

Exploring reticence in research methods: The experience of studying psychological research methods in higher education

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As a fundamental element of any psychology degree, the teaching and learning of research methods is repeatedly brought into sharp focus, and it is often regarded as a real challenge by undergraduate students. The reasons for this are complex, but frequently attributed to an aversion of maths. To gain a more detailed understanding of students' relationship with psychological research methods, the current study used small, semi-structured focus groups to explore the experience of undergraduate students at the end of their first year of study. Following a detailed thematic analysis of the interview texts, five overarching themes emerged: prior knowledge of research methods; personal engagement with the module; enabling access to learning; supportive learning content; and personal development. Insights gained from the findings are discussed, including possible helpful interventions, but overall the results suggest a more positive outlook than may have been expected.

Keywords: Research methods; learning experience; Undergraduate students; psychology.

Introduction

TEACHING RESEARCH METHODS to psychologists is not easy. It is not easy because people don't like statistics (collecting and analysing data) and they don't like maths (working with numbers). In our society they are seen as 'difficult' and 'uncreative', and many do not see their relevance to everyday life. The titles of the very books we use may support that premise – Statistics for People who (think they) hate statistics (Salkind, 2011) being a notable example. Indeed, of the first eight such books picked from the bookshelf, six stated as much in their opening sentences. From Pallant ('For many students, the thought of completing a statistics subject, or using statistics in their research, is a major source of stress and frustration'. 2016, p.vii), to Langdrige and Hagger-Johnson ('Let us start the journey. Research Methods are the backbone of the Social Sciences and vital in the production of knowledge in psychology. They may not appear to be the most entertaining of topics, but we promise

to try to entertain you as long as you promise to read'. 2009, p.3) to perhaps the most succinct, Field ('Social Science students despise statistics'. 2009, p.xix), the message is clear. But is this supported by the students who actually come to Higher Education to study psychology, or is this the message that we both implicitly and explicitly send, and by so doing, become the architects of our own demise? And how effective are the myriad of diverse teaching techniques, all designed to improve the student experience and, one assumes, the summative results from a research methods module in psychology, as advocated by the wealth of pedagogical literature in the area? Do students truly 'convert', or must we accept that a reluctant tolerance of our subject may be the best we can achieve? This study sought to understand the experience of the undergraduate psychologist through their first year of a research methods module, in terms of the factors which most influenced any transition in their attitude towards this apparently most unloved of subjects.

So what might influence the experience of learning psychological research methods in H.E.? To begin to answer that question one might presuppose that in order to have a positive experience of learning anything, one should feel that they have been successful in it. Furthermore, they should not just have been successful in it, but to have a positive experience one must become, as Race (2007) puts it, 'consciously competent'. In other words, to foster a positive experience one would expect that students would need to be aware that they have achieved in their area of learning and that they can demonstrate that in the relevant assessment of their learning. To consider those factors which are commonly linked to success in learning might, therefore, be a worthwhile starting point. This study, then, used a Focus Group methodology in order to tease out the salience of a broad range of factors known to influence learning success, as well as to encourage the emergence of other factors should they be deemed relevant in the development of either a positive or negative experience of learning in this area.

We were expecting factors to be clustered into two main areas as summarised in Box 1 and discussed below.

What is taught

Prior learning, competence in maths and computer skills, and confidence

We started by stating that students are fearful of psychological research methods. They come to their first classes having heard horror stories from fellow students about the difficulties, tedium and general misery generated in the attendance of these classes, and this may be further exacerbated by less than positive experiences of the subject in secondary education. Sadly, those who are expected to teach aspects of psychological research methods at secondary (and, indeed, tertiary) level are not always enthusiastic to do so, and this may inevitably colour a student's initial impression of this subject. Thus, the confidence which one might normally assume would accompany such prior experience may not, necessarily, emerge. Additionally, perceived competence in both mathematical and computer skills, though not necessarily grounded in reality, may further undermine the confidence students experience in their ability to survive and succeed in this subject (Acton & McCreight, 2014). It is therefore expected that prior learning may not, automatically, instil positive expectations for future learning, and that perceived failings in

Box 1: Factors expected to influence experiences of learning research methods in H.E.

- **What is taught:**
 - Prior learning, competence in maths and computer skills, confidence and self-esteem
 - Assessment and feedback
 - Applications of learning, relevance
- **How it is taught:**
 - Learning modalities
 - Integrating teacher and student-centred approaches- removing the hierarchy, supporting the individual
 - The tutor – teaching styles and 'the person behind the tutor'
 - Diversity, widening participation and inclusive practice

mathematical and computer skills may additionally contribute to negative expectations.

