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| Creators | Mccarthy, Liam, Allanson, Ashley and Stoszkowski, John Robert |

1                                                    Abstract

2     As sports coaching continues to professionalise, the demand for and importance placed upon

3     high-quality education and development programmes for sports coaches is increasing. As a

4     result, the landscape of provision is changing and there is now a recognition of the key role that

5     Higher Education Institutes (HEIs) play in the education, development and assessment of sports

6     coaches. In this insights paper, we argue that since there is a scarcity of research focused solely

7     on assessment as a feature of coach education programmes, there is something to be gained from

8     examining how HEIs assess sports coaches. This represents an important contribution to the

9     research literature, given that assessment is a feature of nearly all coach education programmes

10    and the attainment of a specific award communicates to stakeholders (e.g., employers, athletes,

11    parents) that a precise standard of practice has been met. As such, we identify how some HEIs

12    are addressing the issue of assessment with sports coaches and highlight a series of assessment

13    principles, alongside practical examples from the literature, which intend to stimulate

14    conversation in what we argue is an important area of study.

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16    Keywords: assessment strategies, coach assessment, coach learning, higher education, social-

17    constructivism

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25                          **The Research Context**

26          While sports coaching is societally important, concerns about the quality of coaching

27  practice have grown in recent years (North, 2017). Quality of practice, it is suggested, is

28  connected to the development of sports coaching as a profession (Lyle, 2002; Lyle & Cushion,

29  2016) and coach education undoubtedly plays a role. Increasingly, this has been recognised by

30  the sports coaching community and coach education is receiving a significant amount of

31  attention (Hay, Dickens, Crudgington, & Engstrom, 2012). As a result, the demand for and

32  importance placed upon coach education has increased. Indeed, Hay et al. (2012) suggest that

33  "acceptance of this reality has been reflected in the investment by sports and sporting

34  organisations in formal and non-formal coach education programs such as coaching workshops,

35  coaching accreditation schemes and tertiary/university-based courses" (p. 188).  It is argued,

36  therefore, that coach education programmes are a key feature of a coach's professional

37  development (Gilbert & Trudel, 1999; Nelson, Cushion, & Potrac, 2012). In fact, in many

38  instances, the ability to undertake their role as a coach depends upon it (i.e., coach licensing).

39          Against this backdrop, there has been notable growth in the number of Higher Education

40  Institutions (HEIs) around the world designing and delivering sport coaching bachelor degree

41  programmes (Kjær, 2019; Lara-Bercial et al., 2016; Trudel, Milestetd, & Culver, 2020).

42  Typically, these programmes involve three to four years of study and prepare students for

43  employment as a sports coach. It could even be argued that the HEI sector is now the largest

44  formal coach education provider, facilitating diverse routes into paid coaching roles (Milistetd,

45  Trudel, Rynne, Mesquita, & do Nascimento, 2018). Indeed, Gano-Overway and Diffenbach

46  (2019) recently identified 308 HEIs in the USA that offer courses with sports coaching in the

47    title, while 67,000 students in the UK were enrolled in sport related programs in 2016/17 (HESA,

48    2020). This has not always been the case, however, as traditionally coach education has been the

49    exclusive domain of specific sporting NGBs and federations. As one of the many diverse

50    functions of an NGB (Piggott, 2012), coach education serves as a way to train and certify

51    coaches in a specific sport, with the intended outcome of growing a coaching workforce able to

52    meet participant demand. Although these sport-specific and NGB-led coach education

53    programmes still play a dominant role in a coach's professional development, supplementary

54    qualifications and accreditation are becoming more widely accepted and play a role in a sports

55    coach's increasingly blended learning and development journey.

56         The purpose of the present article is to highlight HEIs as a significant contributor to

57    coach education, while exploring what can be learned from the ways in which they carry out this

58    work. In the following sections, we "zoom in" on the ways in which NGBs and HEIs undertake

59    assessment with sports coaches and identify some potential issues and opportunities. Then, we

60    outline three assessment principles that we believe could enhance the assessment experience and

61    outcomes for sports coaches, followed by examples of the practical application of each principle

62    in a HEI context. We recognise that other best practice principles exist (cf. Abraham, Muir, &

63    Morgan, 2010) and the three we present are by no means the only ones, yet it is beyond the scope

64    of this paper to consider them all and as such, we have made choices based upon those which we

65    believe might be most readily adopted and could provide the greatest initial return.

