

## Alignment of Masters Swim Coaches' Approaches With the Andragogy in Practice model

Bettina Callary  
Cape Breton University  
Scott Rathwell  
University of Ottawa  
Bradley W. Young  
University of Ottawa

Coaches working with Masters Athletes (MAs) are tasked with facilitating learning and enhancing performance and quality of experience specifically for an adult cohort. In education, the Andragogy in Practice Model (APM) characterizes adult learners and provides teachers with principles for how to best facilitate learning (Knowles, Swanson, & Holton 2012[AUQ1]). The purpose of the current study was to explore how coaches describe approaches with their MAs to discover how they align with andragogical principles. Eleven coaches were interviewed regarding their approaches in working with Masters swimmers. Data were thematically analyzed according to the six APM principles. The results revealed the bidirectional pattern of communication between the coaches and MAs, the coaches' awareness of the athletes' matured self-concept and prior experiences, the personalized goal oriented approach, the various approaches coaches used to motivate, and strategies that the coaches used to prepare MAs for training. The findings suggest that coaches who reported approaches in keeping with andragogical principles more effectively accommodated their MAs' interests. When their approaches countered the principles, there appeared to be a disconnect between the coaches' approaches and the MAs' preferences. Together, these results provide evidence of the importance of coaches' understanding of adult learning principles when coaching MAs.

**Keywords:** adult learning, masters athletes, facilitation of learning, coaching

Coaching is an interactive activity where coaches need to build functional relationships with athletes to help facilitate learning, improve athletes' performance, and enhance their experience, while accounting for athletes' goals, needs and stages of development (ICCE, ASOIF, & LBU, 2013). The art of coaching depends arguably on how coaches change their repertoire based on the context and athletes to which they are exposed. The current study investigated how coaches of adult athletes, commonly referred to as Masters Athletes (MAs), view nuances of their coaching practice with older athletes and whether their practice aligns with elements of adult-learning derived from a model outside of sport.

MAs comprise a fast-growing phenomenon in the Westernized world, where adult sport registration rates have escalated commensurate with aging demographics and more disposable opportunities for active leisure

among Baby Boomers (Hastings, Cable & Zahran, 2005). MAs are typically over the age of 35 years old, they demonstrate some formal registration to an organized sporting event, club, or league, and acknowledge that they prepare (practice) to participate (Young, 2011). Not all sports hold the same definition; in recent years, some sports have adopted Masters categories at much younger ages (e.g., gymnastics), or in the case of swimming, at age 25. All the same, Masters sport is a distinct sport enterprise that involves older participants compared with the traditional high performance pathway. As Masters sport grows (Weir, Baker & Horton, 2010; Young, Bennett, & Séguin, 2015), so do calls for greater attention to whether programming elements and resources that support quality sport should be tailored to the motives, preferences and identities of aging adults (Young, Callary & Niedre, 2014). Coaching, in particular, represents an

under-studied resource with respect to adult sportspersons. Knowing more about the craft of Masters coaches is a critical first step to understanding whether coach education resources might eventually need to be refined to accommodate and enrich the Masters' sport experience.

Coaches working with MAs are tasked with facilitating learning, enhancing performance and quality of experience, specifically for an adult cohort. Little is known about how coaches work with MAs, and some coach educators have assumed that coaching MAs is not much different than coaching youth (e.g., CAC, 2013). Although many 'best practice' examples of effective coaches exist for youth sport, we believe that generalizing coaching approaches to adults is unwise without considering older athletes' potentially different goals, needs, and stages of development. The art of coaching MAs should be better understood by asking the coaches themselves to elaborate on the particularities of coaching this cohort. This is an important endeavor considering that coaches are an important resource, with 73% of serious-minded, international-level Masters swimmers claiming to have a personal coach (Young & Medic, 2011).

The present study is the first that we are aware of to explore coaches' perspectives of working with MAs. Research from the MAs' perspectives indicates that coaches are beneficial to MAs' training efforts. MAs report strategic use of coaches to motivate themselves (Medic, 2009), and MAs who train with a coach report a more self-determined profile that is beneficial to overall psychological well-being and sport persistence than those who do not have a coach (Medic, Young, Starkes, & Weir, 2012). Santi, Bruton, Pietrantonio and Mellalieu (2014) found that Masters swimmers' perceptions of coach support and expectations from a coach influenced their commitment to sport, which further influenced their engagement in training with their team and training alone. How the swimmers rated their coach's expectations for them was more strongly associated with obligatory commitment than how the swimmers judged influence from their training mates. Further, Masters swimmers (49–64 years of age) believed coaches were able to foster social, health, and performance benefits through good communication, organization, and teaching skills (Ferrari, Bloom, Gilbert, & Caron, 2016). Callary, Rathwell, and Young (2015) interviewed 10 Masters swimmers (45–65 years of age) about their wants and need from their coaches. The adult swimmers preferred coaches who shared their knowledge, who fostered accountability to swimming and displayed integrity in their practices, and who planned challenging, variable and flexible practice sessions. They wanted their coaches to understand their personal preferences for types of feedback and when/how feedback could be delivered, wanted coaches to explain why they were asked to do certain training activities (i.e., intellectual stimulation), and preferred coaches who provided support and inspiration at competitions. Although the authors noted the heterogeneity of MAs, they also suggested that many of their wants and needs aligned with adult learning principles. Building off this

work, we set out to explore whether coaches use adult learning principles when coaching MAs.

While there is no single framework or model of adult learning, the best known outside of sport is andragogy (Merriam, Caffarella, & Baumgartner, 2006). Andragogy is defined as the art and science of helping adults learn (Knowles, Holton III, & Swanson, 2012). The Andragogy in Practice Model (APM) is a model that can be used to design, implement, and evaluate educational experiences with adults (Merriam, 2001). Such a model, which characterizes adult learners and provides teachers with principles for good practice, fits our interests of better understanding coaching/teaching approaches and taking into account the particularities of adult athletes. There are six adult learning principles in the APM (Knowles et al., 2012): a) the learner's need to know; b) the self-concept of the learner; c) the prior experiences of the learner; d) the orientation to learning and problem solving; e) the motivation to learn and; f) the learner's readiness to learn. Knowles and colleagues (2012) noted that adults have a need to know why they are learning something; therefore, the facilitator (teacher/coach) can help learners by explaining what they will be doing, or making an intellectual case for how learning activities will improve performance. Second, in terms of the adult's self-concept, adults want to be responsible for their own decisions and want opportunity for self-directed learning. Third, as adults have a greater volume and different quality of experience than youth, learning facilitators should account for individual differences that impact what and how adults learn in a group situation. The fourth principle specifies how adults are task-centered rather than content-centered, meaning facilitators may identify the particular tasks/ problems that stimulate learners to deal with particular issues. For the fifth principle, Knowles et al. suggest that while adults are receptive to external motivators, internal motivators are most effective, especially intrinsic motives tapping into success, volition, value, and enjoyment. Finally, adult learning should be situationally-dependent because adults will be more ready to learn if training tasks align with real-life situations.