Assessment and feedback

Considerable stress may be created through summative assessment regimes which focus primarily on the ‘communication of standards to stakeholders’ (Robertson & Kingsley, 2015), whether these be the students themselves, the tutor, the H.E. institution, or, indeed, future employers. When assessment is re-positioned as a tool primarily for guidance, direction and future development, or as ‘Assessment for Learning’ it is likely that positive engagement with that process should ensue (Sambell, 2011). Feedback, too, as an integral part of the assessment process, can be either motivational, if done well, or a further source of anxiety and distress if mishandled (Malouff et al., 2010). As such it is anticipated that issues around assessment and feedback should play an important part in the formulation of a student’s experience of psychological research methods.

Applications of learning, relevance

There is a relative dearth of pedagogical literature regarding the value of the employment of topic-relevant subject matter when teaching research methods to psychology students. That might be in the academic context through focus on programme-relevant material (and therefore probably related to the students’ long-term goals; Claxton, 2007), or it might be in the wider context, external to the programme of study, thereby promoting a broader appreciation of the value of empirical research to societal issues. And yet the evidence suggests that the teaching of psychological research methods is frequently decontextualised, both within the H.E. programme (Falkingham & McGowan, 2012; Payne, 2012), and from extra-academic contexts (Kirton et al., 2013). This may be a missed opportunity, as by engaging in experiential learning (Kolb, 1984) students may ‘learn by doing’. So can embedding methods within both the academic context, as well as

the broader socio-political context, improve interest with both the subject of study as well as the mechanics of studying it? And if it cannot improve interest in mastering the mechanics of the subject, can it at least encourage an awareness of the importance of research and research-based literature over the anecdotal in science-based subjects (McConnell et al., 2013)? How important, then, is the contextualisation or de-contextualisation of psychological research methods to a student’s experience of it?

How is it taught?

Learning modalities

There is a wider pedagogy with regard to the importance of adopting an approach to learning and teaching which recognises the range of learning modalities (Barbe et al., 1979; Fleming & Mills, 1992), and it is expected that this can never be more important than when teaching an inherently ‘challenging’ subject. Whether adopting the VAK model (i.e. Visual, Auditory and Kinaesthetic) as formulated by Barbe et al. (1979) or the VARK model (also employing ‘reading/writing’) as formulated by Fleming and Mills (1992), the use of visual, aural, tactile and kinaesthetic materials and stimuli in the delivery of learning material or in the experiments and studies designed, should, one assumes, facilitate an improved experience of psychological research methods. As preferences and strengths may not be the same (Barbe & Milone, 1981), such diversity should appeal to both the modality preferences of the individual concerned (facilitating an immediately positive experience) in addition to the modality strengths of the individual (facilitating, perhaps, a less immediately positive experience, but long-term positivity through enhanced success). Furthermore, through offering the opportunity for a multi-modal experience (i.e. employing a range of learning modalities) it is expected that individuals may benefit either through adopting context-dependent preferences, or by adopting all learning modalities

contemporaneously in their learning. How far this is true, however, warrants further investigation and is therefore explored within the Focus Group, in addition to the influence of the teacher's preferred teaching style which may also be considered in this manner (Ellington & Earle, 1999; Fleming & Baume, 2006).

Integrating teacher and student-centred approaches – removing the hierarchy, supporting the individual

According to Barnett,

'(The lecture) keeps channels of communication closed, freezes hierarchy between lecturer and student, and removes any responsibility from the student to respond.... The students remain as voyeurs' (2000, p.159).

In order to remove, as far as possible, this hierarchical dynamic, the authors of this paper dispensed with the traditional lecture-seminar style format in the teaching of psychological research methods in favour of a longer seminar with a more student-centred approach. This brought with it possibilities – bite-sized information delivery, discussion, Qs and As, demonstrations, research design, data collection and analysis – in other words, the freedom to respond to the differing needs of a diverse student group through the opportunity for greater diversity in teaching method. This opportunity was explored through the adoption of plenary sessions, group and individual work, with group work being further broken down into opportunities to work in pairs, in triads and in 'focus group' sized configurations. It also facilitated the adoption of diversity in the teaching and learning modalities discussed earlier.

This freedom also allowed the recognition and accommodation of Kolb's (1984) learning styles (accommodating, diverging, assimilating and converging), in this context with particular acknowledgement of the dialectical choice an individual may make

between 'doing' and 'watching'. According to Kolb, individuals have different learning preferences which develop as we mature. Ultimately, Kolb argues, we move from specialisation to the integration of other learning styles, thereby allowing the expression of non-dominant learning styles. However, at the specialisation stage, generally the stage of development in early adulthood (or, crucially, at the time of life for the majority of prospective undergraduates), learning style preference is the product of two separate 'choices' that we make, a dialectical choice between 'feeling' and 'thinking', and a dialectical choice between 'doing' and 'watching'. The flexibility of the teaching space (both temporally and environmentally) allowed us to 'play' with these possibilities in order to accommodate all styles.

