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The Coach Developer as a Learning Designer: A Case Study of the development of the ICOACHKIDSTM Massive Open Online Courses

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Abstract

The role of the Coach Developer (CDs) has broadened over the last two decades. Today CDs fulfil multiple functions such as tutor, facilitator, expert or mentor. Increasingly they also play a significant part as learning designers. CDs are normally not trained to perform this role and are typically forced to learn it 'on the job'. Using a case study approach, this "practical advances" paper provides an overview of the role and required skills and competences of learning designers, specifically in online coach development contexts. It then focuses on the authors' work-based learning journey during the development of the three-course series of ICOACHKIDSTM Massive Open Online Courses. The paper offers a novel and unique description of the full process of creating an online coach development opportunity from inception. It describes four stages including: i) agreeing target audience and learning outcomes; ii) choosing the pedagogical model; iii) selection of technological solution and partners; and iv) content development. For each stage the working parameters, associated challenges, and the learnings gained by the CDs are described. The authors conclude that each of these phases present unique challenges and require different competences. Learning design, especially online, must therefore become part of the CD development curriculum going forward.

Introduction

The importance of sport coaching in 21st century society, and the need for appropriate coach development systems and opportunities have been increasingly highlighted and prioritised at national and international level (Council of the European Union, 2017; 2020; ICCE, ASOIF & LBU, 2013; Lara-Bercial et al., 2017; Sport England, 2021). Government departments, national coaching organisations and governing bodies of sport have all invested in developing suitable coach development systems. These include a range of mediated and non-mediated learning opportunities such as formal qualifications, continuous professional development seminars and workshops, mentoring, peer-learning, etc. Increasingly, there is also a need for new and regular development opportunities for coaches to stay current and competitive in a rapidly evolving field.

Given their growing complexity and multi-pronged approach, a central feature of these systems is the need for highly skilled coach developers (CDs) that can lead and facilitate these learning opportunities. However, despite the pivotal nature of the role, the skills, competencies and developmental needs of CDs have only recently started to be investigated and promoted (Callary & Gearity, 2019; McQuade, 2020; Lara-Bercial & Bales, 2020; Crisfield, 2020; Dieffenbach, 2020). The International Coach Developer Framework (ICDF; ICCE, ASOIF & LBU, 2012) produced by an international expert group led by the International Council for Coaching Excellence, aimed to kick-start a global conversation around this area, and bring attention to this very particular role. The ICDF recognises that 'coach developers are not simply experienced coaches or transmitters of knowledge' (p. 8) but that they fulfil a multiplicity of roles including 'facilitating, assessing, mentoring, programme design and evaluation, and leadership and personal development' (p. 8).

Therefore, the job of the CD has progressively undergone a transformation from the traditional view as subject matter expert towards a much more multifaceted endeavour which requires numerous capacities and competencies. Moreover, the role has also transformed in relation to the timespan over which CDs are expected to operate ranging from single episodes of 'coach training' to multiannual 'coach support and development'. A contributing factor to this multiplicity of roles and skills is that coach development, especially in certain countries, sports and levels of participation (i.e., high performance), has moved from the typical one-size-fits-all 'group delivery', such as courses and seminars, towards much more 'custom-made' and 'context-bound' interventions tailored specifically to the individual's needs.

The above does not mean that traditional CD roles are obsolete nor that a single CD must be able to fulfil all possible roles. It does, however, indicate a broadening of the role and an associated increase in the complexity of upskilling the current CD workforce and recruiting and developing the next generation. Traditionally, CDs have been recruited from two main sources:

a) experienced coaches and b) academia. However, belonging to either or both of these demographic groups is no longer sufficient guarantee that a CD has the relevant skills and competencies to fulfil the ever-expanding demands of the job. Efforts to train CDs to fulfil these new role profiles have lagged behind the fast transformation of the field over the last two decades.

Most CD development to date has had a compliance-based focus (ICCE, ASOIF & LBU, 2012). CDs have been recruited based on their subject-matter expertise and then taught to ensure that all the relevant elements of a qualification are appropriately covered, and all administrative requirements fulfilled. CD training has not been typically competence-based and thus has failed to support the development of required skills such as facilitation, assessment or

programme design (Bales et al., 2020). CDs have been left needing to develop these additional competences through a mix of self-generated development opportunities and, in many instances, through 'sink or swim' on-the-job learning. More recently however, examples of competency-based coach development have been shared. Describing the initiative in New Zealand, Walters, Rogers and Oldham (2020) state the importance for coaches to have a range of opportunities to acquire and improve on competencies, skills and knowledge through the building of interpersonal relationships and reflecting on real-life coaching experiences. This suggests a necessary shift for coach developers to focus on "how" professional knowledge may be delivered, rather than the "what" of professional knowledge (Walters, Rogers & Oldham, 2020). Dohme, Rankin-Wright & Lara-Bercial (2019) also highlighted the role of interpersonal skills in their CD work in the Philippines, where being available, approachable and supportive was reported by coaches as paramount to the CD process. It is unsurprising therefore that CDs are now required to demonstrate high levels of emotional intelligence as a part of their role (Crisfield, 2020).

