Characteristics and experiences of interns in strength and conditioning

**Running Title:** Intern experience in S&C

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**Abstract**

Student coaches undertake internships to develop practical skills and gain experience to improve employability prospects. The characteristics of the coaches who undertake these internships, their experiences, and the nature of the work being performed are currently unknown. The purpose of this study was to report the characteristics of strength and conditioning (S&C) coaches who have undertaken internships and their experiences during their respective placements. 113 males and 6 females completed an on-line survey. Placements generally lasted 6 to 12 months (65.5%), were unpaid (93.3%), and took place at professional teams (63.3%). All respondents had a standard of experience prior to commencement (81.5%); a higher-education degree (bachelor’s 56%; master’s 18%) and others were qualified S&C coaches (16%). Activities consisted largely of coaching (47%), data collection (22%) and equipment set up (25%) but lacked provision of appropriate training. Mentors were allocated to interns, however, often developmental objectives were not discussed, meetings were rarely documented, and in some cases, no meetings took place. This study suggests that internships offer worthwhile experiences, assistance in skill development to progress in S&C. However, clearer guidelines are required to define the responsibilities of employers and interns, to maximise these experiential learning opportunities and avoid the exploitation of willing students.

**Keywords:**

Coaching placements, students, mentoring, employment

**Introduction**

The recognition of strength and conditioning (S&C) as a key part of athletic development has led to increases in the number of people who seek employment in this field. However, the number of applicants far exceeds the jobs available so there is considerable competition to secure employment as an S&C coach. As a result, students and graduates often undertake work placements or internships to develop their coaching skills and gain experience, with the aim of improving their employability prospects. This provides opportunities for prospective coaches to use their knowledge in applied settings (Pulver, 2002), including elements often underdeveloped in traditional academic programs such as exercise technique, program design and coaching (Elder, Pujol, & Barnes, 2003).

Given the importance of practical skills required to successfully deliver S&C coaching there is an expectation that applicants for professional jobs possess an appropriate standard of experience (Jeffreys & Close, 2013). This experience is often unattainable without the completion of an internship, so there has been a proliferation in the provision of S&C internships in recent years. However, there is an increased awareness that “internships” vary greatly and are far from uniform in nature. In-spite of their popularity, available literature that examines the characteristics of the coaches who undertake these internships, their experiences, and the nature of the work being performed during these placements is sparse.

Analyses have described role delineations of an S&C coach (NSCA, 1988) and typical practices of high school (Duehring, Feldmann, & Ebben, 2009), collegiate (Durell, Pujol, & Barnes, 2003), and professional S&C coaches (Ebben, & Blackard, 2001; Ebben, Carroll, & Simenz, 2004; Ebben, Hintz, & Simenz, 2005; Simenz, Dugan, & Ebben, 2005). Replicable descriptions are not available for S&C intern coach roles; therefore employers lack guidance on the specific duties that are appropriate for their interns and also their own responsibilities in delivering an effective internship. This leads to a lack of structure and consistency across programs, and reduces the potential readiness of the intern to enter the profession (Murray, Zakrajsek, & Gearity, 2014).

Recent commentaries (Jeffreys & Close 2013; Murray et al. 2014) and position stands (Pye, Hitchings, Doggart, Close, & Board, 2013) have provided recommendations for employers (Jeffreys & Close 2013; Murray et al., 2014; Pye et al., 2013), mentors (Magnusen, & Petersen, 2012) and interns (Jeffreys & Close, 2013) on the features of a high-quality internship. However, few data are available on experiences of S&C interns. Consequently, it is not possible to gauge the effectiveness of internships and the extent to which industry standards are being upheld. This information will aid the development of high quality experiential learning opportunities and ensure employers maximise the potential both of their organisations and that of the student coach. The purpose of this study is to provide a detailed description both of the characteristics of S&C coaches who have undertaken internships and their experiences during their respective placements.