In sum, then, the aim was to encourage integration, collaboration and autonomy. The extent to which this flexibility in delivery achieves this end is explored.

The tutor – teaching styles and 'the person behind the tutor'

We have already suggested that the hierarchical dynamic best exemplified by the potentially didactic lecture style of content delivery may not be the most effective in establishing the integration, collaboration and ultimately the autonomy desired to support an optimal experience of psychological research methods in an H.E. environment. Nevertheless, just as individuals have differing learning styles, tutors, too, have differing teaching styles, from a more teacher-centred approach (positioning the teacher as sole authority and expert), to a more student-centred approach (positioning the teacher more as facilitator or guide) to the co-operative learning style (where the focus is on community and group-work to facilitate student learning). How important, then, is the tutor and their teaching style to the students' learning experience? And is the teaching style more or less important than 'the person behind the tutor'? Again, and in

view of the dearth of empirical research in this area, further research is warranted.

Diversity, widening participation and inclusive practice

As Horace Mann, 19th Century American Educator, wrote, 'Education, beyond all other devices of human origin is the great equaliser of the conditions of men, the balance-wheel of the social machinery'. Accordingly, The Staff and Educational Development Association (SEDA) state:

Teachers must be concerned that students have equal opportunities, irrespective of disability, religion, sexual orientation, race or gender. So, everything that teachers do should be informed by institutional policy and knowledge of best practice (SEDA, 1998 in Race, 2007).

One of the key objectives of Higher Education providers should therefore be to ensure that universities provide 'an inclusive learning community, ensuring that courses and services enable success for students from diverse backgrounds' (BNU Access Agreement, 2017, p.2). Such diversity must consequently recognise and address the needs of, for example, the mature student, international students and students from ethnic minorities, students from lower income families, first-generation students and students with disabilities (both hidden and visible). This is, perhaps, more true than ever in Western societies which have raised the hopes and dreams of prospective students, and yet which have dramatically re-positioned the financing of educational provision in HE from the public to the private purse. Indeed, according to the Cahalan et al. (2016), 'low-income students and first generation students are much less likely to attain a bachelor's degree than students who are more advantaged' (p.96).

It is essential, then, if we believe in widening participation, that the planning and delivery of programmes and modules should actively support, aid and encourage engagement in order to enhance the experience of

students entering HE from non-traditional backgrounds. By adopting an increasingly student-centred focus it should be possible to detect and respond appropriately to the varying needs of a more diverse group. We ask, then, how well is this achieved and how important is this to the experience of learning what is suggested to be one of the more challenging and less engaging of the disciplines in psychology?

In sum, then, this research seeks to understand the experience of studying psychological research methods in Higher Education from the position of a first-year undergraduate. It questions the possible preconceptions and understanding that students may have arrived with, the journey, and, most importantly, the full experience of studying what is regarded as being a difficult and 'dry' subject, with the intention of extracting and understanding those elements which most influence the prospects of a positive learning experience.

Research methodology

As the focus of the project was to gain a richer, fuller, more organic understanding of a students' experience of studying psychological research methods in Higher Education, it was evident from the outset that an experiential, qualitative approach would be our preferred overarching methodology. However, the decision as to whether individual interviews or focus groups (FG) would best help us to address our research question was more complex. On the one hand we recognised that we wanted to encourage the individual narrative and in-depth exploration best achieved in the interview format. On the other had we recognised the need for interaction and meaning-making processes best achieved in the FG environment. We were also keen to reduce the power of the researcher and the influence of the moderator, thereby allowing full voice to the participants, greater flexibility and the potential for the enhanced generation of inductive themes to emerge.

On reflection, then, it was felt that a small FG, in the style of a collaborative interview,

would best suit our needs, allowing for the in-depth exploration of an individual's experience whilst also benefitting from the potential for the interactive flexibility fostered within a small, more intimate group of people. It was therefore decided that our FGs would be made up of groups of 3–4 people. Because of their collective nature, and because it was important that the individuals within the groups worked well together, the ensuing decisions about the heterogeneity or homogeneity of the groups was particularly important, as was whether the individuals within the group would ideally be friends, acquaintances or strangers.