Against this general background, this paper focuses on a specific area in CD training and development: the role of the CD as a Learning Designer. Mor and Craft (2012) have proposed the following definition for Learning Design: "the creative and deliberate act of devising new practices, plans of activity, resources and tools aimed at achieving particular educational aims in a given context" (p. 86). This definition arises from the realisation that no longer is the 'educator' the only source of knowledge for learners, but that learners inhabit vast networks of knowledge sources that are open, free and accessible on demand (Mor, Craft & Maina, 2014).

Learning Designers therefore go beyond the simple and unidirectional transmission of knowledge "to structure the learner's engagement with the knowledge, practising the high-level cognitive skills that enable them to make that knowledge their own" (Laurillard, 2008, p. 527). Mor et al (2014) argue that this constructivist approach to educational practice relies on the empathic observation of learners to understand where they are, where they want to be, and the appropriate interplay of knowledge, pedagogy, technology and practical experience to bridge the gap. Along these lines, Sims (2015) has proposed that educators must go beyond traditional Instructional Design (i.e., the creation of pre-determined pathways that will ensure a transfer of knowledge) because their job is no longer to instruct, but to "provide spaces in which individual learning is enabled [...] This means focusing solely on learning outcomes with accompanying activities and resources by which those outcomes can be achieved and measured through assessment" (p.29).

This constructivist view of learning implies that all CDs are required to act in a Learning Designer capacity, even when they are delivering materials and processes developed by someone else. That is, CDs have to find ways to customise those materials and processes to the learners' needs to maximise their chances of achieving the learning outcomes. Nonetheless, CDs have been increasingly asked to fulfil this Learning Designer role in a much more extensive manner: from the inception and development of a particular learning programme to its final delivery. The growing need for new and regular development opportunities for coaches, exacerbated by the COVID-19 pandemic, has created a groundswell of demand that needs to be filled (Li et al., 2021). CDs who can successfully play the Learning Designer role have become a highly valued commodity. Consequently, coach education and development organisation are

having to find ways to support the development of this capacity within their current and future CD workforce.

This is particularly relevant in relation to the development of online coach education and development opportunities, especially in the wake of the pandemic. With increased demand for more time-efficient and cost-effective coach development opportunities, more and more organisations have incorporated web-based learning to their educational provision (Driska & Nalepa, 2020). New technology and software have made it possible for these organisations and CDs to engage with this novel approach and to start creating a variety of e-learning suites. However, research into the impact of these initiatives is scarce (Griffiths, Goodyear & Armour, 2021), and their suitability for coach education and development is still debated (Driska & Nalepa, 2020).

This 'practical advances' paper is concerned with the development process of an actual web-based educational programme (i.e., the ICOACHKIDSTM Massive Open Online Courses) from the perspective of the CD. In doing so we seek to achieve two main objectives: 1) to be able to describe the skills, knowledge and competences required of CDs as Learning Designers; and 2) to articulate the development and decision-making process which led to the building of the learning programme. The ultimate goal is two-fold: 1) to create a greater understanding of the Learning Designer role in coach development and how CDs can be supported to fulfil it; and 2) to "make explicit and shareable the design decisions of educators which in the past have usually been implicit" (Dalziel, 2014, p. 11) in order to assists other CDs in similar positions.

The ICOACHKIDSTM Movement

ICOACHKIDSTM (ICK; www.ICOACHKIDS.org) is a Global Movement under the umbrella of the International Council of Coaching Excellence born out of an initial three-year project (2016-2019) co-founded by the Erasmus+ programme of the European Commission.

Founding partners include Leeds Beckett University, Sport Ireland Coaching, The Royal Belgian Football Association, Netherlands Olympic Committee, Universidad Europea of Madrid, the Hungarian Coaches Association, and the Lithuanian Sports University. Six years after its foundation, ICK works with partners across five continents to realise its mission to promote sport policy, education and practice that puts kids first. This mission is underpinned by three strategic pillars: 1) Develop people; 2) Drive global change; and 3) Evidence impact.

