

Most Effective Method of Introducing Sports to Beginners:

Introductions to Ultimate

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Introduction

Sports are popular all around the world, and there are many well-researched benefits of sports. However, there is also a handful of barriers preventing people from accessing the sport, one of which is simply the lack of knowledge of sports. This research seeks to answer the most effective method to introduce a sport to beginners.

Personally, sports have been an enormous influence on me since my childhood. Not only was it quality time with my family and social time with friends when I was younger, but it also grew into countless learning opportunities and still positively impacts my daily life. Whether it's bonding with teammates over tournaments or just increasing my focus when studying or my sleep quality at night, sports are something I can't leave behind.

There are numerous benefits of sports, with obvious physical benefits and proven emotional benefits such as confidence and improved emotional control, as well as social benefits like improved social skills (Nelson HJ et al., 2022; Somerset S et al., 2018). However, those benefits were not hidden from the public's view, so there must be other reasons beyond the absence of benefits that prevents people from participating in sports. Some significant barriers to participation in sports include safety concerns, economical concerns, lack of social support, lack

of time, and difficulty maintaining interest. (Nelson HJ et al., 2022; Somerset S et al., 2018; Holt NL et al., 2011; Boufous S et al., 2004) As evidence shows, there exist many serious systematic and structural reasons that prevent people from taking up a sport. Though I may not be able to address those concerns now, I am able to answer the basic question of how to best peak one's interest to get one started on a sport if they are able to.

By conducting this research to find the most effective way to learn about the basics of a sport, people around the globe will have the tool to empower themselves and others about more sports and maybe even take the time and energy to physically engage with it. Moderate prior knowledge has been proven to improve the attitude and the interest of participation (Bae Jungsup et al., 2020; Park SH et al., 2015; Linnenbrink-Garcia L et al., 2012), and by finding the most effective way to increase knowledge in beginners, playing any sports can become more accessible.

Methods

I conducted a survey as my primary research. When deciding what sport to use as the model sport, I chose Ultimate due to its relatively small number of players, 3.13 million (2018 Outdoor Foundations), compared to one of the most played team sports in the USA, basketball, which is around 24 million (2018 Outdoor Foundations), in hope of targeting more beginners. Per the definition of sports in the Cambridge dictionary, sport is defined as “a game, competition, or activity needing physical effort and skill that is played or done according to rules, for enjoyment and/or as a job”, and ultimate fits the description. The start of the survey contains some demographic questions. Though there is no limit to the participants' demographic, it is

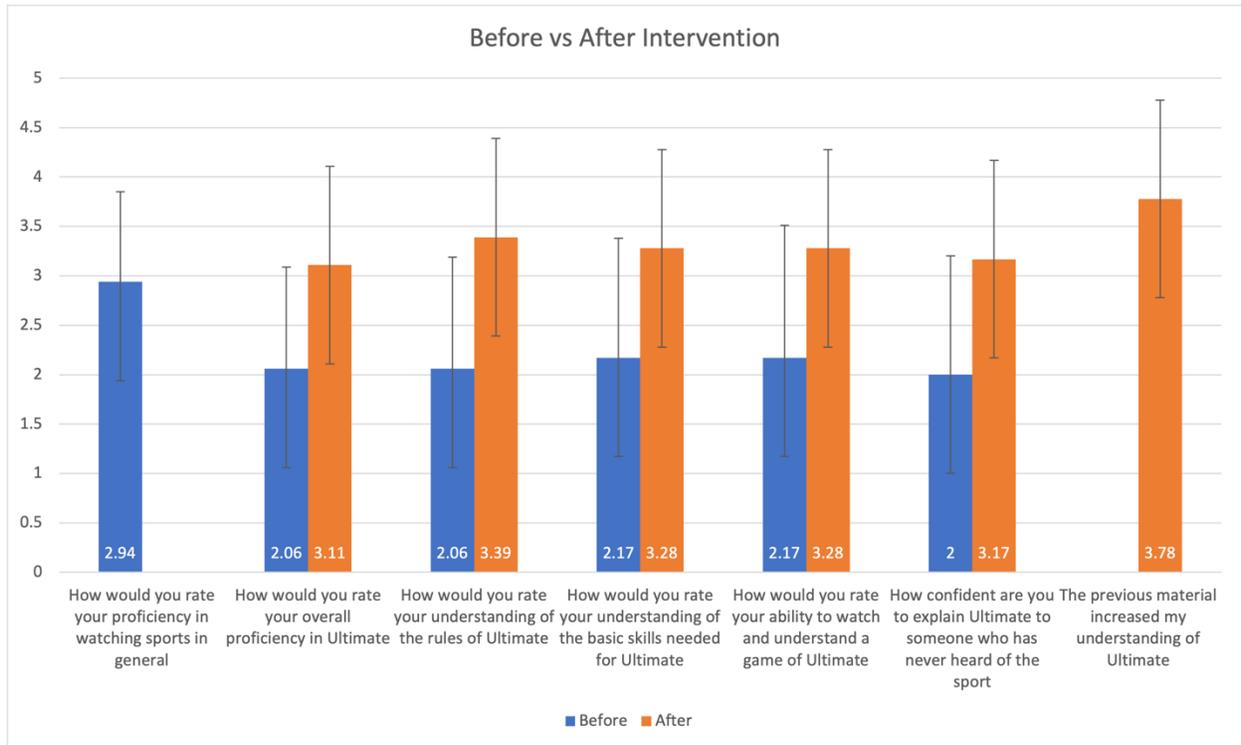
interesting to note how the demographics may or may not affect the results of their perception of sports. The participants are then asked about their perception of their own ability of Ultimate, followed by one of the three methods of introducing ultimate. The three methods used are 1) A video on YouTube explaining the sport of ultimate frisbee 2) A simplified rule book on USA Ultimate 3) A paragraph written by myself explaining ultimate frisbee using references from other sports. After the different methods were conducted, the participants are asked again about their perception of their ability to watch ultimate frisbee. Choosing between a test score subjectively representative of ultimate knowledge and objectively asking about their own perception of the sport, I eventually went with the latter option wanting to focus on the confidence and perception of their own knowledge of the sport. Confidence and the learner's view on their knowledge are ultimately what encourage people to stay. In the end, there are open-ended questions that capture the participants' thoughts on the ultimate and how would they convey the information to another beginner which peeks at what individuals think of the methods used.

