

Institution: Newman University		
Unit of Assessment: 24		
Title of case study: Judging and performance in the sport of Muay Thai		
Period when the underpinning research was undertaken: 2007 – 2013		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s):	Role(s) (e.g. job title):	Period(s) employed by submitting HEI:
Professor Tony Myers	Professor in Quantitative Methods	April 2001 to date
Period when the claimed impact occurred: 2014-2020		
Is this case study continued from a case study submitted in 2014? Y		
<p>1. Summary of the impact (indicative maximum 100 words)</p> <p>Professor Myers's research into Muay Thai judging, has had both a new and an ongoing impact on the sport nationally and globally. His research impacts directly on judging practice, judge education and athlete performance. Myers's operationalisation of judging criteria results in very high agreement on fight results — something that previously proved elusive outside of Thailand. New officiating bodies have been established internationally because of this research, with their training materials underpinned by Myers's research. The ongoing national impact of the research has been secured by training judge educators to deliver research-informed courses for judges, coaches, and athletes.</p>		
<p>2. Underpinning research (indicative maximum 500 words)</p> <p>Prior to Myers's research, national and international Muay Thai officiating bodies suffered from low consistency in terms of judges agreeing on the outcomes of fights. This was perceived as problematic, not least, in terms of the lack of direction offered to fighters and coaches, who were left second-guessing what judges might be looking for — leaving them unsure of where to place an emphasis in fight preparation and training. The result of research into judging consistency by Myers, Nevill and Al-Nakeeb (2010) changed this situation. The research explored the effect of two different methods of judging. One of the methods that clearly operationalised otherwise subjective judging criteria, resulted in very high agreement, making judging more consistent and offering a clear direction to athletes and coaches informing their training, technically, tactically, and strategically. The other method suffered from inadequate levels of agreement.</p> <p>This conclusion was based on the result of two related studies outlined in Myers, et al.'s paper. The first study found that the judging criteria used in Thailand were more consistent than the methods used by UK judges and those judging international Muay Thai bouts. The second study established that a judging system based on the one used in Thailand could improve judging consistency in a completely different cultural context. The research found that judging consistency improves notably when using clearly defined judging criteria applied holistically and, in particular, when subjective concepts such as effective strikes are clearly operationalised. This finding has been fundamental in training judges to be consistent in their decisions — something previously absent in Muay Thai, outside elite groups of professional judges in Thailand.</p> <p>The impact of the judging systems on athlete performance was examined using performance analysis methods (Myers, Nevill and Al-Nakeeb, 2013). Using bespoke analysis software authored by Myers, the research compared techniques and technique quality between different groups of fighters. Differences were found between fighters who had been judged exclusively using inconsistent western judging methods and those judged by a more consistent Thai-style judging system. The study concluded that when judges are more consistent, competitors employ</p>		

a greater number of visually spectacular and effective techniques, as well as delivering techniques of higher quality. This finding was supported by a subsequent study by Myers, Balmer, Nevill, and Al-Nakeeb (2013) using multilevel modelling and simulation.

In addition to the research on judging consistency, Myers also looked at other factors that influence judging performance. Building on previous work on crowd noise effects (e.g., Nevill, Balmer & Williams, 2002; Unkelbach & Memmert, 2010), Myers and colleagues explored crowd noise influences upon officials in Muay Thai. This research involved two studies: Myers and Balmer (2012) and Myers, Nevill and Al-Nakeeb's (2012). Adding to previous findings on crowd noise and home advantage, the combined findings of these studies demonstrated a crowd noise effect across cultures and in an externally valid setting. This has proved useful in making judges aware of this issue, and in adopting different strategies to mediate any resulting bias.

3. References to the research (indicative maximum of six references)

The research presented below has been through a rigorous peer-review process and published in international journals. The reach, rigour and significance of the initial three empirically informed articles cited, were awarded two and three-stars in REF2014.

1. Myers T, Nevill A M, and Al-Nakeeb Y. (2010) An Examination of Judging Consistency in a Combat Sport. *Journal of Quantitative Analysis in Sports*. 6 (3): Article 3. DOI: 10.2202/1559-0410.1178.
2. Myers T., Nevill A. M, and Al-Nakeeb Y (2012) The influence of crowd noise upon judging decisions in Muay Thai. *Advances in Physical Education*. 2 (4): 148-152. DOI:10.4236/ape.2012.24026.
3. Myers, T. D. & Balmer, N. (2012) The impact of crowd noise on officiating in Muay Thai: achieving external validity in an experimental setting. *Frontiers in Psychology*. 3: 346. DOI: 10.3389/fpsyg.2012.00346.
4. Myers, T. D., Nevill, A.M. & Al-Nakeeb, Y. (2013). A comparison of the effect of two different judging systems on the technique selection of Muay Thai competitors. *Journal of Human Sport and Exercise*. 8, 3, 761-777. DOI:10.4100/jhse.2013.83.01
5. Myers, T. D., Balmer, Nevill, A.M. & Al-Nakeeb, Y. (2013). Techniques used by elite Thai and UK Muay Thai fighters: An analysis and simulation. *Advances in Physical Education*. 3, 4, 175-186. DOI:10.4236/ape.2013.34029

4. Details of the impact (indicative maximum 750 words)

Overview of impact

The reach and significance of the impact of Myers's research on judging practices in Muay Thai are substantial — having fundamentally improved the way that the sport is judged globally. The research has influenced judge educators, coaches, and athletes. The research has improved understanding of Muay Thai judging, identified appropriate criteria, and determined how criteria are best operationalised to ensure consistency. These widely adopted judging practices now form part of the training and assessment of officials across the sport. For example, in the UK the research has impacted judging practice in over 6000 fights during this REF period. This has resulted in these fights being judged very consistently, further enhancing the sport's reputation.

