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CASE STUDY 11

A Case Study of Using an Adult-Oriented Coaching Survey and Debrief Session to Facilitate Coaches' Learning in Masters Sport

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The Adult-Oriented Sport Coaching Survey (AOSCS) can be used by coaches to reflect on how they coach competitive adult sports participants. There are coach (AOSCS-C) and athlete (AOSCS-A) versions. The purpose of this case study is to portray how coaches reflect on scores from the AOSCS with a coach developer. Nine coaches (White; ages 23–72; five men and four women; six sports) and their respective athletes were invited to complete the AOSCS twice during a season. Coaches were given their survey scores and undertook a debriefing interview with a coach developer. We reflected on four key topics in this dedicated professional development session: coach impressions on receiving an AOSCS personal scorecard, leveraging comparisons between coach and athlete scores, leveraging comparisons in scores over time, and misunderstandings/inadequacies of numerical scores. We reflect on meaningful interventions for coach development in adult sport.

Keywords: coach development, coach debriefing, reflective tool, Masters athletes, psychosocial practices

Masters sport clubs/leagues are designed and fostered for Masters athletes (MAs), adults who practice and compete in sport that is promoted to people who are beyond the normative age of peak performance in their respective sports (Callary et al., 2021). MAs are competitive leisure-sport athletes who are typically over 35 years of age (though this can vary based on sport), regularly train for competition, and are formally registered with a Masters team, club, or in sanctioned events (Young, 2011). Coaches have been found to positively contribute to MAs' sport experiences but have few resources to help them know how to coach an adult cohort (Callary et al., 2018). Our research program has examined how and why coaches support adult sportspersons' participation and motivation and how it informs a quality Masters sport experience (Callary et al., 2021; Young et al., 2021).

We created an evidence-based self-assessment tool that coaches can use to better understand their adult-oriented coaching practices. Grounded in adult learning principles (Knowles et al., 2012) and conceptualizations of andragogy adapted to suit the sport context (MacLellan et al., 2019), the Adult-Oriented Sport Coaching Survey (AOSCS; Rathwell et al., 2020) is a psychometrically validated and empirically grounded self-assessment tool designed to stimulate reflection and coach learning about key psychosocial coaching approaches when working with adult athletes. It has 22 items that allow coaches to rate the frequency with which they are currently enacting adult-tailored approaches and assess their orientation toward their MAs. The coaches assess themselves on five factors: (a) *considering the individuality of their athletes*, as measured by their approach toward organizing, planning, and giving practices based on MAs' motives and experience; (b) *framing learning situations* using self-discovery, modeling, problem-based scenarios, or assessment; (c) *imparting coaching knowledge*, enriching the MAs' learning environment by sharing their own relevant athletic experience, coaching knowledge, and professional coaching development in order to relate to, empathize with, and/or inspire the adult athletes; (d) *respecting preferences for effort, accountability, and feedback* in adapting to their MAs; and (e) *creating personalized programming* by taking into consideration MAs' scheduling and programming needs at practices, across the season, and support at competitions.

As researcher-practitioners in sport psychology and coaching, our applied work is also empirical. Therefore, while researching the AOSCS, our applied research was inextricably related to our roles as coach developers and sport psychology professionals, two roles which we find synergetic in supporting, motivating, and bringing reflection-on-action to reflection-in-action for learners. Coach developers support and challenge coaches in their learning through a range of strategies, including reflection (McQuade & Nash, 2015). Using the AOSCS as a coach development strategy in Callary et al. (2023), we found that coaches appreciated its relevance for reflecting on their practices and saw it as a toolbox of ideas for coaching MAs. Specifically, after the stem "How frequently do you …, " coaches responded to each item on a 7-point Likert scale ranging from *never* (1) to *always* (7). After completing the AOSCS, they received five scores that represented the average of their Likert scale responses for each of the five factors. In our study, we noted that while the coaches liked thinking through their use of the items on various factors, they were unsure how to use the score that they received per factor. We concluded that future research should explore whether coaches are better able to reflect on their scores if they can see them in relation to scores derived from their athletes' perceptions of their coaching practices (i.e., potential convergence with athletes), or in relation to how they might change at different time points in the season (i.e., temporal dynamics; Callary et al., 2023). The present case study portrays a

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more fulsome effort to understand how coaches reflect on scores from the AOSCS with a coach developer, when they are derived from the coach and athlete self-report, and how they may precipitate initial thinking regarding personal coach development.