**Methods**

This study used a descriptive research design by means of an on-line survey to investigate the characteristics, roles, responsibilities and experiences of S&C coaches. The survey was emailed and completed remotely by each participant. One hundred and nineteen participants (n = 113 males, n = 6 females) completed the survey. Inclusion criteria were that each participant had either to be currently employed as an S&C coach or studying on an undergraduate or post-graduate degree, and had completed an internship in the last two years. In addition, the internship period had to be for a minimum duration of three months, and required attendance at the organisation for at least two sessions a week during that period. Participants were recruited by contacting academic institutions, professional sports clubs, national governing bodies and private organisations offering S&C programs that were either for students or athletes within the United Kingdom. Ethics approval was granted by the institutional ethics committee.

*Procedures*

An on-line questionnaire (appendix 1) was designed by a panel of experts that included S&C coaches, academics and researchers for the purpose of this investigation. The questionnaire was developed as per Ebben and Blackard (2001) whereby it was created by the authors and pilot tested with an informal advisory group of strength and conditioning coaches. This approach has also been adopted in the questionnaire based papers of Duehring and Ebben, (2010); Ebben, et al., (2004) and Ebben, et al., (2005). The survey was divided into three sections: 1) characteristics of respondents undertaking internships; 2) details about the organisation at which the internships were completed; 3) participant’s experiences during the course of their internship. These 3 sections were extracted, on consultation with the expert panel, from the studies conducted by Ebben, & Blackard, (2001); Ebben, et al., (2004); Ebben, et al., (2005); Simenz, et al., (2005). Each section comprised closed multiple-choice questions. Data was collected between November 2013 and September 2014.

*Statistical Analysis*

All data was collected using an on-line questionnaire (British Online Surveys, Bristol, UK). Data analysis procedures were descriptive in nature with frequency counts and percentages calculated. In addition, certain items in the questionnaire were scored on a 5-point Likert scale anchored at 1 (strongly agree), 3 (neither agree nor disagree), and 5 (strongly disagree).

**Results**

*Intern characteristics*

The vast majority of respondents were male (95%) and undertook their internship between the ages of 21 to 25 (61%). Prior to commencing their placement, the most frequently reported standard of education was a bachelor’s degree in S&C or a sport science related discipline (56%), whereas, a master’s degree was less common (18%). Experiences of the internship differed according to academic background with 23% of undergraduate students reporting a worthwhile experience and only 8% of postgraduate students. Accreditation by the UK Strength or Conditioning Association (UKSCA) or the National Strength and Conditioning Association (NSCA) was reported in over a quarter of the interns (28%). Other respondents were pursuing a sport science degree (24%) or vocational qualifications including personal trainer and sports therapy certification (2%). Previous experience was also evident with 82% of respondents attaining at least 1 year of coaching experience before their internship (figure 1).

\*\*\*\*\*\*\*\*\*\*\*\* insert figure 1 near here \*\*\*\*\*\*\*\*\*\*\*\*\*

*Organisations providing internships*

The most frequent organisational setting in which participants undertook their internship was at professional sports clubs (63%). Educational establishments provided the next largest opportunity for coaches (22%). National Governing Bodies (NGB’s) accounted for fewer placements (12%) and a small minority completed at private coaching organisations (5%). A 5:1 ratio was the most frequently reported for the number of interns to employed staff (figure 2). Adult athletes (classified as over 18) were the most numerous supported by the coaching placements undertaken by this sample (66%), followed by young athletes aged 12 to 16 (24%). Interns reported a better worthwhile experience when their internship was in a professional sports club (18%) than when it was in educational establishments (8%), NGBs (6%) and private organisations (3%).

\*\*\*\*\*\*\*\*\*\*\* insert figure 2 near here \*\*\*\*\*\*\*\*\*\*\*\*\*

**Experience during the internship**

*Intern Roles and Responsibilities*

The majority of respondents reported that their organisation provided them with clear roles and responsibilities (26% strongly agreed; 50% agreed) and confirmed that the roles reflected what they understood to be skills required of an S&C professional (24% strongly agreed and 48% agreed). There was an even distribution of what interns classified as their primary role (table 1). Other responses included observing sessions/shadowing, cleaning and program design. More responsibility was given to interns who were already accredited (11%) than those who had only a post-graduate qualification (9%).