In terms of the heterogeneity/homogeneity issue, the topic of the research already led us towards a relatively homogeneous group – all participants were psychology undergraduates undertaking their first year of psychological research methods in an H.E. setting. This was useful as it provided a 'shared basis for understanding' as supported by Liamputtong (2011). However, we also felt it important to ensure sufficient diversity within the groups to encourage conversation and discussion, and not mere acquiescence to one school of thought (Barbour, 2005). Heterogeneity was therefore encouraged through the diversity of the backgrounds of the participants recruited. Participants therefore included those from a range of educational backgrounds (first generation students and traditional), lower and middle income families, mature students and school leavers, and international students for whom English was not their first language.

It was also important to consider the merits of producing groups comprised of friends, acquaintances or strangers. Following recommendations by Braun and Clarke (2013) to avoid using acquaintances (on the basis that deep disclosure may be restricted in view of shared social networks), the decision to be made was between strangers and friends. Whilst it was recognised that there may be an openness facilitated by the 'stranger' option, it was also recognised that through the potential participant sample

available for recruitment it would be unlikely that they would not have shared friends or acquaintances. Therefore the benefits of confidence and 'interactional familiarity' fostered by organising FGs within friendship groups became the supported option.

The study population comprised ten participants across three FGs, the decision to stop at three groups being made on the relative saturation of data (for a discussion regarding the number of focus groups to use see Onwuegbuzie & Collins, 2007; Morgan, 1997). It was considered that the dynamic nature of the FG would allow for multiple perspectives to be presented (i.e. both positive and negative responses) leading to the collection of 'rich' data (Dibley, 2011). In so doing, this would enable the research question to be fully answered. All students were recruited from a first year psychological research methods module at a University in South East England. Their programmes of study therefore all included psychology within their structure, though to differing levels. Most required an understanding of psychological research methods through taking a British Psychological Society accredited degree (e.g. Single Honours Psychology, Criminological Psychology and Sports Psychology), though some were not required to do so through any professional accreditation (e.g. Behavioural Sciences, Policing with Criminological Psychology). The module that students experienced was year-long and largely focused on quantitative methods. It covered a broad range of descriptive and inferential statistics, as well as design and ethical issues inherent in psychological research. The distinction between qualitative and quantitative research was addressed, but in line with BPS requirements and the QAA benchmark, students following an accredited programme would receive a full qualitative module in their second year of study. Students were taught in small groups (maximum of 20) during a single, three hour weekly workshop, with each session containing both taught and practical elements, and conducted using a very interactive approach. They were then

assessed by three summative assessment points throughout the year. The first, at the end of semester 1, was a multiple choice exam concerned with the breadth of information understood at that point. Students then completed a full research report, and an end of year exam which challenged their application of knowledge gained throughout the whole year.

Participants were recruited by the researchers during seminars and via an online participant request. No credits or incentives were offered for participation, though the purpose of the research was explained and the advantages of participating in research as a novice researcher were discussed. It was stressed that the researchers would not be conducting the sessions themselves and that this would be handled by a moderator not known to them. Whilst basic demographic information would be recorded for the purposes of the reader (as detailed below), it was also confirmed that no further information would be passed to the researchers. This was important as the researchers were also their tutors, and therefore a lack of confidence in the level of anonymity offered may well have undermined the level of disclosure offered. It was therefore organised in such a way that participants would have the freedom to discuss all aspects of teaching and learning, including discussion of issues they may have found to be problematic or challenging.

Participants were primarily female (two male) representing the general gender spread across these programmes. Of these, ages ranged from 18 to 48, three self-classifying as mature students. Of these, two had parental responsibilities. One of the students was an international student, two spoke English as a foreign language and three came from ethnic minorities. One student had a learning disability.

The moderator was from the same Faculty within the University but from a different school which meant that neither they knew her, nor her them. She is, however, an active, applied researcher with particular experience in conducting Focus Groups. In order

to avoid overt researcher influence, her brief was to investigate the experience of studying psychological research methods in Higher Education with the support of an outline interview schedule. However, no further information from the researchers was offered regarding any particular area of focus. She was also requested to conduct the FGs in the manner of a collaborative interview, allowing each individual the opportunity to explore and consider their own narrative whilst facilitating the interactional familiarity which we felt would be so important to the emergence of new themes as well as, perhaps, the relative importance of themes already supported by prior literature. Thus she was encouraged to ask explore issues in a way which aligned her more closely with the students (e.g. 'OK – we need to look now at assessments and how you feel about the assessments used?' as opposed to the more traditional, 'Can you tell me a little about your feelings about the assessments used?').

Thematic analysis was chosen as the method of choice as it is eminently suited to 'identifying, analysing and reporting patterns (themes) within data... (offering) an accessible and theoretically-flexible approach to analysing qualitative data' (Braun & Clarke, 2013, p.79), the theoretical framework for this research being a realist or essentialist approach (i.e. reporting the 'experiences, meanings and the reality of participants'; Braun & Clarke, 2006, p.9). It also allows for both inductive or data-driven, and deductive or theory-driven, data to be explored and analysed. This was important to the researchers in view of the existing literature in the area which was to be considered, but the focus of which we wanted the participants to dictate, as well as to provide opportunity for the identification of unanticipated themes and a more multi-faceted understanding of the research question.