The significant, ongoing influence of Myers's research on judging Muay Thai, has led to claims by the key figures in the Muay Thai community such as: "I'm hard pushed to think of anyone who has made such an impact on raising the level of worldwide Muay Thai as Tony Myers" (Don Heatrick, Muay Thai performance coach; S1); "...his [Myers's] research has had a massive influence on how the sport is 'played', not just in the UK but in other countries ..." (Darren

Phillips, elite coach and judge educator; S2), and “Tony Myers’s research into Muay Thai judging and particularly on consistency in judging, has changed the way judges now judge the sport in many countries outside of Thailand, including the USA.”(Dr Stephen Strotmeyer, president of the USMF; S3).

Alongside previous significant influences on governing and officiating bodies in England, Scotland, Ireland, Denmark, and Canada, Myers’s research has resulted in new impact, with officiating and sanctioning bodies being established in the USA and New Zealand during the latest REF period. Myers’s research was the stimulus for their formation and now informs training for these bodies. The sustained, ongoing impact of the research in the UK is now secured, with several judge educators now trained to deliver research-informed training for Muay Thai officials across England, Scotland and Wales.

Influence on establishing an officiating body in the USA and ongoing influence

Because of Myers’s research and its influence on judging globally, senior USA Muay Thai officials, Dr Stephen Strotmeyer and Mark DeLuca travelled to the UK in 2015 to discuss Muay Thai judging and his research-informed training methods. On returning to the USA, they formed the Independent Board of Muay Thai Officials (USA) and used Myers’s research informed training materials to educate officials. After difficulties with some state athletic bodies, they went on to form the USMF Technical Officials Commission a body recognised by the International Olympic Committee. Strotmeyer, president of the USMF, now oversees the education of athletes, coaches, and officials with training underpinned by Myers’s research. The group also intend to build on this research in future with research of their own (S3).

Influence on establishing an officiating body in New Zealand and ongoing influence

Myers’s research has also positively impacted Muay Thai judging in New Zealand. In 2019, after being disillusioned with the standard of Muay Thai competition and judging in New Zealand, Scott Tweedie formed a Muay Thai sanctioning body, the Aotearoa Muay Thai Association (AMTA). The rules (S4) and training methods employed used Myers’s research. Tweedie, president of AMTA, cites Myers’s research as being instrumental in the AMTA creating a robust judging system. Going on to say that the research and the training Myers has provided online has fundamentally changed how the sport is judged in New Zealand, improved the quality of judging, and the standard of those competing in Muay Thai significantly (S5).

Ongoing UK influence

Darren Phillips (S2), Jesse Saunders, Stephen Meikle, Stephen Strotmeyer, and Mark DeLuca have been trained, assessed and now deliver Myers’s research-informed training courses for officials across the UK and the USA - guaranteeing the ongoing impact of his research on judging. 17 major promoters of professional Muay Thai events in England, Scotland and the Republic of Ireland, now only use officials trained and assessed by Myers or the judge educators he has trained. Other major promoters, who use ‘in-house’ officials, also acknowledge the direct influence of his research and training (S6).

Indirect impact

Globally, there have been 11,278 views of Myers’s judging seminar online (S7) and talking through how to score a fight (S8). Myers’s academic articles focusing on judging and its impact on performance, have been accessed numerous times by academics and non-academics. Myers’s academic articles focusing on judging and performance, have been viewed more than 25,000 times by academics and non-academics (S9; S10).

5. Sources to corroborate the impact (indicative maximum of 10 references)

S1. <https://heatrick.com/2020/12/23/tony-myers-the-science-of-building-champions-podcast/>

S2. Supporting evidence from Darren Phillips, professional coach and judge educator.

S3. Supporting evidence from Stephen Strotmeyer, president of the USMF Technical Officials Commission.

S4. Rule set of the AMTA New Zealand https://824fa2f1-af97-4257-ba01-f908c4f096c9.filesusr.com/ugd/533ab9_4069859daed14d60b0c4613c055cc99a.pdf

S5. Supporting evidence from Scott Tweedie, President of the Aotearoa Muay Thai Association on the influence of Myers's research on judging and performance in New Zealand.

S6. Supporting evidence from Gary O'Brien, professional promoter of Power of Scotland Muay Thai events

S7. Scoring seminar: <https://www.youtube.com/watch?v=7J4gzeJO-4Q>

S8. Commentary on scoring a fight: <https://youtu.be/0ESK5tyGuFQ>

S9. <https://www.frontiersin.org/articles/10.3389/fpsyg.2012.00346/full>

S10. <https://www.scirp.org/journal/paperinformation.aspx?paperid=39710>