66              **Coach Education, Higher Education and Assessment: Issues and Opportunities**

67         Although the field of research concerned with coach education is a maturing one, the

68    literature to date has predominantly focussed on NGB-led provision. Indeed, a recent review by

69    Trudel et al. (2020) discovered that just 38 peer-reviewed articles exploring sport coach

70     education programmes in higher education (HE) have been published since 2000, with 61% of

71     these articles published much more recently (i.e., between 2015 and 2018). With regard to NGB-

72     led provision, the research literature has typically taken a disparaging view and is largely

73     pessimistic about the impact of coach education on coaching practice and the contribution it can

74     make to coach learning (Abraham & Collins, 1998; Piggott, 2012). The research often highlights

75     how coaches can find coach education to be far removed from the realities of coaching practice

76     (Chesterfield, Potrac, & Jones, 2010; Cushion, Armour, & Jones, 2003) suggesting that there

77     exists only a loose fit between coaching practice and coach education. As such, general

78     criticisms of coach education have led contemporary scholars to suggest a range of different

79     pedagogical approaches that may remedy some of the concerns expressed within the research;

80     for example, experiential learning (Cronin & Lowes, 2016) and heutagogical approaches

81     (Stoszkowski & Collins, 2017). Yet, with such a heavy focus on teaching and learning strategies,

82     very little attention has been paid to how coaches are assessed, how assessment contributes to

83     coach learning and the extent to which teaching, learning and assessment strategies are

84     congruent. To our knowledge, only the work of Hay et al. (2012) considers the matter in any

85     detail, and they suggest that:

86        Contemporary discussions of learning and pedagogy in formal coach education settings

87        have underestimated the potential contribution of assessment to the field. We believe that

88        this is a significant oversight that both fails to recognise key aspects of pedagogy and

89        learning, and overlooks opportunities for optimising coach and athlete development (p.

90        189).

91        At the time of writing, coaches enrolled on NGB-led coach education programmes are

92     most often (with some exceptions) assessed against a set of predetermined observable

93    competencies (Collins, Burke, Martindale, & Cruickshank, 2015) in endpoint, performative,

94    'high stakes' scenarios (Harrison, Könings, Schuwirth, Wass, & van der Vleuten, 2017). Indeed,

95    NGBs (specifically their administrative function) typically seek to ensure that coaches meet or

96    exceed a specific standard and that those standards are recognised across the wider sector.

97    Situating assessment within this paradigm suggests a certain a level of confidence that there is

98    objectivity and rigour in the process, and a strong belief (by both coach, coach educator and

99    awarding organisation) in the validity of the 'grade' awarded, with the feedback provided

100    helping the student to pass future, similar, assessments (Harrison et al., 2017). However, research

101    focused specifically on assessment as a feature of coach education is (at the time of writing)

102    relatively scarce. As a result, little work has been done to move the field beyond the assessment

103    approach described above. For example, exploring how alternative approaches to assessment

104    might place greater emphasis on coach learning alongside certification. One of the few pieces of

105    academic literature which does shine a light on assessment, suggests that "learning-oriented,

106    authentic, valid and socially just assessment practices have much to offer both coach

107    accreditation and continuing professional development." (Hay et al., 2012, p. 196). Nevertheless,

108    it would seem that conversations about coach education programmes typically overlook issues of

109    assessment, and instead focus attention on how coaches learn (Mallett, Trudel, Lyle & Rynne,

110    2009; Stodter & Cushion, 2017) and experience coach education (Piggott, 2012). Of course, this

111    gap in the scholarly literature may be attributable to the fact that NGBs don't often study their

112    assessment practices on coach education programmes; however, the apparent absence of much

113    critical thought given to assessment practices does suggest that the recent growth in (and focus

114    on) HEI-led provision represents an opportunity to stimulate greater discussion and collaboration

115    between the two contexts.

116       In the following section, we briefly outline a number of assessment principles that we

117    believe could enhance the assessment experience and outcomes for sports coaches. We present

118    these from a social-constructivist perspective, since it would appear that many NGBs in

119    particular are increasingly drawing from this theory of learning to inform their programme

120    design and delivery (Callary, Culver, Werthner, & Bales, 2014; Chapman, Richardson, Cope, &

121    Cronin, 2019; Paquette, Hussain, Trudel, & Camiré, 2014; Paquette & Trudel, 2018). Yet, we

122    must be clear that it is not our intention to advocate any one singular approach, indeed we do

123    recognise that limited evaluation work has been undertaken to understand the efficacy of not just

124    coach education underpinned by social-constructivism, but coach education more broadly

125    (Dohme, Rankin-Wright & Lara-Bercial, 2019; Gilbert & Trudel, 1999 and Cassidy, Potrac &

126    McKenzie, 2006). Finally, we provide examples of the practical application of each principle in a

127    HEI context. Consequently, we hope to encourage more carefully considered approaches to the

128    assessment of sports coaches on coach education programmes broadly, while encouraging debate

129    within an important but sparse area of coach education research.

130    **Assessment as a Feature of Coach Education Programmes: Principles and Examples**

131       Assessment is commonly considered as the practice of making a singular observable

132    judgment against a piece of work (e.g., a practical performance) at the end of a programme of

133    study, in a simulated set of circumstances and against well-rehearsed problems (Gervais, 2016).