Within the scope of education, Merriam and colleagues (2006) have proposed that the APM is not an "all or nothing" framework, and that elements of the APM may be adapted to fit specific situations. Thus, learning may be seen as occurring on a continuum whereby one end of the spectrum is teacher-directed and supported and the other end is highly learner-directed (Knowles et al., 2012). Depending on the learner, the teacher, and the situation, certain andragogical principles may be more relevant and appropriate for teachers to apply than others (Knowles et al., 2012). Andragogy is renown in education, but there are no published studies exploring andragogy in sport coaching. Two unpublished theses have examined coaches' approaches using the APM as a framework: Morris-Eyton (2008) noted that a swim coach used an andragogical approach in coaching her 11 MAs, which included acting as a facilitator in learning and using a flexible, individual approach with each athlete. In

MacLellan's (2016) thesis examining one coach's approaches to facilitating learning situations for both a cohort of MAs and a cohort of youth, the findings suggested that the coach followed an andragogical coaching style with her MAs more so than with her youth athletes. The coach's approaches were contrasted by describing how she afforded the MAs greater self-direction, gave MAs more autonomy, and had greater two-way communication with the MAs, while being more directed, structured, and controlling with the youth athletes (MacLellan, 2016). Both theses confirmed that Knowles et al.'s (2012) principles are not mutually exclusive, and overlap exists between the concepts.

The APM appears to align with what MAs want from their coaches' approaches (Callary et al., 2015) and some of the adaptive practices of Masters coaches (Ferrari et al., 2016; Morris-Eyton, 2008). These principles also afford a framework, drawn from adult learning outside of sport, that may help us better understand the ways that coaches approach adult learning in sport. The International Sport Coaching Framework (ICCE, et al., 2013) describes functional relationships that account for athletes' needs and development as fundamental to coaching. Given that coaching MAs is a growing function, and that little is known about how coaches perceive that they work with MAs, we felt the APM principles may be suited to describe how coaches go about facilitating MAs' development, learning, and training. For this reason, the purpose of the current study was to explore how swim coaches describe approaches with their MAs to discover how they align with andragogical principles. The aim, using an established framework in adult education, was to provide an understanding of coaching approaches based on the context of working with adults, from the perceptions of typical coaches (i.e., not screened as 'best practice' examples), to outline the particularities of addressing this fast-growing cohort in sport.

## Methods

### Participants

After receiving ethical clearance from the host academic institutions of the authors, swim club representatives were sent an e-mail asking them to forward a recruitment letter to their coaches. Fifteen coaches responded and completed a screening sheet. Coaches were asked about their coach education history, years coaching (total and specifically with MAs), how often they coached MAs, the skill level of their swimmers, and whether they themselves competed within their sport. As a means to ensure that coaches had enough experience working with MAs to be able to speak in depth about their approaches, coaches who had coached MAs for less than three years, less than 9 months per year, and fewer than 500 hours overall were not interviewed. For the purpose of this exploratory study, we were interested in gaining an accurate representation of the landscape of different coaching approaches offered within typical Masters swim programs. By sampling a variety of different coaches, we hoped to gain a comprehensive

understanding of how adult learning principles (Knowles et al., 2012) were being applied by coaches within typical swim programs offered to MAs.

Eleven swim coaches met our screening criteria and were interviewed (see Table 1). There were four female and seven male coaches, ranging in age from 36 to 66 years old ( $M = 49$ ), with between six and 50 years ( $M = 17$ ) of total coaching experience (i.e., years coaching MAs and youth/young adult athletes combined) and three to 20 years of experience coaching MAs ( $M = 12$ ). All the coaches presently coached MAs, but seven coaches had previous or current coaching experience with youth as well. They coached MAs, on average, 11 months of the year (range = 9–12), for five hours per week (range = 1.5–11.5). All coaches attended some, but not necessarily all, competitions with their MAs, and the majority still competed, or used to compete at the same meets as their MAs. The coaches reported that their MAs ranged in level from recreational only to internationally competitive (these MAs of differing skill levels often trained within the same sessions). Altogether, the final sample of coaches had sufficient experience coaching MAs in a formal swim club setting, involving adult athletes whose training was at least somewhat oriented toward competitive outcomes.

[ID]TBL1[/ID]

### Data Collection

Before data collection the interview guide was pilot tested with a Masters canoe-kayak coach. The second author conducted the interview while the two other authors observed and took notes. Following the interview, the three authors discussed the relevancy of the interview questions and the answers provided. All themes were considered relevant, however, the discussion led to the creation of alternative probes that would allow the second author to better delve into the themes discussed by coaches.

The interviews with the coaches were conducted by the second author and lasted an average of 74 min ( $SD = 19.34$ ; Range = 50–120 min). The first section of the interviews started with demographic-type questions and asked the coaches about their experience in swimming and in coaching. The second section asked the coaches to describe what being a Masters coach meant to them, with probes that asked: "What are your reasons for coaching Masters sport?"; "What is the value of a coach in Masters sport?"; and "Do you see your role as meaningful in Masters sport?" The third section asked the coaches about what they perceived MAs wanted and needed from them as a coach, including the following questions: "In your experience, what do Masters athletes need and/or want from you as a coach?"; "Do you think it's important that you met these needs and wants?"; "Is there something about you (personal characteristics, personality) that you feel is beneficial when you coach MAs?"; "Do you go to competitions. If so, why, and what is your role?"; "What are the special ways that you coach adult swimmers?";

and “Do you have an influence on your athletes? In what ways?” Finally, the coaches were asked if they had anything else to add that they perceived as relevant to the interview. Each question was followed with individualized probes to further explore the coaches’ answers.

## Data Analysis

Interviews were audio-recorded and transcribed verbatim. Pseudonyms were assigned to each transcript to protect the anonymity of the participants. Braun and Clarke’s (2006) six steps for thematic analysis were followed. The first author read and reread all transcripts to familiarize herself with the data. Initial codes were developed and notes were written in the margins to further understand how the data fit the APM (Knowles et al., 2012). Next, the third author read one transcript at random, complete with the first author’s initial codes and comments, and agreed or disagreed with the initial coding. Of note, before the data analysis, all researchers participated in a bracketing exercise where they outlined how their athletic backgrounds, beliefs about coaches, beliefs about Masters sport, and prior research on Masters coaching might influence their interpretations of the results. When disagreements occurred, the bracketing exercises were consulted and discussions between the researchers ensued until a consensus was reached on any disagreements. Few disagreements existed, and this step helped confirm the first author’s understanding of the codes. Subsequently, all transcripts were entered into QSR NVivo10 software to facilitate analysis. Finally, the coded quotes were reviewed by the researchers to establish their relevance to the framework.

## Validity

The current authors adopted a relativist approach to establishing research quality. Thus, the criteria used to judge the quality of our study were drawn from an ongoing list of characterizing traits, and should not be considered to apply universally to all studies (Burke, 2016). First, the multilayered thematic analysis provided *coherence* by breaking down the text and fitting the data together in a systematic and structured way (Burke, 2016). Further, in-depth quotes were used to create a story from the coaches’ perspective about their unique coaching approaches with MAs. By interpreting how the coaches’ quotes fit within the APM (Knowles et al., 2012), readers were provided the opportunity to reflect upon the coaches’ experiences working with MAs and engage in meaningful thought about the unique ways in which adults learn. Second, *credibility* was established by involving the participants’ input in the research process (Burke, 2016). Specifically, at the end of the interviews, participants were asked if there was anything missing from the interview guide that was pertinent to coaching adult athletes. Further, all coaches were sent verbatim transcripts of the interviews and were provided opportunity to add to, modify, or retract any statements they made during the

interviews. Third, *transparency* was established by using the third author as a critical friend who provided a theoretical sounding board and challenged the first author’s interpretations.

