

Using Referees in Athlete Development

Essay for 6th Dan Test

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1. Introduction

Referees are an integral part of any sports competition. With very few exceptions, such as padel, referees are there to check that the rules are followed, to decide the winner, and to ensure the safety of the competitors. All of these three are important parts of refereeing, but which one takes precedence over the others in the referees' priority list varies depending on the sport.

In different sports, the role of the referee can be quite varied. In sports where the competition is based on something measurable, such as track and field sports, the role of the referee is just to observe that the rules are followed, and that the athlete's performance is measured and recorded. The contestant that jumps the longest distance or runs the determined distance in the shortest amount of time is the winner. While their part of the competition is integral, the referees don't really decide the winner as the decision is based on something everyone, including spectators and the athletes themselves, can see the same way. Referees' knowledge of the substance of the sport is irrelevant to the results, and thus their skill as a referee could hardly benefit the athletes in training outside of competitions.

On the other end of the spectrum are skills-based sports, where the referees decide the winner by appraising their performance based on preset criteria, such as gymnastics or figure skating. The athletes are expected to perform within certain boundaries, and the referees decide superiority based on the quality of the performance. In these sports, the role of the referee is very significant, as the results are completely based on the referees' judgment calls. In these sports, the referees' refereeing knowledge can be used for athlete development.

Of course, there are also sports that fall in between these ends of the spectrum, such as ski jumping, where it's very clear that the athletes are expected to jump for a long distance and the length of the jump plays a key part in deciding who is the winner. However, in ski jumping there are also judges that score the athletes performance including their landing and their technique while in the air, and these scores also affect the outcome of the competition. So, to win in ski jumping, the athletes not only have to jump for a long distance, but they also need to have a good technique. The scored performance is very closely connected to the skills that allow the athlete to glide over a longer distance, so the referees' refereeing knowledge probably isn't as useful as in skill-based sports.

Then there are sports that are based on two opposing contestants or teams trying to beat each other by scoring point or goals. The scores can be something easily measured, such as the ball getting in the area designated as goal in football or one of the players unable to hit the ball in tennis. The scores can also be something judged by referees, such as a hit landing on the opponent in boxing. In these sports, it may be possible to get a direct victory regardless of the score at the time, such as knocking the opponent out in boxing. In these sports, the referees' knowledge can help the athletes to avoid getting penalties or deductions, but possibly also to teach them how to execute their technique in a way that the referees view as scoring.

Taekwondo kyorugi (sparring) falls into the last category. While nowadays the electronic body protector and helmet measure the hits and their power levels and score accordingly, the winner is not decided by measuring who kicked the hardest, but who scored most points. It's also possible to get a direct victory by means of a knockout. Taekwondo poomsae (patterns) on the other hand is a skill-based competition where the winner is decided by the referees' appraisal of the athletes' performance.

In taekwondo, the role of the referee is different in kyorugi and poomsae. In kyorugi, the referee roles are divided into the center referee and corner judges. The main job of center referee, of course, is to ensure the safety of the contestants and to make sure that the rules and regulations are followed, whereas the corner judges are there to score points and sometimes aid the referee in enforcing the rules. In poomsae, there is little distinction between the referee and the other judges. The judges' job is to score the contestants' performances. The referee acts as one of the judges, but their duties also include giving overall deductions for crossing the boundary or the allotted time of the poomsae, giving warnings for untoward behavior, and leading the action within the court.

Essentially, the referees' role in poomsae encompasses that of the poomsae judge and the kyorugi referees. In this essay, the term referee includes all these different roles.

This essay focuses mainly on using the referees' knowledge to develop poomsae players skills, but benefits for kyorugi players' development are also discussed briefly. The choice is made based on my own expertise and experience being more on the side of poomsae. Though the differences between kyorugi and poomsae competitions formats and their refereeing are pointed in this essay, it should be noted that I don't value these two aspects of taekwondo differently. For me, both are essential parts of taekwondo and should be given equal recognition.

In addition, some thought is given to the ethical point of view in using referees in athlete development and what differentiates taekwondo and other martial arts from most sports, as these are closely connected to the idea of using referees for athlete development.

2. Kyorugi

In kyorugi, the referees' knowledge of the rules and guidelines can be used in athlete development in two main ways. The first one is education, the second one is individual feedback.