One of ICK's primary objectives it thus to support the development of a specialist children and youth sport coaching workforce globally by providing a range of free and easily accessible education and development opportunities. To date ICK has delivered a broad range of outputs including: 1) the ICK Literature Review (Fix et al., 2017); 2) the ICK European Coaching Children Curriculum (Lara-Bercial et al., 2017b); 3) the ICOACHKIDS Pledge (Lara-Bercial et al., 2017c; Hodgson & Lara-Bercial, under review; see figure 1); 4) the ICOACHKIDS website (www.ICOACHKIDS.org); 5) the ICK International Conference, now in its 6th edition (Budapest 2017, Leeds 2018, Limerick 2019, Online 2020, Online 2021, Frankfurt Am Main, 2022); and 6) The ICK MOOCs (Massive Open Online Courses). All of these outputs are accessible from the ICK website.

The ICOACHKIDSTM MOOCs

As a part of the strategic pillar "develop people", the centre piece of the initial project was the development of a suite of three MOOCs to support coaches bring to life the ICK Pledge – the 10 golden principles for coaching children.

[Please insert Figure 1 here]

MOOCs, web-based open-access educational courses, represent a relatively new approach to learning (Lee et al., 2021), yet their number has increased exponentially, reaching a record high of over 11,000 courses in 2018 (Doo et al., 2018; Khalid et al., 2021). MOOCs attract a diverse population of learners with a range of backgrounds, contexts and motivations to access free open education resources (Alonso-Mencia et al., 2020; Khalid et al., 2021). Key advantages of these courses include the ability to be delivered on a mass scale, their cost effectiveness and easy access, and the promotion of autonomous learning (Griffiths, Goodyear & Armour, 2021).

The wide reach, cost-effectiveness, and relative freedom offered by the MOOCs was central in ICK's decision to select this format for their newly developed educational offer. The ICK MOOCs aim to provide a foundation of knowledge and associated applied tools covering a broad range of subjects and topics relevant to coaches working with children and young people. Given the extensive reach and fidelity of self-paced online learning courses that are low-cost, and low burden to coaches (Driska & Nalepa, 2020), the ICK MOOCs aim to serve individual coaches, as well as governing bodies who may not have the resources to create and distribute similar courses. MOOC 1 was launched in November 2018 and MOOCs 2 and 3 in August 2019.

Method

This paper uses a case study approach focused on the experiences of the core group of CDs involved in the development of MOOC 1 of the ICK suite of courses and the learning taken into the development of MOOC 2 and 3. A case study entails the detailed examination of an individual unit, case or system which allows researchers to achieve greater levels of depth and understanding of its internal structure and operation (Creswell, 1998). By contrast to experimental research, case studies offer the advantage of examining a live context that exists and constitutes an instance of real-life rather than an artificially manufactured setting (Simons, 2009). Case studies therefore start with the purposeful identification of a case that is deemed worthy of studying (Stake 2005). This purposeful sampling is critical in case study research (Sparkes & Smith, 2014) and the rationale for this choice must be provided and be robust (Creswell, 1998).

The novel nature of the ICK MOOCs as a not-for-profit, extensive, free and web-based coach development programme specifically targeted at coaches working with children and young people renders it an ideal context for a case study. As such, ICK can be considered both as an instrumental case (i.e., aids the development of a greater understanding of a particular issue such as the role of the CD as a Learning Designer; Stake, 2005) and a critical case (i.e., it revolves around an instance that is deemed to play a pivotal role in a particular field like the development of widely available free e-learning for coaches; Gerring, 2007). For these reasons, the case studying of the ICK MOOCs is deemed worthy of in-depth consideration and reflexion.

In selecting and conducting a case study approach the researchers made a series of philosophical assumptions that warrant attention. They acknowledge that reality is constructed by each subject in different ways and thus adheres to an internal or relativist ontological

paradigm. Consequently, the study espouses a subjectivist and constructionist epistemology which assumes no separation between the researcher and the object of inquiry and that interpretation of the phenomena under scrutiny are mediated by personal theories, experiences and values. As a result of this philosophical positioning, this study searches not for absolutes, but rather tries to elicit and describe central features and processes of this particular example of Learning Design which may inform practice in other settings.

The main purpose of the case study was to gain a deeper understanding of the role of the CD as a Learning Designer in general, and in particular, in the context of e-learning.