## Results

### Bidirectional Patterns Relating to Adults’ Need to Know

The findings in this section show the bidirectional pattern of how the coaches explain to MAs why they are engaging in various learning activities, but reciprocally, how the coaches are aware that they need to respond to frequent questions from MAs that demand explanation. Further, the findings indicate that the coaches are aware that MAs often ask questions for validation purposes, and that such questions are different than MAs’ asking for collaboration on their training.

The coaches often provided the ‘why’ upfront, such as explaining the rationale for doing certain drills, or proactively outlining the purposeful progressions through a workout session, but also noted that MAs asked many questions to know more about the purposes of training. As Dominic put it:

MAs want to know ‘whys’ more, they just don’t want me to say, ‘Do it. Just do it. I know what I’m talking about.’ I have to say, ‘ok, I want you to do this, because it will allow you to do that.’ I don’t even wait for them to say ‘why’. It takes a lot more time, but they appreciate it. As an adult you realize we’re all on equal footing.

The coaches explained there was a difference between MAs asking for validation feedback and collaborative dialogue. Validation ‘checks’ demanded responses from a coach that let the MAs know they were on course during a task or performing satisfactorily, which helped to assuage the anxiety of many new learners who were relatively new to Masters swimming. Collaborative dialogue, in which both the coaches and MAs asked questions to one another and discussed the learning material or technical/tactical approach, often occurred between the coaches and the more-knowledgeable/skilled swimmers. Nicole said:

The beginners need the reinforcement to see that they are doing it correctly. With the more experienced swimmers, I tend to be more of a sounding board. They know their strategy. I will ask them ‘how are you planning on swimming this?’ and it kind of reaffirms it for them. I’m there to give them feedback afterwards. ‘Here were your splits, here’s how it looked, how did it feel?’

We note the bidirectionality of the conversations, whereby MAs often asked questions that required coaches to respond reactively to MAs. We make the distinction between coaches responding to adults’ *need to know* (i.e., informational technical responses) and coaches explaining the rationale so that athletes *want to know*, or try harder

(i.e., coaching information that motivates). Tom provided an illustrative comment about satisfying informational technical needs,

Adults have critical skills to think through [the training]. And some of them are on the Web, looking at things and they come back to me and say 'why did so-and-so, on that particular video, do that?' Well, ok, um, good question, this is why.

Some coaches viewed these conversations as natural, while others did not always welcome them but tolerated and engaged in these conversations because they recognized that it was important for adults. As Jordan explained, he *allowed* MAs' questions:

We have one gentleman who's a really good swimmer, and wants to continue being right at the top of the world level. He'll constantly ask, 'Jordan, I'm going to this swim meet, what do you think about this?' I allow that engagement to happen. To be honest, talking about [engaging athletes in conversation] makes me think I should be maybe doing more of that.

Another coach felt that the MAs' tendency to question was akin to being tested to see what he knew, and he felt personally affronted. Dominic said:

When I first started with Masters, I always felt like I was on probation for the first year or two. I felt like they were asking for more detail to really see if I knew what I was talking about. So, I felt like I was 'on trial', but over time, it just turned out to be that's the way they are... Training adults, it's like being in the spotlight of your peers, it can be more intimidating... I might [develop] a bad reputation if I don't continue to meet their inquisitive attitudes.

Overall, our coaches generally praised the inquisitive nature of their MAs. We interpret this to mean that without bidirectionality and collaborative dialogue that ensues from adults' asking questions, the MAs' need to know would only be partially satisfied. To more fully satisfy their 'need to know', coaches tended to give the 'why' upfront, but also had opportunities for the MAs to ask questions to validate or clarify their understanding.

### Mature Self-Concept of the Athlete

The coaches understood that many MAs saw themselves as being capable of self-directing aspects of their sport experience. They knew that MAs wanted to be, and for the most part could be, responsible for decisions regarding practice, and believed that MAs would find self-directed learning rewarding. Many of the coaches described how they took steps to encourage self-direction and athletes' ownership for training. Strategies often were predicated upon satiating MAs 'need to know', as informed MAs were more likely to become less dependent on the coach, and more self-directed mature students of the sport. As Tom said,

My philosophy is that I coach them to coach themselves. So, everything comes with an explanation, the 'why', then they can get out and swim anytime, do any of those things, take my program off the website and do it.

Wayne encouraged the MAs to have more autonomy in the coaching process:

I have a simple analogy that I call the WOW factor. I educate them on how to Work it, Own it, and Will it to happen. But that only represents about 1% of the process because they have to own 99% of it. I educate them to take ownership of what they're doing... That's how I view coaching. It's not me who owns the process. It's me guiding them.

Wayne explained how he helped his MAs transition from dependence to autonomy, especially in competitive situations.

I went to the Masters World Championships and could I keep track of 108 swimmers? No! So they're to become independent, but they still need somebody to help them, so I set up a formula for that... They're not to ask me 'where am I swimming? What am I doing [at the Worlds]?' Never do that. A lot of coaches do [respond to] that for some reason, I don't know why, because it takes away the responsibility from the swimmers... I appointed Swimmer Coaches at the Worlds. It took the pressure off me and it works very well... I tell them 'I get my chance to watch you perform. This is my reward, and you're doing it for yourself.' If it was about me, always appointing in total accountability, they would never reach their goal.

Although some coaches made efforts to encourage athlete-directed learning, others found giving adults control over aspects of their training to be risky and problematic. For example, when MAs freely chose their pace times during a workout, this resulted in problems around lane management because some MAs swam too slow or too fast, disrupting the flow of other swimmers. Carmen explained:

They're adults so I'm not sure 'stern' is the word I would use. I'd say 'diplomatic', that's what I try to do is be diplomatic. I will move swimmers into other lanes. Some coaches let the swimmers resolve it but swimmers want the coach to deal with it.

Some coaches were concerned that attempts to always accommodate their MAs with choice could result in problems. Nicole described how giving adults too much choice disrupted the continuity of workout planning and personalizing training for each athlete:

When Masters swimmers used to sign up with our club, they signed up for a group of practices and so we had the same swimmers 3 or 4 times a week. So as a coach, I knew exactly what my swimmers had done and it was easy to know how tired they were. In the last couple of years, swimmers can really pick

and choose their practices. While that's great for the swimmers' flexibility, it's not so great [for yearly planning]. I despise it as a coach. I find it very difficult because I don't know what people have done. They've had another coach. People have said 'we did a lot of kicking with Coach Xavier on Thursday' and I go, 'crap. I'm out of luck with my workout [today].' and I will have to adjust.

Having to accommodate a more adult-friendly weekly schedule of optional workouts meant less continuous attendance with the same coach, which sometimes made it less rewarding for the coaches because they could not collaborate with certain MAs as they would like.

