



**Book review: Ahmed, S. (2024) *A 101 action research guide for beginners: demystifying research terminology using a concrete STEM action research project*. Oxford: Peter Lang.**

***An action research guide for those who are new to educational research***

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Saba Ahmed's *A 101 action research guide for beginners* serves as an accessible and practical introduction for those embarking on their first steps into action research. Ahmed introduces research terminology and practices, provides a clear overview of the action research process, and highlights key skills such as reflective writing. The book aims to equip readers with the confidence and foundational knowledge needed to begin their own action research journeys, and Ahmed ends with a comprehensive exemplar from her practice.

Action research formalises the reflective approach that many educators instinctively adopt when addressing challenges in teaching and learning. By framing this process as a structured cycle of problem identification, intervention, observation, and evaluation, the book provides a clear methodology for evidencing the impact of pedagogical innovations, making it an invaluable resource for learning developers and academic support professionals seeking to publish or share their practice. For those in developmental or leadership roles, it offers practical guidance for introducing new colleagues to scholarly activity beyond resource creation or direct teaching, fostering a culture of enquiry within teams. Crucially, Ahmed also demonstrates how action research can inform interventions that enhance student learning, enabling staff to refine strategies and empower learners to engage in reflective practices themselves.

Ahmed draws on her transition from a professional background outside academia, detailing how she developed her teaching practice in science, technology, engineering and mathematics (STEM) subjects through action research, despite not having extensive prior experience in either teaching or research. She reflects on her experience to thoughtfully collate and explain theory and terminology that would benefit those who are new to teaching and research activities. This valuable resource explains key concepts such as learning theories, the differences between academic and reflective writing, research methodologies, and the foundational skills required for effective action research.

The text is particularly attentive to the needs of newcomers, carefully avoiding assumptions about prior knowledge and offering clear explanations throughout. Notably, Ahmed underscores the importance of critically evaluating published research during secondary research, using examples from STEM disciplines to highlight the risks of bias, especially in the absence of rigorous methods like randomised controlled trials. The author briefly touches on the emerging topic of artificial intelligence (AI) tools, acknowledging their growing relevance in the workplace. She emphasises the need to critically assess the reliability and applicability of AI-generated sources, but she offers no practical strategies or evaluation of current tools. Nevertheless, this discussion enhances the text's relevance for those at the start of their teaching and research careers, reinforcing its inclusive and instructive character.

Many of the scenarios described stem from the author's experience in further education (FE), yet the themes explored often resonate across both FE and higher education (HE). For instance, her commentary on the challenges affecting teaching, such as the cost-of-living crisis and concerns about teacher remuneration, reflects issues that are equally relevant in HE settings. At the same time, Ahmed includes situations specific to HE, such as sharing the reflective account she used in her application for Advance HE Fellowship (FHEA). This example not only illustrates the application of action research in practice but also serves as a useful model for others seeking to structure their own FHEA narratives.

Although Ahmed includes sufficient explanation of data collection techniques, it is unsurprising that there is no real instruction on how to analyse the resulting data. It is surely unrealistic to expect a resource to cover every conceivable aspect of action research; data analysis is too broad a topic when the reader could have collected a range

of datatypes and there are a variety of statistical tools available. Most HE institutions offer statistics support for student projects across a wide range of courses. This support service would be best placed to advise individuals on the methods for analysis with the available software in their institution. This could, of course, pave the way for further collaboration.

Throughout the book, Ahmed employs a range of pedagogical strategies to enrich the reader's learning experience, thereby offering unlooked-for insights into learner engagement that extend beyond the core topic of action research. The narrative is grounded in her experience of entering an unfamiliar field, reflecting on the knowledge acquired, and forging a connection with readers who may find themselves in similar circumstances. The consistent use of real-world examples drawn from Ahmed's practice features prominently in each chapter and culminates in a comprehensive action research project, spanning from the initial introduction to the final recommendations. This approach is particularly commendable, as illustrative examples are demonstrated to enhance conceptual understanding (see Rawson et al., 2015). It is worth noting that the reader must sometimes look beyond unfamiliar subject-specific content of the exemplars and focus on the process being described. Ahmed has, however, managed this well, keeping such content to a minimum which also means that academics from outside of STEM subjects can benefit from her advice. Additionally, Ahmed uses active learning by incorporating a quiz at the conclusion of each chapter. These short quizzes, delivered via Microsoft Forms and accessible through QR codes, frequently include questions that require the application of knowledge rather than simple recall, thereby fostering deeper engagement and critical thinking.

There are numerous existing publications on action research, as is appropriate for a recognised method in evaluating and improving teaching practice. For example, Clark et al. (2020) have also published a book on action research that aims to offer practical guidance to those who intend to carry out action research for the first time, and there is a useful 'Practice Guide' from the HEA on action research along with a set of case studies from HE (Arnold and Norton, 2018; Higher Education Academy, 2018). Ahmed's contribution is distinct because of how she shows empathy to the intended audience by including the introduction to learning theories and research terminology that are missing from these other works.

With the current landscape in HE, it is advisable for those whose primary role is supporting and educating students to not only think about how they can improve their practice and student outcomes, but also how they can evidence and disseminate it to a wider audience to demonstrate impact and influence. Action research is a method that supports educators to do this, and Ahmed's book provides a suitable and gentle introduction for beginners that will help build their confidence with the terminology and necessary skills to undertake such vital work.

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