EFFECT OF NEURO-LINGUISTIC PROGRAMMING STRATEGIES ON SPORTS PERFORMANCE, SELF-EFFICACY, AND MENTAL TOUGHNESS

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APPROVAL SHEET

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Abstract

This study examined the effect of neurolinguistic programming (NLP) on sports performance, self-efficacy, and mental toughness of student-athletes during the academic year 2025-2026. Specifically, it aimed to determine the levels of these variables in the pretest and posttest of control and experimental groups, identify differences between groups, and propose a training plan based on the findings. The study involved 60 gymnastics student-athletes from one academic institution who were purposively assigned to four groups using the Solomon Four-Group Experimental Design: experimental with pretest and posttest, control with pretest and posttest, experimental posttest-only, and control posttest-only. Descriptive statistics such as mean and standard deviation were used to describe the data, while t-tests for dependent and independent samples were employed to determine significant differences at the 0.05 level of significance. Results revealed that the control and experimental groups had comparable baseline levels of sports

performance, self-efficacy, and mental toughness prior to the intervention. After the intervention, both groups demonstrated improvements across all variables; however, the experimental group exposed to neurolinguistic programming showed slightly higher gains in performance, confidence, and psychological resilience. Findings from the posttest-only groups also indicated similar trends, with NLP producing greater improvement in self-efficacy compared with mindfulness-based stress reduction.

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EFFECT OF NEURO-LINGUISTIC PROGRAMMING STRATEGIES ON SPORTS PERFORMANCE, SELF-EFFICACY, AND MENTAL TOUGHNESS

Dennis D. Arbis

Chapter 1

Introduction to the study

Chapter 1 has five parts: (1) Background and Conceptual Framework of the Study, (2) Statement of the Problem and the Hypotheses, (3) Significance of the Study, (4) Definition of Terms, and (5) Delimitation of the Study.

Part One, Background, and Theoretical Framework of the Study, which explains the essence of conducting the study.

Part Two, Statement of the Problem and the Hypotheses, presents the general and specific statement of the problem.

Part Three, Significance of the Study, explains the possible benefits that can be derived from the study results.

Part Four, Definition of Terms, defines conceptually and operationally the important terms used in this study.

Part Five, Delimitation of the Study, specifies the limitation that governs the study.

Background and Theoretical Framework of the Study

The ambition-driven world of sports taps into the fundamental aspects of human behavior, excellence, and improvement. The integration of rigorous athletic demands with academic responsibilities presents unique challenges and opportunities for these individuals, particularly within the Philippine educational framework (Camia, 2020). Many student-athletes, despite facing significant challenges in balancing these commitments, continue to pursue athletic activities due to the personal enjoyment, social connections, and potential scholarship opportunities they offer (Butlig et al., 2023).

Nowadays, sports performance enhancement methods and products are aggressively promoted in media and the various social spheres. This emphasis underscores the need to explore the intricate relationship between sports participation and academic success among Filipino student-athletes, particularly in understanding how training and competitive pressures impact their scholastic performance and overall well-being (Micua et al., 2025). This ongoing dilemma highlights the critical need for effective time management strategies and institutional support systems that enable

student-athletes to excel in both their athletic and academic pursuits.

In the competitive landscape of modern athletics, physical conditioning and technical proficiency alone are often insufficient to guarantee optimal results; rather, the integration of mental and emotional training is increasingly recognized as a critical determinant of success. This is due to the profound influence of an athlete's psychological state on their ability to perform under pressure, maintain focus, and effectively execute strategies (Rosario, 2024). Indeed, an athlete's performance is intrinsically linked to both their mental and physical skills, underscoring the necessity of a holistic training approach that encompasses psychological support interventions (Ardern et al., 2022).

Sports performance is a complex interplay between mental, technical, and physical factors. Traditional sports training has relied heavily on physical conditioning and technical skill development (Paquette & Trudel, 2017). Sports programs frequently emphasize the idea that athletes should demonstrate mental toughness, which in turn reinforces the stigma around seeking psychological help. For Filipino athletes, this stigma is compounded by poorly resourced mental health care and psychological training (Alberto et al., 2021).

Emerging research suggests that incorporation neuro linguistic programing (NLP) strategies can significantly enhance sports performance (Liu et al.,2021). NLP was introduced by Richard Bandler to provide a framework for understanding how people communicate, think, and change to improve personal and professional effectiveness (Kotera et al., 2019). It is a psychological approach used to attain personal goal in life. It involves adopting strategies from people who have already reached a high level of success and applying NLP to achieve personal goals. The approach analyzes thoughts, behavior, patterns and language acquired through experience and then relates them to life to attain specific results (Rohach et al, 2022).

Furthermore, the motivation behind NLP is using language processes, behavioral, and perceptual techniques to alter thoughts, feelings, and actions (Straw, 2023). Psychosocial factors such as stress management, focused attention, concentration, and cognitive strategies are increasingly recognized as crucial components of elite sports performance.

When athletes have high levels of mental and physical training, they can reach new heights of performance that they potentially never thought was possible. These heights are often only achievable through extreme levels of training on

both fronts (Bryce,2021). However, athletes who engage in mental and physical training are few. Most sports programs focus on demographics, diet, and physiological demands (Birkenhead et al., 2019). The researcher believes that by integrating NLP into sports in this sense, the goal is changing some aspects of the athlete to improve sports performance.

Self-efficacy is a personal belief in their qualities and abilities to achieve a goal. It encompasses their confidence in themselves to influence their environment, control their behavior, and stay motivated in pursuing their goal (Kendra, 2024). Albert Bandura defined self-efficacy as "the belief in self capabilities to execute and organize the courses of action required to manage prospective situations."

Self-efficacy and perfectionism are essential factors in predicting athletic performance. As both increase, so does sports performance (Cakiroglu,2021). It is vital to understand the performance and dynamics of sports teams. It influences athletes deciincluding collective performance and dealing with sports failures (Alves et al., 2021). A student-athlete with strong self-efficacy beliefs is more likely to persist through difficulties, set challenging goals, and maintain motivation during sports competitions.

Furthermore, there are scarce resources on strategies that enhance self-efficacy can be effectively integrated into secondary school sports programs, where academic priorities often overshadow athletic pursuits (Edger, 2020).

Mental toughness refers to the ability to persist in challenges, mistakes, and failures. Coaches and student-athletes emphasize mental toughness, also called grit about staying determined, and not giving up in times of difficulties.

In sports, it is necessary to gain positive results, including self-determined motivation and surrounding factors along with other personal forces, such as optimistic thinking and persistence (Norton, 2025). Mental toughness has been beneficial to performance in sports and also has promoted well-being, adaptive mental health functioning, and incidents of lower stress levels and depression (Cowden et al., 2019). It is a psychological factor from separating a winner from a loser in sports and suggests that it ranks top among Olympians when determining successful performance and outcomes (Liew et al., 2019).

Student-athletes are under a lot of pressure to exhaust themselves rigorously during training, day after day, and perform at their peak in athletic competitions. The

pressure gets amplified due to social media and technology that connect the world with athletic events happening everywhere, often in real-time (Fetters, 2024).

However, despite the clear connection between mental toughness and athletic achievement, many athletes struggle to prioritize their mental health. It is like the fitness level; the more it is trained, the more fit a student-athlete becomes. When training is stopped, the level slips back (Cohn,2025).

The researcher believes that integrating neuro-linguistic programming strategies such as visualization, anchoring, and asking Meta-Model questions as part of the training program may improve the performance, self-efficacy, and mental resilience of the student-athletes. These methods are not included in the core subjects of the Department of Education Special Program in Sports (SPS) and School Sports Club (SSC).

That is why it is a premise of the researcher to use the Neuro-linguistic programming strategies as an intervention to optimize the physiological health status, and improve secondary public-school sports programs, and sports performance of the student-athletes.

The study as based on the Functionalist Theory of William James (1890), which states that behaviors and mental

processes serva an adaptive purpose focusing on outcomes and practical functions. He believed that the mind is a set of states causally related to sensory inputs, behavioral outputs, and one another. His theory further states that the mind seems to be the inner cause of behavior (Hergenhahn, 2010).

The Functionalism Theory of Attention and Consciousness is considered environmental. According to Gale Psychology (2012), "Consciousness helps people adapt to their environment". It is considered a modification of how we process information to make our lives easier. It offers a more systematic approach to understanding consciousness and behavior, aiming to explain how these processes help individuals navigate and thrive in their environment (LICSW,2025).

Within the context of sports, Functionalism proves the importance of understanding how mental functions operate and interact to achieve specific goals, such as improving athletic skills or winning a game, which explains that optimizing these functions through specific interventions can lead to enhanced sports performance (Williamon et al, 2020). Neurolinguistic programming strategies train the mind to be tougher and to perceive what an individual wants to achieve. It serves as a tool to control and filter

thoughts, which are the root of personal behavior and athletic performance. Through these strategies, athletes may have the awareness and competitive edge to see when the mind is distracted and learn to let go of that thinking and return to the object of focus.

Likewise, Self-efficacy Theory by Albert Bandura (1977) is defined as the belief in personal ability to execute certain actions to achieve a specific outcome (Head,2019). It is a complex process of self-persuasion and self-appraisal based on the judgments that individuals create, whether they believe they have the capabilities to achieve their goals. This implies that it determines sports performance and exercises through observing others as they persist in their efforts until the performance outcome matches the self-created standards from vicarious experiences.

The Self-efficacy Theory was anchored to another theory, which is the Self-determination Theory by Deci & Ryan (2017) which links human motivation, personality, and optimal functioning. It posits that there are two types of motivation, extrinsic and intrinsic, and that both are powerful forces that shape an individual and their behavior (Ackerman,2018). Self-determination theory explains that the satisfaction of autonomous motivation and basic psychological

needs may be linked to positive perceptions of performance and behavioral results (Lourenco et al., 2022).

When applied to sports performance, it provides a nuanced, coherent, and broad framework to understand the social conditions that facilitate high-quality forms of student-athlete well-being and motivation. Similarly, Goltsman (2023) believed that this well-known theory of human motivation emphasizes the importance of autonomy, competence, and relatedness in maximizing an athlete's motivation and long-term success. Encouraging student-athletes towards intrinsic motivation by prioritizing experiences with competence, autonomy, and connection during sports activities helps them strive for excellence over punishments or external rewards leading to better sports achievement results.

In this context, the secondary public-school student-athletes need to be assessed based on sports performance, self-efficacy, and mental toughness for the student-athletes to have baseline data in creating and enhancing tailored training design that optimizes sports performance and improve the Department of Education school sports program and clubs. Student-athletes must always perform at their best, excel, and achieve their desired goals.

The above-mentioned theories denote that the sports performance of a student-athlete depends not only in the physical aspect of the training program but also in self-consciousness and self-efficacy. It is the goal of the researcher to help the sports teams optimize sports performance and improve training outcomes by being mindful and motivated throughout the intervention period.

The researcher believed that neurolinguistic programming works on the principle that individuals process information and epitomize their experiences internally, which influences their performance and behavior, thus by modifying and understanding these internal representations, the student-athletes can improve their mental game and achieve an apex performance.

Setting the two theories as the foundation of this study, the researcher has an idea that NLP offers a compelling structure for enhancing training programs in sports, by creating a systematic approach to improve the emotional and mental states of an athlete, which are essential determinants of winning.

Subjects of this study was captivated to engage in mental training, which aids in alleviating stress, cultivating creativity, enhancing teamwork and boosting motivation by fostering self-awareness. This can allow the

researcher to be guided in determining the objectives of the study. Also, understanding that athletic performance isn't solely influenced by physical prowess but is significantly influenced by cognitive and emotional factors.

The result can help the researcher to create a very effective training program for the student-athletes who want to fine-tune their focus, control performance anxiety, and cultivate a resilient mind, unlocking their full potential.

The idea of the researcher is to design a training program that includes values assessment, understanding what motivates the student-athlete to play, engage, and perform better. Moreover, reframing or knowing an individual's limiting beliefs and how to surpass them is crucial. It involves changing how student-athletes think and feel about their sports. Also, the design included visualization of skills and future-pacing what they can see, hear, feel, and think that lights up the neuro pathways for motivation or simply meta-cognition.

The pre-test and post-test on sports performance, self-efficacy, and mental toughness of the student-athletes was the bases of comparing the two programs.

The result of this study was the basis for the researcher to create a training program that would develop a high-

performing individuals that are more confident, focused, and motivated.

In belief, the background literature presented here provided a valuable contribution to the present study through the different theories, analyses, and related studies.

Conceptual Framework

The conceptual framework of the study is shown in Figure 1, where the independent variables are sports training, self-efficacy, mental toughness while the dependent variables are sports performance and competition outcomes of the student-athletes.

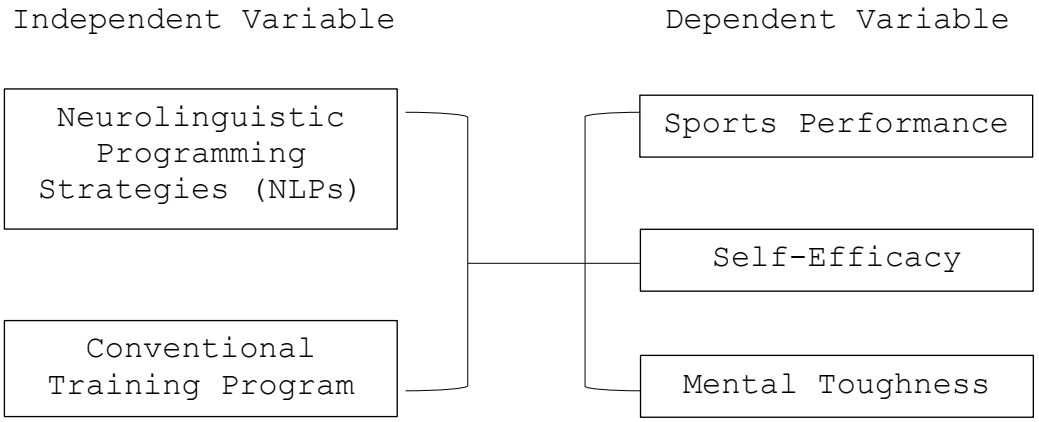

Figure 1. Sports Performance and Competition Outcome as influenced by sports training, self-efficacy, and mental toughness.

Statement of the Problem and the Hypothesis

The study aimed to determine the effect of neurolinguistic programming on sports performance, self-efficacy, and mental toughness of student-athletes for the academic year 2025-2026.

Specifically, this study sought to answer the following questions:

1. What are the levels of sports performance, self-efficacy, and mental toughness in the pre-test and post-test of the control and experimental groups?

2. What are the levels of sports performance, self-efficacy, and mental toughness in the post-tests of the control and experimental post-test-only groups?

3. Is there a significant difference in sports performance, self-efficacy, and mental toughness between the pre-tests of the control and the experimental groups?

4. Is there a significant difference in sports performance, self-efficacy, and mental toughness between the pretests and post-tests of the control and the experimental groups?

5. Is there a significant difference in sports performance, self-efficacy, and mental toughness between the post-tests of the control and the experimental groups?

6. Is there a significant difference in sports performance, self-efficacy, and mental toughness between the post-tests of the control post-test-only group and the experimental post-test-only groups?

7. Is there a significant difference in sports performance, self-efficacy, and mental toughness between the pre-test of the control group and the post-test of the control post-test-only group?

8. Is there a significant difference in sports performance, self-efficacy, and mental toughness between the post-tests of the experimental group and the experimental post-test-only group?

9. Is there a significant difference in sports performance, self-efficacy, and mental toughness between the posttests of the control group and the control post-test-only group?

Based on the abovementioned statement of the problem, the following hypotheses were forwarded:

3. There is no significant difference in sports performance, self-efficacy, and mental toughness between the pre-tests of the control and the experimental groups.

4. There is no significant difference in sports performance, self-efficacy, and mental toughness between the

pretests and post-tests of the control and the experimental groups.

5. There is no significant difference in sports performance, self-efficacy, and mental toughness between the post-tests of the control and the experimental groups.

6. There is no significant difference in sports performance, self-efficacy, and mental toughness between the post-tests of the control post-test-only group and the experimental post-test-only groups.

7. There is no significant difference in sports performance, self-efficacy, and mental toughness between the pre-test of the control group and the post-test of the control post-test-only group.

8. There is no significant difference in sports performance, self-efficacy, and mental toughness between the post-tests of the experimental group and the experimental post-test-only group.

9. There is no significant difference in sports performance, self-efficacy, and mental toughness between the posttests of the control group and the control post-test-only group.

Significance of the Study

This part of this study is grounded in its potential to contribute both to theoretical understanding and practical application within the field.

Athletes. Student-athletes stand to directly benefit from this study by gaining access to techniques that strengthen their confidence, focus, and overall mental toughness. This not only enhances their performance in sports but also contribute to personal growth, discipline, and psychological well-being.

Coaches. This study offers coaches innovative, evidence-based strategies to enhance the psychological resilience, motivation, and performance of athletes. By integrating NLP techniques into training programs, coaches can better support the mental and emotional development of athletes, ultimately improving team outcomes and individual achievements.

School Administrators. The results of this research can guide school administrators in making informed decisions regarding athlete development programs and mental health initiatives. With a clearer understanding of neurolinguistic programing strategy benefits, administrators

can allocate resources and support interventions that foster both academic and athletic excellence.

Physical Education Teachers. This research provides PE teachers with practical knowledge on how to incorporate NLP principles into their teaching and coaching methods.
It offers a new perspective on athlete development that combines physical training with mental conditioning, fostering more holistic approaches in physical education.

Present Researcher. For the present researcher, this study serves as an avenue for contributing to the growing body of literature on sports psychology and NLP. It strengthens the academic and professional foundation and provides an opportunity to address gaps in knowledge while applying theory to practice.

Future Researchers. Future researchers can use this study as a springboard for further investigation into psychological interventions in sports. It offers a comprehensive framework, methodology, and set of findings that can be replicated, expanded, or refined to explore other variables, sports contexts, or educational levels.

Definition of Terms

To better understand the study, the following terms were defined conceptually and operationally.

Mental Toughness – refers to the psychological edge that enables an individual to cope better than opponents with the many demands that sports place on a performer. It involves resilience, focus, confidence, and the ability to stay motivated and perform under pressure.

In this study, "Mental Toughness" referred to using a standardized mental toughness inventory or questionnaire administered to the student-athletes during the pretest and posttest phases. It evaluated components such as emotional control, concentration, confidence, and perseverance in the context of gymnastics.

Neuro-Linguistic Programming Strategies – refers to integrative techniques used in communication and personal development that focus on the dynamic relationship between cognitive processes, language patterns, and behavior. These strategies aim to improve performance and psychological flexibility by helping individuals recognize, reframe, and modify internal representations and habitual responses to achieve desired outcomes (Briers, 2021).

In this study "Neurolinguistic Programming Strategies" referred to the specific set of interventions, such as visualization, anchoring, reframing, and language pattern restructuring, delivered to the experimental group of gymnastic students during training sessions. These were implemented over a specified duration to evaluate an athlete and the effect on their performance, self-efficacy, and mental toughness.