Specifically, this study aimed to 1) describe the knowledge and competences required of CDs as Learning Designers; and 2) articulate the development and decision-making process which led to the design and building of the MOOC. In order to do so, the authors employed a number of methods including: a) review of planning and development documentation; b) analysis of correspondence between CDs; c) individual reflections; and d) group discussions. The combination of these methodologies was deemed appropriate to capture the complexity of the process, the challenges posed to the CDs, and to reconstruct and evaluate the key decision-making instances that led to the final product.

The CD group (n=6) included 5 male and 1 female CDs possessing a broad range of experiences and expertise. Five CDs had over 10 years of experience as Learning Designers in a variety of coach development contexts (i.e., NGBs, national lead organisations, and higher education) yet limited experience in relation to e-learning activities. One of the CDs had over 10 years of experience developing e-learning within a higher education context yet no experience in coach development activities prior to the ICK project.

Findings

In line with the above aims, the findings of this study are presented as a combination of two concurrent threads. The main narrative of the paper will be provided through the description of four discrete phases in the development of the MOOC identified by the authors. These phases include: 1) agreeing the target audience and learning outcomes; 2) selecting the pedagogical model; 3) selection of technological solution and partners; and 4) content development. Key steps in each stage and fundamental decision-making moments within them will be highlighted. A second narrative will use the vehicle provided by the four phases to articulate the learning journey of the authors at each stage. Through the combination of the two narratives, the authors aim to elicit the knowledge, skills and competences required of CDs as Learning Designers within an e-learning context, as well as the factors conditioning decision-making and thus the development of the final product.

Phase 1: Agreeing the Target Audience and MOOC Learning Outcomes

As part of the project, the ICK Expert Group (XG) had previously developed the ICK European Coaching Children Curriculum (ECCC, Lara-Bercial et al., 2017b). This comprehensive document offers guidance to those developing coach education and development opportunities for children's coaches. The ECCC is built around the six primary functions of the coach proposed in the European and International Sport Coaching Frameworks (e.g., set a vision and strategy, shape the environment, build relationships, conduct practice and competition, read and react, and reflect and learn; Lara-Bercial et al., 2017a; ICCE, ASOIF & LBU, 2013). The ECCC also uses the coaching roles defined in these reference documents (e.g., coaching assistant, coach, senior coach and master coach). For each function and role, the ECCC thus defines a number of task-related knowledge and competences which are then translated into units of

learning, learning outcomes, sample knowledge basis and recommended guided and non-learning hours (Lara-Bercial et al., 2017b, p11-14).

Consequently, the first significant challenge for us as CDs was to agree the role and expertise level the MOOCs would be aimed at, as this choice would condition all other decisions thereafter. After careful consideration, it was decided that the MOOCs would be targeted primarily towards coaching assistants and coaches. The courses were envisaged as awareness raising opportunities for those relatively new to coaching, seeking to introduce them to a particular philosophy of working with children, and the associated essential knowledge, whilst signposting them to more expansive resources. Notwithstanding the above, we also agreed that content would be pitched at a level of depth and width wherein more experienced coaches could also benefit from completing the course.

Based on the above rationale and following the ECCC, we set out to determine the learning outcomes of each of the three proposed MOOCs. However, and prior to the selection of learning outcomes, the XG and CDs agreed the main theme for each of the three courses to facilitate the process of linking learning outcomes from the ECCC to each MOOC. The three MOOCs were given titles according to their overall theme:

- MOOC 1: "Developing Effective Environments for Children in Sport"
- MOOC 2: "Child Centred-Coaching and Physical Literacy"
- MOOC 3: "Coaching Children: Planning, Doing and Reviewing"

It is important to highlight that the choice of themes, and most importantly, the sequence in which the three MOOCs were organised was influenced by the structure of the six primary functions (ESCF; Lara-Bercial et al., 2017a) and the ICK Literature Review (Fix et al.,

2017). Following these two reference documents, we agreed that it was important to prioritise student-coaches understanding of the importance of setting appropriate environments for youth sport before moving on to the actual act of coaching on the ground. This process would be guided by solid philosophical principles informed by the needs and desires of children. This approach was deemed to better complement existing coach education and development opportunities which tend to focus more on the technical, tactical, and logistical elements of each sport, and less so on foundational and developmental principles (ICCE, ASOIF & LBU, 2013).

For the purpose of this paper, only MOOC 1 is considered since the learnings from its development had a significant influence on how MOOCs 2 and 3 were built. The course was titled "Developing Effective Environments for Children in Sport" and table 1 below shows the choice of learning outcomes and the ECCC units of learning they relate to.