Some coaches also described tensions between a coach's need for control and MAs' need for self-direction, which played out at the group level in front of others. When these coaches reluctantly afforded latitude to MAs, trying to satisfy their need for self-direction, they risked being perceived as being lax, enabling a context where MAs could compromise the planned integrity of a workout. Moreover, some coaches interpreted MAs' self-directedness as a lack of interest or commitment to the program; this is illustrated in Dominic's comment, which relates to how MAs approached 'his' workout (as opposed to the MAs' workout):

When I put pace times in *my* workout, they're aware of when they need to [start]. But I'm seeing a lot of people stopping and talking in between sets, uh, (pause). I mean, all this talk detracts from the actual workout. That's what makes me think they don't care. They're not doing what's instructed, even after I reminded them day after day. It only takes a couple to bring down a group... I feel a shifting of dominance. Like I lose control over that group.

Dominic noted his struggle for control was an issue because of the age of the athletes. He felt that if he enforced his will on MAs, he could lose credibility and the group might react defiantly.

I can't discipline them like I can children, it's like, 'you do it or I talk to your parents'. Or 'you get out and do some jumping jacks and I make a spectacle of you'. You can't teach adults the same way. A lot of them come in tired from a long work day, some leave early because they've made plans, some get there late and miss the whole workout. It all leads to the idea that if they're really committed, they would be there on time and would do the workout. But I can't tell them what to do. Adults will retaliate if you act like their parents.

Placating MAs' various needs for self-direction was an art of coaching that involved understanding each athlete's preferences and negotiating this with the athletes. Jordan liked self-directed adults because he did not have to dictate commands, but it meant he adopted a less intentionally planned approach and more accommodating philosophy:

If they want to go slower that day, they want to go slower. They don't want anybody there telling them how fast to go. Really, it's up to them whether or not they follow it... I enjoy coaching adults more than kids because I'm able to make it their choice whether or not they do [the training].

In sum, the coaches showed understanding of adults' need for self-direction, in keeping with their mature self-concept. The coaches described efforts to negotiate and placate MAs' autonomy, that is their need to capably assume ownership of the learning process. The power dynamic between the coaches and athletes appeared to be a prevailing theme in the coaches' experiences.

### Life Experiences of the Learner

The coaches appreciated that MAs brought a wealth of varied experiences to the pool, acknowledging that an adult group's range of swimming experience (e.g., range of expertise) could be greater and their broader experiences outside of sport more voluminous compared with youth athletes. Correspondingly, the coaches highlighted the importance of individualizing learning strategies, and having to tailor activities to wide ranges of skill levels within each practice. Emile stated:

I'll have some of the faster swimmers do things a little bit differently than the slower swimmers. With beginners, sometimes I'll use flippers, whereas the more advanced swimmers don't need that aid. I use slower pace times, more hands on, more individual feedback. With the slower lanes, there's a bit more attention required to let them become faster, more efficient swimmers.

Emile discussed the importance of open and empathic communication strategies when individualizing his approach:

Men react a certain way versus women, and I'll speak to them differently. The slightly older people react differently than people my age [36 years old]. I can relate to them differently than an 80 year-old. Some of the older folks have hearing impairments or chronic injuries, so I need to be able to listen to what's going on with them and cater to their needs. It's important to be sensitive to the way you communicate. Being able to make eye contact, just being open to what they've got to say, I mean, they've got a lot of experience, and sometimes the conversation is about something other than swimming.

The coaches mentioned how MAs' prior sport experiences could facilitate or curtail current learning. Armand noted how some athletes could be engrained in their ways, whereas others were determinedly open to new approaches:

You got some guys in there who say, 'listen, I've been swimming this way for 45 years, you can't

change me now'. And it's all done with considerable humour, but it's true. And then you've got this 70 year-old guy who's looking for every little possible improvement or the latest technology.

Emile noted that coaching could impact great change to MAs, but that a different approach was required:

When it comes to youth, they're typically very malleable, whereas Masters swimmers, have been doing a certain thing a certain way for a long period of time and have developed bad habits. It's being patient with them. They are older and I need to be able to recognize how to get them to consider change and then change the way that they swim.

While the above examples related more to MAs' prior experiences in the sport, other coaches also spoke about the need to personalize their approaches, and to understand each athlete based on their present life situation. Laura said:

They're grown-ups, but we've gotta do something fun because life can be drudgery, work, kids, trying to fit in a workout, dealing with aging parents, all that stuff... I'm always thinking of their emotional status, who's going through divorce, who got laid off, who's declaring bankruptcy (exhale), there's life.

Tom talked about how valuing his MAs' experiences helped to create a better dynamic and a mutual respect between him and his MAs.

I don't want to be the boss on deck while they're the minion in the pool. That doesn't work, not with adults. These are adults who come from a lot of different walks of life. There are some high-end folks here in their daily jobs. You've got to treat them with respect that they deserve... I try at our morning [team] breakfasts to find out a little bit about them so I can try to understand more as to why they might react a certain way.

Together, our results suggest that coaches may need to show how they value and listen to the athletes' experiences in and outside of sport.

### Personalized Goal Orientation to Learning

The coaches acknowledged that they oriented activities in practice so they could be linked by MAs to more authentic contexts, such as upcoming competitions. The coaches also catered to learner-centered goals and specifically used MAs' goals to engender authentic learning opportunities. Laura explained:

At the beginning of the year, I do a broadcast email and I invite them to share their goals with me, and some of them do email and then I'll take it, print it out, and pull them aside in practice and say 'ok, you're going for X, Y, Z this year, this is what we want to do, great!' If they didn't email me, I'll ask

them in practice, face-to-face. Even if they email, I always follow up face-to-face.

Thus, the coach was able to gather information about what her MAs wanted to cater to their interests in training. Indeed, the coaches tailored their coaching approach based on their MAs' varied goals, more so than they said they would with children. As Jordan noted:

I think with kids, I would be a bit more authoritative than I am with adults. There's a wider range of reasons why MAs are swimming, whereas kids, you know if you're coaching a club team, it tends to be to swim competitively, to improve their times, to make Nationals. You've got to change your coaching style to the needs of the MAs and their experience, what they want to get out of it.

The coaches also noted that setting goals brought about challenges and frustrations that showed gaps in MAs' skill repertoire and encouraged the athletes to want to learn to attain goals. Nicole said:

One of the swimmers in my slowest lane is trying to train for a half Ironman. He's in the same lane with someone who's progressing much quicker and they started together. He stopped at one point and said 'I feel like I'm not going anywhere'. I said 'look, I understand your frustration. You actually need to slow down, continuing right now is not to your advantage because you're breaking down, your stroke is falling apart and you're just flailing.' He said, 'I think you're right'. He's trying to keep up with the other person to his own detriment. I said 'sometimes it's better to stop, take a breath, then go again and see if you can use cues to see if it's getting better.' He did. When he stopped at the next go, he said 'wow, that really felt a lot better.'

The coaches capitalized on authentic situations to motivate MAs to want to learn, by creating real-life contests to prepare them for competition. Dominic said,

I do mini meets [at practice], which is almost like a time trial, but I set up maybe six events. Everyone picks three events and I time each heat and write their times on the board. And then I put a spreadsheet out with the results and highlight those who had the best times. These are good little stepping stones before meets.

Timing or filming MAs was another strategy that gave the coaches real information they could review with athletes to orient them toward an understanding of their relative position. Tom said,

I'll often film their swim and take their splits so that they know how they did during [the race]. If the coach isn't [at the meet], you can't do that for them. And it makes them feel like 'alright, this competition is more important than just jumping off a block. I actually got better. The sport is more complex than I thought.'

