

1135-B1-2516

**Tyler Skorczewski\*** ([skorczewskit@uwstout.edu](mailto:skorczewskit@uwstout.edu)), 311 Jarvis Hall Science Wing, 410 10th Avenue E., Menomonie, WI 54651. *Exploring how students learn in youth archery*. Preliminary report.

The National Archery in the Schools Program provides archery education in physical education classes and competitive archery tournaments to thousands of students across the United States. In an NASP tournament student archers using standardized equipment shoot 30 arrows that each score between 0 and 10 (bullseye) giving a maximum tournament score of 300. Previous investigations of archer data show evidence that students are learning archery skills as measured by improving tournament scores over time. In this study we try to determine how the students are learning by comparing the fits of models with different learning assumptions. One model uses a discrete difference approach and assumes a constant rate of learning. Another model assumes learning happens in a series of ‘ah ha’ moments and takes a time-series approach. Results indicate that the time-series approach fits archer data better for most cases, but that there are benefits and drawbacks for each approach. This project is accessible to undergraduates. (Received September 26, 2017)