Results

In the survey, there are only 18 complete responses. Out of 56% are biologically female while 39% answered biologically male (1 participant preferred not to answer). Most of the people, 83%, surveyed do not have English as their native language. Continuing, exactly half the people have previous "non-recreational" sports experience while the other half does not. For the first evaluation before any kind of intervention, only 5% of the respondents reported their proficiency in ultimate as "expert", with 33% choosing "never heard of it". After any kind of intervention, none of the participants reported "never heard of" in the questions asked, and half of the

respondents answered, “know overall” in the question of “How do you rate your general proficiency of Ultimate?”. The average time respondents stayed on the methods page was 70 seconds, with the average of the video method only around 40 seconds.

*non recreational sport is defined as “includes but not limited to intercollegiate, high school varsity, college club sports, and anything [the participant] consider as non-recreational”

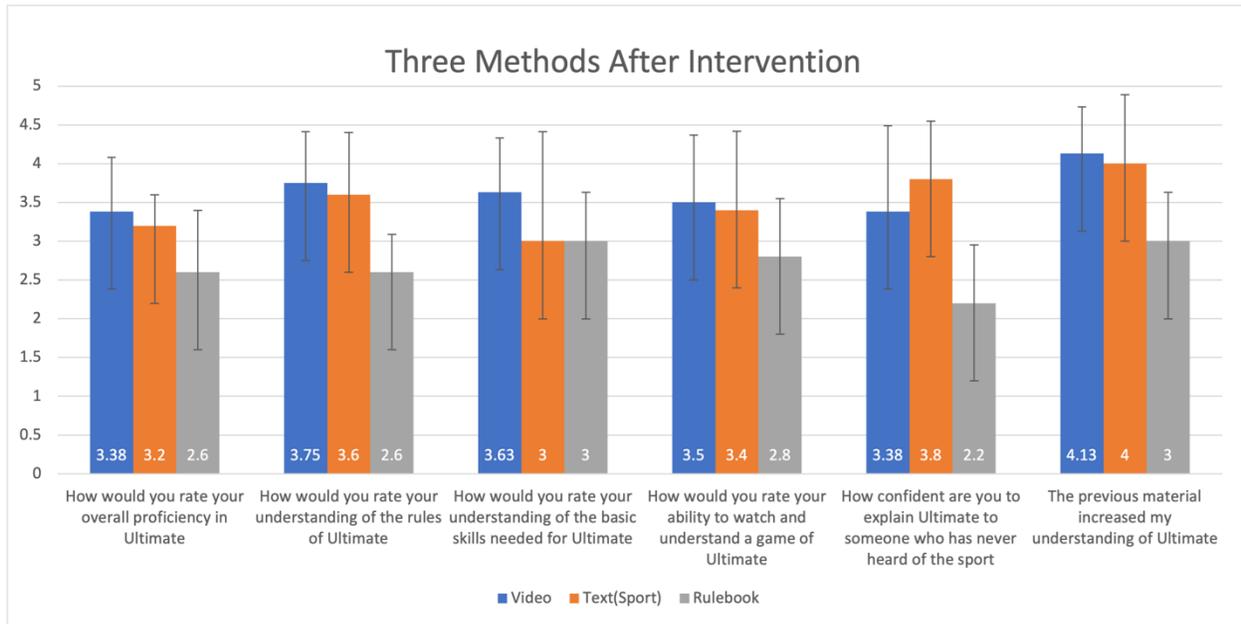


Graph 1: Likert score before and after interventions (Mean±SD)

*the first question were not asked again after intervention, nor was the last question asked before intervention