In sum, the coaches discussed how goals gave the MAs impetus to learn and the coaches used that to their advantage. The high degree of heterogeneity in the goals of the MAs meant that the coaches needed to adjust their coaching approaches according to their athletes' needs and preferences.

## Motivation to Learn

The coaches used various approaches to motivate their MAs to learn, including varying training, using social cues to boost enjoyment, pointing out improved performance to help MAs see the value in their coached training and their own success, and facilitating an encouraging and positive climate.

The coaches talked about how variety in the training helped increase MAs' desire to practice because the training catered to everyone in different ways and kept it fun. Laura explained:

I get really excited when I'm going to give them a good set. We actually have a lot of fun. And they work really hard. I make sure to have easy days as well, so that I'm not always push, push, push. And they keep coming back... We play water polo and will do unconventional swimming things, lots of sculling and vertical kicking, just variety, variety, variety. Just because they're grown-ups, doesn't mean they don't want to have fun. I've got to keep it interesting.

The coaches were aware that MAs enjoyed the social aspect of being part of the group, thus, they spent time creating social opportunities. Armand described how intense the social interactions between athletes could be and how he tried to foster that closeness, while monitoring for cliques:

As a coach, I certainly ensure that everybody knows what's going on [socially]. It's sometimes a bit of a challenge because this club has 100 members and you've got cliques. Between the coach and the executive, we really foster the breakdown of the clique barrier and still encourage those groups that have been together forever. Some people have gone to other members' kids' funerals, and you think 'wow, that's pretty intense'.

While every coach talked about promoting social activities, one coach talked about how he felt obligated to do so, and it was not necessarily something he wanted to be doing, but he did it on behalf of the club because it helped retain members.

The coaches attempted to motivate their MAs by intentionally displaying enthusiasm and concern for the integrity of the workout. Dominic explained:

I show that I'm as interested in improving them as they are in improving themselves. You have to show the same or more energy levels at all times. It's a high energy job, so you oughta put on a positive attitude, you want to be moving around through the whole workout, you don't want to just be standing

in one spot, you don't want to be talking to a lifeguard, you want to show that your focus is solely on them.

By modeling an enthusiastic engagement in the workout, the coaches hoped to see the same accountability to training and the same commitment reciprocated by their athletes. The coaches also created a positive climate by being relatable to their MAs, as peers who go through the same issues as the athletes. Nicole explained,

I've had swimmers who, like me, have big heads or big hair and swim caps don't stay on well. It's frustrating. I went through many years of swimming with my cap up above my ears and it's not comfortable. So if I have a swimmer who is looking a little frustrated with it, I will just approach them and say 'hey, I know what that feels like, and here's your solution!' And it will kind of make them feel normal. So I think that sort of opens up a dialogue with them.

Generally, the current coaches seemed to understand that making their training fun and adding variety to training helped cater to the heterogeneity of the group, creating an approach that gave everyone the opportunity to feel like they wanted to be coached and they wanted to come back to learn more.

## Readiness to Train

Readiness to learn focused on the coaches' approaches based on their understanding of whether and how individual MAs were prepared to train, but it also extended beyond the characteristics of the MAs to include the strategies that the coaches used to prepare MAs for training. In this way, readiness to learn (train) was seen as cyclical; the coaches' approach influenced their MAs' readiness to train and their MAs' readiness to train influenced the coaching approach. Wayne explained:

I have a 'goals triangle' that I developed almost 50 years ago. Number one would be to get up in the morning. Most people have problems getting up in the morning to get to the workout. Two: Do the sets and complete the whole workout. Three: Have one or two things that you might have gained from that. If they do that they've developed a good solid base. I really educate them on the basic process to get there.

The degree and direction of the coaches' support often varied if they were aware of their MAs' readiness to learn. Dominic noted,

I've often told people 'ok, I know you've had a long day or you're under the weather. I'm going to let you have your space, do what you can do, just relax, and de-stress.' And that's all I will tell them at the start of the workout.

Nicole explained how one MA was embarrassed to take individual feedback from her, and this was an



impediment to learning. She spoke about how she altered her approach:

They're adult swimmers, right? So, [critical feedback] may not be what they're there [at practice] for; it may be unpleasant for them and they will stop coming. I have one swimmer who takes a lot of strokes per length. His efficiency is not high. So I will address the whole group and give blanket feedback because otherwise he tends to fall apart [if I give him one-on-one feedback]. And then I find that message can get across without having to be one-on-one.

By changing the direction of the feedback, the coach believed it would be heard in a less threatening way, so that the MA would be ready to receive it more willingly.

The coaches noted that MAs' readiness to train was often compromised by competing priorities and demands in their personal or professional lives. To enable MAs' learning, the coaches needed to be flexible in their approaches. Tom explained how he afforded such flexibility when life events kept his MAs from coming to practices regularly:

All my workouts, once I clean them up, I throw them onto our website so they can grab one. Our athletes travel for work, and when they're away and they've got a good swimming pool at the hotel, they can go there and swim that program.

Thus, when a real life situation (work) created a deficit or inadequacy that could prevent progress, the coaches varied the direction of their approach. Designing training to be sensitive to the demands on MAs' lives outside of sport also depends on the adults' ability to be self-directed, an important aspect of an adult's self-concept.

Some coaches did not appear to be aware of how their MAs' readiness to train might influence their approach or how their approach might ready their MAs for learning. For example, one coach talked about feeling frustrated with a swimmer who was not following the prescribed workout, but there appeared to be a mismatch between what the coach was teaching and what the swimmer was ready to learn. Other coaches did not plan practices and they seemed unaware of how that might negatively influence their MAs' readiness to train. As Jordan said,

I kind of have an idea in my mind how I want to structure things, but I don't have a log of practices. I write them on a piece of paper, 15 minutes before I go to practice. Then at the end, I toss the piece of paper. It's not my career, I'm not that organized with it.

Brock also described a lack of planning:

I arrive at the pool, then I figure out my workout. It's not prepared in advance because, like, I'm not coaching Olympic swimmers, right? They're there,

most of them, for fun and fitness, so I don't need a plan.

Brock continued by explaining:

The thing is with Masters, because they're swimming two or three times a week, it doesn't matter what you give them. It's just not enough swimming. You don't have to plan, they just need to swim. So having a detailed plan, it doesn't work with Masters. Suddenly the person is away a week somewhere for work and your plan is all screwed up.

Most of the coaches expected that MAs have competing responsibilities outside of swimming that can result in inconsistent attendance.

## Discussion

The purpose of the current study was to explore how coaches describe approaches with their MAs to discover how they align with andragogical principles. Importantly, we found that when coaches reported approaches that we interpreted as in line with APM principles, these approaches connected with MAs' interests and preferences. There were also several instances where coaches used approaches that were inconsistent with APM principles, and as a result, they appeared disconnected from the MAs' preferences. Throughout the discussion, we have italicized key practical considerations that link the results and extant literature, which may be of particular value to coaches and coach developers in understanding the nuanced differences of coaching MAs. These results provide evidence of the importance of coaches more fully considering adult learning principles when interacting with MAs.