Developing an athlete doesn't require intimate knowledge of the rules as long as the athlete performs in competitions within the boundaries of the rules. In addition, anybody can read the rules and regulations that describe how a kyorugi competition plays out. However, while some people prefer to learn the rules by reading them themselves, many learn better when they are taught the rules by someone else. Referees, who are supposed to be intimately familiar with all the rules, are in a natural position to teach the rules to others, either during seminars or as a part of training sessions. Sometimes athletes or their coaches have tricky questions on the application of the rules, and who else would be better to answer these questions but the ones that enforce them in competitions, namely the referees.

As taekwondo kyorugi cannot be measured the same way a track and field sports, the rules and regulations cannot cover all possible situations. They are subject to interpretation. In competition situations, the interpretation is made by referees. The baseline for interpretation is made internationally by the referee lead and then taught to the referees, but on the field of play the referees need to make judgment calls based on these interpretations. Athletes and coaches can watch the referees work and deduct the interpretations from what they see, but it's more efficient

if the referees educate not only other referees but coaches and athletes as well on the interpretations. This leads to a more uniform, transparent, and fair competition.

Another way for the kyorugi referees to help in athlete development is to come to trainings and judge their performance there. Instead of just two athletes sparring with each other and counting the hits themselves or using electronic gear to give the points, a referee can be in the sparring with them just as they would in an actual competition and tell them when they would have been given warnings or penalties and why. And most importantly, how to avoid getting the penalties.

Let's take pushing as an example. Pushing the opponent is allowed to a certain degree in taekwondo kyorugi, but when it goes over a certain threshold, it's no longer allowed and leads to a penalty (gam-jeom). The threshold can and should be explained in written words, but in the end, it's how the referee perceives and interprets the situation that leads to penalty being given or not. This can be explained best in a live situation where the referee can immediately explain what made the pushing go over the threshold.

In Finland, this kind of education based on individual feedback during national team camps combined with lectures by referees on the finer details of the rules and new guidelines have received good feedback from athletes and coaches alike. This kind of cooperation is beneficial for referee education as well, as it gives the referees more chances to practice refereeing in a live situation. In addition to just practice, it also gives the referees better chances of discussing and assessing the judgment calls amongst themselves, something that cannot be done during competitions.

Before transitioning into most points in a kyorugi match being given automatically by the electronic equipment, the role of referees' perception and interpretation of the scoring criteria was a lot more important. The referees needed to make a judgment call on every hit and decide if it hit the correct scoring area and was powerful enough to warrant points. Communicating these criteria to athletes and coaches could best be done in training situations, because there the referees could pause the action to explain why a hit scored or why it didn't. Nowadays, this only applies to punches and the extra points given for spinning kicks as they are the only ones still given by the referees. For the rest of the hits, the athletes can practice themselves by using the electronic equipment to measure the hits and their power.

3. Poomsae

Where refereeing kyorugi doesn't really require deep knowledge of taekwondo techniques or the ability to perform them, the situation is quite different in poomsae. For poomsae referees, the knowledge of the fine details of each technique and poomsae is the basis for every judgment call on whether to deduct accuracy points or not. Even in judging presentation, understanding techniques and their application is paramount.

Taking this into account, it's not surprising that poomsae referees are required to have extensive background in taekwondo and their referee training focuses much on the standards of techniques and the patterns themselves. While the poomsae referees don't need to be athletes themselves, in a way a good referee should be able to at least an average level competitor, at least in the sense of being able to perform the techniques and poomsae according to the standards.

Taekwondo poomsae competitions are divided into two sub-disciplines, namely recognized poomsae and freestyle poomsae. Scoring in recognized poomsae focuses heavily on the correct execution of the individual movements in the correct sequence, whereas scoring in freestyle poomsae is more based around the athlete's ability to perform the required techniques in a showy manner: high jumps, multiple kicks, and lots of spin. While part of the scores for these compulsory kicks come from good technique, the focus is more on making them look good. Freestyle poomsae should still mainly consist of taekwondo techniques, so someone able to just do the compulsory kicks won't score high.

So, to make the refereeing transparent and uniform, all referees should be taught the same standards for techniques. On a global level, this is done in International Referee Seminars and Courses and during the referee training periods prior to World Championships, continental championships, and other major events. This knowledge is expected to trickle down to national level by the international referees educating national referees on the same standards. However, there's a gap in this system. Currently, World Taekwondo doesn't organize regular education on the poomsae standards for coaches and athletes. The referees are being taught the standard, but if the athletes don't get education on the standard, how can they perform according to it? It's no secret that taekwondo is taught in many forms around the world. While this enriches it as a martial art, at the same time it makes judging poomsae difficult unless all athletes are getting education in the technical standards.

