-25 | 3.47 | .71 |         |           |                 |                        |
|  | 26 -  | 3.76 | .70 |         |           |                 |                        |
|  | Total | 3.56 | .68 |         |           |                 |                        |
| <b>Overall</b>   | 17-19 | 3.43 | .51 | 1.23    | .30       | <b>Accepted</b> | <b>Not Significant</b> |
|  | 20-22 | 3.46 | .51 |         |           |                 |                        |
|  | 23-25 | 3.37 | .54 |         |           |                 |                        |
|  | 26 -  | 3.47 | .45 |         |           |                 |                        |
|  | Total | 3.44 | .51 |         |           |                 |                        |

@.05 Level of significance

Table 4 certifies the results of the test of significance in the Assessment Level of Student-Athletes of their decision-making as to Age. It can be seen that Establishing a positive decision-making environment, Generating potential solutions, Evaluating the solutions, Deciding, Checking your decision, and Communicating and implementing are all accepted, which means that the null hypothesis was accepted implying that there is no significant difference in the

assessment of the student-athletes when they were grouped according to Age. It means that student-athletes regardless of age have the same perception of the nature, importance, and application of decision-making skills, specifically, on evaluating the solutions, deciding, checking of decision, and communicating and implementing. However, this finding is in contrast with what Darrell Worthy, of Texas A&M University, saying that people of a more advanced age are

better able to evaluate both the immediate and the long-term advantages of each available alternative. APS (2011) then affirms that these findings are connected to changes that occur in the manner in which individuals utilize their brains as they become older. The ventral striatum, which is linked to habitual, reflexive learning as well as impulsivity due to its association with immediate rewards, is responsible for decision making in younger individuals. But when this part of the brain ages, older individuals compensate by activating their pre-frontal cortices, which are responsible for controlling more logical and deliberate thought.

At any rate, teachers and parents are expected to guide their children to possess and demonstrate decision-making skills. It is in their best interest to make the choices for them. They need to put in some work to develop that ability. They should realize that certain choices are more essential than others, and that it's occasionally vital to practice being able to make judgements quickly. What's more essential is that they make a decision as fast as possible so that they don't end up being late for their next activity. They are satisfied with any choice, and they will save the other one for tomorrow (Miller, 2023) [10].

**Table 5:** Significant Differences in the Level of Decision-Making Skills of the student-Athletes as to Sports Specialization