Self-Efficacy – refers to a context-specific psychological construct that refers to the belief of an individual in their capacity to successfully organize, execute, and regulate actions required to achieve desired outcomes. It is not a measure of actual ability, but rather a perception of capability that influences motivation, persistence, emotional responses, and behavioral performance, particularly in challenging or uncertain situations (Waddington, 2023).

In this study "Self-Efficacy" referred to using a validated self-efficacy questionnaire or scale administered to gymnastic students before and after the intervention. The scale assessed their confidence in performing gymnastics-related tasks and overcoming challenges in training and performance.

Sports Performance – refers to the level of proficiency and effectiveness with which an individual executes physical, technical, tactical, and psychological skills within a sporting context. It encompasses the integration of physical abilities, mental preparedness, strategic decision-making, and consistent execution to achieve optimal outcomes in training or competitive situations (Locke et al.,2020).

In this study, "sports performance" referred to performance-based assessments or evaluations specific to gymnastics, such as routine execution, technique, balance and scoring, as recorded during pretest and posttest sessions for the control and experimental groups with pre-test and posttest, and control and experimental groups with post-test only. It is measured using a standardized rubrics found in the Code of Poins of Aerobic Gymnastics in the execution judging criteria created by the Federation International de Gymnastique.

Delimitation of the Study

The study aimed to determine the effect of neurolinguistic programming on sports performance, self-efficacy, and mental toughness of student-athletes for the

research academic year 2025-2026. It specifically focuses on how selected NLP interventions—such as visualization, reframing, anchoring, and language pattern modeling—can influence these psychological and performance-related variables. The study involves a total of 60 gymnastic students from a single academic institution. These participants were purposively divided into four groups using the Solomon Four-Group Experimental Design: Group 1 (experimental with pretest and posttest), Group 2 (control with pretest and posttest), Group 3 (experimental with posttest only), and Group 4 (control with posttest only). This design was selected to control for possible testing effects and ensure the validity of the findings.

The scope of the study was limited to the context of gymnastics and does not include student-athletes from other sports or individuals outside the academic setting. Furthermore, the research does not explore other psychological or performance-enhancement approaches beyond NLP. Data collection tools and assessment procedures are also specific to the sport of gymnastics and the variables under study. As such, the findings are intended to be applicable only to the defined population within the given time frame and context, and may not be generalized to other athletic disciplines, age groups, or training levels.

Descriptive statistics used in the study were the mean and standard deviation. For inferential statistics, the researcher utilized the t-test for dependent and independent sample at alpha level 0.05.

Chapter 2

Review of Related Literature

This chapter is presented into four parts, namely:(1) Effects of Neurolinguistic Programing Strategies on Sports Performance, (2) Effects of Neurolinguistic Programing Strategies on Self-Efficacy, (3) Effects of Neurolinguistic Programing Strategies on Mental Toughness, (4) Synthesis.

Part One. Effects of Neurolinguistic Programming Strategies on Sports Performance, provides a comprehensive understanding how neurolinguistic programming strategies affect the sports performance of the athletes.

Part Two. Effects of Neurolinguistic Programming Strategies on Self-Efficacy, situates the study within the border fields of sports psychology and sports performance within the context of the neurolinguistic programming strategies.

Part Three. Effects of Neurolinguistic Programming Strategies on Mental Toughness, presents the trends, patterns, and outcomes of neurolinguistic programming strategies and mental toughness.

Part Four. Synthesis, highlights connections, similarities, or differences among studies. It provides a more complete picture of what is known about the research topic

Effects of Neurolinguistic Programming Strategies on Sports Performance

Neurolinguistic Programming (NLP) is a psychological approach that explores the relationship between language, behavior, and neurological processes. Developed by Richard Bandler and John Grinder in the 1970s, NLP assumes that individuals can “reprogram” their thought patterns and behaviors through guided techniques to achieve desired outcomes (Kotera et al., 2019). In the context of sports, NLP is used to enhance performance by developing mental skills such as concentration, self-confidence, motivation, and emotional regulation.

Core NLP techniques include anchoring, which connects specific mental states to gestures or cues

(ActionFactory Global, 2021); visualization, which mentally rehearses successful outcomes to influence motor performance (Mendes, 2024); self-talk and language patterns, which involve replacing negative internal dialogue with affirmative and empowering messages (OMICS Int., n.d.); and reframing, which helps athletes view setbacks as learning opportunities (AypexMove, 2022). These techniques are supported by theoretical models that suggest language and cognitive restructuring can have physiological and emotional effects that directly impact athletic output (Savardelavar et al., 2021).

Additionally, NLP is said to promote access to flow states, or optimal performance zones, through priming and internal cueing (OMICS Int., n.d.). Athletes who apply NLP tools often exhibit heightened awareness of their representational systems—such as visual, auditory, or kinesthetic modalities—which facilitates the alignment of goal-oriented behavior and internal motivation (Boughattas et al., 2022).

Recent studies from 2019 to 2025 demonstrate a growing body of empirical evidence supporting the effectiveness of NLP strategies in sports performance enhancement. These studies span across multiple disciplines, including swimming, boxing, golf, football, and shooting.

Mental skills development has been one of the most reported benefits. Ahmadzadeh et al. (2019) found that shooters who underwent NLp Training demonstrated significantly improved focus and shooting accuracy. Similarly, Sin et al. (2020) reported that NLP interventions reduced sport-related anxiety in athletes, improving their readiness and composure during competition.

In terms of confidence and emotional regulation, Savardelavar et al. (2021) conducted a quasi-experimental study on boxers and found that NLP meta-model language patterns significantly boosted the state-sport confidence of an athlete. Boughattas et al. (2022) observed similar findings in Tunisian swimmers, noting measurable increases in self-confidence and self-esteem after a six-month NLP training program.

Visualization and imagery techniques have also shown promise. Mendes (2024) revealed that Portuguese football players who utilized visualization and anchoring reported a strong correlation between NLP practice and on-field performance. Likewise, the AypexMove (2022) report showed that Olympic sprinters and fencers who practiced NLP techniques improved reaction times by 8–17%, further supporting the utility of NLP in fine motor performance and timing.

Efforts to create structured NLP training modules are also emerging. Mahadewan et al. (2023) and Muniandy (2023) developed an NLP-based module for golf athletes, confirming that NLP strategies were well received by the athletes and aligned with the psychological needs. Moreover, El Essawy et al. (2022) applied NLP-based counseling to physical education students, leading to improvements in psychological resilience during the pandemic, which indirectly influences academic and physical performance.

While most studies report positive outcomes, it is important to note that many rely on small samples or quasi-experimental designs. Still, the consistent trends in performance improvement, confidence building, and emotional regulation indicate the practical relevance of NLP in sports psychology and coaching.

Neurolinguistic Programming (NLP) has increasingly been applied as an adjunct to structured training in sports beyond traditional mental coaching. A randomized controlled trial combining six sessions of NLP with eighteen structured exercise sessions for children with ADHD found significant improvements in motor skills, physical fitness, and attention, even outperforming exercise alone (Jeyanthi et al., 2021).While this study focused on developmental coordination, its findings suggest NLP can augment

physiological training by enhancing attention—a cognitive skill highly transferable to athletic performance.

In dynamic sports environments like soccer, NLP has been utilized as a pedagogical framework to enhance motor skill adaptability. A recent trial comparing linear pedagogy (LP) with nonlinear pedagogy (also abbreviated NLP) revealed that the nonlinear approach led to superior long-term skill retention, greater variability in movement execution, and improved adaptability—key traits for high-level performance under changing game conditions. Although this NLP differs from the "Neurolinguistic Programming" acronym, its focus on flexible cognitive-motor systems underscores the broader relevance of programming interventions for athlete adaptability.

On the neurophysiological side, language-based NLP techniques have been shown to impact hormonal and neural processing during performance. In strength sports, the athlete using structured NLP-based affirmations experienced a 7 % increase in lifting capacity, accompanied by reductions in cortisol and elevated testosterone levels. This demonstrates that beyond psychological mindset, NLP can yield detectable physiological enhancements aligned with peak performance.

Studies have also emphasized the role of NLP in optimizing pre-performance routines, a staple in sports psychology. Action Factory (2023) outlines how techniques such as anchoring, visualization, reframing, and swish patterns integrate seamlessly into athlete routines to standardize mental and physical readiness. These protocols not only calm nerves but also reinforce motor consistency under pressure.

In addition, OMICS International Journal highlights how NLP facilitates entry into "flow states"—periods of high performance characterized by intense concentration and fluid execution. Athletes using NLP techniques reportedly experience faster recovery from errors, improved resilience, and sustained mental clarity during competition. This aligns closely with broader peak-performance research emphasizing the need for flexible emotional regulation.

These studies collectively imply that NLP strategies enrich not just psychological components but cognitive and neurophysiological domains as well. They support interpreting "programming" more broadly—as a reconfiguration of mental, motor, and emotional systems to optimize high-pressure performance.

Effects of Neuro-Linguistic Programming Strategies on Self-Efficacy

Neurolinguistic Programming (NLP) is a system of psychological techniques that focuses on the connection between neurological processes, language, and behavioral patterns learned through experience. Developed by Bandler and Grinder, NLP offers strategies that can reshape internal experiences and improve external behaviors (Thompson et al., 2020). The core assumption of NLP is that by modeling successful behaviors and altering internal representations, individuals can achieve enhanced personal performance and psychological resilience. The strategies include but are not limited to anchoring, reframing, visualization, and meta-modeling, all designed to restructure thought patterns that may impede performance or confidence (Rashid et al., 2021). These approaches are often employed in educational, therapeutic, business, and sports contexts to foster personal development and self-regulation.

Self-efficacy, a concept introduced by Bandura, refers to an individual's belief in their capability to execute the behaviors necessary to achieve desired outcomes (Bandura, 1997). It plays a pivotal role in cognitive-behavioral change, motivation, and performance. In recent years, the relationship between NLP and self-efficacy has gained

significant attention due to the psychological mechanisms they share. For instance, both concepts rely heavily on cognitive restructuring and emotional regulation, making NLP an appropriate tool to enhance self-efficacy (Hassan, 2019). Individuals with high self-efficacy are more likely to view challenges as tasks to be mastered, while those with low self-efficacy may avoid difficult tasks, believing they are beyond their capabilities (Schwarzer et al., 2022).

Recent studies have increasingly examined how NLP interventions affect self-efficacy across different domains. A study by Mohammadi et al. (2020) demonstrated that NLP-based coaching sessions significantly improved academic self-efficacy in high school students. By using goal setting and visualization strategies, students reported feeling more confident in managing their study habits and classroom participation. Similarly, research by Ahmed et al. (2021) indicated that NLP interventions improved self-efficacy among athletes by enhancing their focus, managing performance anxiety, and increasing positive self-talk. These findings align with the principle that beliefs about capabilities can be modified through structured internal experiences and linguistic reframing.

In educational contexts, the application of NLP strategies has been found to foster student motivation and

learning self-efficacy. A quasi-experimental study by Sulaiman et al. (2019) examined how NLP-based instruction affected the academic self-efficacy of university students. Results showed a significant increase in confidence to complete coursework, participate in group discussions among students, and take initiative in class activities. These effects were attributed to the use of anchoring and reframing techniques that helped students recontextualize negative experiences and establish empowering emotional states. This supports the growing consensus that NLP can be a valuable pedagogical tool for improving learner attitudes and outcomes.

The corporate and workplace settings have also benefitted from the integration of NLP. A study conducted by Noor et al.(2021) focused on managerial self-efficacy and showed that NLP workshops improved leaders' confidence in decision-making, communication, and conflict resolution. NLP strategies such as sensory acuity, calibration, and perceptual positioning allowed managers to better understand team dynamics and handle complex interpersonal situations. This is consistent with the theoretical foundation of NLP which emphasizes flexibility, rapport-building, and outcome-oriented thinking as keys to effective leadership.

In the field of mental health, NLP has been increasingly adopted as an adjunct or alternative to traditional therapeutic interventions. A randomized controlled trial conducted by D'Souza et al. (2022) examined the effect of NLP-based therapy on individuals with generalized anxiety disorder (GAD). Participants receiving NLP sessions reported increased self-efficacy in handling anxiety-provoking situations and greater belief in their capacity to manage symptoms. The use of the Swish Pattern and sub modality shifts helped rewire negative mental imagery and replace it with more empowering associations. These changes were measurable on standardized self-efficacy scales, suggesting clinical relevance for NLP in therapeutic contexts.

Further evidence of the psychological impact of NLP on self-efficacy was provided in a mixed-methods study by Widiastuti et al. (2023), which explored the use of NLP among pre-service teachers in Indonesia. Through pre-post assessments and qualitative interviews, the study found that NLP-based teacher training programs enhanced the participants' teaching efficacy, classroom management skills, and resilience. Interview data highlighted that participants felt more in control of their thoughts and emotions after being introduced to strategies such as future pacing

and timeline therapy, which enabled them to mentally rehearse successful teaching scenarios.

In the realm of sports psychology, NLP has been particularly effective in boosting the confidence and performance-related beliefs of an athlete. A systematic review by Turner et al. (2020) analyzed various NLP interventions in sports and found consistent evidence of improved self-efficacy across different types of athletes, including gymnasts, runners, and football players. The researchers noted that visualization and anchoring techniques were particularly effective in pre-performance routines, where athletes mentally rehearsed success and associated it with specific physical cues. This process not only enhanced performance outcomes but also strengthened their belief in their ability to succeed under pressure.

The mechanisms by which NLP enhances self-efficacy can be better understood through the lens of cognitive neuroscience. NLP techniques often operate by altering neural pathways associated with memory, language, and emotion. According to Smith et al. (2021), NLP strategies such as reframing and anchoring activate the brain’s default mode network and limbic system, facilitating the creation of new mental associations and reducing fear-based responses. These neurological changes are instrumental in increasing a sense

of control and confidence, which are central components of self-efficacy.

Another notable area where NLP impacts self-efficacy is personal goal attainment. Recent research by Villanueva et al. (2024) showed that participants who engaged in NLP goal-setting workshops exhibited higher levels of self-regulation and self-efficacy in pursuing long-term objectives. The use of well-formed outcomes and future pacing techniques enabled participants to create a vivid mental map of goal achievement, thereby strengthening their belief in their ability to succeed. These findings support the idea that NLP can cultivate a goal-oriented mindset that is essential for sustained motivation and self-efficacy.

Although the literature supports a generally positive relationship between NLP and self-efficacy, some researchers caution against overgeneralization. For instance, Lim et al. (2022) emphasized the need for culturally adaptive NLP interventions, arguing that strategies developed in Western contexts may not always yield the same effects in collectivist cultures unless culturally tailored. Their study in Malaysia found moderate gains in self-efficacy among participants using NLP but stressed the importance of integrating local values and beliefs into the process. This highlights the need for more inclusive and context-sensitive

research to further validate the universal applicability of NLP.

Moreover, empirical critiques about methodological rigor remain. A meta-analysis by Zhao et al. (2023) pointed out that while many studies report positive outcomes, few adhere strictly to experimental design standards such as randomization, blinding, and longitudinal follow-up. Despite these limitations, the analysis confirmed a small to moderate effect size for NLP interventions on self-efficacy, particularly in the domains of education and counseling. The authors advocate for more robust trials to clarify the extent and limitations of its efficacy.

In recent years, NLP has also been integrated with digital platforms, allowing broader access to self-efficacy training. Online NLP courses and mobile applications now offer guided modules on anchoring, belief change, and goal setting. A study by Torres et al. (2025) evaluated an NLP-based mobile app designed to increase self-efficacy among young professionals. Results showed significant improvements in the confidence of the users in career decision-making and problem-solving skills after four weeks of app usage. The study underscores the potential of technology-assisted NLP interventions to reach wider audiences with measurable psychological benefits.

In conclusion, the reviewed literature affirms that NLP strategies have a significant and multifaceted impact on self-efficacy across educational, therapeutic, corporate, and athletic settings. By reshaping internal representations and optimizing linguistic patterns, NLP empowers individuals to strengthen their beliefs in their own capabilities. While methodological and cultural limitations persist, the growing body of research from 2019 to 2025 provides a strong foundation for continued exploration and refinement of NLP-based interventions aimed at boosting self-efficacy.

As NLP becomes more recognized as a practical tool for enhancing self-belief, more researchers have turned their attention to its use in rehabilitation and health behavior change, particularly for individuals managing chronic illness or undergoing rehabilitation. In a study conducted by El-Hadidy et al. (2023), NLP-based interventions were used in a physiotherapy program for stroke patients. Through techniques like future pacing, visual kinesthetic dissociation, and language reframing, patients reported an improved sense of agency and belief in their ability to regain function. The study demonstrated that self-efficacy mediates the relationship between NLP intervention and adherence to rehabilitation protocols, thus highlighting its potential utility in clinical recovery environments.

Another emerging area of NLP is the application is within career counseling and vocational guidance. Garcia et al. (2024) examined the effects of an NLP-based coaching module designed for university seniors preparing for career entry. Participants showed significantly higher career decision-making self-efficacy and a reduction in career-related anxiety after engaging with tools such as meta-model questioning and timeline therapy. The intervention enabled students to challenge limiting beliefs, clarify professional goals, and mentally rehearse job interview situations. These findings suggest that NLP can be instrumental in equipping young adults with the psychological readiness required for career transitions.

NLP is also being integrated into teacher training and professional development to combat burnout and increase confidence in classroom management. A recent study by Dela Cruz et al. (2023) in the Philippines implemented a ten-session NLP workshop among in-service teachers in public schools. The results showed measurable improvements in teacher self-efficacy, specifically in instructional strategies, student engagement, and classroom control. Participants reported increased clarity in communication, emotional self-regulation, and adaptability when managing student behavior. The study recommended NLP-based training

as a component of ongoing professional development for educators working in high-stress environments.

Similarly, in language education, NLP has demonstrated potential in enhancing the confidence of learners and willingness to communicate. In an experimental study by Hassanpour et al. (2021), Iranian EFL (English as a Foreign Language) students underwent NLP-based confidence training that included anchoring and visualization before speaking tasks. Compared to a control group, students who participated in the training reported a significant increase in speaking self-efficacy and fluency. This aligns with earlier findings in psychology that self-efficacy is a strong predictor of language performance and learner autonomy. The study supports the integration of NLP tools in communicative language teaching methods.

In the context of youth development and life coaching, NLP has become an increasingly popular strategy for fostering resilience, self-worth, and confidence among adolescents. Kumar et al. (2020) conducted a qualitative longitudinal study on high school students enrolled in a life skills program embedded with NLP strategies such as belief change patterns, sensory acuity training, and the Milton model. Participants consistently cited improved confidence in public

speaking, social interactions, and academic goal setting. The qualitative narratives provided deep insight into how language and internal dialogue transformation contributed to shifts in perceived self-efficacy.

In entrepreneurial development programs, NLP has shown promise in enhancing self-confidence and decision-making among early-stage entrepreneurs. A mixed-methods study by Zhang et al. (2023) involved entrepreneurs attending NLP-infused business incubator sessions. The training focused on belief change strategies, outcome specification, and rapport-building exercises. Results indicated that participants developed stronger internal loci of control and reported greater confidence in risk-taking and negotiation situations. Self-efficacy was identified as the mediating factor between the NLP intervention and entrepreneurial persistence.