With respect to the idea of convergence between coach and athletes, it is notable that the AOSCS has two versions: the aforementioned coach (AOSCS-C) version and an athlete (AOSCS-A) version (Rathwell et al., 2020). In the AOSCS-A, the same 22 items are asked on a 7-point Likert scale, but the stem is "My coach/instructor . . . ." The factor structure and constituent survey items per factor are the same across both versions, and as assessment tools, both have substantial support for their validity and reliability (Rathwell et al., 2020). An advantage of having both versions is that a coach can receive the scores from their adult athletes on the same coaching approaches for which they have responded. A coach can receive one AOSCS-A score per factor, which represents the aggregate of all their MAs' average responses for each item in that factor. Thus, if the coach and their MAs complete the AOSCS-C and AOSCS-A, it is possible to give coaches a personalized scorecard that shows their five AOSCS factor scores in one column and their athletes' aggregate scores in another.

With respect to temporal dynamics, in complex real-world coach learning environments, it is important to take multiple observations, reflections, and self-assessments across time and to link such instances, informatively, to dyadic education efforts (Callary et al., 2014; Kuklick & Kasales, 2020; Walters et al., 2020). Repeated assessment of learners, as long as it does not become too laborious, is a source of disentangling maturation from learning, and for inspecting change. The AOSCS is suited to repeated assessment at different points in the season (Motz et al., 2023). Moreover, after each self-assessment, a coach developer can debrief with the coach (Callary et al., 2023).

The purpose of this case study is to portray how coaches reflect on scores from the AOSCS in debriefs with a coach developer. The coaches' reflections on these scores, as facilitated in a debriefing interview, serve as a singular professional development session for coaches that provides useful information about how coaches interpret and use the AOSCS that can be used to build meaningful interventions for coach development.

Situating the Authors

We are a pan-Canadian team of research-practitioners that, for the past decade, has explored topics related to the psychosocial aspects of lifelong sport participation, effective coaching, programming, and messaging around competitive adult sport. I (the first author—name withheld) am a coach developer through the International Council of Coaching Excellence, the National Coaching Certification Program in Canada, and Alpine Canada in which capacity I have been trained in facilitation skills in supporting coaches' reflections toward ongoing lifelong learning. My philosophy as a coach developer is guided by my own coaching and educational leadership philosophy, but also by working with coaches. I believe in the importance of personally striving and learning as a coach developer to improve coach development programming and coaching outcomes. I see coaches as lifelong learners who need time and support to integrate life's connections to make changes. To do so, coaches need to reflect on their actions and I need to create a safe environment where they can seek support and guidance through questions about their experiences. This philosophy guided the approach taken in setting up and implementing this case study, which can be seen through the ways in which the case themes are directed by the coaches' experiences but facilitated by me, the coach developer.

In addition, all the authors were involved in leading coach development webinars for coaches of MAs in which the AOSCS was presented and explained. We believe it is important to explore and understand the psychological and social considerations that are unique to coaching adult sportspersons and their athletes to best develop essential coaching skills that support, recruit, and retain adults engaging in sport over their lifespans. Both our empirical and practical experiences around adult sport have convinced us that coach development opportunities in Masters sport are scarce and highly unstructured. As researchers who are also coach developers, we respect the need for collaboration, convergence, and professional development between central actors (i.e., the coaches, athletes, and coach developers) in the adult sport domain.

Coach Developers Using and Debriefing the AOSCS

Insight was obtained from nine Masters coaches' reflections on their AOSCS scores in a natural real-life context (Crowe et al., 2011). This case study was collective in design and followed Cotterill and Schinke's (2017) conceptualization of a case as providing a bounded context for analysis of using of the AOSCS as a resource for contemporary and underserviced coaches of MAs. Through the debrief, we learned and constructed knowledge, discussing the coaches' reflections and use of the AOSCS scores. Using the coaches' quotes, as the coach developers, we provide commentary on their experiences regarding how the AOSCS could be used in further interventions by coach developers. All research pertaining to studies that informed this manuscript received ethics approval from Cape Breton University's research ethics board. All coaches have been provided pseudonyms to uphold anonymity.