In addition to decisions about the identification of the themes, the 'level' of analysis was also considered. For this research a semantic or explicit level was utilised, as

opposed to a latent or interpretative level (Boyatzis, 1998). In other words, themes were identified through what the participants said with no attempt to look beyond that (whereas at a latent level the researcher would be using a more constructionist approach to consider the underlying messages beyond the explicit).

Analysis and discussion

Analysis of the responses given across the three focus groups revealed five main themes: prior knowledge of research methods, personal engagement with the module, enabling access to learning, supportive learning content and personal development. While these reflected some of our expectations, they also provided some insight into more unanticipated issues (see Table 1).

Prior knowledge of research methods

Notwithstanding the usual entry requirements for a university degree, the diverse nature of

the student population meant that learning acquired prior to study was equally diverse. Some students started the course having just completed A-level maths, others had maths at GCSE, and still others had come back into education after a long period of time and/or from non-traditional backgrounds. Regardless of their pathway into the psychology programme, it was apparent that, at the onset of the course, many of the students lacked an understanding of what psychological research methods were, and of the content of a psychology research methods module.

'well it was on UCAS that you do like, research methods, but I didn't quite understand what was meant at the time' (C:284–285).

'I didn't think there'd be as much numbers involved in it' (C:294).

'I just thought it would turn out like maths... then all these tests came along' (C:307).

Table 1: Themes and subthemes emerging from the data.

Themes	Subthemes	Examples
Prior Knowledge of Research Methods		'I didn't realise how big [research methods] was going to be'
Personal Engagement With the Module	Depth of learning Personal involvement Enjoyment Technology	'you learn so much...about different research reports [and] theories' 'I think attendance is massively important' 'It's a lot more fun than you think it's going to be...it's not boring, it's interesting' 'SPSS can be a bit of a thing to get your head around'
Enabling Access to Learning	Teaching Style Lecturer/Student relationship	'The way she teaches makes me sit there and go 'I actually enjoy being here, it's fun, I get something out of it' '[The tutor] was lovely from the outset...so it was nice to work with her'
Supportive Learning Content	Recapping Revision sessions	'[The quiz] was really funny...and showed how much we'd really learnt' 'The revision sessions have been <i>really</i> helpful'
	Feedback	'Feedback did help to show me where I could have improved'
Personal Development	Confidence Empowerment	'We come away from the module feeling a bit more confident...that you've actually learnt something' 'Knowledge gives you confidence ...you know you can have an opinion...you know what you're talking about'

'...it has been beyond my imagination' (B:170).

It was recognised that for some students, the lack of prior knowledge was problematic,

'...I think for some...it's knocked them for six' (B:312).

'I think a higher level of maths might have helped better' (C:344).

while others appeared more resilient, were able to deal with the new situation and thrived on the challenge.

'I wasn't too scared of research methods once we actually started' (A:223–224).

'I thought it was going to be really difficult...so I applied myself...and it has sunk in' (C:318)

However, some concern remained with regards to expectations for the rest of their psychology programme.

'I'm a bit nervous for next year...how hard it's going to get' (A:254–256).

The students' comments indicate that there is an inherent lack of clarity about the content of a research methods module at university level, and that this knowledge deficit impacts differentially on their experience. The lack of understanding could be a result of several factors. It may be that students are simply not given clear guidance prior to enrolling on the course, or it may be that they have not understood the information given. In addition, the lack of understanding may be linked to a misconception that research methods is secondary to all other areas of psychology rather than the unifying factor between them, and as such will constitute only a small part of the degree. It is always difficult to comprehend issues that have not been experienced, but the points raised suggest that greater care may be required in imparting information to new recruits. Equipping students with a clear

outline of the ensuing content of the module and its place within the overall structure of a psychology degree, may allow expectations to be managed more successfully.

Personal engagement with the module

Reflecting on their first year of learning research methods, students identified a number of issues relating to the content of the module that had impacted on their engagement with the material and their ability to work with it.

Depth of learning

Students showed some surprise at the both the breadth and depth of information covered throughout the module, although this was not necessarily regarded in a negative light.

'it's been quite full-on...the whole way through' (A:96–97).

'you're thrown in with all these terms...research language is difficult' (B:149)

'[I was surprised at] how much I learnt in this one subject' (C:202).

'There's been a lot of different topics...loads of stuff...I feel like I've learnt the most in research methods' (A:76–78).