The technical standard in poomsae competition is based on the Kukkiwon Handbook. However, as a book it naturally can't show every little detail of each movement and pattern. This is where live education is required. While there are minute differences between the Kukkiwon and World Taekwondo standards in poomsae, on the accuracy sides they are insignificant in the whole picture. On the presentation side they should be mostly negligible, but as Kukkiwon focuses more on taekwondo as a martial art and World Taekwondo more on taekwondo as a sport, the poomsae competitions put more emphasis on the performances looking for in the audience's eyes instead of strictly focusing on application. This can mostly be seen in high kicks way above any target that would be considered valid in a self-defense situation.

This brings us to the role that referees can have in athlete development. As in kyorugi, this can roughly be divided into education and individual feedback, though the focus on both is different from the focus in kyorugi.

An important part of the education is teaching the athletes and the coaches the same technical standards that the referees are taught. If the athletes don't know the standard they're expected to perform according to, it shouldn't come as a surprise if they can't perform up to it. And if the referees have the best knowledge of that standard, they are the best ones to spread the knowledge.

In Finland, and probably in many other countries as well, a major part of the poomsae referee education is teaching and practicing the correct standard of individual techniques and the whole poomsae. Coaches and athletes are welcome and even encouraged to attend these same education courses, so that they learn the same standards as the referees. Technical details, of course, form just the accuracy part of the poomsae scoring. Accuracy alone doesn't make a good poomsae performance.

While accuracy can fairly easily be standardized and the standards even written down, presentation scoring relies on understanding the principles behind functional technique and a good performance. Presentation can be described in words, but it's not as tangible as accuracy, and thus requires more observation and interpretation. It's quite different to show what good speed and power means than to describe it in words. The same goes for rhythm and tempo, and expression of energy which are the sub-parts of presentation scoring.

Educational courses or individual trainings where the standards are taught play an important part in spreading the knowledge. However, just knowing the standards is different from being able to put

them into action. This is where individual feedback comes into play. Coaches and other athletes can give the athletes feedback on their performances, and beside the athletes themselves, coaches do most of the work in athlete development. Referees can support this development by putting their knowledge and expertise into use by giving individual feedback.

Feedback can be given on a general level, such as telling coaches some of the main issues the referees noticed during a competition. This is very important if there are systematic mistakes many athletes do. However, for this kind of feedback to be beneficial, it requires the coaches and athletes to be able to self-reflect on their performance. Unless the athlete or their coach recognize the feedback as concerning their own performance, the feedback can be all for nothing.

Thus, out of the tools available for referee in athlete development, individual feedback can have the strongest impact on athlete's performance. Here, three methods for individual feedback are explained.

For experienced athletes, probably the most effective way of feedback is a one-on-one training session with an athlete. The athlete can perform segments of the poomsae or whole poomsae, and the referee gives immediate feedback on the performance. Not only things that need to be corrected, but also noting good things and thus reinforcing them. This way, the athlete can get personal feedback on their own performance, and they don't have to think if the general feedback given to a wider audience applies to themselves. A good way of doing this is to have the athlete perform a whole poomsae, then to quickly point out all the techniques that require work, and then to explain all of these points individually. Depending on the athlete and their skill level, they should then either practice those individual points separately or directly try to apply them to the performance of the whole poomsae. Immediate feedback should then be given on all of these points: was the athlete able to incorporate them in their performance or should they try again. As for most individuals it's not possible to fully concentrate on too many points at the same time, telling them a handful of the most important ones at a time is more beneficial than laying all the mistakes they made all at once. When the athlete has improved their performance on these points enough, they can be given the more points to develop, or it's time to move on to the next poomsae. A one-on-one-training session also gives the athlete a good chance to ask the referee if there is anything in the standard they are not familiar with.

The one-on-one training is also a good chance to figure out how to enhance presentation in addition to accuracy. The athlete can perform a segment of the poomsae in different ways, and the referee decide which way looked the best. This can help fine-tune the balance between, for example, good volume of movement and exaggeration of the motion.