| Indicators  | Sport Specialization                    | Mean | SD  | F-Value    | Sig Value  | Decision on HO | Interpretation         |
|---|---|------|-----|------------|------------|----------------|------------------------|
| 1.Establishing a positive decision-making environment | Net-Separation Counterwork Events-Group | 3.46 | .50 | .38        | .06        | Accept         | Not Significant        |
|   | Difficulty-Artistic Event-Group         | 3.34 | .58 |            |            |                |                        |
|   | Antagonistic Event Related Group        | 3.53 | .59 |            |            |                |                        |
|   | Endurance Event-Group                   | 3.48 | .58 |            |            |                |                        |
|   | Speed Event-Group                       | 3.44 | .53 |            |            |                |                        |
|   | Fighting Events-Group                   | 3.27 | .79 |            |            |                |                        |
|   | Total                                   | 3.44 | .57 |            |            |                |                        |
| 2.Generating potential solutions                      | Net-Separation Counterwork Events-Group | 3.56 | .58 | .26        | .08        | Accept         | Not Significant        |
|   | Difficulty-Artistic Event-Group         | 3.44 | .63 |            |            |                |                        |
|   | Antagonistic Event Related Group        | 3.59 | .67 |            |            |                |                        |
|   | Endurance Event-Group                   | 3.55 | .61 |            |            |                |                        |
|   | Speed Event-Group                       | 3.51 | .62 |            |            |                |                        |
|   | Fighting Events-Group                   | 3.35 | .83 |            |            |                |                        |
|   | Total                                   | 3.52 | .63 |            |            |                |                        |
| 3. Evaluating the solutions                           | Net-Separation Counterwork Events-Group | 3.30 | .46 | .74        | .60        | Accept         | Not Significant        |
|   | Difficulty-Artistic Event-Group         | 3.25 | .53 |            |            |                |                        |
|   | Antagonistic Event Related Group        | 3.26 | .59 |            |            |                |                        |
|   | Endurance Event-Group                   | 3.23 | .55 |            |            |                |                        |
|   | Speed Event-Group                       | 3.24 | .40 |            |            |                |                        |
|   | Fighting Events-Group                   | 3.18 | .68 |            |            |                |                        |
|   | Total                                   | 3.26 | .52 |            |            |                |                        |
| 4. Deciding   | Net-Separation Counterwork Events-Group | 3.41 | .61 | .59        | .08        | Accept         | Not Significant        |
|   | Difficulty-Artistic Event-Group         | 3.32 | .62 |            |            |                |                        |
|   | Antagonistic Event Related Group        | 3.48 | .70 |            |            |                |                        |
|   | Endurance Event-Group                   | 3.44 | .60 |            |            |                |                        |
|   | Speed Event-Group                       | 3.43 | .55 |            |            |                |                        |
|   | Fighting Events-Group                   | 3.20 | .81 |            |            |                |                        |
|   | Total                                   | 3.40 | .63 |            |            |                |                        |
| 5. Checking your decision                             | Net-Separation Counterwork Events-Group | 3.50 | .63 | .32        | .06        | Accept         | Not Significant        |
|   | Difficulty-Artistic Event-Group         | 3.35 | .66 |            |            |                |                        |
|   | Antagonistic Event Related Group        | 3.56 | .75 |            |            |                |                        |
|   | Endurance Event-Group                   | 3.56 | .70 |            |            |                |                        |
|   | Speed Event-Group                       | 3.47 | .59 |            |            |                |                        |
|   | Fighting Events-Group                   | 3.29 | .85 |            |            |                |                        |
|   | Total                                   | 3.47 | .68 |            |            |                |                        |
| 6. Communicating and implementing                     | Net-Separation Counterwork Events-Group | 3.61 | .58 | .21        | .08        | Accept         | Not Significant        |
|   | Difficulty-Artistic Event-Group         | 3.43 | .67 |            |            |                |                        |
|   | Antagonistic Event Related Group        | 3.62 | .72 |            |            |                |                        |
|   | Endurance Event-Group                   | 3.62 | .73 |            |            |                |                        |
|   | Speed Event-Group                       | 3.59 | .65 |            |            |                |                        |
|   | Fighting Events-Group                   | 3.39 | .93 |            |            |                |                        |
|   | Total                                   | 3.56 | .68 |            |            |                |                        |
| <b>Overall</b>  | Net-Separation Counterwork Events-Group | 3.47 | .45 | <b>.33</b> | <b>.09</b> | <b>Accept</b>  | <b>Not Significant</b> |
|   | Difficulty-Artistic Event-Group         | 3.36 | .52 |            |            |                |                        |
|   | Antagonistic Event Related Group        | 3.51 | .56 |            |            |                |                        |
|   | Endurance Event-Group                   | 3.48 | .52 |            |            |                |                        |
|   | Speed Event-Group                       | 3.45 | .45 |            |            |                |                        |
|   | Fighting Events-Group                   | 3.28 | .73 |            |            |                |                        |
|   | Total                                   | 3.44 | .51 |            |            |                |                        |

@.05 Level of significance

Table 5 contains the results of the test of significance in the Assessment Level of Student-Athletes of their decision-making as to Sports Specialization. It can be seen that establishing a positive decision-making environment, generating potential solutions, evaluating the solutions, deciding, checking your decision, and communicating and implementing are all accepted, which means that the null hypothesis was accepted implying that there is no significant difference in the assessment of the student-athletes when they were grouped according to Sports Specialization. This strongly means that student-athletes regardless of their sports affiliation have the same mindset and perception about this skill. This is good indication because according to Team Snap (2023) <sup>[11]</sup>, athletes competing at a professional level are expected to demonstrate a high degree of decision-making skills and expertise in a variety of domains. Their capacity to make sound choices under great pressure and little time is a

quality that is sometimes neglected, yet it is one that is essential for success in competitive sports. Athletes in high-paced sports like baseball, basketball, softball, and tennis must make dozens or even hundreds of split-second judgements call over the course of a single game because the rules of the game are always shifting and adapting. These players need to exhibit quick and strong decision-making abilities that allow them to move with the natural ebbs and flows of the game in order to achieve success in their endeavors. Making decisions is not a natural ability but rather an acquired skill that comes from having years of experience participating in pressure cooker games as well as particular routines that are aimed to enhance decision making. One of the most effective strategies to improve one's ability to make decisions is to simulate the kinds of game-like scenarios that one may find themselves in during a significant competition while engaging in exercise that simulates such conditions.

#### 4. Significant Relationship Between Self-Regulation Skills and Decision-Making Skills of Student-Athletes

**Table 6:** Significant Relationship Between Self-Regulation Skills and Decision-Making Skills of Student-Athletes

| Variable Tested        |                        | R-Value | Degree of Correlation         | Sig Value (2 tailed) | Decision on HO          | Interpretation                          |
|------------------------|------------------------|---------|-------------------------------|----------------------|-------------------------|---|
| Self-Regulation Skills | Decision Making Skills | .452    | Moderate Positive Correlation | .000                 | Reject/Ho Not Supported | Statistically /Significantly Correlated |

Table 6 features the results of the test on the significant relationship between self-regulation skills and decision-making skills of student-athletes. As revealed, the R Value is .452, giving a result of Moderate Positive Correlation. One kind of descriptive statistic is referred to as a correlation coefficient. This implies that it provides a summary of the data from the sample but does not allow to draw any conclusions about the population. When a correlation coefficient describes the connection between two variables, it is considered to be a bivariate statistic; however, when there are more than two variables involved, it is considered to be a multivariate statistic. When one variable moves in one direction, other variables also move in the same direction, but their degree is not the same.