It was also clear that there were perceived differences between traditional and non-traditional students in the challenges associated with learning the content

'I've been out of education for about 14 years...and its very, very challenging...and I do appreciate some of the girls are just coming in from college/secondary school...for me it's hard to take it in in class' (B:185–198).

'The more mature students [are] struggling, but [some] are coming straight from A level...or BTec's...so they know some of it' (B:675–681).

'I think I was used to it 'cause of A level...so I wasn't bothered by it'. (A:218–220).

The students' comments demonstrate clear variations with regards to their experience of the module content, dependent on individual routes into their university degree. They provide evidence for some of the expected factors highlighted earlier (e.g. prior learning, confidence – Box 1), and signpost the need for tutors to be fully aware of the difficulties that some students may encounter from the outset. Encouragingly, some students embraced the learning process, and their perceived mastery of so much information appears to act as a real boost to their self-esteem.

Personal involvement

Interestingly, the students appreciated the need to engage fully with the material and their own learning, and recognised the problems in not doing so.

'I think attendance is massively important... If you're not there...it's very hard to catch up' (A:420-1).

'I think attendance is so important...if you miss a week then you might have missed a whole topic' (B:458-459).

'if you come to more lessons you're gonna get better grades' (C:325).

'we don't expect the lecturers to spoon feed us' (B:669-670).

The students' recognition of the need to attend is linked to several issues considered in the focus groups. Some related it to the practical nature of the module, in particular the use of SPSS (see below), while others commented on how much easier it is to learn in person than through lecture notes, and reflected on the additional information gained from the classroom discussions that emerge organically during a session. The acknowledgement of their need to engage fully with the module (and apparent willingness to do so) may link to how it was taught, as indicated in the following sub-theme.

Enjoyment

Despite the perceived difficulty and challenges posed by the module, many students were very positive about it and expressed this in a number of ways.

'Overall, for me [the module] is positive...it's fantastic. I really do enjoy it' (B:237-238).

'Everyone thinks that research methods is boring and I understand it a bit, but...I've found it quite interesting. I'm always arguing statistics, but now we're seeing how it works...It's hard to get all this information in, but I always think 'at the end of the year I'm gonna have this big brain!'...and look at things differently just because we've done research'. (C:155-167).

However, there were some students who could not see the relevance of research methods

'I think that some of it is a bit unnecessary' (C:173).

'Research methods can go really in depth into something that we might not need in our career ever...it's just useless' (C:148-151).

Technology

The key area for concern within the research methods module was the use of SPSS. Having to learn a new computing technique in addition to the specific content emerged as a real issue for some students.

'the SPSS analysis is quite full-on, quite daunting' (A:93-94).

'that was the bit [we] were probably the most worried about, the SPSS analysis' (A:62-63).

'...you get these massive tables and there's so much information and half of them you don't need, or it's just one particular number that's right at the bottom of this massive table they give you...so what's the relevance of the rest of the information? C:142-146).

However, with practice some initial concerns abated,

'it's not as difficult as I first thought (C:318).

'at the beginning of the year, with the SPSS analysis, we'd have been like, not a chance, whereas now we've gone, this isn't easy, but we know we can do it'. (A:250–253).

This element of the module is not something that students have prior experience of, and is clearly perceived by some as an unwelcome additional to the work load. The processes leading to an acceptance of, and some proficiency in the use of SPSS may best be understood through skill acquisition theory (e.g. Anderson, 1983), whereby the initial engagement with the software can then be reinforced by affording opportunities to build on their skill; achieved in this module through recapping, revision materials, worksheets etc. Unfortunately, the final competency is always reliant on the student's motivation to work through initial difficulties, and while the students in this study have addressed this issue, it is certainly something that may inhibit progress for some students.

With the diverse nature of student populations in today's universities, an awareness of different learning styles is clearly required in all subjects, but within psychology, the inherent problems linked to maths anxiety means that research methods modules have additional barriers to scale. The issues highlighted in this study indicate that although the multifaceted nature of the module poses several problems for students (e.g. the amount of information, mastery of the technology required, new terminology etc.), they are ready and willing to engage with the material when the rewards of their application and attendance are manifest.

Enabling access to learning

In order to learn effectively, the delivery of information is not, of itself, sufficient.

Beyond access to the teaching materials, students clearly identified key areas where the role of the tutor was important.

Teaching style

Students recognised a number of areas in terms of teaching style that allowed them to access the information they were being taught. One of these was the clear explanations that were given throughout the teaching, and the time given to ensure that students understood the material.

'they repeat a lot, so that helps' (B:268).

'they will come, sit down with me, and explain to me slowly, and then I get it' (B:262).