\*\*\*\*\*\*\*\*\*\*\* insert table 1 near here \*\*\*\*\*\*\*\*\*\*\*\*\*\*

*Internship time demands*

The majority of internships lasted between 6 and 12months (66%) but comprised variable weekly time demands (figure 3). Nearly all respondents indicated that their internship was unpaid (93%) and in most cases, no further expenses were provided to cover travel and other costs (73%).

\*\*\*\*\*\*\*\*\*\*\* insert figure 3 near here \*\*\*\*\*\*\*\*\*\*\*\*

*Skills and training*

A total of 47% of respondents strongly agreed that they were given clear outlines of what would be expected of them. However, an equal number agreed and disagreed (25%) that the organisation clearly established their training needs and requirements upon commencement of the internship. Also, when asked if appropriate training was provided before the internship, many respondents indicated that this requirement had not been met (35% neither agree nor disagree; 25% disagree; 15% strongly disagree).

There was evidence that coaching abilities were at the forefront (30%) of the skills developed during the internships. Monitoring, assessment and evaluation techniques were also frequently reported as skills developed during the intern experience (27%), with program design and data analysis less frequent (20% and 18% respectively). When considering the professional development activities put in place for interns during their placement, a large percentage felt that they were appropriate to their training needs (19% strongly agree; 29% agree). Conversely, a sizeable proportion disagreed (23%) and strongly disagreed (17%).

*Mentoring*

The majority of respondents (70%) were allocated a mentor / placement supervisor during the period of their internship, however, a large proportion were not (30%). In most cases the allocated mentor was both experienced and suitably qualified (34% strongly agree; 30% agree). There is no clear indication that the mentor was allocated enough time in their weekly schedule to fulfill their role to an adequate standard as the responses were similar across the range of options for the scale provided (figure 4). The data also revealed that 31% of respondents felt they had an improved experience when there had been a mentor or structured role put in place to support their internship.

\*\*\*\*\*\*\*\*\*\*\* insert figure 4 near here \*\*\*\*\*\*\*\*\*\*\*\*

It was indicated that 39% of interns were supervised in their roles between 50-80% of the time by a suitably qualified employee of the organisation (figure 5), but this was not necessarily their allocated mentor. A range of responses were given when asked how often they had formal meetings with their supervisor to discuss developmental aspects and their progress during the internship (figure 6). Of particular note, a high percentage (26%) of respondents reported these meetings never took place. Furthermore, formal meetings were rarely documented (77%) and there was inconsistency as to whether or not these meetings set developmental objectives (figure 7).

\*\*\*\*\*\*\*\*\* insert figures 5, 6 and 7 near here) \*\*\*\*\*\*\*\*\*\*\*

*Further Employment*

After the internship, the majority of respondents stated that their internship did not lead to paid employment in that specific organisation (72%). This trend continues with very few of the respondents gaining paid employment in S&C with a different organisation (64%) at the time of data collection. However, when asked if the internship prepared the respondents to work independently and effectively in S&C, the majority either strongly agreed (23%) or agreed (40%). Overall, it was stated that the internship was a worthwhile experience (36% strongly agree; 43% agree).

**Discussion**

This study investigated the characteristics of S&C coaches who have undertaken internships and their experiences during these placements. Respondents said that the internships were a worthwhile experience and prepared them to work independently and effectively in S&C. The majority of placements lasted 6 to 12 months, were unpaid, and took place at professional sports clubs. Nearly all respondents were male with some standard of experience prior to commencement. A high proportion had completed a degree program, and others were educated to master's level and were qualified S&C coaches either by the UKSCA or NSCA. Clear roles and responsibilities were generally provided, and activities consisted largely of S&C lead coaching, data collection and equipment set up. Employers generally outlined the aims and objectives before the internship. However, this was often not preceded by establishing or providing appropriate training. During the placement, coaching, monitoring and evaluation techniques were the predominant skills developed and it appeared that these were derived from practical experiences as often it was felt that distinct professional development activities were insufficient. Mentors were consistently allocated to interns and their work was observed under qualified supervision. Some respondents indicated formal meetings took place during the placement, however, often it appeared developmental objectives were not discussed, meetings were rarely documented, and in some cases, no meetings ever took place.