Another good form of live feedback are referees joining training camps or session with athletes. During their trainings, athletes come to the referee or group of referees individually to perform their poomsae. The referees give their feedback in the same manner as in the one-on-one session, but instead the same athlete trying to incorporate the feedback into their poomsae immediately, they listen to the feedback and return to the training to practice, and another athlete comes to receive feedback. Ideally, a coach or assistant should be there to takes notes of the referees' feedback to the athlete so that the athlete can concentrate on listening to the feedback and then get it in written form as a reminder. If multiple referees are present, this form of feedback also gives them a good chance to discuss among themselves what they saw and develop their own skills at the same time. Inviting experienced foreign referees to this kind of events just adds to the benefits, as the foreign referees probably scrutinize the athletes with fresh eyes.

The third form of feedback is based on videos of the athlete's performances. They can be filmed during a competition or training session. While analyzing competition performances is good because they represent the athlete's ability to perform under pressure in the situation they are training for, the camera angles in competition videos are often less than optimal. For referee analysis and feedback, a separately filmed performance may be better, as the camera can be placed in the same way that the referee would be watching the athlete's performance in a competition. When analyzing the videos, the referee can rewind and stop them to catch all the small details. The feedback should then be written down in a detailed manner so that the athlete can understand what the referee means. The best thing about this kind of feedback is that the referee can ponder on the details, and all feedback can be given at once. The athlete can then focus on parts of the feedback at a time instead of trying to incorporate all of it at once.

Of course, all three of these forms of feedback is something that coaches and other athletes can give without involving referees. However, referees usually look at the poomsae from a point of view different from coaches and athletes, so getting the referees' opinion can be very helpful especially for experienced athletes.

For freestyle poomsae, the feedback can focus on different things. For the athlete, it's important to know if the referees perceive their compulsory techniques the same way the athlete thinks they're performing them. What an athlete feels is a good enough kick may not look so for the referees. Also, when it comes to presentation in freestyle poomsae, it's beneficial for the athlete to know how the referees consider their performance from the points of view of creativity and harmony, and if they feel it has enough taekwondo techniques in it.

Helping the athletes in these ways is also very beneficial for the referee's own development in their refereeing skills. Not only does a referee need to know in a very detailed manner how the poomsae should be performed, they also need experience in watching good and bad performances to get a feeling what to look for in them. Practicing the poomsae themselves is important to understand and remember the poomsae, but practicing is not the same as watching and scoring performances. Especially in the higher poomsae used only in some categories, namely Jitae, Chonkwon, and Hansu, it can be seen from the referees' scores that they are not used to watching these poomsae and miss some mistakes they would catch in poomsae they are more used to judging.

4. Taekwondo and other martial arts compared to other sports disciplines

Taekwondo and other martial arts, especially Asian martial arts, are notably different from most other sports. Where most sports disciplines focus around the competition performance, in martial arts the competition form is often just one aspect of the art. This difference arises from the history of sports disciplines and martial arts, but also affects the modern development of both.

Most sports disciplines are built around the objective of the sport, whether the objective is to score points or to have a better measurable result. Basically, anything that doesn't further this objective, is not relevant for the sports discipline itself, though practicing it may be beneficial to the performance.

Martial arts, on the other hand, have mostly developed to answer the need to defend oneself or to inflict damage on the opponent in a war or similar combat situation. That's the origin of martial arts, but in the modern world people mostly practice martial arts as a way of recreation or self-development instead of actual need to defend their lives. Sports disciplines inside the martial arts have developed because people have a need to test their skills against those of others. For safety reasons, testing

the skills against another person needs to have some kind of rules, and unless the point is to knock out or submit the opponent, rules are also required to determine the winner. Out of necessity, this leaves parts of the martial art outside the competition format, but they don't disappear from the martial art itself.

This leads to a situation where many people who practice martial arts don't compete in them on any level. In most sports disciplines, this would all but negate the need for organized sports, clubs, and teams. Sure, many of them can be done as recreational activities, such as running or skating, but then they aren't really that sports discipline. However, in martial arts the core of the art is in something else than just competition. Competing is just a way to test one's skills against others, or that's how it was originally. Nowadays, as competitive disciplines in martial arts are getting more and more competitive and professional, those aiming to achieve high-level competitive success often focus their training to a single part of the martial art at the cost of the others.

Still, probably most martial artists practice their martial art as a whole, not only it's competitive forms. For example, in Finland, out of the about 8000 taekwondo practitioners, maybe about 4 percent compete annually. This gives testament to the uniqueness of martial arts in the world of sports.

