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Optimizing Tactical Memorization in Football: The Role of Feedback Frequency

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INTRODUCTION

Memorizing football tactics is crucial for implementing tactical game plans during a match. Among the learning methods, feedback is particularly effective in helping players memorize these game plans. However, its effectiveness depends on several factors, including frequency. This study aims to analyze the impact of feedback frequency on the memorization of football tactics using a 2D animation. A central question guided this work: which feedback frequency (100% or 50%) is more advantageous for beginners?

METHOD

Participants: The study included 72 male participants aged 18 to 36 years (mean age = 25.5, SD = 7.35). While all participants were familiar with the rules of football, none had prior experience in practicing team sports within a club.

Materials: Ten Dell Core i5 tablets were used in this study to simulate football tactical situations. A specific software, "Beta Foot," was developed to customize the various stages of the process (creating and displaying situations, reproducing actions, feedback, and collecting results).

RESULTS

The data were analyzed using analysis of variance, considering the condition (100%, 50%). A significance level (p) of 0.05 was utilized for all analyses.

Figure 1: Variation In Repetitions Based On Feedback Frequency

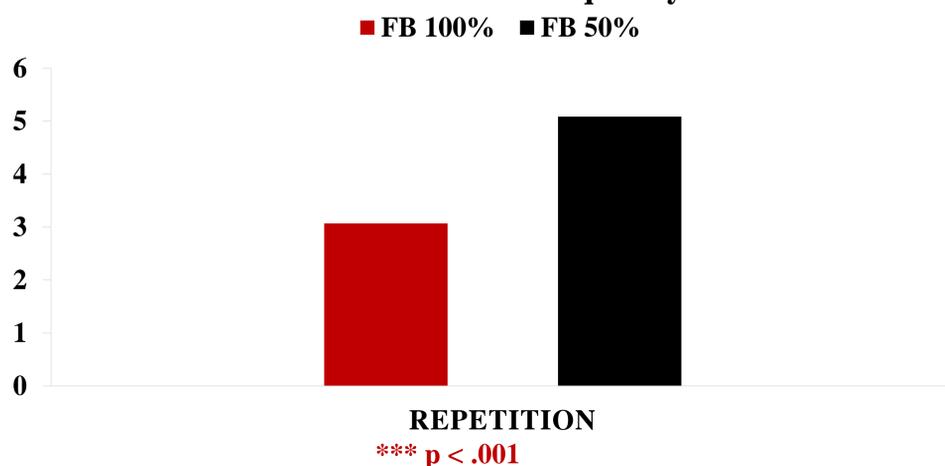
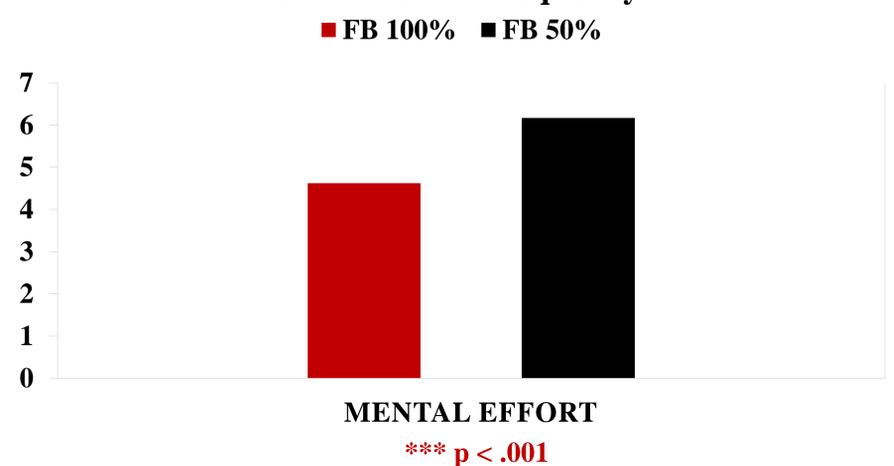


Figure 2: Variation in Mental Effort Based on Feedback Frequency

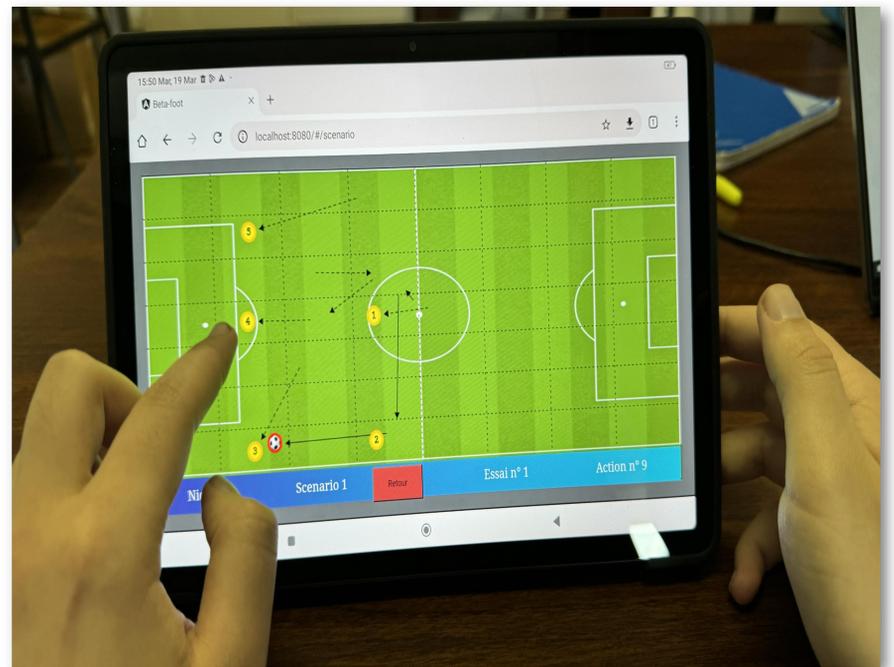


DISCUSSION

The results indicate that the group receiving 100% feedback better memorized the scene with less mental effort compared to the group receiving 50% feedback. This improvement can be attributed to the development of a mechanism for error detection and correction, facilitated by frequent feedback, especially among beginners and particularly in complex tasks. These findings support Adams' closed-loop theory, which suggests that learners use feedback information to enhance their future performance.

REFERENCES

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Task : Replicating the scenario on a tablet with a variable feedback frequency depending on the group assignment. Then, participants self-assess their mental effort on a scale of 1 to 9.