The findings of this study are novel as no empirical data was previously available to determine participant perceptions of how useful internships in S&C are for developmental coaches. The responses given here suggest that these experiences are worthwhile and assist in the development of appropriate skills to work as an independent practitioner. Coaching, monitoring and assessment were the predominant skills obtained during the placements and these reflect the practices of coaches investigated in both professional (Ebben, & Blackard, 2001; Ebben et al., 2004; Ebben et al., 2005; Simenz et al., 2005) and collegiate (Durell et al., 2003) sport. Program design was less frequently addressed during the internships undertaken, occurring in only 20% placements. Given that the application of programming techniques such as periodization appear commonplace in the S&C practices of professional and collegiate coaches (Ebben, & Blackard, 2001; Ebben et al., 2004; Ebben et al., 2005; Simenz et al., 2005), this could be a key drawback in the ability of an internship to prepare a coach for independent practice. Therefore, it could be that these skills are developed through formal education, sharing experiences, and / or directed reading to available literature (Durell et al., 2003); however this would preclude the direct application of programming which is critical for effective practice. It may be worthwhile for employers offering internship programs to place greater emphasis on developing these skills under their supervision.

The characteristics of individuals who undertake internship programs have not previously been reported. The present study showed that interns working in the field of S&C in the United Kingdom are predominantly male and complete their placement between the ages of 21 to 25. This indicates that the primary target population for these roles is graduate students, as reflected in the high number of respondents stating their level of qualification was a bachelor’s degree prior to commencement. Also, the results indicate that it is not uncommon for accredited coaches and those with some standard of previous coaching involvement to complete internships as a means to gain additional experience and attempt to further their career. Employed coaches operating in collegiate organisations have a greater percentage of accredited coaches who are qualified to degree level than those in the present study (Durell et al., 2003), are older (Massey, Schwind, Andrews, & Maneval, 2012; Sartore-Baldwin, 2013) and have more experience (Durell et al., 2003, Massey et al., 2009; Sartore-Baldwin, 2013). This is understandable and reflects participants' status as interns who are attempting to enter the profession.

Before commencing their placements, interns were largely given clear aims and objectives, which can be considered good practice (Jeffreys & Close, 2013; Pye et al., 2013). However, in a number of cases it was evident that their training needs and requirements were not established. Employers offering intern programs should be encouraged to assess the characteristics, skills and knowledge of effective S&C coaches and base their program on developing these qualities (Jeffreys & Close, 2013). Clearer guidelines are required to define the responsibilities both of employers and interns when assessing the training needs of the intern and these have been outlined in table 2. Pre-participation assessments can identify strengths and weaknesses so that clearly identified and tailored internships for each individual can be developed. Employers could then also establish their own suitability to provide an effective internship for the applicant (Jeffreys & Close, 2013). Furthermore, continual professional development opportunities should also be provided during the program, however, the results of this study showed that only half of the participants agreed these activities took place. This suggests a clear structure for internships does not always occur and this requires attention by employers who wish to offer placements in the future and can be guided by table 2.

