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CARRY DISTANCE ERROR DURING SUBMAXIMAL WEDGE SHOTS: FIRST HALF VS SECOND HALF OF A PRACTICE SESSION

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ABSTRACT

Purpose: This study investigates distance control during submaximal golf shots throughout a 30-shot series. This study was centered around submaximal shots, since there is a relative lack of research on the submaximal swing compared to maximal effort swings. **Methods:** 20 participants (17M 3F, Age 24± 7.7 years, height= 177.3± 8.9 cm, weight 85 ± 28.0 kg) wedge targeted carry distance of 70, 50, and 30 yards (10 trials each, 30 total) using a single, self-selected club. Carry distance was measured by a commercial golf simulator (Skytrak, GolfTec, Englewood, Colorado). Participants were allowed a total of 5 mistrials due to poor contact with the ball. Participants' carry distance was measured against the target distance as an absolute value. Paired samples t-tests with Cohen's d effect size evaluated differences between average carry errors between the first and last 5 shots at each distance. **Results:** At 30 yards, there was a significant and moderate improvement in accuracy between the first and last 5 shots (5.55 ± 2.8 yards vs. 3.88 ± 2.0 yards, $p<0.05$, Cohen's d= 0.44.) At 50 yards, there was no significant difference between the first and last 5 shots ($p>0.05$). At 70 yards, there was no significant difference between the first and last 5 shots ($p>0.05$). **Conclusion**: The current results suggest submaximal distance control can improve with repeated efforts in a single session. However, as effort increases, improvement will be less noticeable, as short-term learning is more significant with lighter efforts. **Practical Applications:** Since short-term learning is greater with lighter efforts, a golfer may want to spend less time working on short-yardage chip shots (0-30 yards) compared to longer chip shots (50-70 yards). These results may have implications for future research methods as well, such that 10 trials may be necessary to reveal the best performances for submaximal distance control. Future research could apply a similar protocol to outdoor performance where results are directly observed rather than simulated.

INTRODUCTION

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METHODS

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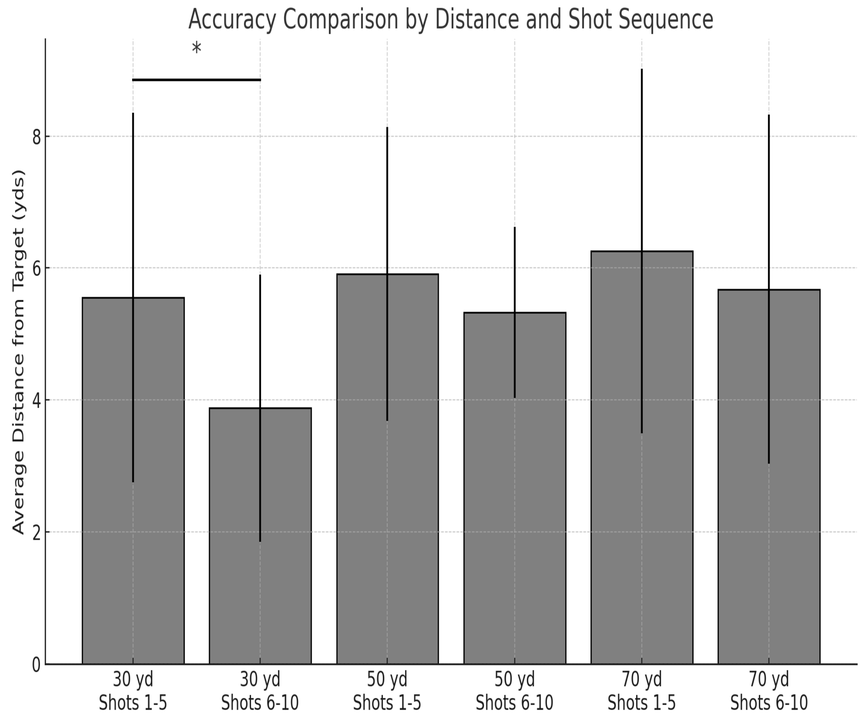

RESULTS

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