Coach Participants

All coaches resided within Canada or Australia. There were four women and five men, all White, ranging from 23 to 72 years old. They were all coaching Masters sport groups at the time of the study. The coaches approached the research team to support their learning due to their knowledge of the team's research program and were subsequently invited to take part with the understanding that they would be able to complete the AOSCS and debrief on their adult-oriented approaches. The coaches wanted to provide the AOSCS-A survey link to their athletes with the understanding that they could receive the aggregate scores from their athletes.[1] They coached diverse sports: synchro skating, swimming, rowing, speed skating, kettlebell, and alpine skiing (see Table 1).

Survey and Debrief Procedures

The survey was distributed to all coaches and their respective MAs at two time points 8 weeks apart, which represented the start and mid-way or end of their sport seasons. Subsequently, the coaches had scores for the AOSCS-C and AOSCS-A at t1. Of the nine coaches, two did not have scores for the AOSCS-A at t2 and two did not have scores for the AOSCS-C and AOSCS-A at t2.[2] The first and second authors organized debriefing interviews after the coaches and their MAs had been given 2 weeks to complete

Table 1 Coach Demographics

Masters coach	Age	Country	Sport	AOSCS-C t1	AOSCS-A t1	AOSCS-C t2	AOSCS-A t2
Danielle	23	Canada	Speed skating	X	X	—	—
Sergio	72	Canada	Rowing	X	X	—	—
Keith	61	Australia	Swimming	X	X	X	—
Amanda	69	Australia	Rowing	X	X	X	—
Wilson	71	Canada	Swimming	X	X	X	X
Samuel	35	Australia	Swimming	X	X	X	X
Evelyn	47	Canada	Kettlebell	X	X	X	X
Paul	46	Canada	Alpine ski	X	X	X	X
Barbara	40	Canada	Synchro skating	X	X	X	X

Note. AOSCS-A = Adult-Oriented Sport Coaching Survey—athlete version; AOSCS-C = Adult-Oriented Sport Coaching Survey—coach version.

the survey at t2. One day before the scheduled interview, we sent the coach a personal scorecard (see Figure 1).

The personal scorecard included a general description of the AOSCS and an explanation of the Likert scale used to anchor the scores. Importantly, there was a note that explained that higher scores simply denoted the perceptions of higher *frequencies* of use, and that higher scores did not necessarily reflect effective coaching practices. In the body of the document, each AOSCS factor was named and defined, and the scorecard displayed the coach's and MAs' scores for each factor side by side for each of the preceding time points.

One day after the coach received their personal scorecard, we conducted the debrief via Zoom that ranged from 50 to 65 min. Using a PowerPoint slide deck, the coach was shown each item, explained which item fit within which factor, and asked to comment on them. Next, their scorecard was brought up on a screen and they were asked what they thought of their scores generally, what information they could gain from the scores, and whether the scores were expected or unexpected and why. They were then asked to talk about the similarities and differences between their own scores and their MAs' scores in each theme and about the stability or change of the scores from t1 to t2. Finally, they were asked what they thought of receiving this type of feedback and what they might do with the information on the scorecard.

Data Analysis

Reflexive thematic analysis (Braun & Clarke, 2021) was utilized to analyze the debriefs. The transcripts were read and coded according to whether and how AOSCS scores in each factor were perceived by the coaches. Next, we created tables for each coach based on their identification of the scores in their reflection. The tables were thus filled with quotes from the coaches that indicated the meaningfulness of the AOSCS-C scores at t1 and t2 and the AOSCS-A scores at t1 and t2 (if applicable). We noted that the coaches also often compared their scores across AOSCS-C and AOSCS-A and/or across t1 and t2. Using the quotes in the tables, we examined the quotes in relation to the coaches' personal scorecards to understand how their perception related to the scores that they received. In this way, as coach developers, we identified four major themes that we liken to important topics of conversation: the value of receiving an AOSCS scorecard, leveraging comparisons between coach and athlete scores, leveraging comparisons in scores over time, and misunderstandings or inadequacies of numerical scores (see Table 2).

Topics of Conversation

Readers are encouraged to refer to Figure 2, which provides a synopsis of each coach's scores, while reading through these topics to have a visual of how coaches' quotes are related to the scores.

The Value of Receiving an AOSCS Scorecard

As coach developers, we found the coaches' exercise of doing the AOSCS and then reflecting on their scores in a debrief was a valuable activity that had merit for the coaches. For instance, we noticed that all of the coaches were eager to talk through their scores. Barbara noted how the scorecard helped her feel accountable to herself:

> The scorecard helps me feel secure in what I'm doing and also shows me where I can do better. It forced me to think about my own coaching and even though it's a part-time job for me, I take it seriously … I'll definitely read these [scores] over just to remind myself and sort of think about the feedback, and follow through.