Participant responses indicated that in most cases mentors were allocated to supervise student coaches and this has been suggested as a key component of an effective internship (Jeffreys & Close, 2013; Magnusen & Petersen, 2012; Murray et al., 2014). However, a large proportion of the placements undertaken were not supervised. Mentoring has been described as a process of passing on the requisite knowledge and skills from a person more experienced and / or with greater expertise to their mentees (Allemen, Chohran, Doverspike, & Newman, 1984; Noe, Greenberger, & Wang, 2002). This process has benefits for mentees and the employer/mentor (Magnusen & Petersen, 2012) and is essential for a quality experience (Murray et al., 2014). Interns will likely not possess the required competency to fulfill a professional role and should not work independently (Jeffreys & Close, 2013). Thus, clearer guidelines and regulations need to be established for employers that must be adhered to (table 2). Available literature has suggested mentor guidelines for employers (Jeffreys & Close, 2013), and other authors have outlined example frameworks which can be adapted (Magnusen & Petersen, 2012, Murray et al., 2014). In addition, allocating sufficient time for mentors to meet with their mentees is a fundamental requirement. The results of this study did not provide a clear indication if this is adopted in current practice.

Another important finding was that formal mentor meetings were generally not documented and in some cases regular meetings did not take place. Also, inconsistency was apparent as to whether or not these meetings involved setting developmental objectives. Employers offering internship programs should be expected to provide on-going feedback and this should also include performance reviews during which developmental objectives can be discussed (Jeffreys & Close, 2013). This process must be documented outlining the training interns have completed and their performance against specified roles, responsibilities and target objectives (Jeffreys & Close, 2013). This document can then form part of the intern’s portfolio that enhances future applications for paid coaching roles, thus increasing their employability.

Employers offering internships are also required to consider employment rights, including payment (Pye et al., 2013). In the present study, nearly all internships undertaken were unpaid and expenses were not provided to cover travel costs. Furthermore, the most frequently reported weekly work commitment was 20 to 40 hours i.e. interns were often operating as full-time employees. In the United Kingdom, no laws govern internships. However, classification of individuals who complete such programs as volunteers, workers or employees is required (Pye et al., 2013). Volunteers do not require payment and are under no obligation to perform work, whereas, workers and employees are required to perform work or services under specified conditions (Pye et al., 2013). It has been suggested that for most quality internships in S&C there is an obligation to perform work and a formal arrangement is in place, indicating that participants should be classified as either workers or employees entitled to the national minimum wage (Pye et al., 2013). Although this does not apply to students who are currently undertaking a work placement as part of a higher education course, a large proportion of respondents had already completed an undergraduate degree before commencing their internship, with much fewer stating they were studying for a Master’s degree. Furthermore, over a quarter of the interns were accredited with national governing bodies and should therefore be paid for formalised coaching work.

Another important finding was that the organisations had few employed coaches and a high number of interns (figures 4 and 5). This will have clear implications for the ability of the organisation to appropriately mentor interns. Additionally, it raises a worrying trend, whereby, potential employed roles are being filled by interns rather than an organisation occupying that role with an employed staff member. Critically, internships should not be considered as in-expensive labor (Pye et al., 2013) or used to service vacant coaching positions in professional organisations. This increases the risk of exploiting willing individuals who wish to gain experience and devalues the profession into a voluntary service (Jeffreys & Close, 2013). Therefore, a greater understanding of the legalities associated with internships including appropriate selection and classification of individuals, payment regulations and work obligations is required by many organisations offering such placements.

**Conclusions**

This is the first study to investigate the characteristics of S&C coaches who have undertaken internships and their experiences during these appointments. The results suggests that internships currently have both positive and negative features. Respondents were generally postgraduates with some standard of previous coaching experience and reported that these placements offered worthwhile experiences, assisting in the development of coaching, evaluation and monitoring skills highlighting their relevance and importance for helping young coaches progress their career in S&C.

However, not all experiences were positive. In-spite of the apparent usefulness of such placements, a clearer structure is needed for internship programs' training and mentoring activities to ensure high quality experiences. Also, although a high proportion of internships were full time positions with formal obligations, nearly all were unpaid and coaching positions in the organisations offering these placements were largely occupied by interns. Therefore, based on the findings of this study, clearer guidelines are required to define the responsibilities both of employers and interns and these have been outlined in table 2.

\*\*\*\*\*\*\*\*\*\* insert table 2 near here \*\*\*\*\*\*\*\*\*\*\*\*

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