In the question “How would you rate your overall proficiency in Ultimate”, most of the respondents are below the level of “know overall” with one exception, while one kept the answer “expert” throughout the whole survey; after video intervention(n=8), most of the respondent stated, “know overall” with the score of 3.38±0.7(mean±SD). With the reference-to-sport intervention(n=5) method, most of the respondents also answered: “know overall”, with the score of 3.2±0.4. Finally, with rulebook intervention(n=5), most of the respondents landed on “heard of

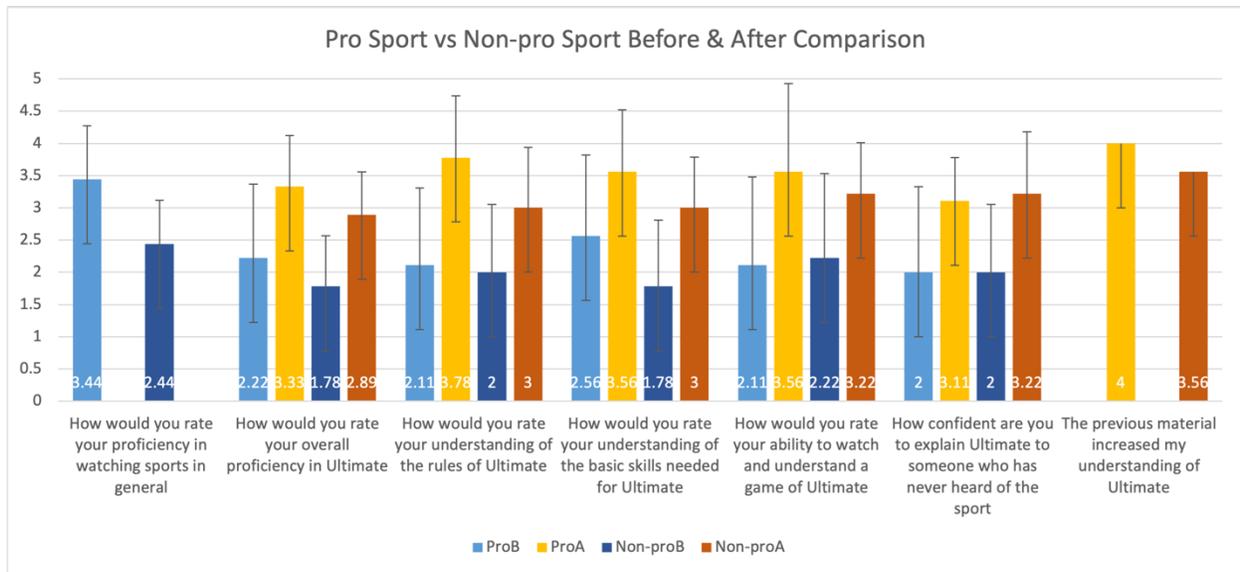
but doesn't know enough" with a few on "know overall", with the score of 2.6 ± 0.8 . The results did not show significant differences.



Graph 2: Likert score after each intervention (Mean \pm SD)

While with the open-ended questions, not all the participants responded to them, but both the video and the text/paragraph method have positive feedback while the rulebook method has more negative feedback.

Those who answered yes to "Have you participated in non-recreational sport before" answered 3.44 ± 0.83 compared to those who answered no with 2.44 ± 0.68 . However, those who have participated in non-recreational sports before doesn't show a significant advantage with a new sport to learn. The results after intervention were not significant between the two groups.