From an intervention perspective, it became apparent that receiving AOSCS scores alone would offer limited value without a debrief component. For instance, Samuel was happy when he received his scores:

> The first survey scores [t1], I was very happy with those, the [coach and athlete] scores matched up very closely, so it's good to know that I'm on a similar page to the majority of my athletes. It was also good to see that there was probably a small majority of them that believed I was performing some of those tasks even better than what I thought.

Regarding how Wilson felt about receiving his scores, he said, "I cried and had a scotch. They all [MAs] scored me fairly high. That makes me feel good."

Moreover, Samuel spoke to how the debrief was critical for his development: "There's not enough [professional development] for Masters coaches. I think this information is invaluable. If you offer your services afterwards, whether it be through email or Zoom, to debrief what coaches can do with the scores, that goes even further." Other coaches also discussed the debrief as an important aspect of understanding its content. Paul explained:

> I'm glad you didn't give the scorecard to me too early because I probably would have dwelled on these scores and tried to

Figure 1 — Personal scorecard. MA = Masters athletes.

Table 2 Topics of Conversation

Major theme	Subthemes
The value of receiving an AOSCS scorecard	
Leveraging comparisons between coach and athlete scores	Coach notices differences
	Coach notices similarities
Leveraging comparisons in scores over time	Coach notices differences
	Coach notices similarities
Misunderstandings or inadequacies of numerical scores	

Note. AOSCS = Adult-Oriented Sport Coaching Survey.

> figure it out myself and probably would have stressed myself out for no reason. In my head, I'm thinking "6.25? Out of what? Is it out of seven? Is it out of ten? That's not very good if it's out of ten."

We believe the scores offered a real-life and tangible measure that they could reflect on with regard to their own coaching; perhaps somewhat akin to watching a video of themselves in action and then commenting on their approaches.

Leveraging Comparisons Between Coach and Athlete Scores

Our analysis yielded an interesting finding for us to consider as coach developers: when the coaches made comparisons between scores, they were most frequently between theirs and their athletes' scores within factors. For example, Sergio said, "The value in this process is seeing how the athletes' perceptions match up or don't match up with my perception. That may lead to being able to tailor something specifically for them that might make things better." Having used the AOSCS-C only with coaches in previous coach development sessions, the idea of discussing comparisons across scores was particularly relevant for ongoing interventions using the survey.

Coach Notices Differences

Within the factors, and examining AOSCS-C and AOSCS-A scores, the coaches spent the most time talking about differences in scores. In these instances, they generally tried to understand and rationalize these differences when questioned by the coach developer. Paul explained how the scorecard allowed him to better understand what the athletes perceived about aspects of his coaching:

> [The athletes' score] gives me an opportunity to understand what the athlete is expecting and give them a little more of what they were looking for. For example, in *create personalized programming*, they rated me at 3.7 [t1] versus mine at a 5.8 [t1]. I think I have to give a little more individual feedback as opposed to being rigid on the programs.

Thus, this debiref helped Paul to consider how to change his programming from one year to the next based on his athletes' feedback.

Sometimes the differences in scores were difficult for coaches to interpret. Danielle noted, "I guess I don't really know why [my athletes' t1 score for] *impart coaching knowledge* is so low. They scored me at three and a half [t1], which is significantly lower than what I thought I was doing [5.33]." Without the coach developer providing an answer for her, Danielle was able to rationalize differences to figure out barriers and challenges in coaching:

> I guess that makes sense that the athletes' scores are lower than I scored myself for *create personalized programming* [t1 Coach: 4.20, MAs: 3.30] and *respect preferences for effort, accountability, and feedback* [t1 Coach: 6.33, MAs: 4.79], just because I don't usually have time to give a lot of feedback because I'm leading the practice and also participating in it. I think probably, that's representative of, I know the people who want feedback. But that doesn't mean that I can always give people feedback who want feedback. There's too much going on.

On the other hand, when the athletes' score was higher than the coach's, it gave the coach the opportunity to work out why that was the case. For Evelyn, a kettlebell coach, the athletes' score was higher than hers for *framing learning situations* (t1 Coach: 4.57, MAs: 6.06; t2 Coach: 3.43, MAs: 6.09). In the debrief, she realized that she had been doing more than she was giving herself credit for. She said,

> I think I underestimated how much we actually have been *framing learning situations* . . . I didn't stop to think about the mental performance side that we've been training really hard with our athletes and spending a lot of time on problem-based scenarios and helping them with self-discovery so that they are able to problem solve better.