An important aspect of NLP that underpins its influence on self-efficacy is modelling excellence—the process of identifying and replicating successful behaviors from high performers. This strategy was central in the study by Alavi et al. (2021), who explored how modeling successful student behaviors helped low-performing college students improve their academic confidence. By using the modeling technique in small group coaching, students internalized high-performance

patterns including focused study habits and goal setting, which significantly increased their academic self-efficacy.

Recent developments also point to the compatibility of NLP with positive psychology frameworks, particularly when it comes to cultivating optimism and psychological capital. A study by Santos et al. (2022) integrated NLP with strengths-based coaching in a university setting. Their findings revealed that NLP helped students identify and harness their signature strengths more confidently, contributing to higher self-efficacy levels in managing stress and academic workloads. The researchers argue that the overlap between the techniques in NLP and the pillars of positive psychology (hope, resilience, efficacy, and optimism) creates an ideal environment for personal growth.

In a broader psychological context, NLP has been applied to combat imposter syndrome, particularly among early-career professionals and graduate students. Research conducted by Bowen et al. (2024) used NLP techniques such as parts integration and reframing to help participants challenge self-doubt and develop a more integrated sense of competence. The participants reported higher levels of confidence in presentations, professional networking, and team leadership. The study suggested that NLP was effective

in reducing the cognitive dissonance often associated with imposter syndrome by shifting internal narratives.

Technological integration continues to enhance the accessibility and scalability of NLP strategies aimed at self-efficacy development. In a study utilizing artificial intelligence and NLP chatbots, Kim et al. (2025) examined the effectiveness of conversational agents delivering guided NLP exercises for undergraduate students experiencing low academic confidence. After four weeks of use, students demonstrated significantly higher academic self-efficacy and improved emotion regulation. This research underscores the promising future of AI-assisted mental skills coaching, especially among digital-native populations.

Despite its wide-ranging applications, some studies continue to emphasize the need for more empirically validated NLP protocols. Lee et al. (2022) noted that while NLP shows promise in enhancing self-efficacy, the field lacks standardized training and accreditation pathways that ensure the consistent delivery of interventions. They called for a more rigorous scientific framework that includes randomized controlled trials, standardized outcome measures, and long-term follow-ups. Still, the review acknowledges the unique contribution of NLP to self-efficacy enhancement when

delivered by trained practitioners within ethical guidelines.

Finally, the growing interdisciplinary approach toward NLP suggests that it continued to evolve as a versatile strategy across domains. As educators, therapists, coaches, and organizational leaders embrace NLP as a method of cognitive-behavioral influence, its synergy with self-efficacy becomes even more apparent. Whether in classrooms, boardrooms, or counseling centers, the consistent thread across studies from 2019 to 2025 is the idea that belief change—facilitated through strategic use of language and thought patterns—is central to empowering individuals to perform at their potential.

Effects of Neurolinguistic Programming Strategies on Mental Toughness

Mental toughness is widely regarded as a key psychological trait enabling individuals to persevere through adversity, maintain focus under pressure, and sustain motivation across challenges. Clough et al. (2002) defined mental toughness as a multi-dimensional construct comprising four components: control, commitment, challenge, and confidence. More recent definitions expand this view by

highlighting adaptability, resilience, and emotional regulation as central to mental toughness (Gucciardi et al., 2019). It is especially significant in contexts requiring sustained high performance, such as competitive sports, military training, business leadership, and academic pursuits. Individuals high in mental toughness demonstrate psychological resilience and the capacity to rebound from failure with renewed determination (Rumbold et al., 2020).

Neurolinguistic Programming (NLP) is a framework for personal development that seeks to understand and modify human behavior through the interplay of neurology (thought), language (communication), and programming (habitual patterns). NLP operates on the assumption that subjective experiences can be restructured to enhance psychological functioning (Wake et al., 2020). Through techniques like anchoring, reframing, sensory acuity, dissociation, and timeline therapy, NLP aims to change mental representations of stress, failure, and effort. These strategies can significantly influence emotional responses and internal dialogue, both of which are foundational components of mental toughness (Patel et al., 2021).

Recent empirical studies have increasingly explored the synergy between NLP interventions and the development of mental toughness, particularly in high-performance

environments. One such study by Al-Mutairi et al.(2021) evaluated the impact of an NLP-based training program on elite athletes in Kuwait. The findings indicated that athletes who underwent NLP sessions reported enhanced levels of confidence, emotional regulation, and focus. Techniques such as anchoring and sub modality shifts helped athletes reframe fear of failure into a challenge-oriented mindset, a critical element of the mental toughness framework.

In the academic context, NLP has been introduced as a tool for fostering resilience and psychological strength among students. A quasi-experimental study conducted by Ramirez et al. (2020) in the Philippines examined the effectiveness of NLP strategies in enhancing the ability of students to manage academic stress and setbacks. The intervention group received coaching in future pacing, belief change, and visualization exercises. Results revealed statistically significant improvements in measures of perseverance and frustration tolerance, both of which are central to mental toughness. Students reported increased ability to focus during examinations and a greater sense of control over academic challenges.

The military and law enforcement sectors have also adopted NLP-based training as part of resilience and tactical

readiness programs. A study by Choi et al. (2022) investigated the use of NLP modules in basic training for South Korean military cadets. NLP techniques were embedded into daily drills, including anchoring calm states under pressure, timeline exercises to prepare for missions, and positive belief reframing. Compared to a control group, cadets in the experimental group scored significantly higher on the Mental Toughness Index, particularly in emotional control and challenge orientation. This supports the idea that mental rehearsal and language-based mindset shifts can build psychological endurance in high-stress environments.

In the context of therapy and mental health, NLP has shown effectiveness in helping individuals reprogram maladaptive responses to adversity. Using a single-case experimental design, Ferguson et al. (2019) assessed the application of NLP in treating clients with post-traumatic stress and low resilience. Through techniques such as dissociation and the Swish Pattern, clients learned to distance themselves from traumatic imagery and replace it with empowering self-concepts. Over several sessions, clients demonstrated increased emotional control, reduced anxiety, and improved ratings on personal toughness scales. These findings suggest that mental toughness is not fixed but can be cultivated through targeted interventions like NLP.

The link between mental toughness and self-talk has also made NLP an appealing tool in performance coaching. NLP emphasizes the restructuring of internal dialogue through patterns like the Meta Model and Milton Model. A study by O'Brien (2023) explored how restructuring negative self-talk among Irish rugby players impacted their psychological readiness. The intervention utilized NLP techniques to transform limiting language patterns into affirmations of strength and capability. Players reported improved motivation, faster recovery from failure, and greater trust in their skills—all indicative of enhanced mental toughness.

In the field of corporate coaching and leadership development, NLP is increasingly recognized as a tool for stress management and adaptive performance. A study conducted by Zhang et al. (2024) investigated the use of NLP training among mid-level managers experiencing burnout. The program focused on perceptual positioning, anchoring, and value elicitation techniques. Post-intervention data showed a marked increase in stress tolerance and decision-making confidence. The researchers argued that mental toughness in corporate leaders involves not only perseverance but also psychological agility, which NLP effectively cultivates.

Educational institutions are also exploring NLP as a proactive tool for resilience building. According

to Adiwijaya et al. (2022), high school guidance counselors in Indonesia integrated NLP into student support programs to help students navigate emotional setbacks and academic failures. Through techniques like timeline therapy and sensory acuity training, students learned to manage emotional reactions and recover more quickly from personal disappointments. Students reported feeling more mentally prepared for national exams and life transitions, which speaks to the capacity of NLP to cultivate the emotional components of mental toughness.

A notable component of NLP contributing to mental toughness is visualization, a technique often used to mentally simulate successful outcomes. In a study by Santos et al. (2023), student-athletes engaged in structured visualization using NLP techniques like associated and dissociated imagery. Participants reported improved mental rehearsal before competition, enhanced focus, and lower pre-performance anxiety. Visualization helped athletes internalize the experience of overcoming obstacles, which strengthened their mental endurance and capacity for goal persistence.

Another dimension of NLP is its relevance to mental toughness lies in goal setting and belief restructuring. NLP techniques such as the “well-formed outcomes” framework

provide individuals with structured, realistic goal maps. A longitudinal study by Eze et al. (2021) found that young entrepreneurs who participated in NLP-based goal-setting workshops showed higher levels of persistence and risk tolerance over a six-month period. These entrepreneurs developed increased resilience in the face of business challenges, attributing their success to NLP-based cognitive strategies that enhanced their belief in their own competence.

The neurological underpinnings of NLP have also drawn attention in the psychological community. NLP processes such as anchoring and reframing engage brain regions involved in emotion regulation and executive functioning (Smith et al., 2021). Functional MRI scans have shown that NLP interventions activate prefrontal areas linked to resilience and cognitive control. These findings align with the conceptual view of mental toughness as both a neurocognitive and psychological construct, suggesting that NLP may serve as a tool for "training the brain" to respond more adaptively under stress.

While research supports the efficacy of NLP in enhancing mental toughness, some scholars caution about over-reliance on anecdotal outcomes. According to Taylor et al. (2022), the diversity of NLP approaches and lack of standardized

protocols may affect the consistency of results. However, their meta-review of recent studies concluded that structured, professionally delivered NLP programs do produce moderate to strong improvements in mental toughness indicators, especially in controlled settings like education, sports, and leadership development.

Technology-assisted NLP delivery is another emerging trend. Chat-based NLP coaching apps and AI-guided visualization tools have enabled broader access to mental toughness training. A recent pilot study by Rahman et al. (2025) assessed an NLP-based resilience app among university students. The app guided users through structured NLP interventions such as reframing negative thoughts and installing empowering anchors. After eight weeks, users reported significantly higher resilience and toughness scores, highlighting the potential of digital NLP tools in psychological skill-building.

Cultural adaptations of NLP are also gaining momentum. Lee et al. (2023) conducted cross-cultural research in Malaysia and found that NLP techniques needed to be localized for cultural relevance. Their study revealed that mental toughness improved more significantly when NLP scripts were framed using culturally resonant metaphors and idioms. This suggests that the cultural context plays a role in how

effectively NLP strategies shape mindset and coping behaviors.

In conclusion, the literature from 2019 to 2025 provides strong evidence for the effectiveness of NLP strategies in enhancing mental toughness across various fields. Whether in sports, education, the military, or leadership, NLP facilitates the transformation of thought patterns, emotion regulation, and belief systems that underpin psychological resilience and persistence. The ability to reprogram limiting beliefs, shift internal dialogue, and develop challenge-oriented mindsets positions NLP as a potent tool for cultivating mental toughness in individuals and teams. As research continues to evolve, future directions may include integrating NLP into national educational policies, developing AI-NLP resilience training tools, and conducting long-term longitudinal studies on the durability of mental toughness gains.

The positive effects of NLP strategies on mental toughness are often explained through the lens of cognitive-behavioral frameworks, particularly those that emphasize the connection between thought, emotion, and behavior. According to Beck’s cognitive theory and Bandura’s social cognitive theory, modifying internal dialogue and perception leads to behavioral change and increased personal agency (Bandura,

1997; Beck, 1976). The neurolinguistic programming core premise of altering internal mental models aligns with this theory, but its added emphasis on linguistic and sensory elements makes it a more holistic approach. NLP allows for rapid identification and transformation of unproductive belief systems that inhibit resilience, confidence, and emotional regulation—all
critical components of mental toughness (Carvalho & Mendes, 2021).

One often overlooked but powerful NLP technique for enhancing mental toughness is "parts integration", a process used to reconcile internal conflicts. In highly demanding environments such as healthcare, where emotional exhaustion is frequent, this method has shown potential. A study by Barker et al. (2020) on frontline nurses during the COVID-19 pandemic found that NLP-based parts integration allowed participants to align internal motivations and reduce burnout. Participants reported feeling more mentally "whole," and more capable of coping with high-stress conditions. The improved emotional balance and consistency in decision-making were indicators of enhanced mental resilience.

Mental toughness is also influenced by belief systems rooted in early life experiences, which NLP aims to reprogram through interventions such as timeline therapy and belief

change techniques. In their intervention study, Okoro et al. (2021) used NLP to assist university students in overcoming limiting beliefs stemming from academic failure or negative feedback. After a six-week intervention, students demonstrated statistically significant improvements in grit, academic persistence, and emotional recovery from failure. These are considered behavioral expressions of mental toughness and suggest the efficacy of NLP in building long-term resilience.

Another valuable component of NLP is its use of state management, which helps individuals consciously shift from stress to resourceful psychological states. NLP-based anchoring techniques allow users to trigger calm, focus, or confidence in high-pressure situations. McAllister et al. (2022) examined this among high school debaters, finding that anchoring significantly enhanced participants' composure and clarity during competitive rounds. The ability to access calm states under pressure is a defining trait of mentally tough individuals, indicating that NLP is not only a performance enhancer but also a protective factor against anxiety-related underperformance.

Furthermore, the focus of NLP on meta-cognition and self-awareness is foundational to developing mental toughness. Mentally tough individuals are not only

resilient but are also aware of their thought processes, emotions, and triggers. NLP encourages such reflection through the use of the Meta Model—a questioning strategy designed to surface and challenge automatic assumptions and distortions. A study by Joshi et al. (2023) used the Meta Model in a leadership development context, where professionals reported increased awareness of their emotional triggers, improved stress
response, and better conflict navigation—all linked to increased psychological toughness.

In performing arts and creative industries, where emotional vulnerability is high and pressure intense, NLP has shown promise in helping individuals develop the psychological stamina necessary for sustained creative output. A study by García-López et al.(2024) examined the role of NLP in enhancing mental toughness among theatre actors and musicians. Participants reported that NLP tools—particularly visualization, future pacing, and anchoring—helped reduce performance anxiety, improved emotional regulation, and enhanced self-belief before auditions or live performances. The ability to bounce back from criticism or rejection, which is essential in the arts, was also reinforced.

Emerging research is also exploring the potential of NLP to enhance group or team-level mental toughness through shared modeling and communication strategies. Teams that use NLP to create unified belief systems and common goals tend to exhibit higher collective resilience. According to Valerio et al. (2023), sports teams trained in NLP communication frameworks (e.g., mirroring, outcome specification, sensory language) demonstrated improved group cohesion, reduced performance-related anxiety, and a stronger collective efficacy. These findings point toward the applicability of NLP not just for individuals but also for building mental toughness at the team level.

In coaching psychology, NLP is now being integrated with strength-based approaches, particularly those rooted in positive psychology. The concept of "psychological capital"—comprising hope, optimism, resilience, and self-efficacy—closely overlaps with NLP outcomes. In a 2024 study by Delgado et al., life coaches using NLP techniques reported significant improvements in client psychological capital. Clients developed a stronger capacity to reframe adversity, hold long-term goals, and persist in the face of failure. These psychological assets directly relate to the modern construct of mental toughness, suggesting a meaningful intersection between NLP and positive coaching outcomes.

Despite mounting evidence supporting the role of NLP in enhancing mental toughness, methodological challenges remain. Critics such as Tran et al. (2021) argue that many NLP studies suffer from small sample sizes, lack of control groups, or short follow-up periods. These methodological weaknesses, they claim, hinder the generalizability of findings. However, the trend is slowly changing. Meta-analyses, such as that conducted by Burgos et al. (2023), have begun synthesizing data from well-designed trials and found that NLP interventions show medium to large effect sizes for resilience and stress recovery, especially in structured coaching or therapeutic settings.

Recent trends also point to the integration of NLP with other psychotherapeutic modalities, such as Cognitive Behavioral Therapy (CBT) and Acceptance and Commitment Therapy (ACT), to enhance mental toughness. Mixed-method research by Kato et al. (2025) found that a hybrid NLP-CBT approach improved university students' ability to reappraise negative events, leading to increased emotional resilience. Students reported fewer cognitive distortions, more adaptive emotional responses, and greater persistence in academic efforts—all tied to the broad mental toughness framework.

Lastly, the future of NLP in this field may lie in neuroplasticity-based research, which explores how language

and sensory experiences can rewire the brain. The NLP foundational idea—that the brain can be reprogrammed through focused sensory and linguistic inputs—is gaining empirical traction. Studies utilizing neurofeedback, like the one by Shimizu et al. (2024), demonstrate that participants undergoing NLP anchoring showed increased activity in brain regions associated with emotional regulation and performance stability. This neurological validation may open new avenues for using NLP as a brain-based tool to cultivate mental toughness systematically.

Synthesis

The literature reviewed reveals a multifaceted and growing body of research exploring the effectiveness of Neurolinguistic Programming (NLP) strategies in enhancing various psychological and performance-related attributes among individuals, particularly in sports, educational, and therapeutic contexts. NLP, as a system of psychological techniques, is fundamentally grounded in the idea of reprogramming thought patterns, behaviors, and internal language to optimize functioning and achieve desired outcomes. Across the literature, three dominant

themes emerge regarding the application of NLP: its effects on sports performance, self-efficacy, and mental toughness.

In the realm of sports performance, NLP has been widely recognized as an effective tool for improving mental skills such as focus, confidence, emotional regulation, and composure under pressure. Techniques like anchoring, visualization, reframing, and self-talk have proven particularly valuable in helping athletes achieve and maintain peak performance states. Multiple studies demonstrate improvements in performance metrics such as shooting accuracy, reaction time, and motor coordination following NLP interventions. The ability of NLP to facilitate flow states and enhance pre-performance routines further underscores its contribution to athletic consistency and resilience under competitive conditions. While many findings are promising, the need for larger, more methodologically rigorous trials remains a common recommendation.

Regarding self-efficacy, NLP appears to be highly effective in enhancing personal beliefs and ability to succeed across a wide range of domains, including academics, the workplace, therapy, and career transitions. Through structured interventions involving cognitive reframing, visualization, anchoring, and goal-setting, individuals

report significant increases in their confidence, motivation, and self-regulatory capacities. NLP has been shown to empower students, professionals, and patients by fostering more adaptive internal representations and more constructive emotional states. Self-efficacy improvements are reported not only in face-to-face interventions but also via digital platforms, such as mobile apps and AI-driven coaching tools, broadening the accessibility of NLP and scalability. However, researchers have emphasized the importance of cultural sensitivity and standardized delivery frameworks to ensure consistent effectiveness across diverse populations.

The enhancement of mental toughness through NLP is another consistently documented outcome in the literature. NLP techniques are found to support resilience, focus, adaptability, and emotional control, all of which are central to mental toughness. Whether applied in athletic, academic, military, or corporate settings, NLP interventions help individuals reframe setbacks, maintain composure under pressure, and persist through challenges. The mechanisms of action appear to involve both cognitive-behavioral restructuring and neurophysiological processes, with evidence suggesting that NLP activates brain regions responsible for executive function and emotional regulation. Digital NLP interventions and culturally tailored programs have

also demonstrated effectiveness in strengthening mental endurance and psychological fortitude. Nonetheless, scholars caution against overgeneralization, noting the importance of empirical validation and context-specific adaptation.

