

Preparing a case study for BASES support accreditation: a reviewer's perspective

Dr Paul Jones, Dr Sarah Gilchrist and Chris Barnes share, from a reviewer's perspective, the important things to consider in writing a case study for a BASES accreditation support application.

Introduction

From a reviewer's perspective, the case study component is a focal point of a BASES support accreditation application. As BASES applications are "paper based" as opposed to "observation based," the case study is an important aspect of the application that helps reviewers to judge the level of competency that a practitioner operates at in the field. Furthermore, the case study offers an opportunity to evidence many of the competencies required for BASES accreditation. For instance, many competencies (i.e. technical skills, application of knowledge and skills, understanding and use of research, self-evaluation and professional development, communication, problem solving and impact, and understanding the delivery environment) can all be evidenced with an effective well-developed case study.

Many BASES accreditation applications for support are *rejected* on the grounds that the case study is unable to sufficiently evidence the majority of these competencies. The aim of this article is to outline, from a reviewer's perspective, the important things to consider in preparing and writing a case study for a BASES accreditation support application. Specific reference to BASES competency criteria is made throughout in order to identify important aspects that are often overlooked by applicants. Further guidance on preparing the application and example case studies are available on the BASES website.

applicant's work within a multi-disciplinary team (MDT). Thus, whilst it is important to document the holistic support provided to the client, it is imperative here that the applicant clearly outlines his/her role within the MDT (i.e., what was their direct involvement with the client(s) and how did they work with other MDT members?). Documenting how the applicant worked with other MDT members demonstrates evidence of *Professional Relationships and Behaviours* (section 10 BASES competencies). This sub-section also provides an opportunity to highlight any challenges to support work, and highlight how and why the applicant recognises, deals with and scientifically justifies decisions within the case study.

The *needs analysis* sub-section should begin with a review of the issue in hand using contemporary literature leading to the development of an approach to assess and evaluate the client from a disciplinary perspective. References to any "what it takes to win/succeed" models (i.e. long-term athlete development model [Lloyd et al., 2015] applied in a team sport academy setting) should also be highlighted here, if appropriate, along with pertinent questions in relation to the case study. It is important here that any assessments conducted with the client are sufficiently detailed to demonstrate competencies under "*Technical skills*" (section 2 BASES competencies). The applicant should provide details and justify measurement techniques administered to fully demonstrate to the reviewer that the applicant has the required technical skills to operate in this setting.



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Applicant's personal philosophy to his/her work

The most important part of this sub-section of the application is that the applicant clearly outlines his/her scope of practice. An example of this could be: an applicant working with sedentary individuals only to develop health and fitness and possesses specific skills spanning physiology (health and fitness assessments and exercise prescription) and psychology (behaviour change) within an interdisciplinary support service. Furthermore, ensuring that the reported case study fits within this scope of practice is of prime importance. If not, from a reviewer's perspective, this places doubt that the applicant operates safely within his/her boundaries of expertise. This sub-section should keep succinct. The case study has a word limit of 5000 words and more of the word count may be required to cover important elements later.

Explanation of the issues/needs analysis

"An explanation of the issue" sub-section provides the applicant with an opportunity to explain the context of the case study, whether this be working with an individual client or a team. It is important here that the applicant demonstrates tailoring the support to the client(s), rather than tailoring the client to the support that the applicant can offer. Often case studies reviewed include an

For instance, if using a force-platform to assess countermovement jump (CMJ) ability with a client, it would not be acceptable to merely state what was done (i.e. the client performed three trials of the CMJ) and present a few variables (i.e. jump height and peak force) to discuss within the case study. The applicant needs to state the equipment used, sampling rates, specific instructions provided to the client to undertake the CMJ, treatment of the data prior to determining key variables, the calculation of specific variables reported including onset thresholds for start of movement, take-off and landing and rationale for the variables reported. This level of detail would demonstrate to the reviewers that the applicant has the required technical skills to operate. Where innovation has been applied and new techniques/equipment developed or used, the applicant should provide the scientific rationale behind these interventions, alongside robust validation of equipment.

Within the case study, the applicant needs to demonstrate competence in "*understanding and use of research*" (section 4 BASES competencies). Thus, within the needs analysis it is important that the applicant adopts an appropriate case study design by outlining how a baseline was established. It is also important to report the reliability (which can be used later to evaluate the intervention) and

validity of any outcome measures used. Ensuring this information is included demonstrates several competencies under section 4 (e.g. criteria 4.2 to 4.6). Absence of this information is likely to lead to an application rejection.