In the case self-regulation skills and decision making-skills, their connection is moderate positive correlation. This means that as student-athletes improve their self-regulation skills, alongside, they also improve their decision-making skills. Self-regulation is described as a technique that empowers a person to regulate his or her objectively directed behaviour across time and shifting conditions involving a balance of cognition, influence, and behaviour. Self-regulation refers to the ability of a person to motivate themselves towards conduct that is objectively oriented, while delaying the performance of behaviour that is subjectively oriented in order to achieve behaviour that is goal directed or objectively oriented. Meanwhile, decision-making skills are essential to good performance or results since people involved demonstrate critical thinking and consider potential solutions to issues or problems. Thus, in making good and sound decisions, self-regulation is needed since it involves capacity to exert control over actions, feelings, and ideas in order to achieve their long-term objectives. It is also needed especially when a particular decision turned into a disappointment or setback. When a student has self-regulation, it is easy for him or her to recover from failures or effects of wrong decision making (Indeed Editorial Team, 2022) <sup>[7]</sup>.

#### Summary of Findings

Based on the survey conducted, the researcher came up with the following summary of findings:

1. The study was participated in by 1000 student-athlete with men as the majority,
2. 17-22 years old, and are under Net-Separation Counterwork Events-Group.
3. Assessment of the student-athletes as to the Dimension of Self-Regulation reveals that Planning (3.19), Monitoring (3.16), Controlling (3.17), and Reflecting (3.32) were rated as "Emerging" as attested by their composite mean.
4. As to significant differences in the Assessment of the student-athletes as to the Dimension of Self-Regulation, it reveals that in terms of Sex, null hypotheses for Planning, Monitoring, Controlling, and Reflecting were all accepted, which means that there was a significant difference when respondents were grouped according to Sex. As to gender, the results came out the same as the results for Sex, which means that there's no significant difference. Finally, as to Sports Affiliation, null hypotheses for all variables were all rejected, which means that there was a significant difference when respondents were grouped according to profile.
5. As to the result of the assessment of the student-athletes on their level of decision-making skills, Establishing a positive decision-making environment, Evaluating the solution, Deciding, and Checking your decision got an interpretation of "Sometimes", while Generating potential solutions, Evaluating the solutions, and Communicating and implementing got an interpretation of "often".
6. As to the tests of significant difference in the assessment of the student-athletes on their level of decision-making skills, it's revealed that sex, age, and sports affiliation did influence their assessment at all.
7. As to the test of significant relationship between self-regulation skills and decision-making skills of student-

athletes, the R-Value posts a result of .452, affirming a Moderate Positive Correlation.

### Conclusions

Based on the aforementioned summary of findings, the researcher came up with the following conclusions.

1. Students-athlete body is dominated by 17–22-year-old men who are into Net-Separation Counterwork Events-Group.
2. Student-athletes assessment about their self-regulation reveals the inadequacy of the respondents, teachers, and coach to work on it to improve academic and athletic performance.
3. Sex and Age Demographics don't influence student-athletes assessment about their possessed self-regulation, while sports affiliation demographic does.
4. Student-athletes regard their decision-making skills as prominent especially on generating, evaluating, communicating, and implementing potential solution to a particular problem, but they are not so confident about establishing a positive decision-making environment, evaluating the solution, and deciding and checking of the effectivity of the solution.
5. Sex, Age, And Sports Affiliation Demographics don't influence the student-athletes' evaluation of their decision-making skills.
6. Self-regulation skills and decision-making skills have moderate positive correlation, affirming a need to develop such among student-athletes.

### Recommendation

In light of the summary of findings and conclusions, the researcher came up with the following recommendations:

1. More women are encouraged to join student-athlete population to balance the number.
2. Teachers and coaches are compelled to initiate projects and activities that would improve self-regulation skills of student-athletes.
3. Educational institutions in China must focus more on and provide with the tools to develop self-regulatory habits throughout a program since it is believed that would significantly shorten the time it takes for them to pick up new abilities.
4. Teacher should initiate more learning activities that could provide situations where students can evaluate rationally and choose the best course of action that would build their trust amongst their colleagues and increase their morale and productivity.
5. Coaches are compelled to instill among student-athletes, especially during their training, the importance of establishing a positive decision-making environment, evaluating the solution, and deciding and checking of the effectivity of the solution.
6. Future researchers are encouraged to delve into similar topics but on a wider and deeper perspective since decision-making and self-regulation skills are extremely important to athletes for a more successful academic and athletic life.

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