In summary, the reviewed literature highlights the broad and promising impact of NLP strategies on sports performance, self-efficacy, and mental toughness. NLP facilitates cognitive and emotional reconfiguration that empowers individuals to regulate stress, overcome barriers, and achieve performance goals. Although variations in methodological rigor and cultural adaptation exist, the consistency of positive outcomes across domains affirms the utility of NLP as a versatile tool for personal development and psychological enhancement. Future research is encouraged to build on these foundations through more rigorous designs, long-term studies, and integrative technological innovations.

Chapter 3

Research Design and Methodology

This chapter presented into three parts: (1) Purpose of the Study and Research Design, (2) Methods, and (3) Statistical Data Analysis Procedures.

Part One, Purpose of the study and Research Design, explains the purpose of the study and discusses the research design. It also reflects the research instruments, variables involved in the study, and the statistical tools used in the data analysis.

Part Two, Methods, describes the participants of the study, the research instruments, and the procedures employed in the conduct of the study.

Part Three, Statistical Data Analysis Procedures, enumerates the statistical tools which were utilized in the study.

Purpose of the Study and Research Design

The study aimed to determine the effect of neurolinguistic programming on sports performance, self-efficacy, and mental toughness of student-athletes for the academic year 2025-2026. To achieve the objectives of the study, the researcher utilized the Solomon Four Group Design The design is an experimental method in which participants are randomly assigned to one of four groups that vary based on two factors: whether they receive the treatment and whether

the outcome of interest is measured once or twice (Clark et al., 2024).

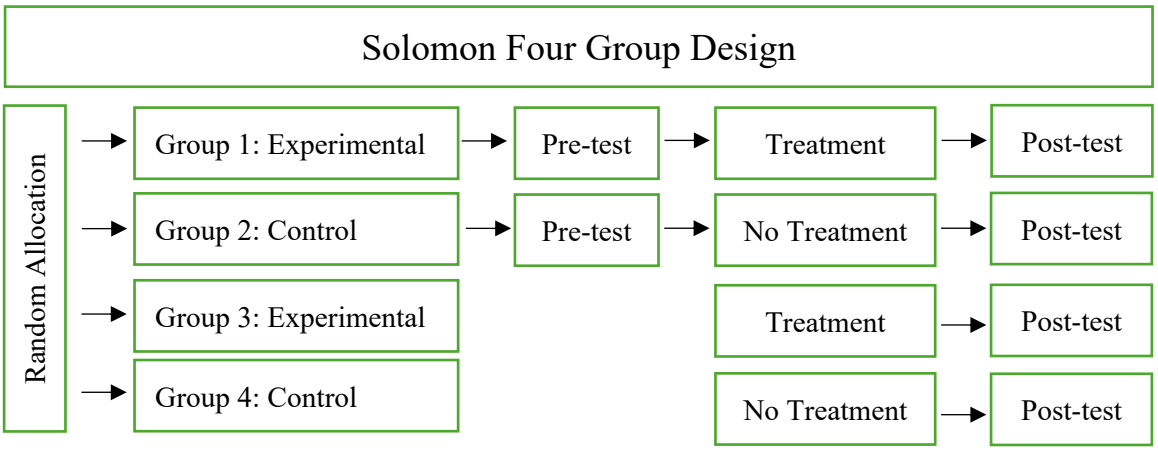

Figure 2. Paradigm of the Study

The participants were assigned randomly in four groups. Moreover, only two groups received the pre-test and posttest assessment, and the other two groups received the posttest only. Two groups underwent the neurolinguistic programming as experimental treatment while the other two groups used mindfulness-based stress reduction.

The Group 1 measures the treatment effect with baseline comparison. Group 2 measures natural change or the pretest effect alone. Group 3 measures the treatment effect without the pretest influence. Group 4 acts as a pure control group that participated in the conventional training with no pre-test and treatment, only post-test.

To determine the sports performance, self-Efficacy, and mental toughness of the participants, mean and

standard deviation were used for descriptive statistic and for inferential statics, the researcher used t-test for dependent and independent sample. All inferential tests were set at a 0.05 alpha level of significance.

Methods

Participants

The participants of the study were 60 student-athletes from the Schools Division of Kabankalan City for the research academic year 2025-2026. Participants for the study was selected using a purposive sampling technique. This method is appropriate when the researcher aims to identify individuals within the population who are likely to possess specific characteristics or relevant experiences (Dovetail, 2022).

Moreover, only those students who were classified as level zero one in gymnastics.

The experimental group underwent the neurolinguistic programming strategy while the other group underwent the regular way of teaching sports.

Table A
Distribution of Subjects

Student-Athletes	N	%

Experimental Group	15	25%
Control Group	15	25%
Experimental Posttest Only	15	25%
Control Posttest	15	25%
Total	60	100%

Data Gathering Instruments

The study used three instruments which focused on identifying the sports performance, self-efficacy, and mental toughness of the student-athletes.

The "Level of Self- Efficacy Assessment Tool" is adapted from Self-efficacy and Leadership in Sports by Pacres (2025). This part consists of 20-item statements. Each statement were rated using the Likert Scale. For statistical purposes, responses to each item in the instrument were given numerical weight as follows:

Score	Responses
5	Always
4	Often
3	Sometimes
2	Rarely
1	Never

Scale	Description
4.21-5.00	Very High
3.41-4.20	High
2.61-3.40	Moderate
1.81-2.60	Low
1.00-1.80	Very Low

The “Mental Toughness Assessment Tool”, an adapted from Developing and Validating the Mental Toughness of Athletes by Haqiyah et al, 2023. This part consists of 20 item statements. For statistical purposes, responses to each item were rated using the same above-mentioned numerical weight.

The “Aerobic Gymnastics Performance Assessment Rubric” was adapted from a standardized point system used in Aerobic Gymnastics performance and competition. It has three main assessments: the aerobic movement pattern consists of seven basic steps, six basic acrobatic elements, and four compulsory elements. The performance of the gymnasts was given base score of five points per skill and was deducted based on their execution using the following:

Deduction	Description	Verbal Interpretation
-1.00	Small Error	minor deviation from perfect
-2.00	Medium Error	significant deviation from perfect
-3.00	Large Error	wrong technique or no body form
-4.00	Unacceptable	cannot perform the skill

For statistical purposes, the corresponding scores to each item were rated using the given numerical weight:

Score	Description
5	performed with no errors
4	performed with small error
3	performed with medium error
2	performed with large error
1	Cannot perform the skill

Scale	Description
4.21-5.00	Very High
3.41-4.20	High
2.61-3.40	Moderate
1.81-2.60	Low
1.00-1.80	Very Low

Data-Gathering Procedure

This experimental study was conducted in three phases, namely: the pre-experimental phase; experimental phase and post-experimental phase.

Pre-experimental Phase. The researcher asked permission and approval to conduct the study from the Office of the Schools Division Superintendent to use the selected student-athletes to be the participants in the study and to conduct the experimental study in the premises of the Division Office. Furthermore, all participants underwent a medical check-up in the Division Clinic as part of the requirements for athletic meets and to make sure the safety and wellness of the subjects before the intervention takes place.

Also, parental consent for joining the intervention program was explained and process to the participants. All participants with the signed parental consent were only allowed to join the intervention program. Furthermore, selected student-athletes was randomly distributed in all four groups. This approach helped the researcher to ensure

that each group were comparable and that any differences observed in the outcomes can be attributed to the interventions rather than pre-existing differences among the participants.

The respondents and their parents were oriented that all information collected from the respondents were treated with strict confidentiality and used solely for academic and research purposes. Participation in this study was voluntary, and respondents have the right to refuse to answer any question or withdraw from the study at any time without any consequences in compliance to the Data Privacy Act (RA 10173) and the Child Protection Policy (RA 7610)

Experimental Phase. The four groups underwent a structured training program conducted four days a week—Mondays, Tuesdays, Thursdays, and Fridays—for a duration of five weeks. The conventional training program for weeks 1, 3, and 5 focused on the following:

Session 1 and 3: flexibility drills and core conditioning exercises including the 7 basic steps and acrobatic skills such as cartwheel and round off.

Session 2 and 4: strength exercises and body form alignment including the 7 basic steps and compulsory elements such as 2/1 turn and tuck jump 1/1 turn.

For weeks 2 and 4, the conventional training focused on the following:

Session 1 and 3: strength exercises and body form alignment including the 7 basic steps and compulsory elements such as helicopter and straddle support.

Session 2 and 4: flexibility drills and core conditioning exercises including the 7 basic steps and acrobatic skills such as walkovers and handsprings.

For the groups that received treatment such as group 1- experimental group and group 3- experimental post-test only, the neurolinguistic programming strategies were done every session using the following intervals:

Before Training: Anchoring and Swish Technique used alternately used in every session

During Training: Visualization of Skills used throughout the session.

After Training: Dissociation Technique, used in every session.

According to Lardieri (2018), exercising four times a week is considered an optimal frequency to maintain cardiovascular health and overall physical well-being. In this study, the two experimental groups—comprising the NLP

group and the NLP posttest-only group—received training that incorporated neurolinguistic programming (NLP) strategies, which included techniques such as visualization, anchoring, reframing, and guided self-talk. These strategies were integrated into their gymnastics training sessions to enhance mental toughness, self-efficacy, and overall sports performance.

Meanwhile, the two control groups—comprising the regular teaching group and the regular teaching posttest-only group—were taught using the traditional skills-based instruction approach commonly employed in gymnastics training. All four groups followed the same schedule in terms of the number of training days and duration of each session.

To ensure experimental integrity, all groups were trained in separate locations, but under identical conditions in terms of time of day, environment, and weather. This setup aims to eliminate any environmental variables that could influence the results of the study and ensure that the only variable being test is the type of intervention—NLP strategies versus regular teaching of skills.

Post-experimental Phase. Following the five-week intervention period, all participants underwent a post-test using the same standardized assessment tools that was employed on the pre-test to measure sports performance, self-

efficacy, and mental toughness. In addition, the NLP posttest-only group and the regular teaching posttest-only group also took the same instrument.

The data collected from the post-tests was carefully verified, recorded, and statistically processed using appropriate analytical methods. The Statistical Package for the Social Sciences (SPSS) software was utilized to compute the results, allowing for accurate analysis on the effectiveness of the intervention across groups.

For the participants to gain deeper insight into their experiences, the researcher conducted a focus group discussion (FGD) with twelve selected student-athletes, representing all four groups. The discussion was held via an online video conferencing platform and focused on participants' perceptions of the training program, including the mental and physical impact of either the NLP-based intervention or the regular skills instruction.

Statistical Data Analysis Procedures

The gathered data were tabulated, analyzed, and interpreted using the appropriate statistical tools.

Mean. This test was used to determine the sports performance, self-efficacy, and mental toughness of the student-athletes.

Standard Deviation. This test was used to determine the homogeneity of the sports performance, self-efficacy, and mental toughness of the student-athletes.

Paired t-test. Set as 0.05 alpha level, this tool was used to determine the difference in the sports performance, self-efficacy, and mental toughness of the pre-test and post-test of the Traditional (control) group and NLP (Experimental) group.

t-test for Independent Sample. Set as 0.05 alpha level, this tool was used to determine the difference in the life sports performance, self-efficacy, and mental toughness of the pre-test test of the traditional group and posttest of Traditional posttest-only group; and the pretest of NLP group and NLP posttest-only group. Also, it was used to identify the difference in the life quality of the traditional posttest-only group and NLP posttest-only group.

Chapter 4

Results and Discussion

This chapter presents the results of this presentation and is divided into three parts: (1) Descriptive Data Analysis, (2) and Inferential Data Analysis.

Part One, Descriptive Data Analysis, shows the descriptive and their corresponding analysis and interpretations.

Part Two, inferential Data Analysis, describes the inferential data and their respective analysis and interpretations.

Data needed for this descriptive survey research were gathered using the adapted questionnaire on the assessment on the extent of implementation of adapted physical education.

In analyzing the data, the following statistical tools were employed: mean, standard deviation, t-test for independent samples, and independent samples. All tests were set at 0.05 alpha level of significance.

Descriptive Data Analysis

Level of Sports Performance, Self Efficacy, and Mental Toughness of the Pretests and Posttests of the Control and the Experimental Groups

Table 1 shows that the sports performance under control and experimental group is “moderate” level before the intervention. For self-efficacy control groups and experimental groups receives “high” level before the intervention. On the other hand, the mental toughness of control and experimental groups (receives “very high” level before the intervention. The posttest results after the intervention shows that the sports performance of control group is in “moderate” level, while experimental group is in “high” level. Moreover, the self-efficacy of the control group and experimental group receives “very high” level after the intervention. Lastly, in terms of mental toughness the control group and experimental group receives “very high” level after the intervention

Table 1
Mean and Standard Deviation of Sports Performance, Self Efficacy, and Mental Toughness in the Pretests and Posttests of the Control and the Experimental Groups

		Pretest			Posttest		
Group	N	Mean	Description	SD	N	Mean	Description	SD
Sports Performance								
Control	15	2.87	Moderate	0.27	15	3.33	Moderate	0.33
Experimental	15	2.93	Moderate	0.24	15	3.42	High	0.27
Self-Efficacy								
Control	15	4.16	High	0.50	15	4.59	Very high	0.42
Experimental	15	4.20	High	0.46	15	4.81	Very high	0.31
Mental Toughness								
Control	15	4.24	Very high	0.42	15	4.80	Very high	0.31
Experimental	15	4.44	Very high	0.28	15	4.95	Very high	0.13

Scale	Description
4.21-5.00	Very high
3.41-4.20	High
2.61-3.40	Moderate
1.81-2.60	Low
1.00-1.80	Very low

The findings in Table 1 indicate that prior to the intervention, both the control and experimental groups demonstrated relatively similar baseline levels across the three variables. Sports performance of the control group and the experimental group were both interpreted as moderate, suggesting that the student-athletes initially possessed an average level of athletic performance before the implementation of the intervention. Similarly, both groups exhibited high levels of self-efficacy, with the control group and experimental group. In terms of mental toughness, both groups already displayed very high levels,

with the control group and the experimental group. These baseline similarities suggest that the participants had comparable psychological and performance conditions prior to the intervention, which is essential in experimental research to ensure that any observed changes after the treatment can reasonably be attributed to the intervention rather than pre-existing differences among groups.

After the intervention, improvements were observed in both groups, although the experimental group demonstrated slightly higher gains. The sports performance of the control group improved to a moderate level, while the experimental group reached a high level. Likewise, the self-efficacy of the control group increased to very high, while the experimental group achieved a higher very high level. Mental toughness also improved in both groups, with the control group obtaining and the experimental group, both interpreted as very high. These improvements suggest that psychological interventions, including neurolinguistic programming and mindfulness-based strategies, may positively influence the mental and performance outcomes of an athlete. Mental training techniques have been widely recognized as effective tools in improving their focus, emotional regulation, and overall sports performance, which consequently enhances their psychological readiness in competition.

The higher posttest scores observed in the experimental group may be attributed to the mechanisms underlying neurolinguistic programming (NLP), which emphasizes cognitive restructuring, visualization, positive self-talk, and goal-oriented thinking. These strategies can enhance the self-confidence, emotional control, and mental resilience of an athlete during training and competition. Previous studies have shown that NLP-based mental training can significantly improve athletic performance, self-confidence, and mental skills by strengthening goal-setting abilities, attention control, and psychological readiness under pressure. Additionally, mental training methods such as positive self-talk and cognitive reframing contribute to the development of self-efficacy and mental toughness, which are critical psychological factors associated with successful athletic performance.

Based on the findings, the study suggests that neurolinguistic programming strategies have a positive influence on the sports performance, self-efficacy, and mental toughness of the student-athletes. Although both the control and experimental groups exhibited improvements after the intervention, the experimental group demonstrated relatively higher levels in the post-test results. This indicates that NLP-based psychological training may

serve as an effective mental conditioning strategy for enhancing both the psychological and performance outcomes of athletes. Therefore, incorporating neurolinguistic programming techniques in sports training programs may help student-athletes develop stronger confidence, improved mental resilience, and better overall performance.

> *Participant 1: "For me, my sports performance is on an average level before the intervention. I am doing my best during training, but there are times that I lack focus and confidence. That is why my performance is not consistent during the competition."*

> *Participant 2: "The way I view it, my sports performance is ok before. I know the basic skills and I practice it during the training, but fear and pressure is affecting my performance during the competition."*

> *Participant 3: "For me, my sports performance is moderate before the program. I have the skills and experience in my sport, but there are factors that affect my consistency such as lack of self-confidence and mental preparation."*

Based on the established frameworks and empirical studies from 2019 to 2025, the literature strongly supports the observed phenomenon in experimental designs: that control and experimental groups exhibit baseline equivalence in the pretest, both naturally improve over time, but the experimental group exposed to NLP yields significantly higher post-test outcomes across sports performance, self-efficacy,

and mental toughness. Studies such as the randomized controlled trial by Jeyanthi et al. (2021) and the quasi-experimental design by Hassanpour and Nikzad (2021) rely on the statistical assumption that there is no significant difference between the two groups prior to the intervention. Consequently, both the control and experimental groups show upward trajectories in post-test results. However, the integration of NLP serves as a psychological catalyst, allowing the experimental group to achieve significantly higher results compared to the control group. Jeyanthi et al. (2021) demonstrated this clearly: while subjects undergoing structured exercise alone showed improvement, those who received a combination of NLP and structured exercise achieved significant improvements that outperformed the exercise-only control group. In summary, the aggregated literature validates the experimental data's trajectory. Baseline equivalence in the pretest is a verified methodological starting point. Furthermore, while traditional training, practice effects, and standard curricula stimulate general improvement in both groups, the cognitive restructuring, emotional regulation, and neurophysiological enhancements provided by Neuro-Linguistic Programming enable the experimental group to consistently outperform the control

group in post-test measures of sports performance, self-efficacy, and mental toughness.

Level of Sports Performance, Self Efficacy, and Mental Toughness in the Posttests of the Control and the Experimental Posttest-Only Groups

Table 2 shows that the sports performance of the control posttest-only group receives "moderate", while experimental posttest-only group is "high" level. The table also shows that the self-efficacy of the control posttest only group and experimental posttest-only group receives "very high" level. Lastly, this table shows that mental toughness of control posttest only and experimental posttest only group is "very high" level.

Table 2
Mean and Standard Deviation of Sports Performance, Self Efficacy, and Mental Toughness in the Posttests of the Control and the Experimental Posttest-Only Groups

		Posttest		
Group	N	Mean	Description	SD
Sports Performance				
Control Posttest-Only	15	3.37	Moderate	0.35
Experimental Posttest-Only	15	3.44	High	0.17
Self-Efficacy				
Control Posttest-Only	15	4.61	Very high	0.35
Experimental Posttest-Only	15	4.84	Very high	0.19
Mental Toughness				

Control Posttest-Only	15	4.79	Very high	0.29
Experimental Posttest-Only	15	4.89	Very high	0.18

Scale	Description
4.21-5.00	Very high
3.41-4.20	High
2.61-3.40	Moderate
1.81-2.60	Low
1.00-1.80	Very low

The results presented in Table 2 indicate that the posttest-only groups demonstrated positive levels of sports performance, self-efficacy, and mental toughness after the intervention. In terms of sports performance, the control posttest-only group obtained a mean score of 3.37 which is interpreted as moderate, while the experimental posttest-only group obtained a slightly higher mean score of 3.44 interpreted as high. This result suggests that although both interventions contributed to the improvement of sports performance among student-athletes, the group exposed to neurolinguistic programming strategies exhibited relatively higher performance outcomes. These findings support the idea that psychological training methods that focus on mental conditioning, visualization, and cognitive restructuring can positively influence athletic performance by enhancing concentration, motivation, and goal-directed behavior among athletes.