The needs analysis (and later re-evaluation) provides a prime opportunity to demonstrate an “ability to communicate orally and in writing to colleagues, peers and clients” (section 6 BASES competencies). Applicants need to demonstrate how scientific information and data such as that from a battery of assessments administered with the client(s) is communicated and whether this information is communicated appropriately. This is commonly done by presenting in appendices example communication of results/feedback to clients and teams and could involve multiple examples in the appendices. (Please note: appendices MUST have an accompanying narrative or explanation such as; who collected the information, who developed the system used at the club and the impact/implications of the data. Absence of this information is a real “pet-hate” of reviewers). Within the case study, there is an opportunity to also demonstrate communication skills by presenting effective figures and tables to demonstrate to the reviewer that the applicant can effectively present data to coaches and athletes. For example, z-scores for the client’s tests in relation to his/her team or normative data from literature could be presented (again evidencing criteria 4.5) in radar charts or tabulate data using a traffic light system to highlight client’s strengths and weaknesses.

Intervention

The intervention implemented needs to be sufficiently detailed and supported by contemporary scientific literature. For example, if a strength and conditioning intervention is outlined, it is essential that this is not just depicted in a “computer screenshot” of the client’s schedule. The programme needs to be fully explained, justified (with supporting literature) and detailed (i.e. exercises, loads, dosages, etc.). This will ensure the applicant is evidencing competencies under “Application of knowledge and skills” (e.g. criteria 3.4, 3.5 & 3.6) and “Understanding and use of research” (e.g., criteria 4.1, 4.2 & 4.3). As mentioned above, it is essential that the applicant, when documenting work as part of an MDT, clearly outlines how his/her work within this was undertaken and the impact that it had on the eventual outcome/decision-making of the MDT.

Re-evaluation

In the re-evaluation sub-section, the applicant needs to demonstrate the resultant impact of the intervention, which will be largely based on the re-evaluation results. An important thing to bear in mind is that the applicant needs to recognise what “Meaningful Change” is (i.e. do the changes observed exceed the error associated with the outcome measure?). This area is so often neglected and an absence of this element would almost be an automatic rejection. Thus, if the early sections of the case study have been reported well and the applicant has presented reliability data of the outcome measures, then a comparison of the raw or % change could be compared to the reliability of the measurements through direct comparisons to the “smallest detectable difference.” Alternatively, the applicant could report whether the change from pre-tests to post-tests exceeds the “smallest worthwhile change” (SWC; $0.2 \times$ between athlete standard deviation or $0.33 \times$ individual athlete coefficient of variation [Hopkins, 2004]). The use of “magnitude based inferences” (Hopkins, 2004) to ascertain the probability of whether the change in outcome measures is real in relation to measurement error is an option and has received support in the literature (Buchheit, 2016). These approaches are again demonstrating to the reviewer an ability “to use appropriate statistical and other research skills to gather and interpret evidence in order to make reasoned judgements” [4.5]. Moreover, the applicant has further opportunity to demonstrate an ability to present and communicate data. For example, presentation of a team’s sprint times against the SWC could be illustrated in a “Forest Plot” to demonstrate to the

reviewer, an ability to effectively present data visually. For further examples of good practice to present performance assessment or re-evaluation results see McMahon and Mundy (2018).

Personal reflection/evaluation of the process

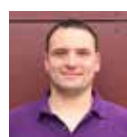
The final section of the case study should demonstrate the applicant’s “ability to self-reflect, take responsibility for own actions, and to demonstrate that continuous professional development occurs” (section 5). In good applications a reflective cycle approach is often used to evaluate the impact and personal performance with the case study. This demonstrates to the reviewer an “understanding of the value of reflection on practice and evidence of engagement in the process” [5.4]. The applicant must be able to recognise appropriate adaptations to his/her practice (and MDT if required) with the client in question or future sports science work (“be able to adapt their practice as a result of new and emerging ideas and information” [5.2]; ‘take responsibility for continuous performance improvement both at a personal level and in a wider organisational context’ [5.5]). Failure to do this may often lead to a rejected application.

Important points

- Explain and fully justify evaluation methods
- Establish a “baseline” and provide reliability of reported variables
- Detail and fully justify the intervention with reference to contemporary literature
- Evidence “meaningful change” and highlight impact as a practitioner or of the project
- Evidence how information was communicated to the client(s).

Summary

The case study is a focal part of a BASES accreditation support application and provides an applicant with the opportunity to demonstrate competency to work as an applied sports and exercise scientist in the field. However, often applicants miss the opportunity to evidence many of the BASES competencies that an application is judged against. Example case studies are available on the BASES website should you wish to see examples of good applications. ■



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