Graph 3: Comparison of before and after with Non-recreational sport player (Pro)vs those who don't (Non-pro)

Discussion

Out of the three interventions, the rulebook method is the one that is least effective in raising the participants' knowledge, since the mean of the answers is still below 3. The reason behind this could be the statements in rulebooks, however simplified, are still geared for players and those who want to play, and not necessarily understanding and just watching the sport. There are technical terms and things that needed to be spread and may not be as visual as the video and not bring resonance as in the reference-to-sport

There seems to be no difference between the improvement in the video method compared to the reference-to-sport method. Both methods gave the beginners enough information to have a grasp on the topic on hand and hopefully be able to understand the sport. The time spent on the video method page is suspiciously short for reasons I have not discovered; my current hypothesizes

are 1) the time watching the video does not count into time spent on page 2) there are some invalid responses hiding in the survey 3) respondents are skipping the video due to various reasons.

When isolating those who play non-recreational sports and those who, those who do have a 25% higher self-perceived knowledge of watching sports in general. However, after interventions, the increase in ultimate knowledge shows no significant difference, showing that intervention didn't depend on previous knowledge of sports and should work just as well with those with limited experiences with sports, or beginners.

From the limited responses, any kind of intervention during the survey improved the participant's knowledge. With the average time during intervention being 70 seconds, I am confident to conclude that basic knowledge and good use of limited time can dramatically increase the prior knowledge of a sport and can lead to increase interest. Furthermore, using video or other sports as references when introducing the sport shows more knowledge gain than simply repeating the necessary rules. However, it is important to note that due to the limitation of this survey, all the results did not show any significant difference and doesn't lead to meaningful results.

In the future, I hope to conduct a survey with wider participants and more responses really discover the hidden trends and tracks behind the larger data. There are many clicks on the survey(n=69), but only 18 are completed responses, thus, it would be necessary to evolve the survey in a way to improve survey collected. I would also love to add the question of "How interested are you to participate in the sport?" to pinpoint their interest level in relation to knowledge levels. There are so many interesting underline trends with the time on each page, the

difference between each Likert question and their relationship to different demographics, and the statistical difference of amount increased after each intervention. Additionally, the relationship between nonnative speakers of English compared to native English speakers is also an interesting topic. Further investigation and comparing the different elements of the video and paragraph can also be beneficial for pinning down the most effective elements of raising knowledge in beginners.

After this research, I do believe it indicates that no matter what intervention was used, one can increase their knowledge of one sport dramatically within one minute. With increased interests, hopefully more and more people will gain access to sports and remained interested in it to not only benefit themselves but all others around them.

References

2018 Outdoor Participation Report - Outdoor Industry Association. (n.d.). Retrieved October 31, 2022, from <https://outdoorindustry.org/resource/2018-outdoor-participation-report/>

BAE, J., WON, D., LEE, C., & PACK, S. (2020). *Adolescent participation in new sports: Extended theory of planned behavior.*

Boufous, S., Finch, C., & Bauman, A. (2004). Parental safety concerns--a barrier to sport and physical activity in children? *Australian and New Zealand Journal of Public Health*, 28(5), 482–486. <https://doi.org/10.1111/j.1467-842x.2004.tb00032.x>

Holt, N. L., Kingsley, B. C., Tink, L. N., & Scherer, J. (2011). Benefits and challenges associated with sport participation by children and parents from low-income families. *Psychology of Sport and Exercise*, 12(5), 490–499. <https://doi.org/10.1016/j.psychsport.2011.05.007>

Linnenbrink-Garcia, L., Pugh, K. J., Koskey, K. L. K., & Stewart, V. C. (2012). Developing conceptual understanding of natural selection: the role of interest, efficacy, and basic prior knowledge. *The Journal of Experimental Education*, 80(1), 45–68. <https://doi.org/10.1080/00220973.2011.559491>

Nelson, H. J., Spurr, S., & Bally, J. M. G. (2022). The Benefits and Barriers of Sport for Children From Low-Income Settings: An Integrative Literature Review. *SAGE Open*, 12(1), 215824402210872. <https://doi.org/10.1177/21582440221087272>

Park, S.-H., Mahony, D. F., Kim, Y., & Kim, Y. D. (2015). Curiosity generating advertisements and their impact on sport consumer behavior. *Sport Management Review*, 18(3), 359–369. <https://doi.org/10.1016/j.smr.2014.10.002>

Somerset, S., & Hoare, D. J. (2018). Barriers to voluntary participation in sport for children: a systematic review. *BMC Pediatrics*, 18(1), 47. [https://doi.org/10.1186/s12887-018-1014-](https://doi.org/10.1186/s12887-018-1014-1)

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