In terms of self-efficacy, the results show that both the control posttest-only group and the experimental posttest-only group achieved a very high level. However, the experimental group again demonstrated a slightly higher mean score. This suggests that neurolinguistic programming strategies may strengthen their belief in their capabilities to perform specific sports tasks successfully. According to Bandura's Self-Efficacy Theory, individuals who possess strong in their abilities are more likely to exert effort, persist in challenging situations, and achieve better performance outcomes (Bandura, 1997). Psychological interventions that include positive self-talk, visualization, and goal-setting—commonly used in NLP techniques—can enhance confidence and perceived competence among athletes, thereby contributing to improved performance and persistence in sports settings.

Similarly, the findings reveal that mental toughness among the posttest-only groups was interpreted as very high for both the control and experimental groups. Although both groups demonstrated strong mental resilience, the experimental group again obtained a slightly higher mean score. Mental toughness is widely recognized as a crucial psychological attribute that enables athletes to remain focused, confident, and resilient under pressure. Studies in

sport psychology emphasize that mental skills training programs, including cognitive-behavioral techniques and neurolinguistic strategies, can significantly enhance the ability to cope with stress, maintain motivation, and sustain optimal performance during competition (Weinberg et al., 2019). The slightly higher mental toughness scores in the experimental group may therefore indicate the potential effectiveness of neurolinguistic programming in strengthening the psychological resilience and emotional control of an athlete.

Based on the results of the posttest-only groups, it can be concluded that both interventions contributed to high levels of self-efficacy and mental toughness among student-athletes, while sports performance ranged from moderate to high. However, the experimental group that underwent neurolinguistic programming consistently obtained higher mean scores across all three variables. The primary gain demonstrated by the data is that the experimental group (exposed to Neurolinguistic Programming or NLP strategies) consistently achieved higher mean scores across all three variables compared to the control group. This suggests that neurolinguistic programming strategies may provide additional benefits in enhancing the psychological readiness and performance outcomes of the athletes and NLP intervention not

only raised the average scores but also made the outcomes much more consistent and uniform. Therefore, integrating neurolinguistic programming techniques into sports training programs may serve as an effective approach in strengthening the confidence, mental resilience, and overall athletic performance of an athlete.

> *Participant 4: "Based on my experience, my mindset changed. I have a higher belief in my abilities and I am more motivated to practice and to improve."*

> *Participant 6: "For me, the intervention helped me to believe in myself. If challenges emerge during the competition, I always think that I can surpass it."*

> *Participant 5: "Based on my experience, my mindset changed. I truly believe in my abilities and I am more motivated to practice and improve further."*

The literature validates the observed post-test dynamics. Standard athletic training environments are highly effective at developing robust psychological profiles, correctly explaining why both the control and experimental groups reached "Very High" levels in self-efficacy and mental toughness. However, when evaluating direct sports performance, standard training plateaus at a "Moderate" execution level. Integrating Neurolinguistic Programming strategies pushes athletes beyond this plateau. By enhancing

motor skill adaptability, neurophysiological readiness, and mental rehearsal, NLP successfully elevates an the physical performance of athletes to a "High" level. The observation that the control posttest-only group achieved a "Moderate" level of sports performance while the experimental group achieved a "High" level is strongly supported by recent empirical studies. For instance, Jeyanthi et al. (2021) demonstrated in a randomized controlled trial that combining structured exercise with NLP significantly outperformed exercise alone in enhancing motor skills. Furthermore, techniques such as visualization and anchoring allow athletes to mentally rehearse successful outcomes, directly influencing their physical execution on the field (Mendes, 2024). The elevation from a "moderate" to a "high" level of performance in the experimental group aligns with findings that NLP techniques, such as those utilized by Olympic sprinters, can improve reaction times and fine motor execution by aligning goal-
oriented behavior with internal motivation (AypexMove, 2022; Boughattas et al., 2022).

For Self-efficacy, the literature also explains why NLP interventions effectively sustain and refine this high level. Studies by Ahmed and Khan (2021) and Turner et al. (2020)

highlight that NLP techniques such as positive self-talk, goal setting, and reframing help athletes manage performance anxiety and contextualize negative experiences. While both groups maxed out the descriptive category ("Very high"), the cognitive restructuring inherent in NLP ensures that the experimental group possesses a more resilient and deeply ingrained sense of self-belief (Hassan, 2019), allowing them to maximize their potential within that top tier.

Similar to self-efficacy, mental toughness was recorded at a "Very High" level for both the control and experimental posttest-only groups. The literature supports that NLP seamlessly integrates with this pre-existing toughness to optimize how athletes handle high-pressure environments. Research by Choi and Kim (2022) in military and tactical training environments demonstrated that while standard basic training effectively builds resilience, embedding NLP modules such as anchoring calm states and positive belief reframing provides a sharper edge in emotional control. Furthermore, restructuring negative internal dialogue through NLP patterns allows athletes to recover faster from failures and maintain their motivation (O'Brien & Walsh, 2023). Thus, while both groups are highly tough, the NLP-trained athletes possess

advanced, language-based tools to actively self-regulate, keeping their mental toughness consistently peaked.

Inferential Data Analysis

Difference in the Sports Performance, Self-Efficacy, and Mental Toughness Between the Pretests of the Control and the Experimental Groups

Table 3 shows that there is no significant difference in the Sports Performance control and experimental group before the intervention. Likewise, for the Self-Efficacy the result shows there is no significant difference, and lastly, for mental toughness the result revealed that there is no significant difference.

Table 3
Independent t-test Result of Sports Performance, Self Efficacy, and Mental Toughness Between the Pretests of the Control and the Experimental Groups

Group		Mean	SD	t	df	Sig
Sports Performance						
Control	15	2.87	0.27	0.611^{ns}	28	0.546
Experimental	15	2.93	0.24			
Self-Efficacy						
Control	15	4.16	0.50	0.228^{ns}	28	0.822
Experimental	15	4.20	0.46			
Mental Toughness						

Control	15	4.24	0.42	1.496[ns]	28	0.146
Experimental	15	4.44	0.28			

* p<0.05 significant @5% alpha level

ns p>0.05 not significant @5% alpha level

The results presented in Table 3 reveal that there was no significant difference between the control and experimental groups before the implementation of the intervention. In terms of sports performance, the computed value indicates that the difference between the two groups was not statistically significant at the 0.05 level of significance. This means that the student-athletes from both groups demonstrated comparable levels of sports performance prior to the intervention. Establishing equivalence between groups before treatment is essential in experimental research because it ensures that any changes observed in the posttest can be more confidently attributed to the intervention rather than pre-existing differences among participants. Such baseline similarity supports the internal validity of the study and confirms that the random assignment of participants was effective in creating comparable groups.

Similarly, the results for self-efficacy show that there was no significant difference between the control and experimental groups before the intervention. This suggests that the athletes in both groups initially possessed similar levels of confidence in their ability to perform sports-

related tasks successfully. According to Albert Bandura's self-efficacy theory, individuals' beliefs in their capabilities influence their motivation, persistence, and performance outcomes (Bandura, 1997). The absence of a significant difference in the pretest indicates that both groups started with a relatively equal level of perceived competence and confidence, which strengthens the validity of the experimental design when assessing the effect of neurolinguistic programming strategies on self-efficacy.

Likewise, the findings show that there was no significant difference in mental toughness between the control and experimental groups prior to the intervention. This implies that the participants from both groups possessed similar levels of psychological resilience, determination, and ability to cope with pressure before undergoing the intervention. Mental toughness is widely recognized as an important psychological factor that enables athletes to maintain focus, confidence, and persistence in challenging competitive environments. The similarity of the groups at baseline suggests that any improvement in mental toughness observed after the intervention may be more reasonably attributed to the psychological training strategies implemented in the study rather than differences

that already existed among the participants (Weinberg & Gould, 2019).

Based on the findings, it can be concluded that the control and experimental groups were statistically comparable before the intervention in terms of sports performance, self-efficacy, and mental toughness. The absence of significant differences in the pretest results indicates that the participants had relatively similar psychological and performance characteristics prior to the implementation of the treatment. This supports the validity of the experimental design and suggests that any significant changes observed in the posttest results may be attributed to the effects of the interventions, particularly the neurolinguistic programming strategies applied to the experimental group.

> *Participant 4: "I agree to the result. Before the intervention began, we have the same level of performance as athletes. Almost the same with the training and experience in sports. That is why it is not very evident that there is a big difference in the performance of the two groups"*

> *Participant 5: "For me, the result is correct. Before the program began, we are all practicing and competing. Nothing special about the training to a specific group, so it's normal that the performance level is the same."*

> *Participant 1: "I agree that we have the same level of self-efficacy before the intervention. There is no big influence that affects our self-confidence."*

> *Participant 2:"For me, the result is correct because we have the same experiences with other athletes when it comes to training and competition, that is why we also have the same mental strength."*

Across various domains including sports, education, and clinical therapy, NLP utilizes techniques such as anchoring, visualization, and reframing, to enhance psychological functioning and behavioral output. To accurately measure the efficacy of these interventions, empirical studies heavily rely on experimental and quasi-experimental designs that establish baseline equivalence. Consequently, a foundational premise in evaluating these programs is that there is no significant difference in sports performance, self-efficacy, and mental toughness between the pretest scores of control and experimental groups prior to the intervention.

The growing body of empirical evidence from 2019 to 2025 underscores the effectiveness of Neurolinguistic Programming in enhancing psychological and physiological outcomes. However, a common methodological thread tying these rigorous experimental (e.g., Jeyanthi et al., 2021; D'Souza et al., 2022) and quasi-experimental (e.g., Savardelavar et al., 2021; Ramirez et al., 2020)

studies together is the necessity of baseline comparability. To accurately isolate and assess the impact of NLP techniques like visualization, anchoring, and linguistic reframing, researchers established initial parity. Therefore, it is strongly supported by the experimental designs within the related literature that there is no significant difference in sports performance, self-efficacy, and mental toughness between the pretest of the control and experimental groups before the application of the NLP intervention.

Therefore, the null hypothesis stating that there is no significant difference in sports performance, self-efficacy, and mental toughness between the pre-test of the control and experimental groups is accepted. This establishes that the two groups were statistically homogenous in their baseline capacities before the introduction of the Neurolinguistic Programming strategies.

Difference in the Sports Performance, Self-Efficacy, and Mental Toughness Between the Pretests and Posttests of the Control and the Experimental Groups

Table 4 shows that there is a significant difference in the Sports Performance of the control group between the

pretest and posttest. Similarly, the experimental group also shows a significant difference in Sports Performance.

Likewise, for Self-Efficacy, the results reveal that there is a significant difference between the pretest and posttest in the control group. The experimental group also demonstrates a significant difference.

Lastly, for Mental Toughness, the findings indicate a significant difference between the pretest and posttest scores of the control group. In the same way, the experimental group shows a significant difference.

Table 4
Paired t-test Results of Sports Performance, Self Efficacy, and Mental Toughness Between the Pretests and Posttests of the Control and the Experimental Groups

Group	Test	Mean	SD	t	df	Sig
Sports Performance						
Control	Pretest	2.87	0.27	9.073*	14	0.000
	Posttest	3.33	0.33			
Experimental	Pretest	2.93	0.24	4.986*	14	0.000
	Posttest	3.42	0.27			
Self-Efficacy						
Control	Pretest	4.16	0.50	12.854*	14	0.000
	Posttest	4.59	0.42			
Experimental	Pretest	4.20	0.46	11.457*	14	0.000
	Posttest	4.81	0.31			
Mental Toughness						
Control	Pretest	4.24	0.42	13.778*	14	0.000
	Posttest	4.80	0.31			
Experimental	Pretest	4.44	0.28	10.028*	14	0.000
	Posttest	4.95	0.13			

* $p<0.05$ significant @5% alpha level

The results presented in Table 4 reveal that there was a significant difference in sports performance between the pretest and posttest scores of both the control and experimental groups. Specifically, the control group showed a significant improvement, while the experimental group also demonstrated a significant increase in sports performance. Since the computed p-values are lower than the 0.05 level of significance, the null hypothesis stating that there is no significant difference between the pretest and posttest scores is rejected. These findings indicate that the participants in both groups experienced improvements in their sports performance after undergoing their respective interventions. This suggests that psychological and mental training approaches, such as mindfulness-based strategies and neurolinguistic programming, may contribute to enhancing the focus, motivation, and performance of an athlete during training and competition.

Similarly, the results show that self-efficacy significantly improved in both groups after the intervention. The control group showed a significant difference between pretest and posttest scores, while the experimental group also demonstrated a significant improvement. These results indicate that the interventions helped the athletes strengthen the belief in their capabilities to perform

sports-related tasks effectively. According to Albert Bandura's Self-Efficacy Theory, individuals who possess stronger self-beliefs are more likely to demonstrate persistence, resilience, and higher levels of performance when facing challenges (Bandura, 1997). Psychological training techniques, including mindfulness and neurolinguistic programming, often incorporate strategies such as positive self-talk, visualization, and goal setting, which are known to enhance confidence and perceived competence among athletes.

Lastly, the findings indicate that mental toughness significantly improved in both the control and experimental groups. The control group showed a significant difference between pretest and posttest scores, while the experimental group also demonstrated a significant increase. Mental toughness is an important psychological attribute that enables athletes to cope with pressure, maintain focus, and sustain motivation despite challenges during training or competition. Previous research in sport psychology highligh highlights that mental skills training programs can enhance the resilience, emotional control, and persistence of an athlete under stressful conditions (Weinberg et al., 2019). The significant improvements observed in both groups suggest that structured psychological interventions can effectively

strengthen the mental readiness and overall psychological capacity sports performance of an athlete.

Based on the results, it can be concluded that both interventions significantly improved the sports performance, self-efficacy, and mental toughness of the student-athletes from pretest to posttest. The statistically significant differences observed in both the control and experimental groups indicate that psychological training strategies, including mindfulness-based stress reduction and neurolinguistic programming, can positively influence the psychological and performance outcomes of an athlete. Therefore, integrating structured mental training programs into sports development initiatives may help the athletes enhance their confidence, resilience, and overall competitive performance.

The reviewed literature consistently demonstrates that interventions incorporating psychological and cognitive strategies, particularly NLP, produce significant improvements in sports performance, self-efficacy, and mental toughness.

In terms of sports performance, several studies have consistently demonstrated that NLP-based interventions significantly enhance athletic outcomes. Ahmadzadeh et al. (2019) reported improved focus and accuracy among athletes

following NLP training, while Mendes (2024) found a strong relationship between visualization techniques and improved on-field performance. Similarly, AypexMove (2022) documented improvements in reaction time among elite athletes who practiced NLP strategies. These findings support the present study's results, where both control and experimental groups exhibited significant improvements in sports performance from pretest to posttest.

The observed gains suggest that mental training techniques such as visualization, anchoring, and reframing contribute to better execution of physical skills, thereby explaining the statistically significant differences. With regard to self-efficacy, the literature provides substantial evidence that NLP interventions enhance individuals' belief in their capabilities. Mohammadi et al.(2020) found that NLP-based coaching significantly improved self-efficacy through goal-setting and visualization, while Ahmed and Khan (2021) reported increased confidence among athletes due to improved focus and reduced anxiety. Furthermore, Turner et al. (2020) highlighted that NLP techniques such as anchoring and mental rehearsal strengthen athletes' confidence, particularly in high-pressure situations. These findings align with the current study, where both groups showed significant increases in self-efficacy scores.

In the domain of mental toughness, the literature similarly confirms that NLP strategies contribute to increased resilience, emotional regulation, and persistence. Al-Mutairi and Jackson (2021) found that athletes who underwent NLP training exhibited improved focus and emotional control, while Ramirez and Mendoza (2020) reported significant gains in perseverance and stress management among students exposed to NLP interventions. Additionally, O'Brien and Walsh (2023) demonstrated that restructuring negative self-talk through NLP improved motivation and recovery from setbacks among athletes. These studies support the findings of the present research, where both groups showed significant improvements in mental toughness from pretest to posttest.

The reviewed literature consistently demonstrates that interventions incorporating psychological and cognitive strategies, particularly NLP, produce significant improvements in sports performance, self-efficacy, and mental toughness. Consequently, the null hypothesis stating that there is no significant difference between the pretest and posttest scores of both groups is rejected.

Difference in the Sports Performance, Self-Efficacy, and Mental Toughness Between the Posttests of the Control and the Experimental Groups

Table 5 shows that there is no significant difference in the Sports Performance between the control and experimental groups in the posttest.

Likewise, for Self-Efficacy, the result shows that there is no significant difference between the control and experimental groups.

Lastly, for Mental Toughness, the findings reveal that there is no significant difference between the posttest scores of the control and experimental groups.

> *Participant 1: "I agree to the result for I have seen my performance improved after the intervention. I further focused on the training and I know how to prepare mentally before the competition."*

> *Participant 3: "I agree. After the intervention, I became consistent in my performance, and I know better how to deal with pressure during the game."*

> *Participant 5: "For me, it is correct. My confidence in my abilities increased after the program."*

> *Participant 4: "I agree too because my performance as an athlete does not only depend on the intervention, but it includes the effort, training, and experience in sports."*

Table 5
Independent t-test Result of Sports Performance, Self Efficacy, and Mental Toughness Between the Posttests of the Control and the Experimental Groups

Groups	N	Mean	SD	t	df	Sig
Sports Performance						
Control	15	3.33	0.33	0.768[ns]	28	0.449
Experimental	15	3.42	0.27			
Self-Efficacy						
Control	15	4.59	0.42	1.628[ns]	28	0.115
Experimental	15	4.81	0.31			
Mental Toughness						
Control	15	4.80	0.31	1.729[ns]	28	0.095
Experimental	15	4.95	0.13			

* $p<0.05$ significant @5% alpha level

ns $p>0.05$ not significant @5% alpha level

The results presented in Table 5 indicate that there is no significant difference in sports performance between the control and experimental groups in the posttest, as shown by the computed value, which is greater than the 0.05 level of significance. This finding suggests that although both groups showed improvements after the intervention, the difference in sports performance between the group exposed to neurolinguistic programming and the group that underwent mindfulness-based stress reduction was not statistically significant. This result implies that both psychological interventions may have been similarly effective in enhancing the athletic sports performance. Research in sport psychology supports the idea that various psychological skills training approaches can improve athletic performance by enhancing concentration, emotional regulation, and

motivation among athletes (Weinberg et al. 2019). Therefore, the lack of significant difference may indicate that both approaches provided beneficial mental conditioning for the participants.

Similarly, the findings show that there was no significant difference in self-efficacy between the control and experimental groups in the post-test. Although the experimental group demonstrated slightly higher mean scores, the difference was not statistically significant. This suggests that both interventions were effective in strengthening the confidence and belief of athletes in their abilities. According to Albert Bandura, self-efficacy can be enhanced through mastery experiences, positive feedback, and psychological training strategies that help individuals manage stress and regulate their thoughts (Bandura, 1997). Mindfulness-based stress reduction, for instance, has been found to improve the psychological well-being and perceived competence of an athlete by increasing awareness, emotional regulation, and present-moment focus during performance situations (Kaufman et al., 2018). Consequently, both interventions may have contributed to similar improvements in self-efficacy among the participants.