134    More recently, however, attitudes toward assessment practices have shifted in some cases and

135    examples of different approaches to assessment in coach education are beginning to emerge.

136    Although the assessment of observable competencies still dominates, in some instances this is

137    supplemented by, and value is now placed upon, coaches' capacity to solve context-specific

138    problems, develop metacognitive skills such as self-monitoring (Blumenfeld et al., 1991),

139    collaborate with peers (Adams, 2006; Shepard, 2000), and ultimately value and work toward

140    expertise (Collins, Burke, Martindale, & Cruickshank, 2015). The 'drama' of 'high stakes'

141    endpoint assessment (Harrison, et al., 2017) has, on occasion, made way for an approach to

142    assessment that is divergent in nature, ongoing and often embedded or at least smoothed out

143    (Gibbs & Simpson, 2005). Many of these examples are located in a HEI context and as a result,

144    we will focus on three principles which we believe have been largely overlooked elsewhere but

145    could have wider application. It is important to note here that we accept the unique context that

146    HEIs, NGBs and other organisations responsible for coach education exist within and the range

147    of affordances they each have. For example, constraining features of these contexts are often

148    resource-based (i.e., cost and time) (Maclean & Lorimer, 2016). For this reason, we have been

149    careful to offer practical strategies that we believe can help mitigate these issues.

150    **Principle 1: Assessment that is ongoing and embedded**

151         While assessment most typically takes place at the end of coach education programmes,

152    we argue that a series of ongoing no or low risk assessments embedded within the programme

153    may bring about desirable outcomes. This principle of assessment practice is not new (cf. Sadler,

154    1989) but has come to prominence more recently as a rebalancing of the educational debate from

155    performance to learning has taken place (Adams, 2006). According to Carless (2007),

156    assessment tasks should "aim to spread attention across a period of study, not lead to short-term

157    bursts of sustained study" (p. 59). By smoothing out the journey in this way and promoting the

158    even distribution of effort, there is the potential for a greater connection between the learner and

159    that which is being learned (Carless, 2007). Adams (2006) argues that not only does this require

160    a reorientation of the relationship between teaching, learning and assessment, but indeed the

161    latter should be embedded deeply within the former.

162    On a Physical Education bachelor's degree programme at a Brazilian University,

163    Milistetd et al. (2019) worked with 32 student-coaches over a course of 18 weeks with the goal

164    of preparing "students to plan and conduct training sessions in team sports" (p. 296). A wide

165    variety of tools were used to assess the student-coaches, including individual reflective

166    portfolios, group activities, presentations, the planning and delivery of coaching practice,

167    reflections (based on video review of one's own practice) and the observation of others. Student-

168    coaches reported positive experiences of engaging with the assessment, noting that the 'ongoing'

169    nature provided an opportunity to continually assimilate new knowledge and understanding each

170    week. The authors of the study also noted how ongoing and embedded assessment afforded

171    student-coaches the opportunity to appreciate the evolution of their own ideas. As such, we

172    would encourage those tasked with designing and delivering coach education programmes to

173    consider how, for example, project-based assessment (Bell, 2010; English & Kitsantas, 2013)

174    might be used to afford coaches the opportunity to curate evidence of learning across the

175    duration of an entire programme of study. Indeed, this offers coaches the opportunity to seek

176    regular feedback from a coach educator, self-assess and share their work with others for further

177    guidance – all prior to the awarding of any 'grade'.

178    **Principle 2: Assessment that is collaborative in nature**

179    If assessment is ongoing and embedded throughout a programme of study, it then

180    becomes possible to invite others in as part of the process. Social-constructivism, as a theory of

181    learning, regards stakeholders beyond the traditional teacher-learner dyad as integral to the

182    learning process. While Black and Wiliam (2009) suggest that peers are a useful instructional

183    resource, Lave and Wenger (1991) draw attention to the rich and diverse field of actors that play

184    roles within the learning process. We argue that as teaching, learning and assessment become

185    integrated this can be true of assessment too. This is consistent with the work of Adams (2006),

186    who suggests that there is a need to "involve pupils in self and peer assessment through the use

187    of discursive and collaborative learning and teaching strategies" (p. 253). Further, Woodburn

188    (2017) suggests that a wide set of stakeholders can play an important role in drawing learners'

189    attention to feedback they otherwise may have missed, which may be even more relevant for

190    novice coaches, yet we can all find self-insight a significant challenge (Dunning, 2005).