The focus of the APM, as well as the much of the literature regarding adult learning has been geared toward cognitive problems and content (Knowles et al., 2012). Our investigation, however, enables us to preliminarily identify some novel sport-specific considerations with respect to adult learning. We concur with Merriam et al. (2006) that andragogy should be regarded as principles that may be borrowed by instructors and adapted to fit specific situations, subject-matter, and learners. In this case, the application of the principles is within coaching of adult sportspersons.

The importance of Masters coaches recognizing adult learning principles (Knowles et al., 2012) when coaching their adult athletes appeared to be a notion throughout the findings. In the 'need to know' theme, collaborative conversations between coach and MAs predominated. Notably, research on MAs suggests that some adults feel entitled to these collaborative conversations, which perhaps reflects the 'pay for play' privileged sentiment held by some Masters swimmers (Rathwell, Callary & Young, 2015). Specifically, Rathwell et al. (2015) noted that some Masters swimmers think they deserve and can demand explanation, because they are paying for coaching services. For our coaches,

some welcomed these conversations; others only tolerated them, and others felt these demands were a challenge to their knowledge, which may be an inadvertent outcome of adults pursuing their 'need to know'. *These results demonstrate the importance of coaches learning that adults want and need to engage in critical conversations, so they may not spend years feeling like they are being tested, an irritation that could result in some even quitting Masters coaching.*

In the theme regarding the mature self-concept of MAs, issues of coach control were raised. Fox (2006) refers to coach control as the ability of the coach to direct behaviour and influence the performance of athletes, and notes that coach control enables coaches to have docile athletes, that they can change in ways they want. Our results suggest that MAs' need for self-direction may challenge the traditional coach-athlete power dynamic. If coaches who prefer to control find satisfaction from having athletes do what they are told, and if this further allows these coaches to take credit for athlete improvement, then it is possible that coaching MAs is less satisfying for some coaches, especially when MAs seek greater autonomy. *Our findings specify that coaches and MAs have a shared responsibility in how adult athletes will learn, and that coaches do not have that same degree of assumed control that they might have in coaching youth or younger adults.* Counter to the competitive climate in controlled coaching situations, a constructivist coaching approach provides ownership of the learning to the athletes (Ollis & Sproule, 2007). Theoretically, Knowles and colleagues (2012) suggest that andragogy is rooted in a humanistic and pragmatic philosophy, which complements a constructivist focus on the learner and the learning transaction. Thus, knowledge of adult learning principles and of the reasoning behind a less controlled training approach may enable coaches of MAs to feel rewarded because of their understanding of how their adult athletes experience learning and success. MacLellan (2016) also noted issues of coach control in his study, whereby the coach demonstrated means to establish coaching control with youth, but rarely did so with adults. Taken together, these results suggest that without proper understanding of adult learning principles (Knowles, et al., 2012), *it appears that coaches who try to direct adults as they would children can become frustrated. In particular, coaches may mistakenly perceive their adults' attitudes and attempts to self-direct and query them as lack of commitment, whereas such instances may instead represent evidence of adults acting on their matured self-concept.*

While adults may benefit from the self-directed nature of choosing their practice times, from the perspective of some coaches, there are problems with too much self-direction. Specifically, some coaches described issues with managing lanes in practice and maintaining the integrity and coherency of season-long plans for their athletes. Whereas notions of coaching diplomacy and etiquette around managing lanes with adult swimmers had been noted in prior work (Callary et al., 2015; Rathwell et

al., 2015), it was unclear why the coaches had to be diplomatic, apart from using discretion when working with MAs. Here, it becomes clearer that this diplomacy is linked to the adults' mature self-concept and their interests in being self-directed.

Another theme, which has been noted previously in Masters coaching research (Rathwell et al., 2015), is that some MAs may be seen as less trainable than others, due partly to their belief in their inability to change. Indeed, this may be a challenge in coaching MAs. While Knowles and colleagues (2012) refer to adults' prior biases impacting their ability to learn in cognitive settings, sport coaches may need to consider the prospect of age-decline and regressing physical attributes (Young, Callary, & Niedre, 2014) as well athletes' expertise (e.g., stage of motor learning) in the motoric context as playing a key role in constraining expectations for learning and change. Nonetheless, *the coaches in the current study attended to individuals—they made efforts to get to know who their athletes were outside of the pool (e.g., jobs, marital status) and showed they listened by individualizing strategies based on each MA's past experience and/or expertise.* Knowles and colleagues (2012) noted that, "in any situation in which the participants' experiences are ignored or devalued, adults will perceive this as rejecting... themselves as persons" (p. 65). In line with this, the sport coaches appeared to be cognizant of the benefits of understanding their MAs' prior experiences. Although Knowles and colleagues do not clarify at which point adults' prior experiences can be leveraged to facilitate learning (e.g., recent versus distant), we note that adults learn from the experiences that they have just had, making current life situations significant to their learning.

We also note the notion of goal-oriented learning as a corollary of learner-centered orientation. With respect to the 'orientation to learning' principle, sport coaches may better orient MAs' learning to goals rather than problems to be solved. Thus, coaching approaches that invite goal-setting by athletes, and also coach-athlete collaboration around these goals, are particularly poignant for creating an athlete-centered orientation. Although there was some evidence of our sport coaches using problem-based learning approaches, they more frequently described using goal-oriented than problem-based approaches to make practice activities more meaningful to their athletes. Within Masters sport, there is often a high degree of heterogeneity in the goals and participatory motives found within a group (Young & Medic, 2011). *The coaches in the current study appeared to have a willingness to adjust their coaching approach to satisfy the plethora of MAs' competitive and noncompetitive goals and to use athlete-centered goals to contextualize the value of training activities, thereby personalizing goal orientations to learning.* As described by Knowles et al. (2012), adults thrive when working toward resolving problems. We link this to the literature in sport psychology, which indicates using goals as salient standards toward which athletes strive (Latham & Locke, 1985).

Some of the coaches in the current study did adopt a problem-orientation to help adults learn. They often helped MAs understand gaps in their repertoire (e.g., exposing deficiencies in an athlete's technique, or aspects where one's race strategy was lacking) through the use of film, time trials, or the reconstruction of simulated real-life contests. This strategy was also intended to increase athletes' valuing of practice activities. These coaching strategies epitomize a key aspect of Jarvis' (2009) description of the process of lifelong learning, that is, the idea that a gap in adult's understanding (i.e., a disjuncture) can critically stimulate their efforts to learn.

Furthermore, the coaches in this study provided a climate that encouraged MAs' intrinsic motivation by varying their training approaches. Variety of training is notable especially considering that, among adult exercisers, perceived variety of experience may be a psychosocial condition that gives rise to and supports the maintenance of exercise-related well-being (Sylvester, et al., 2014). Wlodkowski (1985) noted that volition and enjoyment are powerful internal motivators for adult learning, which the coaches perceived to be outcomes of varying training. Overall, our coaches' strategies seemed to interact with a range of athletes' motives, in line with Medic's (2009) profile of MAs as being motivated predominantly for intrinsic regulations that have been integrated to the self and valued as part of one's identity (e.g., intrinsic motivation for stimulation, knowledge, and accomplishment) and less so by external pressures (i.e., introjected regulations, or obligations).