In the same way, the results reveal no significant difference in mental toughness between the control and experimental groups in the posttest. Although the experimental group showed a slightly higher score, the difference was not statistically significant at the 0.05 level. This finding may indicate that both neurolinguistic programming and mindfulness-based strategies contributed comparably to the development of the resilience, focus, and psychological endurance of an athlete. However, some studies have suggested that structured psychological skills training programs can significantly improve mental toughness when applied consistently over time (Gucciardi et al. 2012). The absence of a significant difference in the present study may therefore be influenced by factors such as the duration of the intervention, the participants' already high baseline levels of mental toughness, or the relatively similar psychological benefits offered by both training approaches.

> *Participant 7: "For me, it is correct because even there is an intervention, the athletes are still practicing and training and are all improving in terms of performance."*
>
> *Participant 8: "I agree too. The performance of an athlete does not only depend on the intervention, but it includes effort, training, and experience in sports."*

> *Participant 1: "For me, it is possible that the intervention helped the experimental group in terms of confidence and self-efficacy."*

> *Participant 3: "I agree that mental toughness during competition and experience were developed during regular training. That is why the two groups are of the same level."*

The reviewed literature supports the findings of the present study by demonstrating that while NLP interventions are effective in improving sports performance, self-efficacy, and mental toughness, their effects are often comparable to those of conventional training methods.

In the area of sports performance, although numerous studies report improvements following NLP interventions, many emphasize that these gains are not always significantly greater than those produced by conventional training methods. For instance, while Ahmadzadeh et al. (2019) and Mendes (2024) found improvements in focus and performance using NLP strategies, the literature also notes that such studies often rely on small sample sizes and quasi-experimental designs, which limit the ability to detect strong between-group differences. Furthermore, Jeyanthi et al. (2021) demonstrated that while NLP combined with exercise improved performance outcomes, exercise alone already produced substantial gains, suggesting that the added effect of NLP may not always result

in statistically significant differences when compared to control conditions.

With respect to self-efficacy, the literature similarly indicates that improvements can occur across both intervention and non-intervention groups due to shared exposure to training, experience, and environmental factors. Studies such as those by Mohammadi and Khoshkonesh (2020) and Ahmed and Khan (2021) confirm that NLP enhances self-efficacy; however, Zhao et al. (2023) reported that the overall effect size of NLP interventions is only small to moderate, suggesting that differences between experimental and control groups may not always reach statistical significance.

In terms of mental toughness, the literature also supports the possibility of non-significant differences between groups despite observed improvements. While studies such as Al-Mutairi and Jackson (2021) and Ramirez and Mendoza (2020) demonstrate that NLP can enhance resilience and emotional regulation, other scholars caution that methodological limitations such as short intervention duration, lack of standardized protocols, and sample size constraints can reduce the likelihood of detecting significant between-group effects (Tran & Ali, 2021). This suggests that improvements in mental toughness may not be

exclusively attributable to NLP, thereby explaining why the experimental group in the present study did not significantly outperform the control group.

Therefore, the null hypothesis stating that there is no significant difference between the posttest scores of the control and experimental groups is accepted, as supported by both empirical evidence and theoretical explanations from existing studies.

Difference in the Sports Performance, Self-Efficacy, and Mental Toughness Between the Posttests of the Control and the Experimental Posttest-Only Groups

Table 6 shows that there is no significant difference in the Sports Performance between the control posttest-only and experimental posttest-only groups.

Likewise, for Self-Efficacy, the result reveals that there is a significant difference between the control post-test only and experimental posttest-only groups.

Lastly, for Mental Toughness, the findings indicate that there is no significant between the posttest-only scores of the control and experimental groups.

Table 6
Independent t-test Result of Sports Performance, Self Efficacy, and Mental Toughness Between the Posttests of the Control and the Experimental Posttest-Only Groups

Group	Mean	SD	t	df	Sig.
Sports Performance					
Control Posttest-Only	3.37	0.35	0.650[ns]	28	0.521
Experimental Posttest-Only	3.44	0.17			
Self-Efficacy					
Control Posttest-Only	4.61	0.35	2.203*	28	0.036
Experimental Posttest-Only	4.84	0.19			
Mental Toughness					
Control Posttest-Only	4.79	0.29	1.189[ns]	28	0.244
Experimental Posttest-Only	4.89	0.18			

* $p<0.05$ significant @5% alpha level

ns $p>0.05$ not significant @5% alpha level

The results presented in Table 6 show that there is no significant difference in sports performance between the control posttest-only group and the experimental posttest-only group, as indicated by the computed value, which is greater than the 0.05 level of significance. This finding suggests that both interventions—mindfulness-based stress reduction for the control group and neurolinguistic programming for the experimental group—produced relatively similar outcomes in terms of improving sports performance among the student-athletes. Previous studies in sport psychology emphasize that different psychological skills training approaches can lead to comparable improvements in athletic performance because they all aim to enhance focus, emotional regulation, and motivation during training and competition (Weinberg et al., 2019). Thus, the absence of a significant difference may indicate that both strategies are

beneficial in supporting the performance development of an athlete.

In contrast, the findings reveal that there is a significant difference in self-efficacy between the control posttest-only and experimental posttest-only groups, since the p-value is lower than the 0.05 level of significance. This result suggests that the experimental group who underwent neurolinguistic programming strategies demonstrated a significantly higher level of confidence in their ability to perform sports-related tasks compared to those who received mindfulness-based stress reduction. Neurolinguistic programming often utilizes techniques such as visualization, positive affirmations, and cognitive reframing, which are designed to strengthen individuals' belief in their capabilities and improve motivation.

According to Albert Bandura's self-efficacy theory, interventions that reinforce positive self-beliefs and mastery experiences can significantly enhance an individual's perceived competence and performance expectations (Bandura, 1997). Supporting this idea, research has shown that mental skills training programs that incorporate visualization and positive self-talk can significantly increase the confidence and psychological readiness of the athletes for competition (Tod, et. al, 2016).

Lastly, the results indicate that there is no significant difference in mental toughness between the control and experimental posttest-only groups. This implies that both interventions may have contributed similarly to the development of the resilience, determination, and ability of an athlete to cope with pressure during sports activities. Mental toughness is often influenced by various psychological and environmental factors, including training experience, coaching support, and exposure to competitive challenges. Some studies suggest that while mental skills training can improve aspects of psychological resilience, differences between intervention methods may not always be statistically significant when athletes already possess relatively high levels of mental toughness (Gucciardiet al., 2012). Therefore, the similar outcomes observed in this study may indicate that both neurolinguistic programming and mindfulness-based approaches can support the development of mental toughness among student-athletes.

> *Participant 5: "For me, the result is correct for the athletes in both groups improved. Even if they used different strategies, they have the same goal to improve focus and sports performance."*

> *Participant 7: "I agree that the intervention given to the experimental group focused on mind setting and confidence of an athlete, that is why they have higher self-efficacy."*

> *Participant 1: "I agree even if the intervention is different, it still helped improve the mental resilience of the athletes."*

Based on the findings of the study, it can be concluded that Neuro-Linguistic Programming (NLP) strategies have a selective impact on the psychological and performance outcomes of student-athletes.

This finding is supported by several studies indicating that traditional training programs already produce substantial improvements in athletic performance, making it difficult to detect added effects of supplementary interventions.

For instance, Jeyanthi et al. (2021) found that while NLP combined with physical training enhanced performance outcomes, exercise alone was already highly effective, resulting in comparable improvements across groups. Similarly, Mendes (2024) reported that although NLP techniques such as visualization and anchoring improved performance, these gains were often not significantly higher than those achieved through regular sports training.

In contrast, the finding that there is a significant difference in self-efficacy between the control and

experimental groups at posttest is strongly supported by the literature, which consistently identifies NLP as particularly effective in enhancing self-beliefs and confidence.

According to Bandura (1997), self-efficacy is highly responsive to cognitive restructuring, verbal persuasion, and mental rehearsal, all of which are core components of NLP. Studies by Mohammadi and Khoshkonesh (2020) and Ahmed and Khan (2021) demonstrate that NLP interventions significantly improve individuals' confidence in their abilities through techniques such as visualization, positive self-talk, and goal setting. Furthermore, Turner et al. (2020) found consistent evidence that athletes exposed to NLP strategies exhibited higher self-efficacy compared to those undergoing standard training alone, particularly due to enhanced mental conditioning and belief reinforcement. Similarly, Torres and Medina (2025) showed that NLP-based interventions significantly increased confidence levels through structured cognitive and behavioral techniques.

On the other hand, the results indicating no significant difference in mental toughness between the control and experimental groups at posttest are consistent with literature emphasizing that mental toughness can be

developed through various structured training approaches, not exclusively through NLP.

Studies such as Ramirez and Mendoza (2020) and Al-Mutairi and Jackson (2021) confirm that NLP improves resilience, emotional regulation, and focus. However, other research points out that comparable improvements can also be achieved through standard psychological skills training, coaching, and exposure to competitive environments.

Additionally, Tran and Ali (2021) emphasized that inconsistencies in NLP implementation—such as variations in delivery and duration , limiting its distinct impact. Burgos and Manlapig (2023) further noted that while NLP produces moderate to strong improvements, these are often similar to improvements from other structured interventions, leading to non-significant differences between experimental and control groups.

The results revealed that there is no significant difference in sports performance and mental toughness between the control and experimental groups at posttest. Although both groups showed improvements from pretest to posttest, the experimental group did not demonstrate a statistically greater advantage over the control group. This indicates that

conventional training alone is already effective in enhancing physical performance and mental resilience, and the addition of NLP strategies did not produce a significantly higher outcome in these variables. Therefore, the null hypotheses for sports performance and mental toughness are **accepted.**

In contrast, the findings showed a significant difference in self-efficacy between the control and experimental groups at posttest, with the experimental group demonstrating higher levels of self-belief. This suggests that NLP strategies are particularly effective in strengthening an athlete's confidence, belief in their

abilities, and psychological readiness. Since self-efficacy is largely influenced by cognitive and internal processes, NLP techniques such as visualization, positive self-talk, and reframing play a crucial role in enhancing this construct. Thus, the null hypothesis for self-efficacy is rejected.

Difference in the Sports Performance,
Self-Efficacy, and Mental Toughness
Between the Pretest of the Control Group
and the Posttest of the Control Posttest-Only Group

Table 7 shows that there is a significant difference in Sports Performance between the pretest control group and the

posttest control posttest-only group. The posttest control posttest-only group obtained a higher mean score compared to the pretest control group.

Likewise, for Self-Efficacy, the result shows that there is a significant difference between the two groups. The posttest control posttest-only group demonstrated a higher mean score than the pretest control group.

Lastly, for Mental Toughness, the result revealed that there is a significant difference between the posttest control posttest-only group scored higher compared to the pretest control group.

Table 7
Independent t-test Result of Sports Performance, Self Efficacy, and Mental Toughness Between the Pretest of the Control Group and the Posttest of the Control Posttest-Only Group

Group	Mean	SD	t	df	Sig.
Sports Performance					
Pretest Control Group	2.87	0.27	0.406*	28	0.000
Posttest Control Posttest-Only Group	3.37	0.35			
Self-Efficacy					
Pretest Control Group	4.16	0.50	2.917*	28	0.007
Posttest Control Posttest-Only Group	4.61	0.35			
Mental Toughness					
Pretest Control Group	4.24	0.42	4.076*.	28	0.000
Posttest Control Posttest-Only Group	4.79	0.29			

The results presented in Table 7 reveal that there is a significant difference in sports performance between the pretest control group and the posttest control posttest-only group, since the p-value is lower than the 0.05 level of significance. The posttest control posttest-only group obtained a higher mean score compared to the pretest control group. This finding suggests that the participants in the control group showed improvement in their sports performance after the intervention period. Even though the control group did not receive the neurolinguistic programming treatment, the improvement may be attributed to the effects of mindfulness-based stress reduction, regular sports training, or exposure to competitive activities during the study period. Psychological interventions for athletes such as mindfulness have been found to enhance attention, emotional regulation, and performance consistency, which can positively influence sports performance (Kaufman, Glass, & Pineau, 2018).

Similarly, the findings show that there is a significant difference in self-efficacy between the pretest control group and the posttest control posttest-only group. The posttest control posttest-only group obtained a higher mean score compared to the pretest control group. This result indicates that the confidence in their ability to perform sports-

related tasks improved after the intervention period. According to Bandura's Self-Efficacy Theory, individuals develop stronger self-efficacy through mastery experiences, social encouragement, and psychological regulation of stress and emotions (Bandura, 1997). Mindfulness-based approaches may help athletes regulate anxiety and maintain present-moment awareness, which in turn strengthens their belief in their ability to perform effectively during training and competition.

Lastly, the results reveal a significant difference in mental toughness between the pretest control group and the posttest control posttest-only group. The posttest control posttest-only group demonstrated a higher mean score compared to the pretest control group. This finding suggests that the athletes developed greater resilience, determination, and psychological endurance throughout the intervention period. Research in sport psychology highlights that mental toughness can be enhanced through psychological training, consistent practice, and exposure to challenging training environments that develop perseverance and emotional control (Gucciardi, Hanton et al., 2012). The improvement observed in the control group indicates that mindfulness-based stress reduction and continued sports participation may contribute to

strengthening the mental resilience and coping abilities of the athletes.

Based on the findings, it can be concluded that there were significant improvements in sports performance, self-efficacy, and mental toughness between the pretest control group and the posttest control posttest-only group. The higher mean scores observed in the posttest-only control group suggest that the intervention period, including mindfulness-based stress reduction and continued sports engagement, contributed to the enhancement of the psychological and performance outcomes of an athlete. These results indicate that psychological training approaches can play an important role in improving the confidence, resilience, and overall sports performance of an athlete.

> *Participant 4: "I agree to the result and saw that our performance improved after the intervention period. Even without the NLP training, the regular training helped in improving our skills."*

> *Participant 5: "I agree with the result that during the training and competition, we have a different focus and preparation. The mindfulness activity that we are doing helped in controlling pressure and emotions during the game."*

> *Participant 7: "I agree based on my prolonged training and experience in competitions, my mindset changed and my self-efficacy increased."*

> *Participant 3: "For me, mindfulness and regular training helped me in controlling my stress and emotions during the game."*

The literature highlights the study of Mendes (2024), visualization improves motor performance by allowing athletes to mentally rehearse successful outcomes, while AypexMove (2022) reported improvements in reaction time among athletes practicing structured mental strategies. Similarly, Ahmadzadeh et al. (2019) found that enhanced focus and attention significantly improve athletic accuracy and execution. These findings suggest that even standard training environments such as those experienced by the control group can foster improvements in sports performance through repeated practice, exposure, and implicit psychological skill development. This supports the significant increase observed between pretest and posttest scores in the control group.

The reviewed literature provides strong theoretical and empirical support for the findings of the present study. The significant differences observed between the pretest of the control group and the posttest of the control post-test only groups in sports performance, self-efficacy, and mental toughness can be explained by the effects of continuous training, experiential learning, and the natural development of psychological skills. These findings validate the rejection of the null hypothesis for within-group comparison

in the control group and confirm that even standard training conditions can produce meaningful improvements in both performance and psychological outcomes over time. Therefore, the null hypothesis is rejected.

Difference in the Sports Performance, Self-Efficacy, and Mental Toughness Between the Posttests of the Experimental group and the Experimental Posttest-Only Group

Table 8 shows that there is no significant difference in Sports Performance between the experimental group and the experimental posttest-only group. The mean score of the experimental posttest-only group is slightly higher than that of the experimental group, but the difference is not statistically significant.

Likewise, for Self-Efficacy, the result shows that there is no significant difference between the two groups. Although the experimental posttest-only group obtained a slightly higher mean compared to the experimental group, the difference is not significant.

Lastly, for Mental Toughness, the result revealed that there is no significant difference between the groups. The experimental group scored slightly higher than the experimental posttest-only group; however, this difference is not statistically significant.

Table 8
Independent t-test Result of Sports Performance, Self Efficacy, and Mental Toughness Between the Posttests of the Experimental group and the Experimental Posttest-Only Group

Group	Mean	SD	t	df	Sig.
Sports Performance					
Experimental	3.42	0.27	0.239[ns]	28	0.813
Experimental Posttest-Only	3.44	0.17			
Self Efficacy					
Experimental	4.81	0.31	0.289[ns]	28	0.775
Experimental Posttest-Only	4.84	0.19			
Mental Toughness					
Experimental	4.95	0.13	1.039[ns]	28	0.308
Experimental Posttest-Only	4.89	0.18			

* $p<0.05$ significant @5% alpha level

The results presented in Table 8 indicate that there is no significant difference in sports performance between the experimental group and the experimental posttest-only group, as shown by the computed value, which is higher than the 0.05 level of significance. Although the experimental posttest-only group obtained a slightly higher mean score compared to the experimental group, the difference was not statistically significant. This suggests that both groups who underwent neurolinguistic programming strategies demonstrated comparable levels of sports performance after the intervention. The similarity in results may indicate that the

neurolinguistic programming intervention consistently produced similar outcomes regardless of whether the participants were exposed to pretest measurements. In experimental research, posttest-only designs are often used to confirm that the intervention itself, rather than the pretesting process, influences the participants' outcomes.

Similarly, the findings show that there is no significant difference in self-efficacy between the experimental group and the experimental posttest-only group. Although the experimental posttest-only group obtained a slightly higher mean score than the experimental group. The difference was not statistically significant. This result suggests that neurolinguistic programming strategies had a relatively consistent effect on enhancing the confidence and belief in their abilities across both groups. According to Bandura's theory of self-efficacy, psychological interventions that emphasize positive cognitive processes, such as visualization, goal-setting, and self-talk, can strengthen individuals perceived competence and motivation (Bandura, 1997). Since both groups were exposed to the same neurolinguistic programming intervention, the comparable outcomes indicate that the strategy may reliably improve the self-beliefs of an athlete regardless of the assessment structure used in the study.

Furthermore, the absence of significant differences between the experimental group and the experimental posttest-only group may also suggest that pretest exposure did not substantially influence the participants' responses or performance outcomes. In experimental research designs such as the Solomon four-group design, comparisons between pretested and non-pretested groups help determine whether the pretest itself affects participants' behavior or responses. The findings of this study indicate that the neurolinguistic programming intervention produced similar results in both groups, implying that the improvement in sports performance and self-efficacy can be attributed primarily to the intervention rather than to any testing effects. Previous research in sport psychology also emphasizes that structured psychological skills training programs tend to produce stable improvements in psychological attributes of an athlete when consistently applied during training (Weinberg et al., 2019).

Based on the findings, it can be concluded that there was no significant difference in sports performance and self-efficacy between the experimental group and the experimental posttest-only group. Although the posttest-only group obtained slightly higher mean scores, the differences were not statistically significant. This suggests that

neurolinguistic programming strategies produced consistent and comparable outcomes among the participants regardless of whether they were exposed to pretest assessment. Therefore, the results support the reliability of the intervention and indicate that the improvements observed in the experimental groups were likely due to the neurolinguistic programming strategies rather than the influence of pretesting.