191         In recent years, examples of this type of collaborative assessment practice have begun to

192    emerge in HEIs. For example, in a study involving student-coaches from two UK HEIs,

193    Stoszkowski, McCarthy and Fonseca (2017) used online collaborative group blogs

194    (www.wordpress.com) to capture and assesses learning during a year-long applied sports

195    coaching module. Over the course of their study, the student-coaches shared their practical

196    coaching experiences with peers and discussed coaching issues that they faced in the field,

197    helping each other to resolve the issues as they arose. Alongside this, student-coaches had access

198    to an online video platform (www.coach-logic.com), whereby they could upload video content

199    from their practice for others to view and comment on in a dialogic review process. The student-

200    coaches were then graded against a clear and transparent set of success criteria, which

201    encouraged them to contribute regularly to both platforms in a sufficiently critical manner. In a

202    follow up study, McCarthy and Stoszkowski (2018) concluded that this type of approach to

203    assessment is particularly efficacious for coaches who are motivated and have prior experience

204    of being self-determined in their learning. For these reasons, we contend that collaborative online

205    opportunities using existing Web 2.0 technologies, which often involve no upfront cost to coach

206    or organisation, would be particularly relevant, especially for experienced coaches (i.e., those

207    with applied experiences to draw upon) on NGB coach education programmes.

208 **Principle 3: Assessment that meets the needs of a wide variety of motivations and goals**

209      As formal coach education is most commonly criticised for failing to recognise and meet

210 the needs of individual coaches (Abraham & Collins, 1998; Callary, Rathwell, & Young, 2018;

211 Erickson, Bruner, MacDonald, & Côté, 2008; Piggott, 2012), undertaking assessment using a

212 wider variety of assessment tools might be beneficial. According to Shepard (2000), a "broader

213 range of assessment tools is needed to capture important learning goals," and it is recommended

214 that those tasked with assessment design "devise more open-ended performance tasks to ensure

215 that students are able to reason critically, to solve complex problems, and to apply their

216 knowledge in real-world contexts" (p. 8). For example, projects and e-portfolios (Bright, 2016)

217 are suggested as just two of many tools which can be used to assess learners in a way which is

218 consistent with this guidance.

219      Within HEIs, a wide range of contemporary tools are being used to assess sports coaches

220 which consider the variance in motivations and goals of student-coaches, some of which have

221 begun to appear in the academic literature. Most recently, Stoszkowski, Hodgkinson and Collins

222 (2020) explored the use of Flipgrid, a video-based online communication tool that enables face

223 to face, short verbal interactions, as a means to improve collaborative online learning and critical

224 reflection. A cohort of final year undergraduate student-coaches in the UK used the smartphone-

225 based app over the course of a 15-week semester to debate coaching topics in relation to their

226 own coaching contexts and professional practice. Results showed good support for the approach,

227 with participants exhibiting more frequent and more critical interactions compared to written

228 response and interaction formats. Stoszkowski, Hodgkinson and Collins (2020) posit that the

229 short, sharp and electronically enabled communication that mobile based apps such as Flipgrid

230 offer are more in line with Generation Z individual's daily experience, therefore providing

231    familiarity and a more natural (or at least student-palatable) means of engaging in reflective

232    thinking with their peers.

233                    **Conclusion: What is There to Learn by Exploring these Strategies?**

234            In this insights article we suggest that despite assessment being a feature of nearly all

235    coach education programmes, approaches to assessment have been largely overlooked and/or

236    given insufficient consideration (Hay et al., 2012). Secondly, we recognise that there has been a

237    significant recent growth in HEI-led coach education provision and argue that by directing our

238    attention towards how assessment is being designed and delivered in this setting, it becomes

239    possible to move the field forward. Driven by the three principles of assessment that we shine a

240    light on within this article, we provide practical examples of what we believe to be authentic,

241    learning-oriented assessment, which might be useful for organisations responsible for coach

242    education to consider when designing and delivering assessment as part of their programmes.

243            More specifically, we believe it may be fruitful for the coach education community (by

244    the broadest possible definition) to explore the use of a wider variety of assessment tools and, in

245    doing so, it may be possible to better meet coaches' diverse range of learning goals and

246    motivations through more open-ended activities (Shepard, 2000). Furthermore, with a wider

247    variety of more open-ended assessment methods and activities, it becomes possible to embed

248    assessment into a coach education programme over a longer period of time, which we argue

249    might replace the high stakes, endpoint, summative assessments that typify coach education

250    courses. We believe assessment can be intertwined with and not simply adjunct to, teaching and

251    learning activities (Adams, 2006). While this not only provides coaches with the opportunity to

252    assimilate and apply new knowledge on an ongoing basis (Milistetd et al., 2019), it also ensures

253    that learning and performance insight is generated frequently and, as a result, feedback can be

254    provided more often to the coach. Finally, if a wider variety of assessment modes are used in an

255    ongoing and embedded basis, we invite programme designers and deliverers to consider how

256    assessment could be collaborative in nature. That is to say, assessment where learners achieve

257    goals through interacting, collaboration and sharing with others (Kokotsaki et al., 2016).

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