'I wasn't very much into statistics or how numbers worked...but [she] teaches really well so I soak it up' (C:349–351).

Another aspect related to the link made between information learnt in the classroom and the lecturers own research.

'it's nice having a lecturer explain where you can go with research methods (C:438).

'personal experience was very interesting' (C:437).

And despite the time afforded students, it was also clear that they recognised the cut-off point, which allowed them to develop as independent learners

'when I was writing the research report, I think we all felt we were massively sort of thrown in the deep end...but I think they knew we could do it, but we didn't know we could do it' (A:188–193).

Finally, the students thought that the tutors were fun, and that that enhanced their learning.

'I really like [my tutor], she's funny' (A:300).

'The way [she] teaches it makes me sit there and go, actually I enjoy being here. It's fun' (C:183–184).

Lecturer and student relationship

This relationship was recognised by the students as being extremely influential in terms of their engagement with the module and their subsequent ability to learn the complex material it contains. From the initial point of contact it was clear that connections are made which can have a huge impact on the outcome of the module.

'[the tutor] was lovely from the outset...so it was nice to work with her...I wasn't too scared of research methods once we actually started' (A:222–224).

'I reckon without the support of [the tutor] for the research lectures I would have dropped out because I struggle...but I'm still here' (B:278–282).

'[in other modules] there are some [lecturers] that [can be] defensive' (B:381).

The students also commented favourably on the tutors' enthusiasm and passion for the topic, which also empowered their own learning.

'they're really passionate about [research methods]...so you kind of get the passion for it as well' (A:357, 365).

'the tutors are amazing' (B:377).

This theme provides support for the expectation that teaching style and allowing 'the person behind the tutor' to be seen are important aspects of the learning process. Recognising the need for a balance between the amount of work required and allowing students to enjoy their learning is important, but once again it was clear that simply presenting information and materials to students is not sufficient to ensure that learning occurs. The role of the tutor in teaching such a complex subject is seen as highly important. Creating a fun

atmosphere may not be easy, but the introduction of humour and a relaxed environment helped the learning process. Allowing students to revisit aspects that were not initially clear in a non-judgemental and 'safe' setting was also appreciated, and the links to real-life research allowed the applied nature of the information to be better understood. The insight from students that they were being taught to develop skills independently was both unexpected and valued.

Supportive learning content

As well as the information received by students that was directly related to learning about research methods, the findings showed that there were three distinct areas that they also found very helpful in their module.

Recapping

This aspect referred to the reconsideration of ideas during teaching sessions, in terms of the material learnt both the previous week, and during the current session.

'at the beginning of each seminar she does a 'do you remember from last week?'...and then at the end she goes 'this is what you need to remember for next week' and that's really helpful. (A:325–330).

'and if you missed something last week, it's there and clarified for you' (A:337).

Revision sessions

In addition to the teaching sessions additional support provided for the students was also acknowledged and appreciated.

'the revision sessions have been really helpful' (C:229–230).

'we can always go to the teachers. They often do us revision or little mock tests before our exams... they really calm you down' (C:467–469).

'[the revision session] has been like teaching 1:1, it's amazing' (B:460).

Feedback

Another area that students found helpful to their learning was the clear feedback given in relation to assignments.

'we were given practice [reports] to do, and the feedback from that helped me to get the higher grade on the actual assignment (B:406–407).

'on the research report they actually wrote what we could had done well. There was a massive checklist of what we did, what we nearly did and what we didn't do...it was really, really good' (A:370–373).

'the feedback we got for [the assignment] was the most extensive I've ever seen' (C:375).

There is a lot of information to assimilate in a research methods module, and the points raised in the focus groups suggest that students found an understanding of their progress throughout the module to be very helpful. Feedback, which is often understood to be directly related to summative work, is important, but 'formative' feedback has also emerged as a significant aid to students' learning. That was achieved in different ways: on a weekly basis an instant recapping of the session allowed clarification of any uncertainties straight away; less frequent revision sessions offered a more holistic review and gave support and reassurance; and, of course, feedback on individual work was well received and seen as a helpful tool for future reference. All of these elements contributed to the support felt by students.

Personal development

An unexpected theme that emerged from the data related to the development over the course of the module of personal growth and self-awareness.

Confidence

During the discussions it is clear that an awareness of growing self-assurance emerged

in the students, providing them with an inner belief in their academic ability. This growth was associated with two different areas. The first was directly related to the content of the module.

'putting [the research report] into practice on our own made me a lot more confident with it' (A:113).

'I've become much more confident with [the module] over the year...it isn't easy but we know we can do it' (A:248–253).

The second area was more inwardly focused, showing that some students had developed more self-confidence in themselves as people.