Evelyn also noted that while she did not give herself a high score for *create personalized programming* (t1 Coach: 5.80; t2 Coach: 5.60), her athletes did (t1 MAs: 6.60; t2 MAs: 6.72), and she was able to reflect on why that was:

> For the most part, I do personalize programming. But when I first started coaching, it [standard group training]: This is what you're signing on for. This is the expectation. And now I'm leaning away from that approach. I realized that not everybody is going to be able to do that . . . I've realized that I need to work a little bit harder on *creating personalized programming*.

Thus, when the coach developer encouraged the coach to reflect on how their scores were similar or diverged from their athletes' scores, it provided the coaches with an opportunity to stand back from and consider the ways they were coaching based not only on their own assessments, but also another perspective.

Coach Notices Similarities

The coaches used the similar scores to confirm that their approaches were likely appropriate and complementary to what the MAs wanted, even though the scores were not presented to them as a measure of athletes' preferences. Paul, whose scores in *framing learning situations* were similar to his athletes' scores (t1 Coach: 5.14, MAs: 4.57; t2 Coach: 5.14, MAs: 5.00), said: "Some of the [scores] are very close, which is good. That means we're on the same page. When you start seeing larger gaps, you start to question why."

Within the debrief, the coach developer followed the coach's lead regarding which scores to discuss. Therefore, while sometimes the scores were similarly high between the coach and athletes, the coaches did not focus on those, almost as if they did not warrant reflection. For example, Amanda's scores in *respect preferences*