[Please insert table 1 here]

Coach Developer Learning. Reflecting on the first stage of development of MOOC 1, we extract the following conclusions. First, achieving clarity about the target audience the MOOC was aimed at, and the role expected to be played by these coaches was central in the decision-making process. Second, an understanding of existing educational provision for these coaches, and the subsequent identification of knowledge gaps was key in guiding us towards key themes. Third, the existence of clear and comprehensive reference documents such as the ESCF (Lara-Bercial et al., 2017a) and the ECCC (Lara-Bercial et al., 2017b) proved to offer vital guidance during this early development phase. Fourth, even though we had been personally involved in the development of these key documents, there was significant effort in bringing them to life and using them in this 'real scenario'. And fifth, this 'bringing to life' of the reference documents was helped by the clarity around the overall theme of the MOOC

("Developing Effective Environments") and the philosophy underpinning it encapsulated by the ICK Pledge. In sum, we found that during this early stage a crystal-clear understanding of target audience and expected roles and functions of the student-coaches was vital. Coupled with the significant support from existing documents, this clarity highly facilitated the selection of learning outcomes and got the MOOC on a very stable footing for the subsequent stages of development.

Phase 2: Selecting the Pedagogical Model

A pedagogical model is a cognitive model or theoretical construct anchored in learning theory that translates into a set of instructional and learning strategies (Lozano et al., 2017; Wood, 2010). Thus, a pedagogical model assumes a particular view of how learning happens and creates specific strategies believed to facilitate it. We, as a group of CDs, espoused a constructivist learning epistemology (Jarvis, 2006; Vygotsky, 1978) which construes learning as an active process during which knowledge, both declarative and procedural, is constructed by the learner as subjective interpretations of reality. A central tenet of constructivism is that new information and experiences are linked to and interpreted through existing knowledge and experiences in a cumulative and highly individualised process.

From this perspective, we set out to identify a pedagogical model aligned with this philosophy. A blended approach containing instructional content, self-reflection tasks, and reality-based activities was the model of choice. Instructional content consisted of a series of videos were generally accepted evidence-based approaches and best-practices to coaching children were presented in a relatively prescriptive manner. This was however balanced with opportunities for self-reflection, both in relation to how these approaches would suit the reality of the context the coach works in, as well as their perceived level of competence in these areas.

Typically, after instruction and self-reflection were completed, a reality-based activity was inserted to encourage coaches to take this new knowledge, wrap it around existing knowledge, and apply it to their actual practice context. One of the mantras of the development team at this stage was to "not create homework, but real tasks that great coaches – should - do every day".

While committed to this blended pedagogical approach, we were acutely aware of the difficulty of finding a 'one size fits all' strategy for such a broad audience. It was anticipated that the MOOC would be accessed by a mix of unqualified pre-coaches and coaches with low level qualifications and little experience. Notwithstanding this, it was also expected that more experienced coaches with higher level qualifications may also complete the MOOC as an opportunity to refresh their knowledge and skills. Finding ways to set the course at a level that would benefit all student-coaches was always at the forefront of our mind.

Likewise, we were concerned about the effect of the medium and format on coach engagement and learning. Typically, MOOCs are run in 'editions' with a start and end date, have limited enrolment, and include a certain amount of monitoring and/or tutoring provided by the hosting institution. However, given the limited workforce of ICK and potentially vast enrolment, CDs decided that the MOOCs would be self-paced and self-monitored with the only opportunity for assessment being provided by a multiple-choice quiz at the end of every chapter. No feedback by tutors or peers on the tasks and activities is provided. As stated earlier, the course was seen as an awareness raising exercise for beginner and intermediate coaches with assessment being less important at this stage. Yet, this lack of tutoring and assessment was cause for concern as it could potentially lead to increased dropout rates or a lesser impact on coach learning.

To placate some of these issues, we opted to design the course in a manner whereby an organisation (i.e., a national governing body of sport, a club or a university) could run closed

editions including formal monitoring, tutoring and assessment. Given that the MOOCs were designed using the ECCC aligned with the EQF, it was also envisaged that the courses could be incorporated into relevant qualification frameworks and thus be fully accredited as required by each institution. At the other extreme of this continuum, we were also keen to make the content available in as many formats as possible to suit the needs of all coaches. Hence, a YouTube channel containing all instructional videos and a series of PDF downloadable study guides containing all course content and materials were also made available to facilitate different and more flexible learning modes.