The coaches' approaches for promoting and taking part in social activities also appears to be a common thread among all Masters clubs. Indeed, Ferrari and colleagues (2016) noted that there are a number of MAs for whom the social aspect is a major motivator in being involved in the club, and so clubs and coaches have capitalized on creating social activities to retain their membership. The current coaches also focused on being encouraging and creating a positive and productive climate that motivated the adult swimmers. Callary and colleagues (2015) suggested that MAs found it very motivating when they noted instances of coach accountability. Similarly, the coaches in the current study noted they increase their MAs' motivation to train by intentionally modeling attentiveness toward their athletes and overtly demonstrating engagement with them during workouts. *The current results suggest that coaches' positive attitude, empathy, and demonstrable commitment are important characteristics that help motivate their MAs to learn and to feel value in being part of a coached program.*

In probing coaches' perspectives on how they adapted their approaches uniquely to their MAs, they discussed benefits beyond enhanced learning. The coaches believed that the benefits of using nuanced approaches toward MAs helped to enhance quality sport experiences and possibly participant retention. For example, we note that coaches were intent on motivating MAs through social activities, which does not necessarily lead to

enhanced learning, but could lead to retention (Rathwell et al., 2015; Vallerand & Young, 2014). MAs' motivation to remain in the sport and attend training may then lead to better/sustained opportunities to learn. However, we also note that sport is not only about learning, and that inherent enjoyment of quality sport may motivate MAs to be involved irrespective of further learning. Since notions of learning and learning facilitation are central to the APM, future work may wish to ask coaches of MAs the extent to which learning is essential to adult athletes' experiences. Nonetheless, part of a coach's job is to facilitate learning to improve performance, especially because many MAs demonstrate a profile of 'intrinsic motivation to accomplish' (Medic, 2009), and also strive to fulfill competitive goals (Vallerand & Young, 2014).

*Many of the coaches in the current study recognized their MAs' other commitments and priorities as factors that inhibited their readiness to train, and helped circumvent the issue by providing alternative training plans,* much like Young et al. (2014) suggest (e.g., remotely through personalized online coaching portals). We recognize that a potentially less-rewarding aspect of coaching MAs is the difficulty in creating seasonal plans to accommodate MAs' flexibility in choosing training, but some coaches were lethargic about planning because they perceived that the adults were not committed or did not care about what they learned. This finding is concerning, especially if MAs were to become disinterested because of their coaches' haphazard plan. Planning is a critical coaching process (Côté & Sedgwick, 2003). Some of the coaches' abdication of planning is surprising, and disconnected from previous qualitative work that suggests coach planning is vital for aligning learning experiences with what MAs want or need (Callary et al., 2015); without planning, it is questionable whether MAs' readiness for meaningful training was considered at all.

We note overlap or interplay between the APM principles (Knowles et al., 2012) and thus consider their interdependence as framing the nuances of coaching MAs. For example, feelings of dissatisfaction and lethargy with planning were not present for those coaches that described approaches that aligned with readying their MAs for training, understanding MAs' self-directed pace, and motivating their MAs by conveying their accountability to the planned training. Those coaches found that their MAs' decision-making led to less authoritative coaching, a positive and encouraging climate, and better peer relationships. Their reward for coaching MAs appeared to be based less on athlete performance, and more on athlete satisfaction. Further, when the coaches addressed the principle associated with the MAs' 'need to know', their comments connected with the notion of the mature self-concept of MAs, as the MAs were more capable of taking ownership of their training especially when the coaches established reciprocal communication with them to find out what they needed to know.

One of the merits of the current study is that information derived from the coaches' perspective affirms much of what Masters swimmers have said they want and

need from their coaches (Callary et al., 2015; Ferrari et al., 2016). We have interpreted much of this convergence through the lens of andragogical principles of adult learning. Still, there are limitations with respect to the conceptual framework and the methods. Limitations in using Knowles et al.'s (2012) principles of adult learning include the lack of a sociohistorical and cultural context (Merriam et al., 2006). This ignorance of the relationship between learner and society is offset by the value gained in deeply understanding individual experience (Merriam et al., 2006). Without previous research focusing on the coach's perception of working with MAs, theorizing from the humanistic perspective is warranted. There also exist limitations with the sample. Although the coaches in this sample provided various different points of view, the sample was limited to 11 coaches who were not necessarily exemplary coaches of MAs. The current sample should not be considered exemplary or manifesting best practices, and results should be understood as being exploratory among a sample of typical coaches of Masters swimmers. Thus, it would be beneficial in future research to study effective or quality coaches of MAs who can serve as models to others. Future research could also examine the differences in coaching MAs and youth, and how the principles of learning change over time, with the age and life stages of athletes and how this connects to the development of coaching knowledge.

As an exploratory study, this was the first to explicitly address the unique coaching approaches for an under-represented group of coaches. On a conceptual level, the findings matched well with Knowles et al.'s (2012) APM, meaning that coaches use similar approaches as teachers do when facilitating adult learning in sport. The findings, as set within the APM, provide rich and descriptive information derived from coaches themselves to help enhance future refinement of coach education curriculum for individuals working with MAs and to provide guidance for public policies within sport organizations and government. Practically, we urge coaches and coach developers to consider these findings, and notice the uniqueness in adults' experiences, maturity, motives, readiness to learn, and preferred communication styles, which may differ than those among youth or younger participants. It appears that while many coaches of MAs are able to competently coach MAs, policy regarding coach education geared specifically at teaching adult learning principles may lead to more effective and proficient coaches for this age cohort.

In conclusion, while some coaches were knowledgeable or intuitively aware of how adult learning principles helped their MAs learn, not all coaches applied all the principles. Thus, our study provides a descriptive understanding of whether coaches report using adult learning principles when coaching MAs, and if so, how they describe the principles in action. This information may be useful to club directors and coach developers to provide an understanding, from the perceptions of the

coaches themselves, of coaching approaches used in the context of working with adults.

## Acknowledgments

This research was supported by the Social Sciences and Humanities Research Council of Canada.

## References

- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3, 77–101. doi:10.1191/1478088706qp063oa
- Burke, S. (2016). Rethinking 'validity' and trustworthiness in qualitative inquiry. How might we judge the quality of qualitative research in sport and exercise sciences? In S. Smith & C. Sparkes (Eds.), *Routledge handbook of qualitative research in sport and exercise* (pp. 484–497). New York: Routledge.
- Callary, B., Rathwell, S., & Young, B.W. (2015). Masters swimmers' experiences with coaches: What they want, what they need, what they get. *SAGE Open*, 5, 1–14. doi:10.1177/2158244015588960
- Coaching Association of Canada. (2013). Coaching masters athletes: National Coaching Certification Program resource book. Ottawa, Ontario. Retrieved from [www.coach.ca/files/Coaching\\_Master\\_Athletes\\_FIN\\_AL\\_EN.pdf](http://www.coach.ca/files/Coaching_Master_Athletes_FIN_AL_EN.pdf)
- Côté, J., & Sedgwick, W.A. (2003). Effective behaviors of expert rowing coaches: A qualitative investigation of Canadian athletes and coaches. *International Sports Journal*, 7(1), 62–77.
- Ferrari, G., Bloom, G.A., Gilbert, W.D., & Caron, J.G. (2016). Experiences of competitive masters swimmers: Desired coaching characteristics and perceived benefits. *International Journal of Sport and Exercise Psychology*; Advance online publication. doi:10.1080/1612197X.2015.1114504
- Fox, A. (2006). The importance of coaching control. *International Journal of Sports Science & Coaching*, 1, 19–21. doi:10.1260/174795406776338472
- Hastings, D.W., Cable, S., & Zahran, S. (2005). The globalization of a minor sport: The diffusion and commodification of masters swimming. *Sociological Spectrum*, 25, 133–154. doi:10.1080/02732170590883924
- International Council for Coaching Excellence. Association of Summer Olympic International Federations, & Leeds Beckett University. (2013). *International sport coaching framework (version 1.2)*. Champaign, IL: Human Kinetics.
- Jarvis, P. (2009). *Learning to be a person in society*. London, UK: Routledge.
- Knowles, M.S., Holton, E.F., III, & Swanson, R.A. (2012). *The adult learner* (7th ed.). New York: Routledge.