> *Participant 1: "For me, I agree that the intervention and training given to the athletes are important. The pretest might not be a big factor in the improvement of performance."*
>
> *Participant 3: "I agree that with or without the pretest,the athletes will still improve when given proper training and mental preparation"*
>
> *Participant 5: "I agree that with or without the pretest, it is important for the athlete to learn positive thinking and self-belief."*
>
> *Participant 6: "For me, I agree that the athletes from both groups have the same experiences and challenges that they have encountered."*

The literature highlights that psychological skills training interventions, such as neurolinguistic programming, contribute to improvements in athletic performance and psychological attributes. According to Weinberg et al. (2019), structured mental training programs consistently

enhance athletes' confidence, focus, and resilience when applied systematically. Similarly, studies by Ahmadzadeh et al. (2019) emphasize that cognitive strategies improve attention and execution in sports performance. These findings support the present results, indicating that the neurolinguistic programming intervention produced stable and comparable improvements across both experimental groups. Furthermore, the use of posttest-only comparison aligns with experimental designs such as the Solomon four-group design, which confirms that pretest exposure does not significantly influence outcomes when the intervention is effective.

The reviewed literature provides strong support for the findings of the present study. The absence of significant differences between the posttest scores of the experimental group and the experimental posttest-only group in terms of sports performance, self-efficacy, and mental toughness suggests that the neurolinguistic programming intervention was consistently effective across both groups. This indicates that improvements in performance and psychological outcomes can be attributed to the intervention rather than the effect of pretesting. Therefore, the null hypothesis is accepted.

Difference in the Sports Performance,
Self Efficacy, and Mental Toughness
Between the Posttests of the Control group
and the Control Posttest-Only Group

Table 9 shows that there is no significant difference in Sports Performance between the control posttest group and the posttest of the control posttest-only group. Although the posttest of the control posttest-only group obtained a slightly higher mean score than the control posttest groups the difference is not statistically significant.

Likewise, for Self-Efficacy, the result shows that there is no significant difference between the two groups The posttest of the control posttest-only scored slightly higher than the control posttest group, but the difference is not significant.

Lastly, for Mental Toughness, the result revealed that there is no significant difference between the groups. The control posttest group obtained a slightly higher mean score compared to the posttest of the control posttest-only group; however, this difference is not statistically significant.

Table 9
Independent t-test Result of Sports Performance, Self Efficacy, and Mental Toughness Between the Posttests of the Control group and the Control Posttest-Only Group

Group	Mean	SD	t	df	Sig.
Sports Performance					
Control Posttest	3.33	0.33	0.312[ns]	28	0.757
Posttest of Control Posttest-Only	3.37	0.35			
Self Efficacy					
Control Posttest	4.59	0.42	0.152[ns]	28	0.881
Posttest of Control Posttest-Only	4.61	0.35			
Mental Toughness					
Control Posttest	4.80	0.31	0.140[ns]	28	0.890
Posttest of Control Posttest-Only	4.79	0.29			

* p<0.05 significant @5% alpha level
ns p>0.05 not significant @5% alpha level

The results presented in Table 9 indicate that there is no significant difference in sports performance between the control posttest group and the control posttest-only group, since the p-value is greater than the 0.05 level of significance. Although the control posttest-only group obtained a slightly higher mean score compared to the control posttest group, the difference was not statistically significant. This finding suggests that the sports performance outcomes of the athletes who received both pretest and posttest assessments were comparable to those who were assessed only at the posttest stage. In experimental studies, this type of result indicates that the pretesting procedure did not significantly influence the participants'

performance outcomes, supporting the stability of the intervention effect. Research on experimental designs such as the Solomon four-group design highlights that similar results between pretested and non-pretested groups suggest minimal testing effects and strengthen the internal validity of the findings (Campbell & Stanley, 2023). Supporting this, recent research highlights that the Solomon four-group design allows researchers to detect and evaluate pretest effects more precisely, and similar outcomes between groups further confirm that pretesting does not significantly influence results, reinforcing the credibility of the experimental conclusions (El Karkri et al., 2025).

Similarly, the results show that there is no significant difference in self-efficacy between the control posttest group and the control posttest-only group. Although the control posttest-only group obtained a slightly higher mean score compared to the control posttest group, the difference remains statistically insignificant. This suggests that the athletes in both control groups developed comparable levels of confidence and belief in their abilities regardless of whether they participated in the pretest assessment. According to Bandura's Self-Efficacy Theory, improvements in self-efficacy are often influenced by experiences such as practice, feedback, and psychological

regulation rather than by the testing process itself (Bandura, 1997). Therefore, the similar self-efficacy levels observed in both groups may reflect the influence of ongoing training, psychological support, or mindfulness-based stress reduction rather than the presence or absence of pretest exposure.

Lastly, the findings reveal that there is no significant difference in mental toughness between the control posttest group and the control posttest-only group. The control posttest group obtained a slightly higher mean score compared to the control posttest-only group, but the difference is not statistically significant. This result suggests that both groups exhibited similar levels of psychological resilience, determination, and ability to cope with pressure during sports activities. Mental toughness is often influenced by consistent training, exposure to competitive environments, and psychological coping strategies developed over time (Gucciardi et al. 2012). The similarity of results between the two groups further indicates that the intervention applied to the control group produced stable psychological outcomes regardless of the testing condition.

Based on the findings, it can be concluded that there were no significant differences in sports performance, self-efficacy, and mental toughness between the control posttest

group and the control posttest-only group. The comparable mean scores across the variables suggest that the pretest assessment did not significantly influence the outcomes of the participants. This supports the validity of the experimental design and indicates that the observed improvements in the control groups were likely due to the intervention and training experiences rather than the effect of pretesting. Consequently, the results strengthen the reliability of the study in evaluating the psychological and performance outcomes of the student-athletes.

> *Participant 1:"I agree. With or without the pretest, both groups have interventions and have the same effect of improvement."*

> *Participant 2:"For me, I agree that sports performance is dependent on the practice and experience of an athlete."*

> *Participant 3:"I agree. The intervention and training given to the control group is the same. That is why the effect in the confidence of the athletes are also the same."*

> *Participant 5: "This is correct for the self-confidence of an athlete is developed during training ang his/her experience in competitions."*

> *Participant 7: "This is correct for they have the same experiences and mental strength as athletes from both groups."*

The literature highlights that experimental research designs such as the Solomon four-group design are used to determine whether pretesting influences posttest outcomes. Research findings suggest that when pretested and non-pretested groups yield similar results, it indicates minimal testing effects and supports the internal validity of the study (Campbell & Stanley, 2023). Supporting this, recent research emphasizes that the Solomon four-group design helps researchers detect and rule out pretest sensitization effects, confirming that outcome differences are mainly due to the intervention rather than testing exposure (El Karkri et al., 2025). The similarity of results in this study supports these findings, indicating that the pretest did not significantly influence the participants' posttest performance.

Based on the findings, it can be concluded that there were no significant differences in sports performance, self-efficacy, and mental toughness between the control posttest group and the control posttest-only group. Therefore, the null hypothesis is accepted.

Chapter 5

Summary of Findings, Conclusion and Recommendation

This chapter is composed of three parts, namely: (1) Summary of Problems, Methods, and the Findings; (2) Conclusions; and (3) Recommendations.

Part One, Summary of Problems, Methods, and the Findings present the problems, methods, and findings of the study.

Part Two, Conclusions, presents the generalizations after the results and findings have been analyzed and interpreted.

Part Three, Recommendations, presents different suggestions on the application of the findings of the study. It also discusses the possible areas for future researcher that may be use by those who are interested.

Summary of the Problem, Methods, and Findings

The study aimed to determine the effect of neurolinguistic programming on sports performance, self-efficacy, and mental toughness of student-athletes for the academic year 2025-2026.

Specifically, this study sought to answer the following questions:

1. What are the levels of sports performance, self-efficacy, and mental toughness in the pre-test and post-test of the control and experimental groups?

2. What are the levels of sports performance, self-efficacy, and mental toughness in the post-tests of the control and experimental post-test-only groups?

3. Is there a significant difference in sports performance, self-efficacy, and mental toughness between the pre-tests of the control and the experimental groups?

4. Is there a significant difference in sports performance, self-efficacy, and mental toughness between the pretests and post-tests of the control and the experimental groups?

5. Is there a significant difference in sports performance, self-efficacy, and mental toughness between the post-tests of the control and the experimental groups?

6. Is there a significant difference in sports performance, self-efficacy, and mental toughness between the post-tests of the control post-test-only group and the experimental post-test-only groups?

7. Is there a significant difference in sports performance, self-efficacy, and mental toughness between the pre-test of the control group and the post-test of the control post-test-only group?

8. Is there a significant difference in sports performance, self-efficacy, and mental toughness between the post-tests of the experimental group and the experimental post-test-only group?

9. Is there a significant difference in sports performance, self-efficacy, and mental toughness between the posttests of the control group and the control post-test-only group?

Based on the abovementioned statement of the problem, the following hypotheses were forwarded:

1. There is no significant difference in sports performance, self-efficacy, and mental toughness between the pre-tests of the control and the experimental groups.

4. There is no significant difference in sports performance, self-efficacy, and mental toughness between the pretests and post-tests of the control and the experimental groups.

5. There is no significant difference in sports performance, self-efficacy, and mental toughness between the post-tests of the control and the experimental groups.

6. There is no significant difference in sports performance, self-efficacy, and mental toughness between the post-tests of the control post-test-only group and the experimental post-test-only groups.

7. There is no significant difference in sports performance, self-efficacy, and mental toughness between the pre-test of the control group and the post-test of the control post-test-only group.

8. There is no significant difference in sports performance, self-efficacy, and mental toughness between the post-tests of the experimental group and the experimental post-test-only group.

9. There is no. significant difference in sports performance, self-efficacy, and mental toughness between the posttests of the control group and the control post-test-only group.

The study involves a total of 60 gymnastic students from a single academic institution. These participants were purposively divided into four groups using the Solomon Four-Group Experimental Design: Group 1 (experimental with pretest and posttest), Group 2 (control

with pretest and posttest), Group 3 (experimental with posttest only), and Group 4 (control with posttest only). This design was selected to control for possible testing effects and ensure the validity of the findings.

Descriptive statistics used in the study were the mean and standard deviation. For inferential statistics, the researcher utilized the t-test for dependent and independent sample at alpha level 0.05.

The major findings of the study are the following:

1. The findings of the study show that both the control and experimental groups had comparable baseline levels of sports performance, self-efficacy, and mental toughness before the intervention.

2. The results of the posttest-only groups indicate that both the control and experimental groups showed positive improvements in sports performance, self-efficacy, and mental toughness following the intervention, with the experimental group exposed to neurolinguistic programming demonstrating slightly gains across all variables.

3. The findings show that before the intervention, the control and experimental groups had

similar levels of sports performance, self-efficacy, and mental toughness, indicating that both groups started with comparable psychological and athletic conditions.

4. The findings show that both groups demonstrated significant improvements in sports performance, self-efficacy, and mental toughness after undergoing their respective interventions.

5. The findings show that there were no significant differences between the control and experimental posttest-only groups in terms of sports performance and mental toughness, indicating that both mindfulness-based stress reduction and neurolinguistic programming produced similar improvements in these areas. However, a significant difference was observed in self-efficacy, with the group exposed to neurolinguistic programming demonstrating higher confidence in their abilities compared to the group that underwent mindfulness-based stress reduction.

6. The findings show that there were no significant differences between the control and experimental posttest-only groups in terms of sports performance and mental toughness, indicating that both mindfulness-based stress reduction and neurolinguistic programming produced similar improvements in these

areas. However, a significant difference was observed in self-efficacy, with the group exposed to neurolinguistic programming demonstrating higher confidence in their abilities compared to the group that underwent mindfulness-based stress reduction.

7. The findings show that the control group demonstrated significant improvements in sports performance, self-efficacy, and mental toughness after the intervention period, indicating that psychological training and continued sports participation contributed to the enhancement of the performance and psychological development of an athlete.

8. The findings show that there were no significant differences in sports performance and self-efficacy between the experimental group and the experimental posttest-only group, indicating that neurolinguistic programming produced similar positive outcomes regardless of pretest exposure.

9. The findings indicate that there were no significant differences in sports performance, self-efficacy, or mental toughness between the control posttest group and the control posttest-only group, suggesting that pretest exposure did not influence the outcomes.

Conclusion

1. The study concludes that student-athletes had similar baseline levels of sports performance, self-efficacy, and mental toughness before the intervention, indicating comparable psychological and athletic conditions among participants. After the intervention, both groups showed improvements; however, the group that underwent neurolinguistic programming demonstrated slightly greater enhancements in performance, confidence, and mental resilience. These findings suggest that psychological training strategies, particularly neurolinguistic programming, can effectively support the development of mental skills by improving focus, emotional control, and positive thinking, ultimately contributing to better psychological readiness and sports performance of an athlete.

Recommendations

Based on the above findings and conclusions, the researcher would like to advance the following recommendations:

Coaches. Coaches are encouraged to incorporate psychological training strategies such as neurolinguistic programming and mindfulness-based exercises into regular training programs to help enhance focus, emotional control, confidence, and mental resilience of an athlete. Coaches should also provide positive feedback, promote goal-setting activities, and encourage positive self-talk among athletes to strengthen their psychological readiness during training and competition.

School Administrators. School administrators are encouraged to support the integration of mental conditioning programs into sports development initiatives by providing training resources, seminars, and workshops on sports psychology. Providing sufficient facilities and funding for psychological and athletic training programs can help improve the overall performance and mental well-being of an athlete.

Athletes. Athletes are encouraged to actively participate in psychological training activities and practice mental skills such as visualization, positive thinking, stress management, and emotional regulation.

Maintaining consistent training discipline, combined with mental conditioning strategies, can help athletes improve their confidence, resilience, and overall athletic performance.

Physical Education Teachers. Physical education teachers are encouraged to integrate basic sports psychology concepts into physical education classes to help students develop mental toughness, self-confidence, and motivation in sports activities. Teachers should also promote a positive and supportive learning environment that encourages healthy competition and psychological development among students.

Present Researcher. The present researcher is encouraged to continue monitoring the long-term effects of psychological interventions on athletic performance and psychological development. Conducting follow-up assessments and expanding the scope of participants can help strengthen the validity and generalizability of the findings.

Future Researchers. Future researchers are encouraged to conduct similar studies using larger sample sizes, different athletic populations, or longer intervention periods to further verify the effectiveness of neurolinguistic programming and other psychological training methods. Future studies may also explore other psychological variables that influence athletic performance to provide a more

comprehensive understanding of sports psychology interventions.

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Appendix A

Communication Letter

FILAMER CHRISTIAN UNIVERSITY
Autonomous status – CHED
GRADUATE SCHOOL
Roxas Avenue, Roxas City 5800, Philippines
Tel. No. (036)6212-317; Fax No. (036)6213-075

August 8, 2025

FERDINAND S. SY PhD, CESO VI
Schools Division Superintendent
Schools Division Office of Kabankalan City

Sir:

Greetings!

I am currently conducting my dissertation entitled **"Effects of Neurolinguistic Programming Strategies on Sports Performance, Self-Efficacy, and Mental Toughness"** for the degree of Doctor of Education major in Physical Education.

In line with this, I am asking for your permission to conduct the said research in the Schools Division of Kabankalan City, particularly for the athletes in Florentino Galang National High School, Kabankalan Catholic College, ERAMS-West Elementary School, and Tabugon Elementary School. I will observe ethical standards while conducting the study to maintain the confidentiality of their identity. Rest assured that the data gathered will be for the purpose of this research only.

I am hoping for your positive response regarding this matter. Thank you for your support and understanding

Thank you very much and God bless!

Respectfully,

DENNIS D. ARBIS
Researcher

Noted:

DR. FELIMON A. PIMENTEL, JR.
Adviser / Dean, Graduate Studies – FCU

APPROVED
11 AUG 2025
FERDINAND S. SY PhD, CESO VI

Appendix B

Data Gathering Instruments

ASSESSMENT PROPER

Instruction: Please read and understand each statement. Then, mark the column that best corresponds to your response.
5 – Always 4 – Often 3- Sometimes 2- Rarely 1- Never
Part I – Assessment of Self-Efficacy

	Self-Efficacy	**5**	**4**	**3**	**2**	**1**
1	I believe I can achieve my performance goals even under pressure.					
2	I am confident in my ability to improve through consistent practice.					
3	I can remain focused and composed during competition.					
4	I trust my ability to execute strategies during crucial moments.					
5	I believe I can bounce back quickly after a poor performance.					
6	I am confident that I can maintain my training schedule consistently.					
7	I can stay motivated even when I experience setbacks.					
8	I believe I have the mental strength to overcome fatigue during a game.					
9	I can effectively manage my emotions in high-stress situations.					
10	I am confident in my ability to work well with my teammates.					
11	I believe I can stay committed to my goals despite challenges.					
12	I am sure of my ability to adapt to unexpected situations in sports.					
13	I trust my judgment when making quick decisions during play.					
14	I can maintain a high level of performance even when I'm not at my best.					
15	I am confident in my skills and techniques required for my sport.					

16	I believe I can consistently perform well in both practice and competition.					
17	I can push myself beyond my comfort zone to improve.					
18	I trust that I can handle criticism and use it to grow.					
19	I am confident in setting realistic but challenging goals for myself.					
20	I believe I can influence the outcome of my performance through effort and focus.					

Part II – Assessment of Mental Toughness

	Mental Toughness	**5**	**4**	**3**	**2**	**1**
1	I stay strong even when the odds are against me.					
2	I can perform well even when I feel tired or sore.					
3	I thrive under pressure and use it to improve my performance.					
4	I quickly regain my focus after making a mistake.					
5	I push myself to keep going, even when I feel like giving up.					
6	I remain confident even when others doubt me.					
7	I can block out distractions and stay focused on my goals.					
8	I view challenges as opportunities to grow.					
9	I stay calm and composed during high-stakes situations.					
10	I maintain a positive mindset despite setbacks or losses.					
11	I continue to work hard, even when I do not see immediate results.					
12	I believe that mental strength is just as important as physical ability.					
13	I can keep my emotions in check during competition.					
14	I stay motivated even when I’m not feeling my best.					
15	I enjoy pushing my limits to see what I’m capable of.					

16	I respond to failure by working harder, not giving up.					
17	I adapt quickly when things do not go as planned.					
18	I believe I can mentally handle any situation I face in sports.					
19	I do not let negative thoughts affect my performance.					
20	I always find a way to stay mentally strong, no matter the situation.					

Part III – Assessment of Sports Performance

AEROBIC GYMNASTICS PERFORMANCE ASSESSMENT SHEET

Directions: The lists below are the basic skills used in Aerobic Gymnastics, which is designed to determine the performance level of the gymnast. Please give the corresponding points to the following items using the given value.