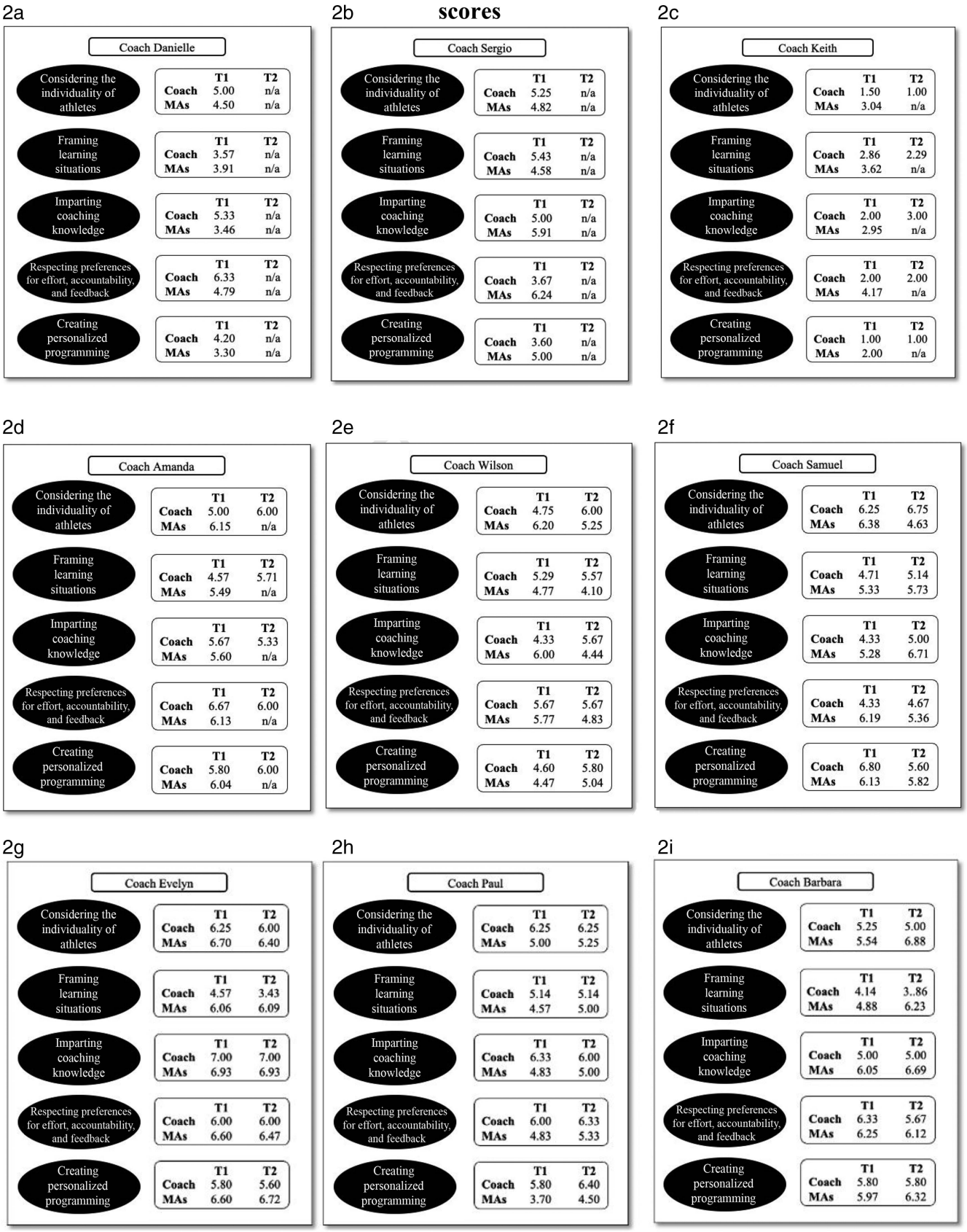

Figure 2 — Portrayal of each coach's personal scorecard based on AOSCS-C and AOSCS-A scores. AOSCS-A = Adult-Oriented Sport Coaching Survey—athlete version; AOSCS-C = Adult-Oriented Sport Coaching Survey—coach version; MA = Masters athletes; n/a = not applicable.

for effort, accountability, and feedback were high (t1 Coach: 6.67, MAs: 6.13). Instead of commenting on what these scores might mean when directly asked about them, she sidestepped talk of scores, and instead focused on her development as a coach: "We, the coaches, are doing the best we can absolutely do with the resources that we have." This is an important finding in which the coach developer in future interventions may wish to spend a moment celebrating with the coach. When coaches reflected on similarities in individual factor scores, they talked about recognizing how their coaching approaches were being received and if there were areas for improvement, without congratulating themselves.

When both the coach and athlete scores were similarly low, the coaches tended to spend more time reflecting on why that could be. For example, Keith noted that both his and the athletes' score on the *impart coaching knowledge* factor were low (t1 Coach: 2.00, MAs: 2.95). However, he emphasized that he does not feel he needs to share performance information with his athletes because they did not compete, and therefore, he felt that was not their focus. He said, "[The scores are] pretty close. I think once you start getting into coaching competitive athletes, that's when you have to [*impart coaching knowledge*]. But I'm not results-oriented." The coach developer, following the coach's lead, did not encourage him to try to change his scores by implementing the items from this factor. Future interventions may wish to point out the evidence for why each factor is important to support ongoing coach development.

Leveraging Comparisons in Scores Over Time

While there was no intervention between t1 and t2, and the coaches did not see their t1 scores before their t2 scores, the seven coaches that completed the AOSCS over two time points noted similarities and differences between scores as changes (or lack thereof) that occurred over the season. Based on our data, coach developers may find it useful in future interventions to discuss scores at each time point to be able to better reflect on the nature of the changes from one time to another more specifically.

Coach Notices Differences

When coaches noticed differences between their scores at t1 and t2, they searched for contextual information that may have contributed to these differences. When it came to *consider the individuality of their athletes* (t1 Coach: 5.25, MAs: 5.54; t2 Coach: 5.00, MAs: 6.88), Barbara pointed out that the coach score had decreased at t2, whereas the MAs score had increased. She recognized potential reasons for this change: "It's good to see that [the athletes' scores] increased. I thought it was the opposite. Maybe, because it was the end of the season and so we had done more follow-up and we ended with a really good competition!" This reflection on the context of the season should be identified by coach developers as it can help coaches consider the ways in which their coaching approaches can change to accommodate circumstances that they may not control.

The difference in scores between the two time points helped Samuel track his progress, reflecting on areas where he could better *respect his athletes' preferences for effort, accountability, and feedback* (t1 Coach: 4.33, MAs: 6.19; t2 Coach: 4.67, MAs: 5.36):

> I've been with the group now for [longer than] when I first completed the AOSCS [t1] and the same athletes filled out the survey. I think it's a great way to evaluate what I'm doing .... One area of improvement in [t2] was about putting programs and sessions together that cover everybody in the group rather than focusing solely on a select group.

