J.H. CERILLES STATE COLLEGE
DUMINGAG CAMPUS
Caridad, Dumingag 7028, Zamboanga del Sur
dumingag@jhcsc.edu.ph

Mind Over Muscle: How Mental Alertness Influences Athletic Performance

Romelnico S. Richa

Hannah Joy S. Batucan

School of Teacher Education
J.H. Cerilles State College-Dumingag Campus, Philippines
email address: rromelnico@gmail.com
hbatucan@jhcsc.edu.ph
ORCID#: 0009-0005-0801-9608
0009-0002-8700-4807

Influencing the Future of Sports, Health and Physical Education: Bridging Science, Technology and Well-being
OCTOBER 1-3, 2025
MSU-ILIGAN INSTITUTE OF TECHNOLOGY

Introduction

- Mental alertness plays a crucial role in athletic performance towards specific sports activities.
- It is an important factor in athletic performance, as it influences decision-making, reaction time, and physical output.
- Studies show that enhanced mental acuity and cognitive function boost performance on the field by facilitating the completion of certain activities.
- For example, research by Smith et al. (2021) demonstrates a 15% increase in performance in high-stakes situations, highlighting the clear link between cognitive agility training and faster response times in elite athletes.

Objectives

1. Assess athletes' mental alertness (reaction time, attention span)
2. Evaluate athletic performance (speed, accuracy, endurance)
3. Examine the relationship between alertness & performance
4. Propose a training program (ABTIKA)

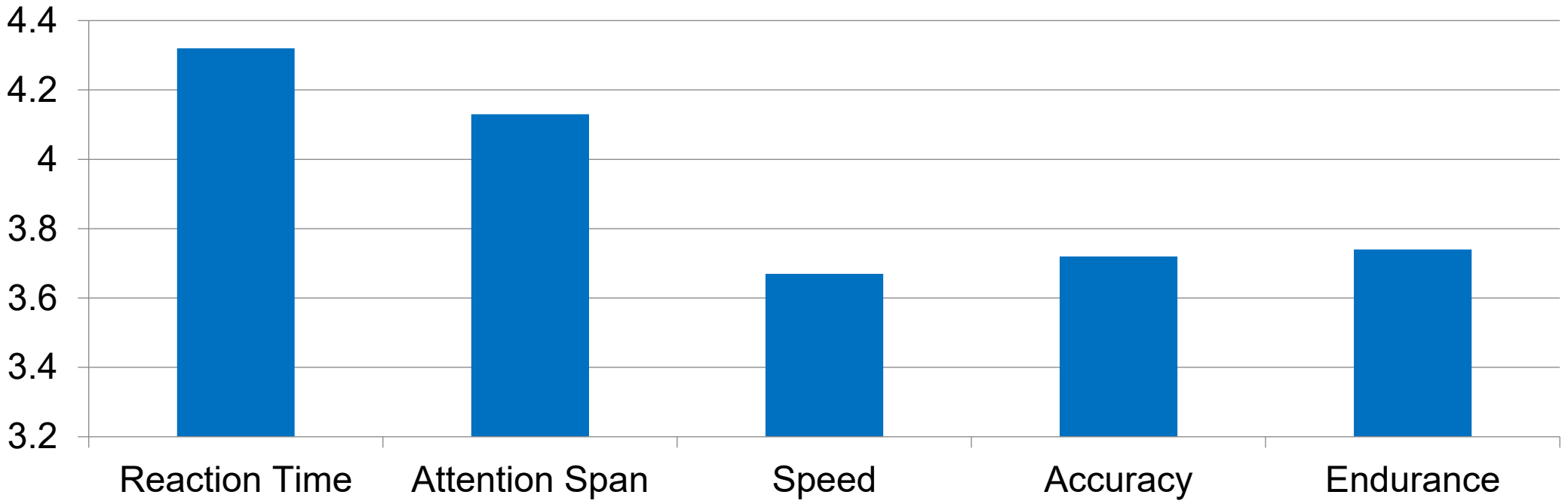
Methods

- Quantitative correlational research design
- 61 student-athletes, total enumeration
- Instruments: ZOGIM-A Mental Alertness Questionnaire (alertness), Sport Performance Perceptions Scale (performance)
- Data analysis: Weighted Mean, Spearman rho correlation

Results

- High mental alertness: Reaction Time (4.32), Attention Span (4.13)
- Athletic performance manifested: Speed (3.67), Accuracy (3.72), Endurance (3.74)
- Significant positive correlation between alertness & all performance measures ($p<0.001$)

Mean Scores of Mental Alertness & Performance Indicators



Discussion

- The findings of this study strongly support the hypothesis that **mental alertness significantly influences athletic performance**.
- **Reaction time** and **attention span**—two components of mental alertness—were positively correlated with athletes' **speed, accuracy, and endurance**.
- These results align with Smith et al. (2021), who reported a **15% performance increase** among elite athletes trained in **cognitive agility**.

- Athletes who can quickly analyze game situations, anticipate opponents' actions, and make split-second decisions are more likely to excel.
- Reaction time showed the highest correlation with endurance.
- This suggests that cognitive resilience helps sustain physical output during long or intense matches.

Discussion

- These results corroborate earlier studies by Calvo et al. (2021) and Proost et al. (2022), which emphasized the value of cognitive training, mindfulness, and attention-control exercises.
- The present study extends these findings to the collegiate level in a Philippine setting.
- Mental alertness is shown to be a valuable predictor even in younger or semi-professional athletes.

Enhancement Training Program for Mental Alertness

Training Program Title:

ABTIKA: (Activate Brainpower Through Training and Introspection for Keen Awareness)

ABTIKA - Objectives

1. **Increase Cognitive Speed and Reaction Time:** Through focused brain training activities and mindfulness practices, participants will increase their cognitive processing speed and reaction time, which will help them become more mentally agile and receptive to stimuli related to their sport.

- *Increase Accuracy and Focus:* By practicing introspection and focused attention, participants will be able to focus better, filter out distractions, make better decisions, and execute skills more accurately during practice and competition.
- *Promote Mental Endurance and Resilience:* By practicing mindfulness and cognitive restructuring, participants will increase their mental stamina and resilience, which will help them maintain concentration and effort for prolonged periods and successfully cope with the mental exhaustion that comes with endurance-based activities.

Limitations of the Study

- It relies on self-reported performance measures.
- The focus is limited to a single institution.
- There is a lack of experimental validation of the proposed intervention.
- These factors may limit the generalizability of the findings.
- The study offers valuable insights but has certain limitations.
- More extensive research across different settings and sports disciplines is needed.

CONCLUSION

Considering the findings obtained from this study, the following conclusions are drawn.

- Athletes show high mental alertness & good performance
- Strong positive relationship between mental alertness & athletic outcomes
- Recommendation: Institutionalize mental training (ABTIKA) for holistic development of athletes.

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Thank you!