Coach Developer Learning. Coach developers must understand the principles behind different pedagogical approaches (Culver, Werthner & Trudel. 2019). In the process of selecting the pedagogical model, we arrived at a number of key realisations. First, servicing such a broad demographic, and offering a variety of learning modes, presents a high number of challenges and leads to a higher number of design compromises. Traditionally, CDs have faced challenges related to coaches day-to-day learning and practice (Stodter & Cushion, 2019). Finding a balance between creating an optimal flow for the learning experience and enough flexibility to allow different types of students, with diverse experience and previous knowledge working in varied practice contexts, to maximise their engagement with the resources became paramount.

Second, in line with the espoused constructivist epistemology, and influenced by the above conditions, we had to learn to relinquish control and accept that as CDs, all we can do is create the best possible environment and materials to facilitate and stimulate learning, yet that it is up to the student to use these in whichever form they see fit for their own learning and development. Third and final, given this complexity, we were very mindful of the need for each piece of content (i.e., instructional videos) to be able to stand alone as a single learning episode.

Only in this way, the objective of appealing to different audiences and learning modes could be achieved.

Notwithstanding the above constraints, the MOOCs were designed to facilitate adoption from other sport organisations, federations and governing bodies. Demonstrating success in this respect, the MOOC described in this study, as well as the subsequent two MOOCs have since been adopted by others and integrated into new and existing coach development frameworks (i.e, UEFA, European Volleyball, Sport NI, International Skating Union, Portuguese Youth and Sport Institute and Luxemburg National School for Physical Education and Sport). Such adoption has illustrated the representativeness of need across multiple nations and coach development settings.

The authors are, however, mindful of a need for greater diversity within the learning design team. It is acknowledged that MOOC designers create courses that strongly link to who they are, what they value, and their world view (Adam, 2020). Therefore, a course that has global reach should have designers representative of different cultures, value systems and epistemologies (Adam, 2020). This is also reflected in the speakers of the ICK MOOCs. In MOOC 1, the course in question, each of the 42 videos is fronted by a white, Western-European male. In subsequent MOOCs (2 and 3), 8 of the remaining 50 videos are fronted by a female, who are also white and Western-European. While this is not uncommon in coach development (Norman, 2020; Norman, Rankin-Wright & Allison, 2018), ICOACHKIDS recognise the value of a more diverse pool of CDs. To this effect, a much more diverse pool of presenters and writers was recruited for MOOCs 4 and 5 currently under development. To placate the above limitations, all three available MOOCs are also now available in multiple languages - the full platform is available in English, French, Spanish, German and Russian, and additional subtitles are available in Lithuanian, Hungarian, Dutch and Arabic.

Phase Three: Selection of Technological Solution and Partners

In creating the MOOC, there are two central elements of technology that fell outside of our level of expertise. First, the filming and editing of high-quality instructional videos was the central component of the course, and thus required the services of a professional video-production company. Second, the building and management of the actual MOOC onto a learning management system also demanded the recruitment of a specialist provider. These requirements were foreseen in the original planning phase of the project and thus, a partner with expertise in creating MOOCs and selecting technology providers was recruited in the shape of the European University of Madrid (UEM).

To this effect, UEM, represented in this paper by the third author, led a tendering process with relevant companies. The criteria for selection agreed upon were influenced by the inherent constraints of the project, namely, our relative inexperience in this area, and the limited budget available to complete the construction of the courses. Therefore, flexibility on the part of the provider to support our own development journey, and value for money to maximise the available funds became the two main selection criteria. Amongst the shortlisted companies, a period of meticulous negotiation ensued in order to clarify the deliverables and timescales of the project, ascertain the project character-fit of the company and, very importantly, bring ensure the price fitted the available budget. At the end of this period, a video production and an e-learning companies were contracted to carry out the required work.

Coach Developer Learning. The importance of this step cannot be overemphasised.

The success of developing a MOOC of this size and scope relies heavily on the quality of the materials and technology used and, more importantly, on the quality of the working relationship between the development group and the contractors. As described in detail in the next section,

the extremely supporting and 'can do' attitude of the chosen providers became a significant determinant in the success of the development phase. None of this would have been possible without the thorough selection process conducted by UEM and the technical knowledge and negotiating experience of the third author, and therefore, ensuring this expertise exists within the development group would appear to be a critical success factor in this kind of projects.

Moreover, through the course of the development phase, it became apparent that achieving maximum clarity between the ICK representatives and the contractors was central to a positive outcome. This included facilitating their full understanding of the 'product' being developed, including target audience and overall outcomes. But it also entailed a painstaking process of "dotting the Is and crossing the Ts" in the contract to ensure that expectations of workload and deliverables as well as timescales and roles and responsibilities where clearly understood by all.