'we come away from [the module] actually feeling a bit more confident...that you've actually learnt something' (C:49–50).

'I tend to be quite isolated...and obviously when I work with [others] we worked quite well together...it has made me more social joining in gave me more self-confidence' (B:59–65).

This idea of growing self-belief emerged from all three focus groups, with one student even going on to say how 'amazed' they were at their ability to learn (B:121–123). There are several issues that can be considered in relation to this sub-theme. The majority of students in the focus groups (and, indeed, in most psychology classes) are women, and the stereotype exists that females have less aptitude for maths than men. If this is then considered in light of research which demonstrates that when people are put into situations where they are expected to fail, their performance decreases (e.g. Boucher et al., 2015), we appear to have created a perfect storm. It seems that by enabling students to feel confident in themselves they might be able to perform better, and thus go on to demonstrate their real ability.

Empowerment

The idea of empowerment derives directly from students' recognition of how far they have come in obtaining topic knowledge and self-awareness, and reflects their ability to apply that knowledge in a broader sphere.

'knowledge gives you confidence...you know you can have an opinion...you know what you're talking about' (B:86–89).

'I now find I look at things differently just because we've done a bit more on research'. (C:168–169).

'learning to be broadminded is another experience I'm having now...people are different and have different opinions'. (B108-13).

The growing realisation in these students that they *do* understand the content of the module and that they *are* in charge of their learning gives them a sense of control that creates even more benefits. For example, one student was able to refer to themselves as a role model to others, while another realised that anyone can learn at any time of life. As lecturers, we know that students develop in many ways over the course of their degree, but to see this happening in these early stages, and through a research methods module, is rewarding.

The emergence of this theme was not anticipated and indicates that students gained much more from their research methods module than knowledge of the topic itself. It seems that overcoming the challenges it presents gives students a real sense of achievement and the confidence to address other challenging issues in the future. By reflecting on the experiences offered by the module, students have identified a lot of transferable skills that have emerged during their first year of study.

Limitations

Of course, it is important to note that the findings of this study and their interpreta-

tion are based on a small group of students in each of the three focus groups. The self-selecting nature of the participants suggests that they are likely to be more engaged and motivated than others, and it cannot be assumed that their views capture those of all other students. The nature of group discussions also means that the depth of personal narrative that emerges from an interview might be lost. However, the aim of the focus groups was to gain greater insight into the students' experience of learning psychological research methods, and not to generalise their thoughts and feelings to all students who might have a similar experience (Krueger & Casey, 2009).

Conclusions

This study aimed to gain an understanding of first-year undergraduates' experiences of studying psychological research methods. As a subject that is considered to be difficult and hard to engage with, it was hoped that potential issues would be highlighted in the focus group discussions. The insights gained from the findings have suggested some interesting areas for future study, and provide a much more positive outlook than was initially expected.

One emergent theme that could benefit from future intervention related to prior knowledge, or rather, the suggested lack of understanding of what a research methods module would entail. It had been supposed that perceived competence in mathematical and computer skills would be one of the main issue for students (Acton & McCreight, 2014), but while this was partly true, there was also a more widespread issue regarding the breadth and depth of the topic, and this meant that the first few weeks of study were quite stressful for some. These findings suggest that a much clearer outline needs to be disseminated to potential students before they enrol on the programme, either by the schools (for those transitioning from A-levels), or in the literature provided by universities.

One of the ways this problem was seen to be alleviated once study had commenced related directly to the role of the tutors. There is little research that addresses this issue, and the current study was interested in how teaching style impacts on the students' learning experience. The findings suggest that students' relationship with their lecturers is a highly significant factor. Both personality and presentation styles were considered (Fleming & Baume, 2006), and while student preferences are unlikely to be the same (Barbe & Milone, 1981), it was clear that multiple presentation modalities (e.g. humour, recapping, revision materials etc.) allowed better access to learning, as did the approachability and patience of the lecturer. It is often the case that research methods classes in tertiary education are taught by PhD students, or members of staff whose key interests lie elsewhere. These findings support the notion that student learning and commitment to this complex topic is greatly enhanced by the interaction with lecturers who have a passion for the subject and the will to make it an interesting and interactive learning experience.

The most unexpected theme to emerge from the data was that of personal development. In reflecting back over their first year of research methods, students recognised

that they had gained much more than an understanding of the topic itself. The idea of research methods *does* come with a bad reputation, we know that, it *does* include some maths, we know that, and it *is* challenging, we know that, but by engaging with the material, the rewards are clearly worthwhile. To hear that students can develop a new-found confidence in their learning and feel empowered by the knowledge they have gained is enormously encouraging. To have achieved this through a research methods module is very heartening.

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