- MacLellan, J. (2016). Investigating a coach's facilitation of learning situations among Masters and youth athletes. Unpublished master's thesis. Ottawa: University of Ottawa.
- Medic, N. (2009). Understanding masters athletes' motivation for sport. In J. Baker, S. Horton, & P. Weir (Eds.), *The masters athlete: Understanding the role of sport and exercise in optimizing aging* (pp. 105–121). London: Routledge.
- Medic, N., Young, B.W., Starkes, J.L., & Weir, P.L. (2012). Relationship between having a coach and Masters athletes' motivational regulations for sport and achievement goal orientations. *International Journal of Coaching Science*, 6, 65–79.
- Merriam, S.B. (2001). Andragogy and self-directed learning: Pillars of adult learning theory. In S. Merriam (Ed.), *New directions for adult and continuing education* (pp. 3–13). San Francisco, CA: Jossey-Bass. doi:10.1002/ace.3
- Merriam, S.B., Caffarella, R.S., & Baumgartner, L.M. (2006). *Learning in adulthood: A comprehensive guide* (3rd ed.). San Francisco, CA: Jossey-Bass.
- Morris-Eyton, H. (2008). *Andragogy: Fact or fiction within a swimming coaching context? Unpublished master's thesis*. Johannesburg: University of Witwatersrand., Retrieved from [wiredspace.wits.ac.za/handle/10539/7037?show=full](http://wiredspace.wits.ac.za/handle/10539/7037?show=full).
- Latham, G.P., & Locke, E.A. (1985). The application of goal setting to sports. *Journal of Sport Psychology*, 7, 205–222. doi:10.1123/jsp.7.3.205
- NVivo (Version 10.0) [Computer software]. Doncaster, Australia: Qualitative Solution & Research.
- Ollis, S., & Sproule, J. (2007). Constructivist coaching and expertise development as action research. *International Journal of Sports Science & Coaching*, 2, 1–14. doi:10.1260/174795407780367131
- Rathwell, S., Callary, B., & Young, B.W. (2015). Exploring the context of coached Masters swim programs: A narrative approach. *International Journal of Aquatic Research and Education*, 9, 70–88. doi:10.1123/ijare.2014-0068
- Santi, G., Bruton, A., Pietrantoni, L., & Mellalieu, S. (2014). Sport commitment and participation in masters swimmers: The influence of coach and teammates. *European Journal of Sport Science*, 14, 852–860. PubMed doi:10.1080/17461391.2014.915990
- Sylvester, B.D., Standage, M., Dowd, A.J., Martin, L.J., Sweet, S.N., & Beauchamp, M.R. (2014). Perceived variety, psychological needs satisfaction, and exercise-related well-being. *Psychology & Health*, 29, 1044–1061. PubMed doi:10.1080/08870446.2014.907900
- Vallerand, J.R., & Young, B.W. (2014). Are adult sportspersons and exercisers that different? Exploring how motives predict commitment and lapses. *International Journal of Sport and Exercise Psychology*, 12, 339–356. doi:10.1080/1612197X.2014.932823
- Weir, P.L., Baker, J., & Horton, S. (2010). The emergence of Masters sport: Participatory trends and historical developments. In J. Baker, S. Horton, & P.L. Weir (Eds.), *The masters athlete: Understanding the role of sport and exercise in optimizing aging* (pp. 7–14). London: Routledge.
- Wlodkowski, R.J. (1985). *Enhancing adult motivation to learn*. San Francisco, CA: Jossey-Bass.
- Young, B.W. (2011). Psycho-social perspectives on the motivation and commitment of Masters athletes. In N.L. Holt & M. Talbot (Eds.), *Lifelong engagement in sport and physical activity* (pp. 125–138). London: Routledge & ICSSPE.
- Young, B.W., Bennett, A., & Séguin, B. (2015). Masters sport perspectives. In M.M. Parent & J-L Chappelet (Eds.), *Masters sport perspectives*. In M.M. Parent & J-L Chappelet (Eds.), *Routledge handbook of sports event management: A stakeholder approach* (pp. 136-162). London: Routledge.
- Young, B.W., Callary, B., & Niedre, P.C. (2014). Exploring novel considerations for the coaching of Masters athletes. *International Sport Coaching Journal*, 1, 86–93. doi:10.1123/iscj.2014-0052
- Young, B.W., & Medic, N. (2011). Veteraaniurheilijat: tutkimuksia merkittävästä panostuksesta, motivaatiosta ja mahdollisuuksista [Masters athletes: Studies on remarkable investments, motives, and opportunities]. In Finnish Veterans' Athletic Association (Eds.), *Erlainen tapa vanheta [Different ways of aging in sport]* (pp. 45-58). Lappeenranta, Finland: KS-Paino.

Table 1 Demographic Profile Table of Coaches and Their Swimmers

Coach	Age	Gender	NCCP <sup>a</sup> Certification	Years Swimming Experience	Years Coaching Total	Years Coaching MAs	Months Coaching MAs Per Year	Hours Coaching MAs Per Week	Average Age of Swimmers	Competition Level of Majority of Swimmers	Number of Competitions Athletes Attended During Season
Carmen	50	Female	None	40	9	3	10	5	40	Recreational Regional, and Provincial	2
Nicole	41	Female	Level 1	30	10	10	9.5	1.5	40	Regional	1
Ellen	54	Female	Level 3	44	15	15	12	10	47	Provincial	10
Laura	48	Female	Level 1	20	8	5	9	4.5	50	Provincial, National, and International	4
Wayne	66	Male	Level 2	60	50	20	12	11.5	40	National and International	10
Tom	50	Male	Level 1	50	24	19	10	4	43	Regional	6
Emile	36	Male	None	16	13	13	12	5.3	45	Regional	4
Brock	40	Male	Level 2	23	23	23	9	4	47	Regional	1
Dominic	47	Male	Level 2	37	16	12	10	1.5	40	Recreational	1
Armand	67	Male	None	27	6	6	12	2	45	Regional and Provincial	4
Jordan	40	Male	Level 2	29	15	5	12	7	48	Regional and National	2

Note. <sup>a</sup>NCCP = Canadian National Coaching Certification Program

## Author Queries

[AUQ1] The in-text citation "Knowles, Swanson, & Holton, 2012" is not in the reference list. Please correct the citation, add the reference to the list, or delete the citation.