Therefore, when the coach developer engaged coaches in thinking about why their scores could have been different between t1 and t2, they became aware of if and how, over time, they had changed their coaching practices.

Coach Notices Similarities

Barbara reflected on how low scores at both time points presented an area where she could improve her coaching: "I scored myself low both times ... in *framing learning situations* [t1 Coach: 4.14; t2 Coach: 3.86]. I think that's an area I can work on." Evelyn, on the other hand, recognized that the consistency across both time points (*impart coaching knowledge* t1 Coach: 7.00; t2 Coach: 7.00; r*espect preferences for effort, accountability, and feedback* t1 Coach: 6.00; t2 Coach: 6.00) represented her constant efforts, "I think those stayed linear because ever since we started this [taking part in the study] the *impart coaching knowledge* and the *respect preferences for effort, accountability, and feedback*, all of that has been consistent throughout." Thus, when the coach developer prompted the coaches to look across scores over time, they could reflect on whether they wanted that consistency or whether there were changes that they could make in the future.

Misunderstandings or Inadequacies of Numerical Scores

Some coaches expressed misunderstanding or inadequacies of the numerical scores. In particular, there were times when the coaches' lack of understanding of the items somewhat undermined their perception of the reliability of the scores. Danielle initially had trouble answering some of the questions at t1 because she had never thought about how she might use them in training. As a result, she interpreted her score differently once she engaged in the debrief where she could talk through the definitions of the factors:

> There were questions like making [training drills] a challenge or a problem-solving exercise. I didn't rate myself high on those because I didn't really know exactly what that meant .... So *framing learning situations* was a low score [t1 Coach: 3.57], but when I read the definition of "self-discovery, problem-based scenarios, modelling, and assessments" [at the debriefing interview], I [realized] I actually do all of those things.

A debrief that includes the scores and item definitions is therefore important to allow the coach and coach developer to discuss the ways in which the coach may use the items.

Regarding the inadequacy of the scores, Amanda noted that she preferred to receive qualitative feedback, feeling that the scores alone provided no guideline of how to improve:

> I think that [the scores] are a little confronting actually. Although people will ask for [scores], you could just provide the biggest gaps, something that's a little less like a test score. Rather than having a numerical value, you could say: "here's an area that you might want to concentrate on. And here are the items that go in that area." The items are behaviours and so they're good instructional tools. [I would prefer] more instructive feedback as opposed to nominal feedback.

Amanda suggested that rather than a definitive number (down to the hundredth decimal point), a sliding scale could indicate the gap between the coach and athletes' responses. From a coach developer's perspective, we note that the items themselves, along with instructional feedback on how to use the items, may provide more

direct ways to think through the factors and how coaches can apply them.

Reflections

In this case study, we set out to understand how coaches reflect on scores from the AOSCS in a debrief with a coach developer. The topics of conversation presented above may be used as important prompts for coach developers in future interventions. In particular, we learned that the coaches enjoyed receiving the scorecard and reflecting on it. They mostly attended to differences between their own perceptions and those of their athletes. They discussed certain adult-oriented coaching themes (factors) when there were similarities between their scores and their athletes' score, but mostly when these indices were similarly low. Across time, the coaches also noticed similarities and differences in scores between t1 and t2, which generated reflection on coaching strategies and contextual changes that may have impacted the coached context. Overall, we found that the coaches were most interested in the scores as a means of understanding what they were doing, whether they were happy with the frequency with which they and their athletes perceived their use of adult-oriented practices, and whether they wanted to change that frequency.

Recommendations for Practitioners on Using the AOSCS in Debriefs With Coaches

From our perspective as a team of research practitioners who developed this survey as a means for professional development, we can reflect on the use of the AOSCS tool for debriefing with coaches. Previous research has shown that when coaches complete the AOSCS at one time point, they can use the results to reflect on their practices and use the items as a toolbox of ideas on how to engage in adult-oriented coaching practices (Callary et al., 2023). However, the coaches from that study indicated that the scores were not useful to them, as they had no comparison data with which to understand whether the scores needed to be changed. Indeed, most of the coaches equated their scores as a measure of effectiveness in which a higher score was "better" (Callary et al., 2023). However, now we learned that with up to four scores per factor (coach and MAs scores at t1 and t2), the coaches were able to think about how their scores were similar or different across perspectives and across time. In particular, getting the athletes' perspectives supported the coaches' understanding of why they were doing certain items and whether they wanted to use some approaches more often (or not). The value of the athletes' input in the scores is certainly warranted. Therefore, we recommend that in future practice, the AOSCS could be used to prioritize what to do, what to change, and what to keep consistent by leveraging the comparisons of various scores.