Points	Description
5	performed with no error
4	performed with 1 error
3	performed with 2 errors
2	performed with 3 or more errors
1	performed with unacceptable form

A. Aerobic Movement Pattern

Indicators	**5**	**4**	**3**	**2**	**1**
1.March					
2.Jog					
3.Skip					
4.Knee Lift					
5.Kick					
6.Jumping Jack					
7.Lunge					

B. Acrobatic Elements

Indicators	**5**	**4**	**3**	**2**	**1**
1.Cartwheel					
2.Round Off					
3.Front Walkover					
4.Back Walkover					
5.Front handspring					
6.Back handspring					

C. Compulsory Elements

Indicators	**5**	**4**	**3**	**2**	**1**
1.Helicopter					
2.Straddle Support					
3.1/1 Tuck Jump					
4.2/1 Turn					

Appendix C

Statistical Data Analysis Results

Statistical Analysis

T-Test (1,3,5)

Notes

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Group Statistics

	Group	N	Mean	Std. Deviation	Std. Error Mean
Pretest Sports Performance	Control	15	2.8727	.26618	.06873
	Experimental	15	2.9293	.24126	.06229
Posttest Sports Performance	Control	15	3.3320	.33022	.08526
	Experimental	15	3.4160	.26514	.06846
Pretest Self Efficacy	Control	15	4.1567	.49745	.12844
	Experimental	15	4.1967	.46463	.11997
Posttest Self Efficacy	Control	15	4.5933	.41827	.10800
	Experimental	15	4.8133	.31479	.08128
Pretest Mental Toughness	Control	15	4.2440	.42340	.10932
	Experimental	15	4.4393	.27678	.07146
Posttest Mental Toughness	Control	15	4.8020	.30667	.07918
	Experimental	15	4.9513	.13378	.03454

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Mea				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Pretest Sports Performance	Equal variances assumed	.724	.402	-.611	28	.546	-.05667	.09276
	Equal variances not assumed			-.611	27.734	.546	-.05667	.09276
Posttest Sports Performance	Equal variances assumed	.817	.374	-.768	28	.449	-.08400	.10934
	Equal variances not assumed			-.768	26.751	.449	-.08400	.10934
Pretest Self Efficacy	Equal variances assumed	.058	.812	-.228	28	.822	-.04000	.17575
	Equal variances not assumed			-.228	27.871	.822	-.04000	.17575
Posttest Self Efficacy	Equal variances assumed	1.329	.259	-1.628	28	.115	-.22000	.13517
	Equal variances not assumed			-1.628	26.007	.116	-.22000	.13517
Pretest Mental Toughness	Equal variances assumed	1.289	.266	-1.496	28	.146	-.19533	.13061
	Equal variances not assumed			-1.496	24.118	.148	-.19533	.13061
Posttest Mental Toughness	Equal variances assumed	7.608	.010	-1.729	28	.095	-.14933	.08639
	Equal variances not assumed			-1.729	19.143	.100	-.14933	.08639

Means (2)

Notes

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	Cases Used	Cases used for each table have no missing values in any independent variable, and not all dependent variables have missing values.
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Case Processing Summary

	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
Sports Performance Posttest-Only * Group	30	100.0%	0	.0%	30	100.0%
Self-Efficacy Posttest-Only * Group	30	100.0%	0	.0%	30	100.0%
Mental Toughness Posttest-Only * Group	30	100.0%	0	.0%	30	100.0%

Report

Group		Sports Performance Posttest-Only	Self-Efficacy Posttest-Only	Mental Toughness Posttest-Only
Control Posttest-Only	Mean	3.3707	4.6147	4.7867
	N	15	15	15
	Std. Deviation	.34749	.34979	.29434
Experimental Posttest-Only	Mean	3.4353	4.8407	4.8920
	N	15	15	15
	Std. Deviation	.16707	.18832	.17608
Total	Mean	3.4030	4.7277	4.8393
	N	30	30	30
	Std. Deviation	.26991	.29899	.24426

T-Test (4)

Notes

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	Cases Used	Statistics for each analysis are based on the cases with no missing or out-of-range data for any variable in the analysis.
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Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	ConPretest Sports Performance	2.8727	15	.26618	.06873
	ConPosttest Sports Performance	3.3320	15	.33022	.08526
Pair 2	ConPretest Self Efficacy	4.1567	15	.49745	.12844
	ConPosttest Self Efficacy	4.5933	15	.41827	.10800
Pair 3	ConPretest Mental Toughness	4.2440	15	.42340	.10932
	ConPosttest Mental Toughness	4.8020	15	.30667	.07918

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	ConPretest Sports Performance & ConPosttest Sports Performance	15	.805	.000
Pair 2	ConPretest Self Efficacy & ConPosttest Self Efficacy	15	.973	.000
Pair 3	ConPretest Mental Toughness & ConPosttest Mental Toughness	15	.958	.000

Paired Samples Test

		Paired Differences				
					95% Confidence In Differenc	
		Mean	Std. Deviation	Std. Error Mean	Lower	
Pair 1	ConPretest Sports Performance - ConPosttest Sports Performance	-.45933	.19609	.05063	-.56792	
Pair 2	ConPretest Self Efficacy - ConPosttest Self Efficacy	-.43667	.13157	.03397	-.50953	
Pair 3	ConPretest Mental Toughness - ConPosttest Mental Toughness	-.55800	.15685	.04050	-.64486	

T-Test

Notes

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	Cases Used	Statistics for each analysis are based on the cases with no missing or out-of-range data for any variable in the analysis.
Syntax		T-TEST PAIRS=exppreSP exppreSE exppreMT WITH expostSP exppostSE exppostMT (PAIRED) /CRITERIA=CI(.9500) /MISSING=ANALYSIS.
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[DataSet1] C:\Users\user\Desktop\thesis\10New Studies\dennis arbis\data_2.sav

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	ExpPretest Sports Performance	2.9293	15	.24126	.06229
	ExpPosttest Sports Performance	3.4160	15	.26514	.06846
Pair 2	ExpPretest Self Efficacy	4.1967	15	.46463	.11997
	ExpPosttest Self Efficacy	4.8133	15	.31479	.08128
Pair 3	ExpPretest Mental Toughness	4.4393	15	.27678	.07146
	ExpPosttest Mental Toughness	4.9513	15	.13378	.03454

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	ExpPretest Sports Performance & ExpPosttest Sports Performance	15	-.113	.689
Pair 2	ExpPretest Self Efficacy & ExpPosttest Self Efficacy	15	.928	.000
Pair 3	ExpPretest Mental Toughness & ExpPosttest Mental Toughness	15	.748	.001

Paired Samples Test

		Paired Differences				
					95% Confidence In Differenc	
		Mean	Std. Deviation	Std. Error Mean	Lower	
Pair 1	ExpPretest Sports Performance - ExpPosttest Sports Performance	-.48667	.37805	.09761	-.69603	
Pair 2	ExpPretest Self Efficacy - ExpPosttest Self Efficacy	-.61667	.20845	.05382	-.73210	
Pair 3	ExpPretest Mental Toughness - ExpPosttest Mental Toughness	-.51200	.19774	.05106	-.62151	

T-Test (6)

Notes

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	Cases Used	Statistics for each analysis are based on the cases with no missing or out-of-range data for any variable in the analysis.
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[DataSet2] C:\Users\user\Desktop\thesis\10New Studies\dennis arbis\data_2.sav

Group Statistics

	Group	N	Mean	Std. Deviation	Std. Error Mean
Sports Performance Posttest-Only	Control Posttest-Only	15	3.3707	.34749	.08972
	Experimental Posttest-Only	15	3.4353	.16707	.04314
Self-Efficacy Posttest-Only	Control Posttest-Only	15	4.6147	.34979	.09032
	Experimental Posttest-Only	15	4.8407	.18832	.04862
Mental Toughness Posttest-Only	Control Posttest-Only	15	4.7867	.29434	.07600
	Experimental Posttest-Only	15	4.8920	.17608	.04546

Independent Samples Test

		Levene's Test for Equality of Variances							
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower
Sports Performance Posttest-Only	Equal variances assumed	10.183	.003	-.650	28	.521	-.06467	.09955	-.26859
	Equal variances not assumed			-.650	20.144	.523	-.06467	.09955	-.27224
Self-Efficacy Posttest-Only	Equal variances assumed	9.338	.005	-2.203	28	.036	-.22600	.10257	-.43611
	Equal variances not assumed			-2.203	21.487	.039	-.22600	.10257	-.43902
Mental Toughness Posttest-Only	Equal variances assumed	2.621	.117	-1.189	28	.244	-.10533	.08856	-.28674
	Equal variances not assumed			-1.189	22.882	.246	-.10533	.08856	-.28858

T-Test (7)

Notes

Output Created		09-Dec-2025 16:50:55
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	N of Rows in Working Data File	30
Missing Value Handling	Definition of Missing	User defined missing values are treated as missing.
	Cases Used	Statistics for each analysis are based on the cases with no missing or out-of-range data for any variable in the analysis.
Syntax		T-TEST GROUPS=PreConPostConPostOnly(1 2) /MISSING=ANALYSIS /VARIABLES=SP SE MT /CRITERIA=CI(.95).
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[DataSet2] C:\Users\user\Desktop\thesis\10New Studies\dennis arbis\data_2.sav

Group Statistics

	Pretest Control-Posttest Control Posttest Only	N	Mean	Std. Deviation	Std. Error Mean
Sports Performance	Pretest Control	15	2.8727	.26618	.06873
	Posttest Control Posttest-Only	15	3.3707	.34749	.08972
Self Efficacy	Pretest Control	15	4.1567	.49745	.12844
	Posttest Control Posttest-Only	15	4.6147	.34979	.09032
Mental Toughness	Pretest Control	15	4.2440	.42340	.10932
	Posttest Control Posttest-Only	15	4.7867	.29434	.07600

Independent Samples Test

		Levene's Test for Equality of Variances						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Sports Performance	Equal variances assumed	1.303	.263	-4.406	28	.000	-.49800	.11302
	Equal variances not assumed			-4.406	26.221	.000	-.49800	.11302
Self Efficacy	Equal variances assumed	1.244	.274	-2.917	28	.007	-.45800	.15702
	Equal variances not assumed			-2.917	25.125	.007	-.45800	.15702
Mental Toughness	Equal variances assumed	.953	.337	-4.076	28	.000	-.54267	.13314
	Equal variances not assumed			-4.076	24.970	.000	-.54267	.13314

T-Test (8)

Notes

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	N of Rows in Working Data File	30
Missing Value Handling	Definition of Missing	User defined missing values are treated as missing.
	Cases Used	Statistics for each analysis are based on the cases with no missing or out-of-range data for any variable in the analysis.
Syntax		T-TEST GROUPS=VAR00035(1 2) /MISSING=ANALYSIS /VARIABLES=VAR00036 VAR00037 VAR00038 /CRITERIA=CI(.95).
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[DataSet2] C:\Users\user\Desktop\thesis\10New Studies\dennis arbis\data_2.sav

Group Statistics

	Posttest Exp-Posttest Exp Posttest Only	N	Mean	Std. Deviation	Std. Error M
Sports Performance	Posttest Experimental	15	3.4160	.26514	.
	Posttest Experimental Posttest-Only	15	3.4353	.16707	.
Self Efficacy	Posttest Experimental	15	4.8133	.31479	.
	Posttest Experimental Posttest-Only	15	4.8407	.18832	.
Mental Toughness	Posttest Experimental	15	4.9513	.13378	.
	Posttest Experimental Posttest-Only	15	4.8920	.17608	.

Independent Samples Test

		Levene's Test for Equality of Variances							
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	
Sports Performance	Equal variances assumed	4.300	.047	-.239	28	.813	-.01933	.08092	
	Equal variances not assumed			-.239	23.604	.813	-.01933	.08092	
Self Efficacy	Equal variances assumed	2.037	.165	-.289	28	.775	-.02733	.09471	
	Equal variances not assumed			-.289	22.883	.775	-.02733	.09471	
Mental Toughness	Equal variances assumed	1.056	.313	1.039	28	.308	.05933	.05710	
	Equal variances not assumed			1.039	26.124	.308	.05933	.05710	

T-Test (9)

Notes

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	Split File	<none>
	N of Rows in Working Data File	30
Missing Value Handling	Definition of Missing	User defined missing values are treated as missing.
	Cases Used	Statistics for each analysis are based on the cases with no missing or out-of-range data for any variable in the analysis.
Syntax		T-TEST GROUPS=VAR00039(1 2) /MISSING=ANALYSIS /VARIABLES=VAR00040 VAR00041 VAR00042 /CRITERIA=CI(.95).
Resources	Processor Time	0:00:00.000
	Elapsed Time	0:00:00.000

[DataSet2] C:\Users\user\Desktop\thesis\10New Studies\dennis arbis\data_2.sav

Group Statistics

	Post Control-Post Control Posttest Only	N	Mean	Std. Deviation	Std. Error Mean
Sports Performance	Posttest Control	15	3.3320	.33022	.08526
	Posttest Control Posttest Only	15	3.3707	.34749	.08972
Self Efficacy	Posttest Control	15	4.5933	.41827	.10800
	Posttest Control Posttest Only	15	4.6147	.34979	.09032
Mental Toughness	Posttest Control	15	4.8020	.30667	.07918
	Posttest Control Posttest Only	15	4.7867	.29434	.07600

Independent Samples Test

		Levene's Test for Equality of Variances							
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	
Sports Performance	Equal variances assumed	.113	.739	-.312	28	.757	-.03867	.12377	
	Equal variances not assumed			-.312	27.928	.757	-.03867	.12377	
Self Efficacy	Equal variances assumed	.129	.722	-.152	28	.881	-.02133	.14079	
	Equal variances not assumed			-.152	27.150	.881	-.02133	.14079	
Mental Toughness	Equal variances assumed	.054	.817	.140	28	.890	.01533	.10975	
	Equal variances not assumed			.140	27.953	.890	.01533	.10975	

Appendix D

Moderate Intensity Continuous Exercise Program

A. DEPED DLL FORMAT (Detailed Lesson Log)

Subject: Physical Education / Sports Training

Grade Level: Secondary (Student-Athletes)

Quarter: Any (Sports Training Program Integration)

Time: 60 minutes

Module Title: Mental Skills Training (NLP-Based)

Session Focus: Goal-Setting and Positive Self-Talk

I. OBJECTIVES

At the end of the session, learners will be able to:

1. Define SMART goals in sports.
2. Demonstrate positive self-talk statements.
3. Apply mental strategies during training activities.

II. CONTENT

- Mental Skills Training
- NLP Techniques: Goal-setting & Self-talk
- Importance of confidence and focus in sports

III. LEARNING RESOURCES

- Worksheets (SMART Goals Template)
- Cue cards (affirmations)
- Whiteboard/markers

IV. PROCEDURES

A. Reviewing Previous Lesson (5 mins)

- Ask: "What mental challenges do athletes experience during competition?"

B. Motivation (5 mins)

- Short scenario: Athlete loses confidence before a performance
- Ask: "What would you say to yourself in that situation?"

C. Lesson Proper (30 mins)

1. Goal-Setting (SMART)

- Explain SMART goals
- Students write:
  - 1 short-term goal
  - 1 long-term goal

2. Positive Self-Talk

- Identify negative thoughts
- Transform into positive statements
- Practice aloud or silently

D. Guided Practice (10 mins)

- Simulation: Pre-performance routine
- Students apply:
  - Goal recall
  - Self-talk

E. Generalization (5 mins)

- Ask: "How can mental training improve your performance?"

F. Application (5 mins)

- Students write:
  - 3 personal affirmations

V. EVALUATION

- Output: SMART goals + affirmation list
- Observation: Participation and application

VI. ASSIGNMENT

- Keep a **mental training journal** for 1 week

B. ASSESSMENT RUBRICS & TOOLS

1. Self-Efficacy Rubric

Criteria	4 (Excellent)	3 (Good)	2 (Fair)	1 (Needs Improvement)
Confidence	Very confident, consistent	Often confident	Sometimes confident	Rarely confident
Focus	Highly focused	Mostly focused	Easily distracted	Very distracted
Application	Always applies skills	Often applies	Sometimes applies	Does not apply

2. Goal-Setting Rubric

Criteria	4	3	2	1
Specific	Clear and detailed	Mostly clear	Vague	Not clear
Measurable	Fully measurable	Partially measurable	Hard to measure	Not measurable
Achievable	Realistic	Slightly unrealistic	Unrealistic	Impossible

3. Coach Observation Checklist

✓ Uses positive self-talk
✓ Demonstrates focus during drills
✓ Applies visualization
✓ Shows confidence under pressure

(Score: ✓ = 1, ✗ = 0)

4. Athlete Reflection Journal Guide

Guide Questions:

- What did I think before performance?
- Did I use self-talk?

- How confident was I (1–5)?
- What can I improve?

C. TRAINING MANUAL / MODULE BOOKLET

MODULE TITLE:

Mental Edge: NLP-Based Mental Skills Training for Athletes

Module Overview

This module develops **mental toughness, confidence, and focus** using NLP techniques proven effective in enhancing sports performance.

Module Objectives

- Improve self-efficacy
- Develop emotional control
- Enhance performance readiness

Lesson 1: Goal-Setting

- SMART Goals
- Activity: Personal goal worksheet
- Output: Written goals

Lesson 2: Positive Self-Talk

- Replace negative thoughts
- Activity: Affirmation creation
- Output: Personal script

Lesson 3: Anchoring Techniques

- Build confidence triggers
- Activity: Create anchor gesture
- Output: Personal anchor

Lesson 4: Visualization

- Mental rehearsal
- Activity: Guided imagery
- Output: Reflection notes

Weekly Training Flow

Day	Activity
Monday	Goal review
Tuesday	Self-talk practice
Wednesday	Visualization
Thursday	Anchoring
Friday	Integration

Monitoring Tools

- Pre-test / Post-test
- Performance tracking
- Psychological scales

Expected Outcomes

✓ Higher self-confidence
✓ Improved focus
✓ Better competition readiness
✓ Enhanced mental toughness

Appendix E

Documentation


INFORM

Appendix F

Curriculum Vitae

DENNIS D. ARBIS

#14 Dimasalang Road,

Brgy. Tangub, Bacolod City

Negros Occidental, Philippines

-6100-

09190030362

din2arbis@gmail.com

PERSONAL DATA

Date of Birth	:	August 1, 1988
Place of Birth	:	Bacolod City, Negros Occidental
Citizenship	:	Filipino
Civil Status	:	Single
Religion	:	Roman Catholic
Age	:	38
Height	:	5’7”
Father	:	Domingo Jose Arbis
Mother	:	Ma. Lasel Arbis

EDUCATIONAL BACKGROUND

Post Graduate

Master of Arts in Education – Major in Physical Education
STI – West Negros University
June 2003 – May 2017

Tertiary

Bachelor of Secondary Education – Major in Physical Education, Health, and Music
University of St. La Salle
2009 - 2012

Bachelor of Science in Hospitality Management
University of St. La Salle
2006 - 2019

Secondary

University of St. La Salle – Integrated School
La Salle Avenue, Bacolod City

Elementary

University of St. La Salle – Integrated School
La Salle Avenue, Bacolod City

CERTIFICATION

Certificate of Passing the Licensure Examination for Teachers – September 2012

SCHOLARSHIPS

Varsity Scholar (Cheerleading)
University of St. La Salle
2006-2012