Phase Four: Content Development

Once the course curriculum, content and the pedagogical model were agreed, and with the contractors in place, we proceeded to develop the content. This consisted of six main steps: 1) developing the learning programme; 2) writing the scripts; 3) filming; 4) editing; 5) creating learning activities; and 6) developing the study guides.

1) Developing the Learning Programme. Based on the previously agreed learning outcomes, this step consisted of the development of a sequence of instructional videos and personal tasks to fulfil the learning outcomes. The learning programme went through several reviews and iterations until it was fully agreed by all CDs. The agreed programme contained six chapters, 37 sections, 42 instructional videos and 52 learning activities. Each chapter was

devised keeping mind the agreed key learning outcomes and task-related competences emerging from the ESCF and the ECCC (Table 2).

[please insert table 2 here]

Coach Developer Learning. The main challenge we faced at this point was finding the right balance of length and depth of content, and student workload for the intended broad, and potentially novice audience. A constant exercise of gauging the pros and cons of including or excluding certain knowledge basis or concepts took place. This process served to reinforce the conviction already held by the CDs that, when supporting beginner coaches, "less is more", and that appropriate "scaffolding" of learning is required to support progressive development. This was however challenging, as shown by the actual final length of the course. Nonetheless, maintaining focus on the purpose of the MOOC and the intended audience was vital to manage this process.

2) Writing the Scripts. After developing the learning programme, we set out to write the scripts for the 42 videos. Due to time-constraints, language barriers, topic expertise and personnel availability, a single author wrote five of the six chapters. Whilst creating a significant workload for the writer, this positively contributed to the development of a single voice and tone throughout the scripts. It was agreed that videos should last between three and six minutes (500 to 1000 scripted words), yet in practice this proved very challenging and some videos surpassed the 10-minute mark.

Coach Developer Learning. The learning related to the writing of the scripts will be treated in conjunction with the filming of the videos as they are inextricably linked. See below.

3) Filming. Chapters one to three were written first and subsequently filmed over a threeday period. After this initial round of filming, the scripts for chapters four to six were developed and filmed over a second three-day stint. To achieve consistency in delivery, save time and maximise budget, it was decided that only two of the CDs (Authors 1 and 6) would be involved in the filming. Filming was conducted at the studios of the video-production company in Madrid (Spain).

Coach Developer Learning. The writing of the scripts and filming of the videos were two of the biggest sources of challenge and learning. A key lesson learnt in the development of the MOOC has been that less is more. The MOOC under study features videos that total over 4 hours of content, across 6 chapters, with an average chapter containing 43 minutes of video. Previous research has found that learners appear to have difficulties in managing their own time effectively in line with their goals to complete MOOCs (Alonso-Mecia et al., 2020) with time investment and management being a key skill (Li et al., 2021). Designing a course with such a broad reach makes it challenging to understand learners' motivations and prior knowledge, which have been found to impact strongly on their time investment patterns (Sun et al., 2019; Li et al., 2021). Recognising the above, the subsequent ICK MOOCS (2 and 3) have each contained 4 chapters, with videos running at 2 and a half hours and 2 hours respectively demonstrating a significant decrease in time. The authors accept that there is still work to be done with regards to keeping content concise, and the matter is under consideration for the development of future MOOCs.

In addition, writing for the screen as opposed to print led to a significant learning curve. This complexity, however, only became apparent once the CDs were in front of the camera delivering the first round of scripts leading to a substantial rewriting of large sections of the original scripts on the spot. Key issues included overtly academic language, long sentences that were difficult to deliver to camera, and poor use of support diagrams and superimposed text. As

a result, we adopted a much different writing style and approach for the second round of filming and spent much of the time between shoots rewriting existing scripts. Delivering the scripts 'out loud' during the rewriting phase between shoots became a 'must'. In doing so, it quickly became apparent if the script 'worked' or not

Finally, given this was their first foray into this medium, the actual delivery of the scripts to camera was also a source of stretch for the two presenters,. Adopting a natural tone and demeanour and mastering the use of the autocue took an important amount of time and energy, and added to the stress of the process. In hindsight, we agreed this should have been practiced beforehand away from the studio in front of a regular video camera and using a 'home-made' autocue (i.e., a PowerPoint slide show).