In taekwondo, as in other martial arts, it is customary after a few years of training to start teaching others and passing on the knowledge acquired during one's own path so far. Often, the referees also come from the ranks of these long-standing practitioners, or, if they have started refereeing early on in their taekwondo careers, teaching others naturally comes into their taekwondo path when they advance in ranks.

Taking this into account, referees are quite naturally involved also in athlete development, even if they don't consciously think of it as using their refereeing knowledge to benefit the athletes. The question is, does this knowledge stay within just their own clubs, or is their referee knowledge harnessed to benefit a larger taekwondo community? To take advantage of the referees, the system should encourage them participate in athlete development. This, however, leads to ethical questions regarding competition bias, which should be taken seriously to mitigate the risks involved.

5. Ethical questions and bias

Impartiality is one of the very basic requirements for referees in addition to knowing the competition rules and their interpretation. If the impartiality is breached by a referee, it lowers the credibility of all referees. Therefore, it is imperative that bias, conscious or subconscious, are recognized and their possible effects on the results mitigated systematically.

On a continental and World Championships level, this is taken into account with rules that referees aren't allowed to judge athletes of their own nationality or with whom they are personally involved. On an ideal level, this is already taken into account by not assigning referees to matches or rounds where possible conflicts of interest might arise. However, this isn't always possible, especially for referees from countries that have athletes in just about every category. On national level, or open international tournaments, there often isn't a chance to substitute referees. In the end, the referees' integrity is put to test if there's a situation with possible bias. Will the referee ask for substitution, or will they be able to be impartial even when there's possible conflict of interest?

Conscious bias, of course, is easier to recognize than subconscious bias, and immediate action should be taken if such is recognized. Subconscious bias, on the other hand, may not be so obvious, but may affect the outcome of the competition negatively. In kyorugi, a referee's hope that one of the opposing contestants wins may occur as different sensitivities for offering points for the athletes' punches or spinning kicks for the corner judge, or differences in the penalty line for the center referee. In poomsae, the same may occur by giving an athlete more lenience when it comes to accuracy deductions or giving them slightly higher presentation scores.

Of course, the bias may occur also the other way around. If a referee gets to a situation where they have to judge an athlete from their own club, they may be harsher in their judgment just because they don't want to appear biased or make anyone suspect their 'own' athlete didn't win on their own merits, or they just know beforehand the mistakes the athlete is going to make and are ready to deduct points from them. Many referees avoid judging their own club members or friends if possible because they recognize this, but on a national level, at least in small countries, the only way to completely remove this possibility of bias would be to restrict the referees' own taekwondo careers by not allowing them to compete or to train taekwondo themselves. This isn't really a viable option, because where would the referees then come from if not from within taekwondo? For kyorugi, outsiders could be trained as referees if such were to be found, but for poomsae, the sheer

amount of taekwondo knowledge and experience required to be able to judge the performances, makes such recruiting next to impossible. Similar situation exists in other sports disciplines that are based on scoring the athletes' skills, such as other martial arts' patterns competitions, gymnastics, figure skating, or diving.

Bias may also be less obvious than described above. Taking freestyle poomsae as an example, the athletes from Europe generally build their performances differently compared to Asian athletes. Asian freestyle poomsae performances often include softer movements and more artistic approach, whereas European performances often emphasize more straightforward motions and physicality. One of these isn't necessarily better than the other, but if a referee is used seeing just one of them, it's easy to subconsciously consider it as the better one. This just emphasizes the need for top-level referees to accumulate experience from multiple competitions around the world to get used to different ways of performing and then making a conscious judgment call on which athlete is better.

The most important this is to recognize possible bias and take required measures to avoid it affecting the outcome of the competition.

6. Conclusion

As described in the previous pages, referees can be a useful addition is athlete development. If not used systematically, they can become a wasted resource by just teaching and coaching inside their own clubs. Experienced international referees are active experts, who constantly keep themselves up-to-date on the latest developments not only in the rules, regulations, and interpretations, but also international trends in taekwondo, or other sports disciplines. Tapping their potential on a regional, national, or even international level can bring many positive things for athlete and coach development. In addition, seeing more athletes perform also outside of competitions gives the referees a chance to develop their refereeing skills and knowledge in a less stressful environment than competitions.

This cooperation should not be done behind closed doors, as it can lead to bias, be they real or perceived. Being open about using referees for athlete development adds transparency and gives everyone a chance to develop taekwondo together.