Considering the coaches' discussions of changes from t1 to t2, we note that while this was of interest to them, they mostly used these scores to think through why they had remained consistent or changed, whether they intended that, and if they would change that for the future. Elsewhere, we tested whether coaches' use of adult-oriented practices changed across two time points 8 weeks apart in their sport seasons and quantitatively found that, without intervention, the AOSCS-A and AOSCS-C scores remained relatively stable throughout (Motz et al., 2023). We noted Langan et al.'s (2013) call for theory-based intervention studies in sport psychology and recommended an intervention using the AOSCS. In our lessons learned in continuing to examine the AOSCS for professional development (intervention) purposes—by further observing convergence (at any time point) and temporal dynamics (across time points), this case study reveals that having scores from both the coach and athletes are useful at various time points. Furthermore, it may be warranted to ask coaches to reflect between time points on various ways that the context can dictate what approach to use for a given time period. These multiple points of reflection could alleviate misunderstandings and problems surrounding the coaches' interpretations of scores and of using adult-oriented coaching practices.

Recommendations for Creating or Adapting Tools

Our previous work, Belalcazar and Callary (2021), indicated that when coaches examined the AOSCS in a workshop, they could choose to focus on particular factors, using the factor items as behavioral strategies for change in coach development. Thus, something we could do differently is use a sliding scale instead of a definitive number, as suggested by one coach, which might help coaches focus their attention to the factor and the survey items that they might use for professional development. In addition, the coaches reflected on similar coach and MAs scores to confirm that their approaches were appropriate and complementary to what the MAs wanted. Therefore, in future research and practice, we would consider changing the stem of the AOSCS-A in t1, to allow athletes to provide a measure of what adult-oriented coaching practices they *would like* their coaches to use, followed in t2 by a measure of the frequency with which they perceive their coaches actually use those practices.

The AOSCS-C helps coaches to self-evaluate their coaching practices. By receiving a personalized scorecard with MAs' scores too, coaches can think about how the delivery of adult-oriented practices is received by their athletes. Therefore, it shares some similarities to aspects of a 360-degree feedback process that is applied to sport coach performance appraisals (O'Boyle, 2014), wherein the coach contrasts their self-assessment to others' (other coaches, athletes, parents, sponsors, and fans) assessment of them. The anonymous nature of the 360-degree feedback provides robust data from multiple sources, placing emphasis on the coach identifying areas for improvement and development, rather than criticism. Hoffmann et al. (2017) echoed the effectiveness of self-awareness opportunities via 360-degree appraisal feedback, especially when done more than once in a season. They called for research in which the feedback tool would be paired with a debriefing session to support professional development. For sport psychology professionals and coach developers, a 360-degree feedback tool, or a modified version thereof, can be a valuable tool for coach learning. In this case, whereas the 360-degree feedback tool uses triangulation of appraisal sources, and often diverse sources, the two versions of the AOSCS lend themselves to a process where coaches can self-appraise using data more squarely derived from responses of the two major parties in the sport practice context (i.e., coach and athletes) on a survey that is equally valid to both parties. In this case, getting the athletes' report on coaching approaches and noticing congruence (or incongruence) in strategies and preferences is a process in coach development using the AOSCS.

Supporting Coach Learning

In our experiences around Masters sport, unlike other sport contexts, Masters coaches do not benefit from having outsiders (e.g., parents of youth athletes) or formal on-site visits by sporting

managers or coach mentors to give feedback to enrich the coaching process or sport experiences. Due to the relative lack of resources for coach development in adult sport, and the presumption that adult sport is less formal and less warranting of rigorous coach development (Callary et al., 2018), those coaches who endeavor to improve the integrity of their craft are left to their own strategies. For us, the AOSCS fills a need and a void in this context and is valuable because its use is not predicated on involving outsiders to the context. In this way, matching scores from the AOSCS-C and AOSCS-A serves to capitalize on the convergent collaboration between coach and MAs that is needed in adult sport coach development.

Notes

1. Coaches received the AOSCS-A scores if five or more athletes responded from their group in the first time point, as per ethics guidelines.

2. Only MAs who completed AOSC-A at t1 were sent the AOSCS-A survey link at t2.

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