4) Editing. Once filming was completed, the contractor proceeded to edit the 42 videos. This process included adding a variety of sound and visual effects, and supporting text and diagrams to aid learning and further engage the audience. The authors developed an enhanced script which contained detailed information of what additional text or visual aids should appear at what times and for how long. Based on this enhanced script, the editor proceeded to develop rough cuts of each video leading to an iterative process of review and refinement until a final version for each video was agreed and approved. This typically took between two and three attempts for each video, a very time-consuming task spanning an eight-week period. This role was undertaken mainly by the first author for the purposes of developing a single and stable voice and feel, as well as to accelerate the process.

Coach Developer Learning. Throughout the editing process, we realised the importance of accounting for the time it takes to go from filming to final cut. It became clear that this had been underestimated and it required extra additional effort on the part of the first author which

compromised other workstreams. In addition, we understood the need to provide the video producers with very clear and detailed instructions about the supplementary text and graphics. Achieving this level of clarity would have avoided unnecessary delays and workload.

5) Creating Learning Activities. Central to the development of the course was the creation of a series of learning activities to encourage and facilitate the construction and application of knowledge by the student coaches. Keeping at the forefront of their mind the mantra of "not homework, but things great coaches – should - do all the time", we developed 52 different learning activities across the six chapters of the MOOC. Some examples of these tasks include: reflecting on their coaching philosophy, creating a vision and mission statement, outlining a development strategy, developing a personal development plan for their participants, or exploring their club's and federation's safeguarding policies.

Coach Developer Learning. In our attempt to create a comprehensive range of purposeful tasks, we felt we ended up going against our espoused "less is more" approach. Over 50 different tasks is a big ask of the learners and as a result, in subsequent MOOCs we greatly reduced their number and scope, while still encouraging coaches to contextualise the knowledge and "practice" real-life scenarios. In addition, we also had to make compromises in the format of the tasks due to the limitations of the learning platform of choice (MOODLE). A greater understanding of MOODLE's possibilities prior to the design of the tasks would have been desirable.

6) Developing the Study Guides. The development of the study guides was led by authors 4 and 5. A study guide was developed separately for each chapter and published as a downloadable Portable Document Format (PDF). The study guides contained all the information provided in the videos, as well as all the learning activities and some further reading/viewing

materials. They were intended to fulfil two different missions. On the one hand, as a support tool for those completing the course online; a reference document they could consult as they progressed through the various chapters and sections. On the other, as an alternative way to follow and complete the course for those who do not favour working online or do not have stable internet connections.

Coach Developer Learning. The study guides followed the structure and flow provided by the videos, and from that perspective, required less writing time. However, they needed to be reversed-engineered from "on screen" materials to "on the page". This step forced us to consider ways to frame the content to engage a "reading" audience. It also required us to find solutions to provide continuity in ways not required in the video versions. Likewise, we were able to maximise the written version to create additional opportunities to clarify or expand content where appropriate.

Conclusions

This paper aimed to create a greater understanding of the Learning Designer role, and to offer a candid account of the development process of an e-learning course for youth sport coaches. We followed a dual narrative whereby the key stages of development and associated decisions were highlighted followed by a summary of the resulting learnings for the CDs. In addition, we propose the knowledge and competences required of CDs to ensure these are considered in future CD development programmes. Table 3 offers an overview of these findings.

Table 3 – Key CD decisions and learnings per phase and associated knowledge and skills

Overall, our experience in the design and development of the ICOACHKIDSTM MOOCs highlights the distinct and significant challenges posed by the need to play a learning designer role in coach development, specifically in the context of e-learning. This is not exclusive to coach development. Doo et al. (2020a) found that only 30.9% of 142 MOOC instructors from a range of countries globally had received any training prior to designing or delivering MOOC courses. However, despite little experience in the development of MOOCs, we would like to believe that, as a group of CDs, we demonstrated an openness to experience and curiosity about this relatively new medium. This is in line with the findings of Doo et al. (2020b) which emphasised the need for learning designers in e-learning contexts to exhibit high levels of flexibility and resilience.

Overall, this insight paper highlights the need to widen the definition of the CD to incorporate that of a learning designer across all stages of development. In doing so, it recognises that even if according to the ICDF (ICCE, LBU & ASOIF, 2012), the learning designer role is the prerogative of the Master Coach Developers, it is likely that CDs will, going forward, find themselves in positions that require them to act as learning designers more and more regularly and at early stages of their journey, especially in relation to e-learning programmes. Therefore, those recruiting, supporting and identifying CDs are encouraged to provide them with ample opportunities to develop the knowledge and skills described in this paper.

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